RESOURCE CONSERVATION AND RECOVERY ACT
FACILITY INVESTIGATION REPORT
VOLUME 1 – TEXT, TABLES & FIGURES

TEXTILEATHER CORPORATION
3729 TWINING STREET
TOLEDO, OHIO

US EPA ID # OHD 980 279 376
U.S. EPA DOCKET # RCRA-05-2010-0001

by

Haley & Aldrich, Inc.
Cleveland, Ohio

for

Textileather Corporation
Toledo, Ohio

File No. 36005-007
28 September 2011
Revised 31 December 2012

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28 September 2011
Revised 31 December 2012
File No. 36005-006

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Attention: Carolyn Bury
EPA Project Manager

Subject: Revised RCRA Facility Investigation Report
Textileather Facility, Toledo, Ohio
EPA ID# OHD 980 279 376
U.S. EPA Docket # RCRA-05-2010-0001

Dear Ms. Bury:

On behalf of Textileather Corporation and pursuant to the Administrative Order on Consent (Order) dated 30 September 2009, please find enclosed the revised RCRA Facility Investigation Report for the above-referenced Textileather Facility (the "Facility"), based on communications with the U.S. EPA. This report has been prepared to summarize the investigation and findings of the RCRA Facility Investigation and Human Health Risk Assessment for the Facility.

If you have any questions or require additional information, please contact us.

Sincerely yours,
HALEY & ALDRICH, INC.

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Senior Risk Assessor

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Project Manager

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LIST OF ACRONYMS

ADAF	Age-dependent Adjustment Factors
ALM	Adult Lead Model
AOC	Administrative Order by Consent
AOI	Areas of Investigation
ARAR	Applicable or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substances and Disease Registry
AWQC	Ambient Water Quality Criteria
BERA	Baseline Ecological Risk Assessment
bgs	Below Ground Surface
BRA	Baseline Risk Assessment
CALEPA	California Environmental Protection Agency
CDC	Centers for Disease Control
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPC	Chemical of Potential Concern
CSF	Cancer Slope Factors
CSM	Conceptual Site Model
CT	Central Tendency
EPCs	Exposure Point Concentrations
ft	feet
g/kg/day	grams/kilogram/day
GSD	Geometric Standard Deviation
HEAST	Health Effects Assessment Summary Tables
HHRA	Human Health Risk Assessment
HQ	Hazard Quotient
ICP-MS	Inductively Coupled Plasma – Mass Spectrometry
IEUBK	Integrated Exposure Uptake Biokinetic Model
IRIS	Integrated Risk Information System
kg	Kilogram
kg/yr	Kilogram per Year
μg/dL	Micrograms per Deciliter
μg/L	Micrograms per Liter
mg/kg	Milligrams per Kilogram
MCL	Maximum Contaminant Level
MOA	Mode of Action
MRL	Minimum Risk Level
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NCEA	National Center for Environmental Assessment
NCP	National Contingency Plan
10^{-6}	One in a Million
10^{-4}	One in Ten-Thousand

LIST OF ACRONYMS (CONT.)

PAH	Polynuclear Aromatic Hydrocarbon
PAL	Project Action Levels
PbB	Blood Lead
PCBs	Polychlorinated Biphenyls
PCE	Perchlorethylene (aka tetrachloroethene)
PPRTVs	Provisional Peer Reviewed Toxicity Values
PRGs	Preliminary Remediation Goals
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RAGS	Risk Assessment Guidance for Superfund
RfC	Reference Concentration
RfD	Reference Dose
RFI	Remedial Facility Investigation
RME	Reasonable Maximum Exposure
RSLs	RI Screening Levels
SVOCs	Semi-volatile Organic Chemicals
TCL	Target Compound List
UCL	Upper Confidence Limit
UR	Unit Risk
USEPA	United States Environmental Protection Agency
UTL	Upper Tolerance Limit
VISLs	Vapor Intrusion Screening Levels
VOCs	Volatile Organic Chemicals

1. INTRODUCTION

1.1 Purpose and Background

This Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report was prepared under the direction of Textileather Corporation for the Textileather Facility (the "Site") located in Toledo, Ohio. The United States Environmental Protection Agency (U.S. EPA) ID Number for the Site is #OHD980279376. The Site is located at 3729 Twining Street, Toledo, Ohio (Figures 1 and 2). This report was prepared to fulfill one of the requirements of the USEPA Administrative Order on Consent #RCRA-05-2010-0001 effective September 30, 2009.

The Current Conditions Report (CCR) (Haley & Aldrich, 2009) summarized the individual areas at the Site which had the potential for a release to the environment. These areas were identified during the file review, interview process, and Site visits. These areas have been catalogued as Areas of Interest (AOI). A total of 28 Areas of Interest were identified and include but are not limited to the PCB Area, Solvent Recovery Area, Oil Interceptor Basins, various refuse handling and holding areas, Container Storage Areas and UST and AST Farms. Based on information gathered during development of the CCR, certain AOIs did not require further investigation due to the absence of a release to the environment or because of previous work conducted. The basis for eliminating these AOIs from further investigation is documented in the CCR. For AOIs that warranted further investigation based on the documentation in the CCR, Textileather conducted a RFI to determine whether the AOIs had released hazardous waste or hazardous constituents and to determine if these releases, had they occurred, poses an unacceptable risk to human health or the environment. The RFI was conducted in accordance with a RFI Work Plan (Haley & Aldrich, December 2009) and addenda to the work plans for additional phases of field investigations (Haley & Aldrich, June 2010, February 2011, and May 2011).

This RFI Report describes the procedures, methods, and results of the field investigations conducted during the RFI. The information includes a comparison of the RFI data with generic risk-based screening criteria to identify whether there is a potentially significant release of hazardous waste or hazardous constituents from each AOI (or group of AOIs where they were grouped for investigation). Where a potentially significant release is identified, the nature and extent of hazardous constituents in the environmental media were characterized during the RFI and are discussed herein. Human health risk evaluations are included in this RFI Report to provide a basis for determining whether the presence of these hazardous constituents poses an unacceptable risk to human health and the environment that would warrant corrective measures.

The work was conducted under the direction of Textileather Corporation by the following main firms:

- Haley & Aldrich conducted the field investigation activities, data validation, data management and human health risk evaluation;
- Merit Laboratories conducted the laboratory analyses for all soil, groundwater, sewer and sump samples;
- Test America Laboratories conducted the laboratory analyses for soil vapor samples; and

- ESC Laboratories conducted the laboratory analyses for the split soil vapor samples.

1.2 RFI Objectives and Approach

The objectives of the RFI Work Plan and Addenda were to detail the investigations necessary to:

- Determine Site-wide hydrogeologic conditions, as necessary, to investigate releases from AOIs;
- Determine whether a release of hazardous constituents to environmental media had occurred at each AOI or group of AOIs;
- Characterize the nature and extent of releases of hazardous constituents in or from the Site;
- Characterize actual and potential migration pathways, actual and potential human and environmental receptors, and current and reasonably expected future land and groundwater uses;
- Assess potential risk to human health and the environment associated with releases of hazardous constituents;
- Provide sufficient data to support a demonstration that current human exposures to contamination above risk-based screening levels are under control, and that the migration of groundwater contaminated above appropriate screening levels is stabilized for the RCRA corrective action environmental indicators determination;
- Determine whether interim measures are necessary to control current unacceptable risks, if any, to human health or the environment, or to control migration of contaminated groundwater;
- Determine whether a corrective measures evaluation is necessary to mitigate current and future unacceptable risks, if any, to human health and the environment; and
- Determine the impact, if any, of discharges from the Site to offsite areas.

The RFI was conducted in a phased approach, with five phases of investigation (Field Events #1, #2, #2A, #2B, and #3). The initial RFI Work Plan was prepared to describe the investigation activities intended to evaluate Site conditions and to attain the RFI objectives described above. After each phase, adequacy of the data was evaluated to determine whether additional data collection was warranted and a supplemental work plan was prepared. Additional field events were necessary to collect supplemental soil, surface water, groundwater, sewer water, surface wipe, and soil vapor information to achieve RFI objectives, as discussed above. When data of sufficient quality and quantity had been collected, the data were used to support decisions regarding the need for interim or corrective measures as discussed above.

1.3 Report Organization

The RFI Report is organized as follows:

- Section 2 provides an overview of the RFI, including a summary of the AOIs investigated during the RFI, a summary of the phases of RFI field investigations and the general approach to the RFI.
- Section 3 discusses the environmental setting in the vicinity of the Site, including information on surface water hydrology, geology, hydrogeology, background soil characteristics, land use, and groundwater use.
- Section 4 presents a summary and discussion of the RFI results for each of the AOIs investigated. The discussion for each area investigated includes a summary of the scope of the field investigations, a summary and evaluation of the RFI data, and a discussion of whether a release of hazardous constituents above screening criteria has been identified.
- Section 5 summarizes the conclusions of the RFI.

Tables and figures cited in the text of the report are found in the tabs following the text in Volume 1. Appendices are found in Volume 2 of the report. The appendices include:

- Appendix A - Soil Boring Logs and Well Completion Reports;
- Appendix B - Hydrogeologic Testing Results;
- Appendix C - CD of Laboratory Analytical and Data Usability Reports;
- Appendix D - Site Management Plan
- Appendix E – Baseline Risk Assessment. Appendix E presents a baseline risk assessment that evaluates releases of hazardous constituents above screening criteria at areas identified in Section 4 to determine whether corrective measures are warranted. The risk assessment identifies all scenarios for potential exposure under current and reasonably anticipated future land use at and around the Site. Potential risk is evaluated by estimating cumulative cancer and non-cancer risks for these scenarios.

2. RFI OVERVIEW

2.1 Site Description

The Facility is located at 3729 Twining Street, Toledo, Ohio and covers approximately 47 acres, of which approximately 30.4 acres is currently owned by Textileather (the "Textileather Parcel"). The remaining portion of the Site, approximately 16.6 acres is owned by Alumi-Bunk Corporation (the "Western Parcel") (Figures 1 and 2). The Western Parcel was undeveloped prior to 2005 when Textileather sold the property to Alumi-Bunk. Subsequently, Alumi-Bunk developed the property to manufacture truck components. The Western Parcel is currently leased by the Ciy of Toledo from the Toledo Port Authority as a vehicle depot. The original Facility buildings on the Textileather Parcel were constructed in the 1920s for manufacturing of coated fabric products. In the late 1920s a company also previously known as Textileather Corporation ("Old Textileather"), but unrelated to the current Textileather, bought the operations and operated the Facility as Maumee Finishing producing similar coated fabric products. In 1954, The General Tire & Rubber Company (now known as GenCorp) merged with Old Textileather, with the surviving entity being The General Tire & Rubber Company which operated the Facility for the next 36 years. Throughout this time, the Facility underwent several name changes. The names associated with the Facility during this time included the following: Diversitech General; Gencorp Polymer Products; GTR Coated Fabrics; Textileather Division and Chemical Plastics Division; and GenCorp. In June 1990, the company currently known as Textileather Corporation purchased the Facility from Gencorp and continued the vinyl manufacturing operations. The Facility ceased manufacturing operations as of March 2009 and the manufacturing equipment is in the process of being decommissioned.

Former operations involved converting a raw material combination of resins, plasticizers, pigments, and other additives into various widths and thicknesses of rolled sheets of coated fabrics, commonly known as vinyl. The vinyl was commonly used in the automobile production. The Facility, during recent operations, generated the following hazardous wastes: waste inks, waste inks and debris, waste plasticizer and debris, and waste petroleum naphtha. The facility, during recent operations, generated the following nonhazardous wastes: special nonhazardous waste, used oil, absorbent oil booms, absorbent oil booms contaminated with polychlorinated biphenyls (PCBs), defective or scrap vinyl, scrap metal, broken wooden pallets, and general refuse. Between the early 1950's and October 1990, facility operations involved solvent recovery and waste ink recycling, generated from both on-site and off-site sources. Receipt of off-site wastes ceased in November 1990 and the Facility subsequently stored wastes as a generator under less-than 90 day status.

2.2 Field Investigations

2.2.1 Areas Investigated

The CCR identified 27 AOIs where further investigation was warranted based on evidence of a past release, historic operations, visual observations, file review results, or previous sampling results. AOI-28, the Former Sample Print Machine area, was added during Field Event #1.

Table 1 summarizes the AOIs requiring further investigation, area designation, a summary of the materials managed and the investigated media intended to characterize the chemical quality at these AOIs. The AOIs which warranted further investigation are shown on Figure 2.

2.2.2 RFI Field Investigation Overview

The RFI field investigation was initiated in January 2010. Based on preliminary laboratory results obtained during the initial RFI field investigation and information obtained during the preparation of the CCR Addendum, supplemental field investigations were implemented. The additional field investigation scopes of work necessary to supplement the original RFI Work Plan were presented in:

- Addendum #1: RCRA Facility Investigation Work Plan, Field Event #2 Activities (Haley & Aldrich, June 2010);
- Addendum #2 – RCRA Facility Investigation Work Plan, Field Event #2A Activities (Haley & Aldrich, February 2011);
- Addendum #3 – RCRA Facility Investigation Work Plan, Field Event #2B Activities (Haley & Aldrich, May 2011).
- Addendum #4 – RCRA Facility Investigation Work Plan, Field Event #3 Activities (Haley & Aldrich, July 2011).

Field investigations for the targeted AOIs identified in the RFI Work Plan and Addenda were completed in August 2011.

2.2.2.1 Field Methods and Procedures

The methods and procedures used in the field investigations for the RFI were conducted in accordance with the RFI Work Plan, which include the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP), as modified by the above-noted addenda. Any deviations from the plans are noted below and in Section 4. Sample collection was based on an AOI-specific methodology and a minimum of two soil samples were collected from each boring location. One sample was collected from zero to two ft bgs to evaluate direct contact exposures and potential vapor intrusion. A second sample was collected from eight to ten ft to evaluate potential exposures associated with soil excavation activities. Additional samples were collected between the upper and lower intervals if field screening of samples with a portable PID and/or visual observations indicated possible contamination. Samples were submitted for an AOI-specific list of analytes and may have included analysis for TCL VOCs, TCL SVOCs, TAL metals, PCBs, ethylene glycol, lead, chrome IV and low level thallium. A summary of the investigation activities and a list of each AOI are provided in Table 1.Complete compound lists for TCL VOCs, TCL SVOCs, TAL metals, and PCBs are provided in Table 2. The results of the investigation are summarized and discussed in Section 4.

Two changes occurred in completion of field activities during the RFI:

- Soil borings in AOI-08 were not completed during Field Event #1 due to the presence of a concrete sub-slab at varying depths below the present slab. Historically, an area in the north eastern portion of the plant was at a lower elevation and later backfilled with poorly-graded sands and a new concrete slab installed. Of the six borings scheduled for AOI-08, two were drilled to completion, three met refusal from three to five feet bgs and one was not attempted assuming refusal. The remaining samples in AOI-08 were collected as part of Field Event #2 when a mini sonic drill rig capable of drilling through the sub-slab was onsite.
- During Field Event #1, the soil gas sample for SV-3 was not collected due to the presence of water in the formation. While attempting to collect the soil gas sample, the summa canister was drawing water from the screened interval and unable to collect soil gas. A second attempt to collect a sample from SV-3 was made later in the summer when the ground had adequate time to dry out, and was also unsuccessful for the same reason. SV-3A, a temporary soil vapor sample point, was installed and sampled during Field Event #2A. SV-3A was located in a drier spot approximately 20-feet west of the original location. The SV-1 and SV-2 soil vapor sample points were also flooded during Field Event #2A preventing the collection of soil vapor. Temporary sample points SV-1A and SV-2A were installed within close proximity to collect the samples. During Field Event #2B, a temporary sample point was necessary for SV-3 (SV-3B) due to the screened interval containing water. All temporary sample points were abandoned after sample collection by removing the sample tubing, over-drilling the sample point to 10-inches bgs and backfilling with granular bentonite.

2.2.2.2 Field Activities

Field activities for the RFI have been conducted in five events to date: Field Event #1, #2, #2A, #2B and #3. Field Events included soil sampling and analysis, monitoring well and piezometer installation, rehabilitation of existing monitoring well and piezometers, soil gas sampling point installation and sampling, indoor air sampling, water level measurements, sewer level measurements and sampling, groundwater sampling and analysis, deep production well investigation and abandonment, hydrogeologic measurements, PCB wipe sampling, sump sampling, and survey work. Field activities were conducted in accordance with the RFI Work Plan, which includes the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP), as modified in the above-noted addenda. The data collected during field events were evaluated to identify environmental conditions that warranted further investigation. The results of these reviews provided the basis for developing subsequent work plans for additional field activities (ie. Field Event #2, #2A, #2B and #3).

Field Event #1 was conducted from January 2010 through April 2010, included an investigation activities along the Eastern Property Boundary, and consisted of the following work activities:

- Installation of nine 2-inch diameter monitoring wells via track mounted sonic drill rig.
- Installation of five 1-inch diameter piezometers at indoor locations via track mounted Geoprobe rig.
- Installation of 89 Geoprobe borings.
- Collection and analysis of:
  - 239 soil samples;
  - 28 groundwater samples from new and existing monitoring wells from February 1 through February 4, 2010;
  - three soil gas samples along the Eastern Property Boundary;
- Video logging deep production well;
- Development of new monitoring wells and re-development of select existing monitoring wells;
- Water levels were measured on January 10 and March 11, 2010;

Field Event #2 was conducted from June 2010 through July 2010 and consisted of the following work activities:

- Installation of seven 2-inch diameter monitoring wells via track mounted Geoprobe rig;
- Installation of 41 Geoprobe borings;
- Collection and analysis of:
  - 112 soil samples;
  - 37 groundwater samples from new and existing monitoring wells from July 13 through July 21, 2010;
  - one sump water sample from the Calender Basement;
  - four storm sewers and three sanitary sewers;
  - one LNAPL sample from PZ-31;
- Development of new monitoring wells and re-development of select existing monitoring wells;
- Water levels were measured on August 11 and October 10, 2010.

Field Event #2A was conducted in February 2011 and consisted of the following work activities:

- Installation of three additional temporary soil vapor sampling points along the Eastern Property Boundary;
- Collection and analysis of:
  - Four soil vapor samples;
  - Two groundwater samples from indoor monitoring wells;
- Performed hydraulic conductivity testing on 17 onsite monitoring wells;
- Abandonment of the former deep production well;
- Water levels were measured on March 24, 2011.

Field Event #2B was conducted in May and June 2011 and consisted of the following work activities:

- Installation of four temporary soil vapor sampling points;
- Collection and analysis of:
  - 12 soil vapor and one ambient air samples, five of which were split samples from the Eastern Property Boundary sent to two different laboratories;
  - Eight groundwater samples from eastern property boundary monitoring wells;
  - One sump sample from the Calender Basement;
  - Four PCB wipe samples from the Calender Basement;
- Water levels were measured on May 31, 2011.

Field Event #3 was conducted in July and August 2011 and consisted of the following work activities:

- Installation of one 2-inch diameter monitoring well via track mounted Geoprobe rig;
- Installation of five Geoprobe soil borings;
- Collection and analysis of:
  - 12 soil samples;
  - one groundwater sample from the newly installed monitoring well;
  - three indoor air samples - two in AOI 28 and one in the Calender Basement
- Development of new monitoring well;
- Commenced bailing NAPL from PZ-31;
- Water levels were measured on 17 August 2011.

Soil boring logs and well completion reports from the RFI Field Events are presented in Appendix A.

2.2.2.3 Laboratory Procedures

The analytical suites for all samples that were submitted to the laboratory were specific to each AOI and are identified in Tables 1 and 2. All methods and procedures for the analyses were performed in accordance with the RFI Work Plan QAPP, except as noted below. The analytical suites, laboratory methods, constituents and target PQLs are summarized in Table 2. The laboratory analytical data are provided in Appendix C.

The laboratory analytical data was validated in accordance with the RFI Work Plan QAPP. The results of the validation are summarized in Appendix C. Two changes occurred in analytical methods during the RFI:

- Merit Laboratories was unable to meet the reporting limits specified in the RFI Work Plan for soil gas samples collected along the eastern boundary.

Therefore, Test America in Knoxville, Tennessee was contracted to perform analytical analyses for soil gas sampling.

- During Field Event #2B, ESC laboratories was contracted to perform soil vapor analysis for split samples that were collected along the eastern property boundary.

2.2.2.4 Data Evaluation

At the completion of each RFI field event, collected data were validated in accordance with U.S. EPA data validation procedures, and then compared to conservative screening criteria. The objective of the data validation and comparison to screening criteria was to determine whether further investigation was warranted, so that data of sufficient quality and quantity would be available to define the nature and extent of contamination for the RFI, and to support the baseline risk assessment for the Site. The screening criteria utilized for the evaluation of the Field Events included conservative risk-based screening levels/methodologies published by U.S. EPA, and for pathways not addressed in U.S. EPA generic criteria, other readily available and relevant criteria. A concentration higher than a screening level was not intended to indicate that a significant risk exists. Rather, the concentration was identified for further review relative to:

- Concentrations of the constituent at other locations and depths,
- Distribution of the constituent in other environmental media,
- Background levels,
- Field observations, and
- Previously identified or additional areas of interest (based on operational history in the vicinity of the sample).

The results of this review provided one basis for developing plans for additional characterization activities. However, they did not provide an assessment of the potential significance of risk associated with the presence of constituents at an AOI.

Analytical data for compounds that screened above any of the above-identified screening criteria for soil or groundwater were tabulated on figures that were presented in the Field Event #1, #2, #2A, #2B and #3 Data Reports. Based on the screening evaluation of the data collected through Field Event #3, and in consultation with U.S. EPA during the November 2010 and July 2011 meetings, it was determined that data of sufficient quality and quantity were collected to enable completion of the baseline risk assessment and RFI Report.

3. SITE SETTING AND DATA EVALUATION

3.1 Site Location

The Site is located at 3729 Twining Street, Toledo, Lucas County, Ohio and covers approximately 47 acres of land (Figures 1 and 2), of which approximately 30.4 acres is currently owned by Textileather (the "Textileather Parcel"). The remaining portion of the Site, approximately 16.6 acres is owned by Alumi-Bunk Corporation (the "Western Parcel"). The Western Parcel was undeveloped prior to 2005 when Textileather sold the property to Alumi-Bunk. Thereafter, Alumi-Bunk developed the property to manufacture truck components. The Site is the entire contiguous property originally identified in the RCRA interim status notification. The Textileather parcel contains manufacturing buildings consisting of approximately 462,060 square feet. The Western Parcel has approximately 40,000 square feet under roof. The Textileather Facility ceased operations in 2009 and no longer utilizes bedrock groundwater for non-contact cooling processes nor discharges process water to sanitary or stormwater outfalls.

3.2 Surrounding Land Use

The Site is located on the north side of North Service Road and Interstate 75 (Figure 1) in a mixed industrial, commercial, and residential area. The Site is bordered on the north by a railroad spur, the former XXKEM Company (XXKEM), and Stickney Avenue Landfill. XXKEM was a former hazardous waste treatment, storage, and disposal (TSD) facility that was closed and capped. The former XXKEM facility and Stickney Avenue Landfill have been capped and converted to a transportation center for vehicles produced at the Chrysler Jeep Assembly Plant. The Site is bordered to the west by 20 acres of land owned by the City of Toledo and Fraleigh Creek a tributary of the Ottawa River; to the south by U.S. Interstate 75; and to the east by Twining Street and residential property. Beyond the residential property east of Site is the Chrysler Jeep Assembly Plant.

According to the City of Toledo's 20/20 Comprehensive Plan (last amended 26 July 2011), the Site is located in the Fort Industry section of Council District 6. Future plans for Fort Industry section consist of continuing the use as an industrial district. According to the 20/20 Comprehensive Plan, the Site area is the most likely location for future industrial development in support of the local Jeep Plant. The 20/20 Comprehensive Plan recommends designating several large parcels of land as future business or industrial parks, and utilizing and marketing brownfields.

3.3 Demographics

The Site is located in the City of Toledo (metropolitan area), which covers 80 square kilometers and has an estimated population of 298,446 according in 2006 (U.S. Census Bureau).

3.4 Surface Water Hydrology

Based on the regional and Site topography and Facility storm sewer system networks, surface water in the Site vicinity drains primarily through storm sewers to the south, and is ultimately discharged to the Ottawa River to the west via a main storm sewer and Fraleigh Creek (Figure 1). Fraleigh Creek is fed by a 72-inch storm sewer main that receives storm water runoff from the Site, interstate highway, city streets, as well as several other industrial locations east of the Site, to the Ottawa River. According to the National Flood Insurance Program the Site is not located in the 100- or 500-year flood plain.

3.5 Fraleigh Creek and Ottawa River

Fraleigh Creek is a man-made stream, located approximately ¼ mile from the Site, that was designed to convey storm water from a storm sewer main. This storm sewer main receives storm water runoff from the Site, interstate highway, city streets, and several other industrial locations east of the Site, and conveys it to the Ottawa River. We understand that a consortium of private businesses in partnership with the City of Toledo, collectively known as the Ottawa River Group, have recently investigated the Ottawa River system, including Fraleigh Creek, under the direct oversight of the U.S. EPA. Further, we understand that the Ottawa River Group in partnership with the U.S. Environmental Protection Agency's Great Lakes National Program Office (GLNPO), using Great Lakes Legacy Act funding, completed a remediation of the river system sediments in 2010 to address potential human health and environmental risks from the river system. The following is a summary of the impacts to the Ottawa River System and the completed remediation program.

The Ottawa River Cleanup Plan Design Report prepared by Conestoga Rovers and Associates (August 2009) identified:

> "The Maumee AOC has ten Beneficial Use Impairments (BUIs) listed. These impairments are categories of degradation that are routinely observed in AOCs throughout the Great Lakes, and most of those categories have been determined to apply at the Ottawa River. A total of eight impairments were identified for Ottawa River in the last update in 2005 (Maumee AOC Stage 2 Watershed Restoration Plan. 2006)"

The Ottawa River Cleanup Plan Design Report (CRA 2009) identified BUIs to include:

> **"BUI 1** – Restrictions on Fish and Wildlife Consumption – Fish advisories are in place along the river from I-475 north of Wildwood Preserve to the mouth as a result of PCB concentrations. The removal of sediment as proposed is projected to reduce the average surface concentrations of PCBs by a factor of greater than 3; this action is expected to provide a corresponding or greater impact on fish tissue concentrations of PCBs, supporting the reduction of fish advisory restrictions and their ultimate removal.
>
> **BUI 10** – Beach Closings (Recreational Contact) – There is a Contact Advisory for beach use along the lower river. The dredging project is not likely to redress restrictions on recreational

contact as these are primarily due to pathogens from sewage releases; CSO work by the City of Toledo is ongoing to address this issue separate from the proposed project.

BUI 11 – Degradation of Aesthetics – A primary cause of degradation of aesthetics in the Ottawa River is the localized presence of oil and grease, especially in Reach 3. The proposed project will remove much of that sediment and sediments and soils in the tributary Sibley Creek, where elevated oil and grease content have been observed. Improvements to sewer discharges by the City of Toledo will also support removal of this BUI in the Ottawa River."

The Ottawa River Cleanup Plan Design Report (CRA 2009) identified the following clean-up goals:

> "The remedial approach is based on a Post-Cleanup SWAC {surface weighted average concentration} goal of 1.5 mg/kg for PCBs, 30 mg/kg for PAHs (sum of 16) and 180 mg/kg for lead. After the completion of dredging and attainment of this interim goal, further improvement in the environmental quality of the sediment surface is projected to occur from natural recovery processes as clean sediment deposits over the dredged areas. The end result of the cleanup will be a Final SWAC goal of 1.0 mg/kg PCBs, 22.8 mg/kg PAH(16) and 128 mg/kg of lead after approximately 10 years."

The Ottawa River Cleanup Plan Design Report (CRA 2009) also identified that Monitored Natural Recovery (MNR) as the technology for areas not dredged:

> "MNR will be the primary cleanup technology in portions of the site where dredging is not performed. For instance MNR will be the primary cleanup method within the Reach 1 area, where surficial concentrations of contaminants are low and the existing SWACs for PCBs, PAHs, and lead do not require capping or dredging to achieve the desired long-term goals. Following the implementation of the remedy (including dredging), the entire Site will go into natural recovery monitoring to monitor the reductions of both, surficial sediment, and fish tissue concentrations of COCs."

According to the Ottawa River Remedial Action Report (SulTRAC, 2011):

> "Ottawa River RA activities began in December 2009, when ORG began excavation of contaminated sediments from Sibley Creek. Mobilization to the project site for EPA-funded RA activities began on February 8, 2010, and the final RA inspection for the project was conducted on July 6, 2011."

According to the Ottawa River Remedial Action Report (SulTRAC, 2011) some of the significant accomplishments of the remedial action included:

- "More than 241,600 CY of contaminated sediment removed from the Ottawa River in 145 days
- SWAC within the project area met post-cleanup, as well as long-term remedial goals
- Project schedule met despite unanticipated additional dredge areas"

The Ottawa River Remedial Action Report (SulTRAC, 2011) identified that for Reach 3, the section of the Ottawa River adjacent to the Site and receiving Fraleigh Creek water, the SWAC remedial goals were met with average final confirmation samples of 1.1 mg/kg total PCBs, 4.4 mg/kg total PAHs, and 100 mg/kg lead. The Ottawa River Remedial Action Report (SulTRAC, 2011) also identified that:

> "EPA GLNPO, Ohio EPA, and the U.S. Fish & Wildlife Service will coordinate regarding long-term monitoring of the overall Ottawa River system recovery."

3.6 Geologic Setting

Based on regional references and RFI investigation results, the Site is underlain by four major geologic units: fill, lacustrine silts and clays, glacial till, and bedrock. Regional information indicates that the general setting of the site is urban land, with the predominance of areas under paved surfaces or building structures. The major soil types listed in the area indicate clay and silty clay with slow drainage and low permeability.

Based on field investigation results from the RFI and previous assessments at the Site, the Site is underlain by at least 75 feet of low permeability silty clays, silts and clays, overlying bedrock. Previous assessments report that bedrock underlying the glacial material is Silurian Age Limestone. Approximately 150 subsurface explorations have been completed in the overburden at the Site during the RFI. In developing the RFI, numerous other previously installed borings were reviewed. While the borings completed for the RFI were relatively shallow, generally 10 to 15-feet in depth, there was a generally consistent stratigraphic profile in the overburden across the Site. However the stratigraphic depths and unit thicknesses varied. Geologic cross-sections underlying the Site are presented in Figures 3 through 4B. The stratigraphic profile from the ground surface downward generally consists of the following:

3.6.1 **Fill**

Fill materials were encountered in over 90% of the borings onsite with thicknesses and components differing in various areas depending on historic operations. In general, the most prevalent fill across the site consisted of re-worked silty loam or clayey loam material interbedded with sands, industrial slag-like material, cinder-like material, wood fragments, brick and concrete fragments, coal fragments, broken glass and other non-native debris. In the Calender Basement area and in Building 2 through 6 (AOI 1 and AOI 8, respectively), poorly graded fine sands were found ranging in thickness from a few inches to over eight feet below ground surface (bgs) in previously excavated and backfilled areas. In the former UST and AST areas (AOI 22 and AOI 24), limestone gravel fill material was found at varying thicknesses. Background sample areas along the western Site boundary and other undeveloped portions contained very little to no fill materials within the samples.

3.6.2 **Lacustrine Silt and Clays**

Stratigraphically below fill materials, clays to silty clays were encountered to approximately 38 feet bgs, based on RFI and previous borings. The clays contained occasional layers of silt of varying thickness ranging from fine seams to over one-foot thick. Generally the top eight feet of the sample contained gray mottling and iron oxide staining throughout, with occasional trace sands and fine gravels. Below eight feet bgs, silty clays graded into a gray color, moisture content generally increased, became varved throughout, and contained trace sands and fine gravels. Groundwater in the lacustrine deposits is encountered at shallow depths across the site, on average, at approximately 4.4-feet bgs. Depending on the time of year and proximity to onsite sewers, groundwater depths in the lacustrine deposits ranged from less than one foot bgs to over 10 feet bgs. The lacustrine unit exhibits very low permeability due to its fine grain size and low porosity.

Wells installed during the RFI investigation were screened in the first water bearing unit, which is the lacustrine silt and clays. Typically water is encountered at a depth of 4-feet below ground surface, and ranged from 1 to 10-feet below ground surface. Therefore, the screened interval was set relatively shallow, from 5 to 15-feet, to target the top of the water table in order to identify any direct impacts to shallow groundwater. In addition, since many of the site specific constituents were lighter than water, the wells were also used to determine if any light non-aqueous phase liquids (LNAPL) is present on the water table. Wells installed during the RFI maintained a minimum 4-foot buffer from ground surface to top of sand pack to limit surface water infiltration/impact on the monitoring wells. Previous investigations at the Site also targeted the lacustrine silt and clays. However, well construction was typically five to ten feet deeper than the current RFI investigation.

The lacustrine silts and clays present beneath the Site are typically too fine grained to yield significant quantities of groundwater. During well development activities recharge of wells in the first water bearing silty clay generally took over 24-hours. During low-flow sampling, drawdown was difficult to minimize when pumping at the lowest rate of the low-flow equipment. Rising head slug tests were performed on selected wells to evaluate the permeability of the lacustrine silts and clays. The permeability ranged from 1×10^{-4} cm/sec to 1×10^{-7} cm/sec, with typical values in the 10^{-6} cm/sec to 10^{-7} cm/sec range

3.6.3 **Till**

The next stratigraphic layer below the lacustrine deposits at an average depth of 38 feet bgs is a glacial till. It has been described in previous reports as a very stiff to hard brown, silty clay, containing trace to some sands, trace to little gravel, plastic, moist, and some coarse gravel. No borings installed during the RFI were advanced into the till, however 4 borings completed prior to the RFI encountered this unit. However, these previous investigations were not drilled to the top of bedrock, so the till thickness on-site is not known. An ODNR well search within a one-mile radius of the site indicates a well north-northeast of the site reached bedrock at approximately 80-feet bgs. According to the ODNR website this unit characteristically has a low permeability, similar to the lacustrine unit described above.

3.6.4 **Bedrock**

As stated above, no RFI or previous site borings were drilled to the top of bedrock, but a well log for a site north-northeast of the Site lists bedrock at approximately 80-feet bgs. According to the Ohio Department of Natural Resources Surficial Geology of Toledo 30 x 60 Minute Quadrangle map, the first bedrock unit underlying the Site is a Devonian and Silurian age Dolomite. The dolomite is thin to massively bedded, coarse to micro crystalline and fossiliferous. Portions can be cherty, anhydritic, porous, laminated and brecciated. Intervals in the upper-most portion can be a fossiliferous, cherty limestone.

The bedrock formation serves as the uppermost regional aquifer for the area. Groundwater yields in the bedrock unit range from approximately 10 gallons per minute (gpm) to greater than 200 gpm with an average yield of approximately 30 gpm. Regionally, groundwater flow is expected to be to the northeast toward Lake Erie.

The Textileather Facility, prior to cessation of operations in 2009, utilized a water production well for non-contact cooling purposes in the former Solvent Recovery operation. This well was reported to yield over 200 gpm. The water production equipment was removed from the well in February 2010 to allow video logging of the borehole condition. The down-hole video log indicated that the well had a steel casing that extended to approximately 106-feet below ground surface. The remaining portion of the well was open rock to the total depth of over 492-feet. No distinct flow zones were observed from the video log, however numerous bedding plane joints and minor vugs were observed, interspersed with thick zones of competent bedrock. The water level was observed to be approximately 21-feet below ground surface. Groundwater samples were taken from this well during Field Event #1. Once it was determined that the production well would no longer be utilized at the Facility for operations, the well was abandoned in February 2011, in accordance with Ohio Department of Natural Resources regulations. The abandonment included filling the lower 283-feet of the well with washed, cleaned pea gravel, followed by a bentonite plug, and then over 200-feet of cement-bentonite grout to ground surface.

3.7 Hydrogeologic Setting

3.7.1 **Overburden Groundwater**

Water level measurements from the overburden monitoring wells at the Site, across several seasons, indicate that the average seasonal water table fluctuation is approximately 2-feet, ranging from no change in some wells to over eight feet in others. Spring and early summer have the highest water level elevations and late summer to early fall have the lowest. Wells with the largest seasonal water level fluctuations tend to be on the perimeter of the Site.

Based on water level measurements, overburden groundwater contours for the site indicate inward flow from the eastern, northern and western perimeter towards the center of the Site (Figures 5A through 5E). This flow pattern appears to be consistent across all seasons as observed during monitoring and suggest the following influences on overburden groundwater:

- A topographic and groundwater high is located on the north side of the property. This high is associated with the Stickney Avenue Landfill and former XXCHEM Facility, immediately north of the Site. These facilities were capped and now are used for new vehicle staging and loading, and are approximately 5 to 10-feet higher in elevation. Green space and an east-west railroad siding is located immediately south of this capped area, which is immediately north of the Site. This green-space and railroad area allows for groundwater recharge on the north side of the Site.
- Water collection and dewatering activities in the Calender Basement depresses groundwater elevations in the area by 8-feet or more.
- Groundwater recharge areas on the Site are limited to the green-space areas on the western and south-western sides of the Site. In addition, the bermed above-ground storage tank farm area for the former solvent recovery operations (AOI-02), is a likely groundwater recharge area, because it is unpaved and typically ponds water. The remainder of the Site is covered by buildings and pavement, which directs stormwater to storm sewers and limits the amount of groundwater recharge to the overburden.
- Storm and sanitary sewers are located throughout the plant area, running north to south. These sewers are typically constructed at depths on the order of 10-feet below ground surface. This places the sewers below the typical groundwater elevation in the overburden. A review of water levels from monitoring wells near sewers indicates that the water levels near the sewers are typically 6 to 10-feet lower than water levels on the perimeter of the Site. Water levels from the wells near the sewers are typically similar in elevation to the fluid levels in the sewer system. Based on the age of the sewers, the sewers appear leaky, allowing groundwater to infiltrate into the system. This observation is further corroborated by detections of Site constituents, such as tetrahydrofuran, in sewer segments immediately downstream of soil impact areas.

Based on groundwater flow patterns, the leaky old sewers, which are lower in elevation than the groundwater, along with the Calender Basement area, appear to be capturing and controlling groundwater to the central portion of the Site.

The storm sewers exit the Site on the south side and join a main east-west storm sewer trunk. This main line also carries stormwater from many facilities and roadways upstream of the Site to Fraleigh Creek, and then ultimately to the Ottawa River. Measurements of flow in the sewers during low stormwater periods indicate limited flow in the sewers:

- Measurement of the water flow rate in western leg of the storm sewers was collected on June 1, 2011. The sewer manhole immediately north of the northern interceptor was an 18-inch pipe with 0.09-feet of water flowing at 0.32 feet per second. This equates to a flow rate of approximately 6 gpm. Measurements of the main storm sewer trunk line that discharges to Fraleigh Creek was measured and calculated to be approximately 457 gpm.

- Storm sewer flow measurements obtained in July 14, 2011 indicate that the majority of the main sewer lines onsite contain a flow less than one gallon per minute (gpm). In the majority of the sewers investigated, water was on the order of 0.01-feet thick or less and too shallow to contact the sensors of the flow probe to obtain an accurate flow rate. Based on other measurements conducted, the flow rate of these sewers is less than 1 gpm. The outfall to Fraleigh Creek contained a flow of approximately 136 gpm during the same period.
- An evaluation of groundwater flow to storm and sanitary sewers, based on hydraulic gradient and soil permeability, indicates that groundwater contribution to individual sewer lines is expected to be less the 0.1 gpm, due to the low permeability of the lacustrine silts and clays.

Based on the flow measurements, the contribution of Site water from the storm sewers is less than 1/70 of the water carried by the main sewer trunk to Fraleigh Creek. The discharge of the sanitary sewers is directed to the City of Toledo publically owned treatment works (POTW).

3.7.2 Rising Head Permeability Testing

In-situ rising head permeability tests were performed in February and March 2011 at monitoring wells at selected monitoring wells. The rising head test results are summarized in Table 4 and the calculation sheets are presented in Appendix B. The rising head permeability testing procedure consisted of the removal of a slug of water from the well with a precleaned disposable bailer. Measurements of water level change were obtained through the use of a pressure transducer (data logger) placed on the bottom of the well.

The test results for the native lacustrine silts and clays indicated that the hydraulic conductivity is summarized in Table 4 and was in the range of the range of 10^{-4} to 10^{-7}. The geometric mean of the hydraulic conductivity for tested Site wells screened in the lacustrine unit is 6.1×10^{-6}.

3.7.3 Water Supplies and Groundwater Use

The lacustrine silts and clays and glacial till overburden present beneath the Site are typically too fine grained to yield useable quantities of groundwater. A review of 52 drillers logs located within a one-mile radius of the Site, obtained from the ODNR website, indicated that all but two wells were installed for groundwater monitoring purposes. These two are water production wells that are reported to be installed in the bedrock for non-potable industrial production purposes. One production well is located north of the Site at the Pan American Chemical facility and the second well is located on the Textileather Facility.

The Site is also situated in an Urban Setting Designation (USD) area for groundwater by the Ohio EPA's Voluntary Action Program (Ohio EPA, 2008), which indicates public water supplies are readily available in the area and potable use of groundwater is not reasonably anticipated.

Regulations have been promulgated in the Ohio Administrative Code (OAC) controlling the installation of private water systems, which would be applicable to individuals interested in developing a private water system in the vicinity of the Site:

- "Any [well] used as a source of water for a private water system shall be located hydraulically up-gradient of any potential or known sources of contamination." (3701-28-10-B)
- "A water source shall not be located within a minimum of 50-ft of any known or possible source of contamination, except as specified in paragraph G." (3701-28-10-F) [see Paragraph G for specific minimum distance requirements for water sources.]
- "Casing shall not extend less than 25-ft below the natural ground surface." (3701-28-12-B4)
- "Wells completed in unconsolidated and consolidated aquifers may have less than 25-ft of casing where geologic and hydro-geologic conditions indicate potable water is not present at depths greater than 25-ft. Under no conditions shall casing extend to a depth less than 15-ft."(3701-28-121-A)

Consequently, these existing OAC regulations serve to prohibit installation of new shallow (overburden) wells for potable water supply purposes in the area of the Site due to the geologic conditions.

The Textileather Facility, prior to cessation of operations in 2009, utilized a bedrock water production well for non-contact cooling purposes in the former Solvent Recovery operation. This well was abandoned in February 2011, as discussed in Section 3.5.4, once it was determined that production would not resume at the Site under the existing configuration. The remainder of the water use at the Site is provided by the public water supply from the City of Toledo.

According to the City of Toledo's Division of Water Distribution Assistance and Information, the City of Toledo's Department of Utilities supplies a public water system covering all businesses and residents within the 43612 area code. The City of Toledo's Division of Water Distribution Assistance and Information indicated that no one within the 43612 area code have potable water wells. The Division of Treatment Services, Collins Park Treatment Plant, sources water directly from Lake Erie and is responsible for the production, filtration and testing of water for the city of Toledo and other surrounding areas.

Therefore, the availability of public water, current usage patterns, existing Ohio regulations, as wells as the limited yield of the overburden soils, indicate that the overburden water bearing zone would not be reasonably considered a source for potable water.

4. INVESTIGATION RESULTS AND EVALUATION

The results of the field investigations conducted during the RFI are discussed in this section. The discussion is divided into subsections corresponding to the AOIs that were investigated. Each subsection includes a description of the area investigated, the scope of the field investigations, a summary of the results, and whether a potentially significant release of hazardous constituents has been identified and if so, the nature and extent of the release.

The identification of a potentially significant release at an area is based on comparison of the characterization data collected during the RFI with conservative, generic human health risk-based screening criteria. The screening criteria utilized for the evaluation of the field investigation data included conservative risk-based screening levels/methodologies published by USEPA, and for pathways not addressed in USEPA generic criteria, other readily available and relevant criteria. A concentration higher than a screening level does not mean that a significant risk exists. Rather, the concentration is identified for further review relative to:

- Concentrations of the constituent at other locations and depths,
- Distribution of the constituent in other environmental media,
- Background levels,
- Field observations, and
- Previously identified or additional areas of interest (based on operational history in the vicinity of the sample).

The RFI data were prepared for screening by the following procedure:

- Data reported as above detection limits (i.e., positively identified) were included for screening.
- Replicate analyses were averaged to obtain a representative datum. Where some replicates in a set were reported as above detection and others below detection, the datum was considered detected, to avoid false negative determinations. The concentrations above detection were averaged with one-half of the sample quantitation limit (SQL) of the replicates reported below detection.

The approach for evaluating the soil, groundwater, soil vapor, and indoor air data are discussed below. The screening levels are based on U.S. EPA risk-based screening levels that are developed to be protective for risks at the lower bound of the U.S. EPA cancer risk range (10^{-6}) and a hazard index of 1 (these risk thresholds are also referred to as the 'point of departure') (U.S. EPA, 2010), based on reasonably expected land use. Specifically, the following screening values have been used:

- <u>Soil:</u> U.S. EPA regional screening level (RSL) value for commercial/industrial use soil set at a TCRL of 10^{-6} for carcinogenic constituents and a target HQ of 1 for non-carcinogenic constituents (U.S. EPA, 2011);
- <u>Groundwater:</u>
    - Calculated Industrial Groundwater Target for Vapor Intrusion Screening (See Attachment A of Appendix E)
    - U.S. EPA Maximum Contaminant Level (MCL) (EPA RSL, June 2011)

- Stormwater: There are no screening values that are applicable for evaluation of storm water. As a surrogate, the U.S. EPA RSL value for tap water set at a TCRL of 10^{-6} for carcinogenic constituents and a target HQ of 1 for non-carcinogenic constituents (U.S. EPA, 2011) was used;
- Soil Gas:
  - Shallow soil gas screening values for residential land use TCRL of 10^{-6} for carcinogenic constituents and a target HQ of 1 for non-carcinogenic constituents (See Attachment A of Appendix E) 1, and
  - Shallow soil gas screening values for industrial land use TCRL of 10^{-5} for carcinogenic constituents and a target HQ of 1 for non-carcinogenic constituents (See Attachment A of Appendix E).
- Indoor Air: Indoor Air Screening Values for industrial land use TCRL of 10^{-6} for carcinogenic constituents and a target HQ of 1 for non-carcinogenic constituents (U.S. EPA, 2011).

It should be noted that an area with constituents at concentrations that are higher than these screening criteria does not mean that it necessarily poses an unacceptable risk; it only means that the potential for the area to pose an unacceptable risk should be evaluated considering site-specific factors and was utilized as a development tool for the field investigation programs.

Each of the following subsections for the individual AOIs includes a sample count per media. These sample counts include only valid data and do not include QC samples (e.g. field duplicates, split samples, or field replicates).

4.1 AOI-01 - PCB Area

This area consists of AOC 1 (PCB Contaminated Soils) and SWMU 1 (Storm Sewer System) from the PA/VSI. AOC 1 is the outdoor area of PCB contaminated subsurface soils on the northwest side of the Facility. SWMU 1 consists of a sump beneath the calendar equipment and a storm sewer line. Between 1967 and 1972 PCBs were present in Therminol heat transferring oil in the calendering process. Therminol oil was transferred via underground piping which lead from above ground storage tanks outside the building to the calendering process equipment in buildings 50, 37 and 37A. The fluid was stored outside in ASTs and leaked from process equipment, pumps and underground piping.

This AOI was investigated because of documented releases in this area along with the potential for release from current processes.

[1] The soil vapor screening values presented in the OSWER guidance were re-calculated using current risk-based screening levels for ambient air that were taken from the EPA Regional Screening Level table dated June 2011, to ensure that the values reflect contemporary toxicity information.

4.1.1 Scope and Results

RFI activities at AOI-01 included the installation of eight soil borings, two monitoring wells, and two piezometers. A total of 32 soil samples and four groundwater samples were collected and analyzed. In addition, one indoor air sample was collected from the Calender Basement.

Two sumps in the Calender Basement were sampled to collect and evaluate NAPL entering the basement. A mixture of sump water and NAPL was obtained from one sump along with NAPL from the second sump. These samples were submitted for laboratory analysis. In addition, four wipe samples from the Calender Basement walls and floor were collected for PCB analysis.

The soil sample locations and result summary are shown on Figure 6. The monitoring well locations and groundwater result summary are shown on Figure 18. The indoor air location and result summary is shown on Figure 22. The Calender sump sample locations and result summary are shown on Figure 25A. The Calender Basement wipe sample locations and result summary are shown in Figure 25C. The soil and groundwater analytical data are tabulated in Tables 5A and 8, respectively. The indoor air analytical data are tabulated in Table 12. The Calender sump sample analytical data are tabulated in Table 13A. The wipe samples from the basement are summarized in Table 13C. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.1.2 Discussion of Results

Soil results were compared to Industrial Soil Screening Levels. As indicated on Figure 6 and Table 5A, aroclor-1242 and benzo(a)pyrene, are the only chemicals that have concentrations higher than the industrial screening criteria. Of the 32 soil samples collected in AOI-01, benzo(a)pyrene was detected in four samples and exceeded industrial screening criteria in only one sample. Aroclor-1242 was detected in five samples and exceeded industrial screening criteria in four of these samples.

RFI groundwater sampling in AOI-01 has been conducted in monitoring wells MW-1015 and MW-1017. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, the total PCB concentration exceeds the MCL in MW-1015.

Indoor air results collected from the Calender Basement were screened against the RSL for Industrial Air. As indicated on Figure 22 and Table 12 there are no exceedances.

4.1.3 Conclusions

As shown on Figures 6 and 18, RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.2 AOI-02 - Solvent Recovery Area

This AOI contains SWMUs 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 16 and 19[2] from the PA/VSI. This area consists of the solvent recovery system in Building 31, associated storage and transfer equipment, and other waste handling operations. According to interviews with Facility personnel, many releases of various solvents occurred in this area throughout its operational history most notably from the north end of the solvent recovery building onto the pavement. Operations in this area began in the 1950s and continued until shutdown of the operations in 2009.

A groundwater production well utilized for non-contact cooling water is located in Building 32. A video log of this well was conducted during the RFI, and the well was found to be 10-inches in diameter and 490-feet deep. Textileather decommissioned this well in February 2011 as part of the RFI activities, as it is no longer required.

This AOI was investigated during the RFI because of the history of releases in this area.

4.2.1 Scope and Results

Pre-RFI activities considered in the result summary include soil sampling events from February 1990 (Clayton), March 1995 (Hull), July 1995 (Midwest Environmental), and May 1996 (Midwest Environmental). From these events, 28 soil borings were installed and 43 soil samples were collected.

RFI activities at AOI-02 included the installation of 16 soil borings and one monitoring well. A total of 49 soil samples and three groundwater samples were collected and analyzed. The sampling included collection of two samples from the water production well.

The soil sample locations and result summary are shown on Figure 7. The monitoring well locations and groundwater result summary are shown on Figure 18. The Pre-RFI analytical from AOI-02 is shown in Table 5B. The RFI analytical data are tabulated in Tables 5A and 8. The RFI analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.2.2 Discussion of Results

Pre-RFI soil results were compared to Industrial Screening Levels. As indicated on Figure 7 and Table 5B, arsenic and BTEX compounds have concentrations higher than the industrial screening criteria. Of the ten samples that were analyzed for metals, nine exceeded background and industrial screening criteria. Benzene, toluene, and total xylenes each exceeded industrial screening criteria in one of 23 samples. Ethylbenzene concentrations exceeded the applicable criteria in four of 20 samples.

[2] These SWMUs are generally adjacent to one another and together form one contiguous area.

RFI soil results were compared to Industrial Screening Levels. As indicated on Figure 7 and Table 5A, bis(2-ethylhexyl)phthalate and benzo(a)pyrene are the only chemicals that have concentrations higher than the industrial screening criteria. Of the 40 samples that were analyzed for SVOCs, bis(2-ethylhexyl)phthalate was detected in ten of them. Four of the ten detections had concentrations exceeding the applicable screening criteria. Benzo(a)pyrene was detected in two of 40 samples submitted for SVOC analysis. Only one sample exceeded industrial screening criteria.

One round of RFI groundwater sampling in AOI-02 has been conducted in monitoring wells MW-19H, MW-23H, and MW-1018. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, the arsenic concentration in MW-19H and the bis(2-ethylhexyl)phthalate concentration in MW-1018 exceed MCLs.

Two groundwater samples, at depths of 108 and 188 feet from the top of casing, were collected from the water production well. As shown in Table 8, the results were below the MCLs.

4.2.3 Conclusion

As shown on Figures 7 and 18, RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.3 AOI-03 - Oil Interceptor Basins

Three subsurface oil interceptor basins in the storm sewer system are located on the southern end of the Facility. These interceptors were identified in the PA/VSI as SWMU 11. Discharges from these interceptors are regulated under the US EPA National Pollutant Discharge Elimination System (NPDES) program. The east interceptor is one of the sources of NPDES Outfall 001 and the west interceptor is one of the sources of NPDES Outfall 002. The western storm sewer line has another interceptor located upstream of the outfall. The interceptors were installed in 1974. Absorbent booms are used to collect oil in the interceptors.

According to Facility personnel and previous reports several releases of oils, PCBs, and solvents have been released to the storm sewer system and the oil interceptor basins.

This AOI was investigated during the RFI because of the documented releases in this area.

4.3.1 Scope and Results

RFI activities at AOI-03 included the installation of seven soil borings. A total of 14 soil samples were collected. The soil sample locations and result summary are shown on Figure 8. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.3.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 8 and Table 5A, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene are the only chemicals that have concentrations higher than the industrial screening criteria. Of the 14 soil samples, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were each detected in five samples. Two of the five samples have exceedances for these chemicals.

4.3.3 Conclusion

As shown on Figure 8, RFI soil sampling has adequately characterized the lateral and vertical extent of soil contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.4 AOI-04 - Eastern Refuse Handling Areas

Roll-off box areas No. 1, 2 and 3 were identified in the PA/VSI as part of SWMU 12. These roll-off boxes were used to manage non-hazardous waste generated at the Facility. Roll-Off Box Area No. 1 was an open-topped, 40-cubic-yard container on an asphalt surface that was used to store scrap metal. Roll-Off Box Area No. 2 was an open-topped, 40-cubic-yard container on an asphalt surface that was used to store wooden pallets. Roll-Off Box Area No. 3 was a 40-cubic-yard container on a concrete surface that was used to store defective or scrap vinyl. This area also contains SWMU 13 which was identified in the PA/VSI as Roll-Off Box Area No. 5-Compactor. This compactor consisted of one 50-cubic-yard roll-off box on a concrete surface connected to a compactor which was used to store non-hazardous general refuse.

During the Facility walkthrough a small area of hydraulic oil staining was observed on the pavement around the trash compactor hydraulic equipment north of Building 1. No information regarding releases to the environment in this area was obtained from Facility personnel interviews or previous reports other than the PA/VSI. The pavement was not able to be completely observed around the compactor. This AOI was investigated during the RFI because of the potential for releases from this area.

4.4.1 Scope and Results

RFI activities at AOI-04 included the installation of three soil borings. Six soil samples were collected.

The soil sample locations and result summary are shown on Figure 9. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.4.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 9 and Table 5A, all concentrations were below the industrial screening criteria.

4.4.3 Conclusion

RFI soil data from AOI-04 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. RFI soil sampling has adequately characterized constituents in soil from this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.5 AOI-05 - Northern Refuse and Oil Handling Area

Roll-off box area No. 4 was identified in the PA/VSI as part of SWMU 12. This 50-cubic-yard roll-off box connected to a compactor located on a concrete surface was used to manage non-hazardous general refuse. SWMU 17 was identified in the PA/VSI as the Used Oil Storage Area. This unit consists of a 500-gallon steel tank used to store non-hazardous used oil. This area is indoors on concrete and no releases have been reported in this area. Minor staining of the floor was observed during the site visit. Facility personnel reported that a spill of hydraulic oil occurred from the elevator in this area into the elevator shaft.

During the Facility walkthrough some hydraulic oil was observed on the pavement around the trash compactor north of Building 37. The pavement was not able to be completely observed around the compactor. This AOI was investigated during the RFI because of the potential for releases from this area.

4.5.1 Scope and Results

RFI activities at AOI-05 included the installation of three soil borings and one monitoring well. A total of 11 soil samples and one groundwater sample were collected.

The soil sample locations and result summary are shown on Figure 6. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.5.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 6 and Table 5A, all concentrations were below the industrial screening criteria.

One round of RFI groundwater sampling at AOI-05 has been conducted in monitoring well MW-1016. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, concentrations do not exceed applicable criteria.

4.5.3 Conclusion

RFI soil and groundwater data from AOI-05 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. RFI soil and groundwater sampling

have adequately characterized constituents in these media from this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.6 AOI-06 - General Refuse Hoppers

The General Refuse Hoppers were identified in the PA/VSI as SWMU 14. This AOI consists of several hoppers located within the Facilities buildings where non-hazardous waste is managed.

The potential for release at this AOI is low because the units managed nonhazardous solid waste indoors. At the time of the Facility walkthrough no evidence of releases were observed. No information regarding releases to the environment in this area was obtained from Facility personnel interviews or previous reports other than the PA/VSI. No soil analytical data were available for this AOI. This AOI did not require further investigation during the RFI.

4.7 AOI-07 - Container Storage Area

SWMU 18 was identified in the PA/VSI as the Container Storage Area. Prior to 1990, this unit managed waste inks and debris generated from printing and finishing operations. The potential for release from this AOI is minimal because it is located indoors on a concrete floor.

At the time of the Facility walkthrough no evidence of releases were observed. No information regarding releases to the environment in this area was obtained from Facility personnel interviews or previous reports other than the PA/VSI. This AOI did not require further investigation during the RFI.

4.8 AOI-08 - Buildings 2 Through 6

Buildings 2 through 6 are contiguous portions of the original Facility building. These buildings have been used for storage, compounding and manufacturing of vinyl products. This area originally had crawl spaces beneath the floor throughout. According to Facility personnel the crawl spaces in Building 2 have been filled in or were removed altogether. It is unknown if crawl spaces in buildings 3, 4 and 5 are still present. Crawl spaces in Building 6 are still present. No information about this area was obtained from previous reports.

According to Facility personnel surplus dope (vinyl compounds, inks, etc.) was formerly drained into appearances in the floor in Buildings 3, 4 and 5. Presumably the holes were openings into the crawls spaces. According to Facility personnel this activity has not been conducted since approximately the 1970s.

At the time of the Facility walkthrough Building 2 was being used for storage of metal frames. In Building 3 staining was observed under the 16 ASTs and under the No. 51 coater. One pit under the coater was full of dope and the integrity of the pit could not be ascertained. The concrete appeared to be in good condition in stained areas not in pits. Building 4 had 5 ASTs with minor staining on the

concrete floor and the concrete appeared to be in good condition. Building 5 is the New Dope Room which contains about 10 large tanks for storage and mixing of vinyl compounds. Heavy staining was observed around the tanks in this room and the concrete appeared to be in good condition. Building 6 was being used for storage of liquid and powder raw materials. Vinyl resin powder was observed on the floor and stains from liquids were not observed. Access to the crawl space was available at several points in this building. No staining or evidence of disposal was apparent by viewing the crawl space at the access points. No information regarding releases to the environment in this area was obtained in our review of previous reports.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.8.1 Scope and Results

RFI activities at AOI-08 included the installation of 11 soil borings. A total of 15 soil samples were collected.

The soil sample locations and result summary are shown on Figure 9. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.8.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 9 and Table 5A, benzo(a)pyrene is the only chemical to have a concentration exceeding industrial screening criteria. Of the 15 soil samples, benzo(a)pyrene was detected in three samples. Only one sample exceeded the applicable criteria.

4.8.3 Conclusion

As shown on Figure 9, RFI soil sampling has adequately characterized the lateral and vertical extent of soil contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.9 AOI-09 - Coater Lines

This AOI consists of Buildings 14, 15 and 24. All of coater line No. 41 and part of coater line 51 are in this AOI. A solvent parts washer as well as housekeeping and miscellaneous storage is also in this area. Staining was observed in several areas around the coater lines and under tanks on the south side of this area.

At the time of the Facility walkthrough the concrete appeared to be in cracked and deteriorating in some areas and equipment obscured viewing all areas of the floor. An elevator in the southeast corner of Building 24 had oil pooled around its edges and under the floor under the elevator could not be observed.

This AOI was investigated during the RFI because of the potential for past releases in this area.

4.9.1 **Scope and Results**

RFI activities at AOI-09 included the installation of two soil borings and two piezometers. A total of eight soil samples were collected.

The soil sample locations and result summary are shown on Figure 10. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.9.2 **Discussion of Results**

Soil samples were screened against Industrial Screening Levels. As indicated on Figure 10 and Table 5A, bis(2-ethylhexyl)phthalate is the only chemical to have a concentration higher than industrial screening criteria. Of the eight soil samples collected, bis(2-ethyhexyl)phthalate was detected in only one sample. This detection also exceeded the applicable screening criteria.

4.9.3 **Conclusion**

As shown on Figure 10, RFI soil sampling has adequately characterized the lateral and vertical extent of soil contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.10 AOI-10 - Dope Room and Can Wash

This area consists of Buildings 25, 28, 28A, 29 and 55. This area is used for compounding of vinyl dope and other associated activities.

At the time of the Facility walkthrough many heavily stained areas were observed in this area. Two oil-water separators are located in this area which separate phthalate oil from storm water collected on the roof before it enters the storm sewer system. According to Facility personnel, many minor releases have occurred to the floor in this area and it is unknown if these releases made it to the subsurface.

This AOI was investigated during the RFI because of the potential for releases in this area.

4.10.1 **Scope and Results**

RFI activities at AOI-10 included the installation of six soil borings. A total of 13 soil samples were collected.

The soil sample locations and result summary are shown on Figure 10. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.10.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 10 and Table 5A, benzo(a)pyrene and arsenic are the only chemicals to exceed industrial screening criteria. Of the 13 soil samples, benzo(a)pyrene was detected in two soil samples and exceeded applicable screening criteria in one these. Arsenic was detected in all 13 soil samples, however only one sample was above background and exceeded industrial screening criteria.

4.10.3 **Conclusion**

As shown on Figure 10, RFI soil sampling has adequately characterized the lateral and vertical extent of soil contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.11 AOI-11 - Print Finish Department

Building 54 is the Print Finish Department. In this department inks are used to print on vinyl products. Staining was observed around printing equipment in this area.

At the time of the Facility walkthrough the concrete appeared to be in good condition. Some oil staining was also observed under compressor equipment along the western wall of this Building. The floor under these areas was not able to be observed completely. According to Facility personnel many minor releases have occurred to the floor in this area and it is unknown if these releases made it to the subsurface.

This AOI was investigated during the RFI Because of the potential for releases in this area.

4.11.1 **Scope and Results**

RFI activities at AOI-11 included the installation of three soil borings. A total of six soil samples were collected.

The soil sample locations and result summary are shown on Figure 10. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.11.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 10 and Table 5A, all concentrations were below the industrial screening criteria.

4.11.3 **Conclusion**

RFI soil data from AOI-11 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. RFI soil sampling has adequately characterized constituents in soil from this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.12 AOI-12 - Hazardous Waste Storage Room

Building 68 is the current hazardous waste storage area which is known as the "Red Label Room". This area is indoors on a concrete floor.

At the time of the Facility walkthrough no staining or evidence of releases were observed in this area. According to Facility reports, in 2003 an employee punctured a plastic tote containing a pigment and phthalate oil mixture with a fork from a fork lift. One hundred and twenty gallons were spilled and was contained and cleaned up by Facility personnel. In 2007 approximately 20 gallons of silicone fluid was released to the floor of this room. According to Facility documentation the spill was cleaned up and there was no release to the environment due to the existing concrete floor.

This AOI did require further investigation during the RFI.

4.13 AOI-13 - Building 69 the "Pump House" Area

Building 69 is known as the Pump House and it contains the pumps and equipment to transfer the contents of the South UST and AST tank farms (AOI 14 and AOI 15). Materials managed in this area include MEK, THF and various phthalates.

According to Facility personnel, equipment in the Pump House has leaked for at least 30 years. Over the years various pan and dike containment systems have been installed to control the leaks. The asphalt adjacent to the east of the Pump House was replaced due to being eroded by solvent leaks from the Pump House. According to Facility documents two spills occurred in January 2007 releasing a total of 1,200 gallons of Palatinol DPHP plasticizer oil onto the pavement outside the Pump House. Oil dry and a vacuum truck were used to collect the oil from the pavement and the oil did not make it to the storm sewer system. The City of Toledo Department of Environmental Services inspected the spill area at the time of the clean-up. The Ohio EPA Spill ID# for this incident is 0702-48-0432.

At the time of the Facility walkthrough a dike system around the pumping equipment was heavily stained with liquid products. A blind sump equipped with a pump was also located in the corner of the room which was not able to be fully observed.

This AOI was investigated during the RFI because of the documented releases in this area.

4.13.1 Scope and Results

RFI activities at AOI-13 included the installation of five soil borings. A total of 15 soil samples and one groundwater sample were collected.

The soil sample locations and result summary are shown on Figure 11. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.13.2 **Discussion of Results**

Soil results were screened against Industrial Soil Levels. As indicated on Figure 11 and Table 5A, all concentrations were below the industrial screening criteria.

RFI groundwater sampling in AOI-13 has been conducted in piezometer PZ-35. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, concentrations do not exceed applicable criteria.

4.13.3 **Conclusion**

As shown on Figures 11 and 18, RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.14 AOI-14 - South UST Farm

The South UST Farm (the Vinyl Finish Tank Farm) is located to the east of the Pump House (Building 69). Currently six USTs containing MEK and THF, and mixtures of MEK and THF, are located in this area. Formerly there were 20 USTs in this area which were removed in 1990. According to Facility documents, the former USTs contained MEK, plasticizer, dimethylformamide, adsorber steamings, toluene, and THF.

According to Facility documents and Facility personnel interviews, the following information was obtained. During replacement of the USTs in this area in 1990, contamination was noted in the bottom of the excavation. In 1997, approximately 20 gallons of MEK was released onto asphalt during transfer from the solvent recovery building. In 1997, approximately 100 gallons of tetrahydrofuran was released to the asphalt pavement in this area. Facility documents indicate that this release was cleaned up by pumping the storm sewer and stormwater interceptor. In 2001 approximately 50 gallons of MEK was released into the surrounding dike during filling by a delivery truck. In 2003 MEK was released to the secondary containment of the South UST Farm. Approximately 1,250 gallons of MEK was vacuumed out of the area. In 2004 an unknown amount of an unknown liquid was released from a valve associated with UST #16 and the spill was contained according to Facility records.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.14.1 **Scope and Results**

RFI activities at AOI-14 included the installation of three soil borings. A total of seven soil samples and two groundwater samples were collected.

The soil sample locations and result summary are shown on Figure 11. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are

tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.14.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 11 and Table 5A, benzo(a)pyrene is the only chemical that has concentrations higher than industrial screening criteria. Of the seven soil samples, benzo(a)pyrene was detected in one sample. This detection exceeded the applicable criteria.

RFI groundwater sampling in AOI-14 has been conducted at monitoring well MW-14H. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, arsenic exceeds the MCL.

4.14.3 **Conclusion**

As shown on Figures 11 and 18, RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.15 AOI-15 - South AST Farm

The South AST Farm is located to the southeast of Building 69. This tank farm was installed in 1990 and contains six 20,000 gallon ASTs and have contained various plasticizers. This AOI also includes the truck unloading area adjacent to the south of the tank farm and the former rail car unloading area to the east of the tank farm.

In our review of previous reports the following incidents were noted. In 1995, during filling of UST #6 overfilling caused approximately 3,000 gallons of plasticizer to be released into the secondary containment of the tank farm. According to the report no plasticizer was released to the environment. Also in 1995, 256 gallons of plasticizer was released onto the pavement due to overflow during filling. The spill was “power washed/decontaminated.” Three spills in 1999 and 2002 released between 70 and 90 gallons of plasticizer inside the containment area of the AST farm.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.15.1 **Scope and Results**

RFI activities at AOI-15 included the installation of five soil borings. A total of 13 soil samples and one NAPL sample were collected.

The soil sample locations and result summary are shown on Figure 11. The NAPL sample location and result summary is shown in Figure 25B. The soil analytical data are tabulated in

Table 5A. The NAPL analytical data are tabulated in Table 13B. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.15.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 11 and Table 5A, all concentrations were below the industrial screening criteria.

4.15.3 **Conclusion**

RFI soil data from AOI-15 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. However, NAPL primarily comprised of phthalates was identified in PZ-31 (Figure 25B). RFI soil sampling has adequately characterized constituents in soil from this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.16 AOI-16 – Powerhouse

The powerhouse is Building 66 which contains a boiler and other utility related equipment. Releases of diesel fuel and fuel oil have been reported in this area. According to Facility documents, in 2007 an unknown amount of diesel fuel was released during refueling of temporary equipment. In addition, according to site personnel some releases of fuel oil may have occurred from piping connections to the powerhouse.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.16.1 **Scope and Results**

RFI activities at AOI-16 included the installation of five soil borings. A total of nine soil samples were collected.

The soil sample locations and result summary are shown on Figure 11. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.16.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 11 and Table 5A, benzo(a)pyrene is the only chemical that has concentrations higher than industrial screening criteria. Of the nine soil samples, benzo(a)pyrene was detected in two samples. One sample exceeded the applicable criteria.

4.16.3 **Conclusion**

As shown on Figure 11, RFI soil sampling has adequately characterized the lateral and vertical extent of soil contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.17 AOI-17 - Former Fuel Oil AST and Former Hazardous Waste Storage Area

This area is located to the west of the former solvent recovery area and south of Building 53. The following information was obtained from Facility personnel. This area was formerly the location of a fuel oil AST and has been used for storage of hazardous and non-hazardous waste. When the fuel oil AST was operating, the tank was in an earthen berm. The berm is still partially present but has been partially removed for vehicle access. Only minor releases were reported in this area, however, there is a pipe in this area which according to Facility personnel was not drained when the fuel oil tank was removed. This pipe may have been a point of release of oil to the subsurface. The pipe ends at the powerhouse. No other signs of releases were observed at the time of the Facility walkthrough and no information regarding releases to the environment was found in previous reports.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.17.1 Scope and Results

RFI activities at AOI-17 included the installation of four soil borings. A total of seven soil samples were collected.

The soil sample locations and result summary are shown on Figure 12. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.17.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 12 and Table 5A, pentachlorophenol is the only chemical that has concentrations higher than industrial screening criteria. Of the seven soil samples, pentachlorophenol was detected in one sample. This detection exceeded the applicable criteria.

4.17.3 Conclusion

As shown on Figure 12, RFI soil sampling has adequately characterized the lateral and vertical extent of soil contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.18 AOI-18 - Former Fire Training Area

According to Facility personnel some fire training activities occurred in the field to the south of Building 47. Facility personnel familiar with this activity indicated that fire training was only conducted with burning of wooden pallets and indicated that no fire training was conducted on chemical liquids. At the time of the Facility walkthrough no evidence of the fire response training was observed in the grassy lawn. This AOI did not require further investigation during the RFI.

4.19 AOI-19 - Battery Charging Area

The Battery Charging Area located in Building 47 is used to recharge forklift batteries. The trench drain in this area is used to contain overflow of battery fluid from refilling of batteries. According to Facility personnel it is unknown if the trench drain is blind or if it has an outflow. At the time of the Facility walkthrough an apparent outflow or breech of the trench drain was observed.

This AOI was investigated during the RFI because of the potential for releases in this area.

4.19.1 Scope and Results

RFI activities at AOI-19 included the installation of four soil borings. A total of six soil samples were collected.

The soil sample locations and result summary are shown on Figure 10. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.19.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 10 and Table 5A, lead is the only chemical that has concentrations higher than industrial screening criteria. Lead was detected in all six soil samples, however only one sample exceeded background levels and industrial screening levels.

4.19.3 Conclusion

As shown on Figure 10, RFI soil sampling has adequately characterized the lateral and vertical extent of soil contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.20 AOI-20 - Rail Car Unloading Area

The Rail Car Plasticizer Oil Unloading Area is located to the northwest of Building 56. This area has been used for unloading of plasticizer oils from rail cars. Virgin plasticizer brought into the facility via rail was unloaded in this area and was piped to USTs and ASTs throughout the Facility.

According to site personnel and previous reports several releases have occurred in this area. A notable release occurred on 28 February 2007 when approximately 3,500 gallons of Palatinol DPHP plasticizer oil leaked from a hose in the pump house to an area approximately 100 feet south and 300 feet to the west of the pump house. Oil on the surface was removed with a vacuum truck and a 3 to 4 inch layer of soil was excavated. The Ohio EPA oversaw the remedial efforts and the release was assigned Ohio EPA Spill ID# 0702-48-0702. A remedial excavation was performed to remove impacted soils and a secondary containment system has been installed. At the time of the Facility walkthrough one area of stressed vegetation was observed near the southeast corner of the unloading area.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.20.1 **Scope and Results**

RFI activities at AOI-20 included the installation of five soil borings. A total of eight soil samples and two groundwater samples were collected.

The soil sample locations and result summary are shown on Figure 13. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.20.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 13 and Table 5A, benzo(a)pyrene is the only chemical that has concentrations higher than industrial screening criteria. Of the eight soil samples, benzo(a)pyrene was detected in five samples. Three samples exceeded the applicable criteria.

RFI groundwater sampling in AOI-20 has been conducted at monitoring well MW-2TL. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, concentrations at MW-2TL do not exceed the applicable criteria.

4.20.3 **Conclusion**

As shown on Figures 13 and 18, RFI soil and groundwater sampling have adequately characterized constituents found in these media to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.21 AOI-21 - North Former AST Farm and Current AST Farm

The North AST Farm (the Tolex Tank Farm) is located to the northwest of Building 56. Plasticizer oil is currently stored in six ASTs in this area. The tanks are located within a concrete secondary containment area. An underground storage tank farm was previously located in this area which was used for the storage of liquid plasticizer. In 1990 12 USTs were removed and replaced with the 6 ASTs.

Notes from removal of the former USTs in this area indicated free product in the open excavation after removing the USTs. Previous reports indicated that approximately 10 to 20 gallons of plasticizer was released into the secondary containment dike in 1993 from a leak in a hose and that this release was cleaned up with absorbent sand and booms. At the time of the Facility walkthrough a phthalate oil sheen and droplets of phthalates could be seen in water which was in the secondary containment.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.21.1 **Scope and Results**

RFI activities at AOI-21 included the installation of three soil borings and one monitoring well. A total of nine soil samples and three groundwater samples were collected.

The soil sample locations and result summary are shown on Figure 13. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.21.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 13 and Table 5A, all concentrations were below the industrial screening criteria.

RFI groundwater sampling in AOI-21 has been conducted at monitoring wells MW-3TL and MW-1020. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, concentrations do not exceed applicable criteria.

4.21.3 **Conclusion**

RFI soil data from AOI-21 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area, however constituents were detected in groundwater. RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil concentrations in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.22 AOI-22 - Former North Fuel Oil AST Farm

The Former North Fuel Oil AST Farm is located to the north of Building 56. According to Facility personnel these tanks were removed in the early 1990s. There are no known releases from the former fuel oil USTs. At the time of the Facility walkthrough no evidence of releases were observed. Reports of former investigations in this area reported impacted soil and groundwater in this area.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.22.1 **Scope and Results**

RFI activities at AOI-22 included the installation of eight soil borings and one monitoring well. A total of 19 soil samples and three groundwater samples were collected.

The soil sample locations and result summary are shown on Figure 14. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.22.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 14 and Table 5A, aroclor-1248 and bis(2-ethylhexyl)phthalate are the only chemicals that have concentrations higher than industrial screening criteria. Of the 19 soil samples submitted for PCB analysis, aroclor-1248 was detected in seven samples and exceeded screening criteria in three samples. Bis(2-ethylhexyl)phthalate was detected in four of the 19 samples submitted for SVOC analysis. Only one sample exceeded industrial screening criteria.

RFI groundwater sampling in AOI-22 has been conducted at monitoring wells MW-7H and MW-1021. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, bis(2-ethylhexyl)phthalate exceeded the MCL on two sampling events at MW-7H.

4.22.3 **Conclusion**

As shown on Figures 14 and 18, RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater contamination in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.23 AOI-23 - Northern Phthalate Leak Remediation Area

According to Facility personnel a release of phthalates was discovered in this area in the late 1990s when phthalates came to the surface from an underground line in the area north of Building 20 and west of Building 46. Soil was excavated extending from 20 feet west of Building 46 to 15 feet east of Building 48 to 20 feet north of Building 20 to a depth of approximately 8 feet. The extent of phthalate impact was not found, but excavation was halted due to proximity of building walls. A trench drain system was installed in this area to capture remaining phthalate. The drain system was pumped and maintained for a few years but eventually became clogged with sediment.

Facility documentation indicates that approximately 150 gallons of 52-146 plasticizer was spilled in this area in 1981 when a tote slipped off of a fork lift. No record of clean-up was noted in Facility files. At the time of the Facility walkthrough, portions of the drain system could be seen and were apparently clogged with sediment.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.23.1 **Scope and Results**

RFI activities at AOI-23 included the installation of four soil borings, one monitoring well, and one piezometer. A total of 15 soil samples and one groundwater sample were collected.

The soil sample locations and result summary are shown on Figure 15. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are

tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.23.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 15 and Table 5A, all concentrations were below the industrial screening criteria.

RFI groundwater sampling in AOI-23 has been conducted at monitoring well MW-1019. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, concentrations at MW-1019 do not exceed the applicable criteria. However, potential signs of NAPL were observed in MW-1019 and elevated levels of di-n-octyl-phthalate were identified in groundwater during the July 2010 sampling event. Di-n-octyl-phthalate concentrations were observed to be significantly lower in the sample collected during May 2012.

4.23.3 **Conclusion**

RFI soil and groundwater data from AOI-23 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater concentrations in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.24 AOI-24 - South East USTs

In our review of Facility documents we discovered a drawing titled “Storm and Sanitary Sewer Storm” [sic] dated 11-7-97 by SSOE, Inc. which shows 5 USTs were located in the parking lot to the east of Building 66 (the Powerhouse). No record of soil or groundwater investigation was found in our review of Facility documents. According to site personnel these USTs were removed in the late 1970s and that the USTs contained gasoline and likely diesel fuel.

This AOI was investigated during the RFI because of the lack of UST removal confirmation sampling analytical results.

4.24.1 **Scope and Results**

RFI activities at AOI-24 included the installation of three soil borings. A total of six soil samples and three groundwater samples were collected.

The soil sample locations and result summary are shown on Figure 11. The monitoring well locations and groundwater result summary are shown on Figure 18. The analytical data are tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.24.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 11 and Table 5A, all concentrations were below the industrial screening criteria.

RFI groundwater sampling in AOI-24 has been conducted at monitoring well MW-11H. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, concentrations at MW-11H do not exceed the applicable criteria.

4.24.3 **Conclusion**

RFI soil and groundwater data from AOI-24 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. RFI soil and groundwater sampling have adequately characterized the lateral and vertical soil and groundwater concentrations in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.25 AOI-25 - Tolex Courtyard Chiller

According to site personnel a chiller was located outside and to the southwest of Building 51. The chiller has been removed. According to site personnel the former chiller used ethylene glycol and many leaks and spills were known to have occurred from it. At the time of the Facility walkthrough no indication of releases to the environment or USTs were observed and no further information was found in our review of Facility documents.

This AOI was investigated during the RFI because of the reported releases in this area.

4.25.1 **Scope and Results**

RFI activities at AOI-25 included the installation of three soil borings. A total of six soil samples were collected.

The soil sample locations and result summary are shown on Figure 6. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.25.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 6 and Table 5A, all concentrations were below the industrial screening criteria. In addition, ethylene glycol concentrations were below detection limits for all six soil samples.

4.25.3 **Conclusion**

RFI soil data from AOI-25 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. RFI soil sampling has adequately characterized

the lateral and vertical soil concentrations in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.26 AOI-26 - Outpost Outside Storage Area

According to site personnel the outside area adjacent to the south of Building 61 (the Outpost) has been used for storage of obsolete equipment and tanks. Facility personnel also reported that a number of spills of various liquids occurred in this area from the obsolete equipment and tanks.

This AOI was investigated during the RFI because of the evidence of releases in this area.

4.26.1 Scope and Results

RFI activities at AOI-26 included the installation of three soil borings. A total of six soil samples were collected.

The soil sample locations and result summary are shown on Figure 14. The analytical data are tabulated in Table 5A. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.26.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 14 and Table 5A, all concentrations were below the industrial screening criteria.

4.26.3 Conclusion

RFI soil data from AOI-26 do not indicate that a potentially significant release of hazardous constituents to soils has occurred in this area. RFI soil sampling has adequately characterized the lateral and vertical soil concentrations in this area to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.27 AOI-27 - Sitewide Groundwater

Groundwater has been identified in previous investigations and has apparently been impacted by Facility compounds. This AOI has been created to facilitate a site-wide approach to the investigation of groundwater.

This AOI was investigated during the RFI because of the documented releases to groundwater.

4.27.1 Scope and Results

RFI activities at AOI-27 included the installation of nine monitoring wells and five soil borings. A total of 23 soil samples and 23 groundwater samples were collected. In addition to soil and groundwater sampling, three sanitary sewers and five storm sewers were sampled during the RFI because groundwater flow patterns indicate that groundwater discharges to these sewers.

Selected monitoring wells and storm sewers were also sampled subsequent to the RFI, as part of a semi-annual monitoring program for the CA750 determination.

The soil sample locations and result summary are shown on Figure 17. The monitoring well locations and groundwater result summary are shown on Figure 18. Storm and sanitary sewer locations and result summary are shown on Figures 23 and 24. The soil and groundwater analytical data are tabulated in Tables 5A and 8, respectively. The storm and sanitary analytical data are shown in Tables 6 and 7, respectively. The analytical data are tabulated in Tables 5A and 8. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.27.2 **Discussion of Results**

Soil results were screened against Industrial Screening Levels. As indicated on Figure 17 and Table 5A, benzo(a)pyrene is the only chemical that has concentrations higher than industrial screening criteria. Of the 23 soil samples, benzo(a)pyrene was detected in five samples. Three of the five detections exceeded applicable screening criteria.

RFI groundwater sampling in AOI-27 has been conducted at monitoring wells MW-1BBL, MW-1H, MW-1TL, MW-2BBL, MW-3BBL, MW-8H, MW-10H, MW-1001, MW-1002, MW-1003, MW-1004, MW-1005, MW-1006, MW-1007, MW-1008, and MW-1009. Several piezometers were also sampled and include PZ-26, PZ-33, PZ-38, and PZ-43. CA750 semi-annual groundwater sampling was conducted at monitoring wells MW-1015, MW-1016, MW-1018, MW-1019, MW-7H, MW-14H, MW-19H, MW-3TL, PZ-33, and PZ-35 in May 2012 for selected constituents.

Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, concentrations at several locations exceed these criteria and are summarized below:

- Antimony, arsenic, and cadmium exceeded MCLs at several sampling locations. Antimony exceeded MCLs at MW-3BBL, MW-8H, and PZ-38. Arsenic exceeded MCLs at MW-1TL, MW-1001, MW-1002, MW-1003, MW-1004, MW-1006, MW-1008, MW-1009, and PZ-38. Cadmium exceeded MCLs at MW-10H.
- Bis(2-ethylhexyl)phthalate exceeded the MCL at MW-3BBL, MW-8H, MW-1001, MW-1002, MW-1003, MW-1006, MW-1008, MW-1018, and PZ-26.
- PCBs exceeded the MCL at MW-1015.
- Vinyl chloride exceeded the MCL at MW-1TL.

Sanitary sewer locations sampled include SS-102, SS-105, and SS-109. Storm sewer locations sampled include ST-105, ST-105DG, ST-111, ST-121, and ST-122. Storm sewer locations, ST-105DG, ST-111 and ST-121 were sampled in May 2012 as part of the on-going CA750 monitoring program. Storm and sanitary sewer analytical results were screened against Tapwater criteria as a starting point for human health evaluations. Additional evaluation of the storm water data is conducted in Appendix E and includes further human health and ecological

criteria. As indicated on Figures 23 and 24 and Tables 6 and 7, a number of constituents were detected with concentrations at several locations exceed Tapwater criteria. The highlights of the constituent detections are as follows:

- Antimony, arsenic, and thallium exceeded Tapwater at several sampling locations. Antimony exceeded Tapwater criteria at SS-105, SS-109, ST-111, and ST-121. Arsenic concentrations were above applicable criteria at SS-102, SS-105, SS-109, ST-105DG, ST-111, ST-121, and ST-122. Thallium exceeded Tapwater criteria at ST-105DG, ST-111, and ST-121 in samples collected during the May 2012 event. Thallium concentrations were detected below the reporting detection limit and flagged as estimated concentrations. In addition, manganese exceeded Tapwater criteria at SS-105.
- Aroclor-1242 and Aroclor-1248 concentrations were above Tapwater criteria at several storm and sanitary sewer locations. Aroclor-1242 exceeded criteria at SS-105, SS-109, and ST-122 during the July 2010 sampling event and at ST-105 and ST-105DG during the November 2010 sampling event. Concentrations for aroclor-1248 were above criteria at ST-105 during the July and November 2010 events, and at ST-105DG during the May 2012 event.
- Several SVOCs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene, exceeded Tapwater criteria at SS-102, SS-105, and ST-122. Additionally, concentrations of chrysene and naphthalene exceeded at ST-122. Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene exceeded Tapwater criteria at ST-105DG during the May 2012 sampling event.
- VOCs exceeding Tapwater criteria include bromodichloromethane, chloroform, and dibromochloromethane. Concentrations for these analytes were above Tapwater criteria at SS-109 and ST-105.
- Tetrahydrofuran was detected at ST-111 at 33,000 J ug/L in July 2011 and at 6,600/6,800 ug/L in May 2012.

4.27.3 Conclusion

As shown on Figures 17 and 18, RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater contamination for Site-wide to conduct a risk assessment for this AOI. The storm sewer sampling data indicate detections of several constituents. The storm water from the site discharges to the storm sewer main that runs east-west along the expressway and ultimately discharges to Fraleigh Creek. The detection of constituents in storm water indicate that further human health and ecological evaluation is warranted. The risk evaluation, including human health and ecological evaluation of storm water, is presented in Appendix E of this report.

4.28 AOI-28 – Former Sample Print Machines

This AOI was identified during the implementation of Field Event #1. According to Facility maintenance personnel, AOI-28 was the former location of three sample print machines. The machines operated in this area for over 20 years and were relocated to another area approximately 15 years ago.

4.28.1 Scope and Results

RFI activities at AOI-28 included the installation of ten soil borings and one monitoring well. A total of 24 soil samples, one groundwater sample, three sub-slab soil vapor samples, and two indoor air samples were collected.

The soil sample locations and result summary are shown on Figure 16. The monitoring well locations and groundwater result summary are shown on Figure 18. The sub-slab soil vapor locations and result summary are shown on Figure 20. The indoor air locations and result summary are shown on Figure 21. The soil and groundwater analytical data are tabulated in Tables 5A and 8, respectively. The soil vapor and indoor air analytical data are tabulated in Tables 10 and 11, respectively. The analytical data was reviewed and validated, a summary of the validation is provided in Appendix C.

4.28.2 Discussion of Results

Soil results were screened against Industrial Screening Levels. As indicated on Figure 16 and Table 5A, all concentrations were below the industrial screening criteria.

RFI groundwater sampling in AOI-28 has been conducted at monitoring well MW-1022. Groundwater results were compared to MCLs and Vapor Intrusion Screening Values for Industrial Groundwater Targets. As indicated on Figure 18 and Table 8, trichloroethene concentrations at MW-1022 exceeded the MCL and the Industrial Vapor Intrusion Screening Value.

Three sub-slab soil vapor points were installed and sampled in AOI-28. The results were screened against Commercial Vapor Intrusion Screening Levels (VISLs) for Target Sub-Slab and Exterior Soil Gas Concentrations derived using USEPA's VISL calculator, which uses toxicity values current as of May 2012 (values are provided in Attachment A of Appendix E). As can be seen from Figure 20 and Table 10, tetrachloroethene and trichloroethene concentrations from all three sample points exceeded the Commercial VISLs

Two indoor air samples were collected and analyzed from AOI-28 following the investigation of soil vapor. The results were screened against the RSL for Industrial Air. Figure 21 and Table 11 summarize the analytical results. There are no Industrial Air exceedances in indoor air.

4.28.3 Conclusion

As shown on Figures 16 and 18, RFI soil and groundwater sampling have adequately characterized the lateral and vertical extent of soil and groundwater contamination in this area

to conduct a risk assessment for this AOI. The risk evaluation is presented in Appendix E of this report.

4.29 Eastern Property Boundary Investigation

As part of the initial RFI activities at the Site, an investigation was conducted to characterize the potential for the indoor air vapor intrusion pathway to off-site residents along the eastern property boundary. The investigation activities were conducted in accordance with the revised "Eastern Property Boundary Investigation Work Plan", which was submitted to USEPA on March 5, 2010 and conditionally approved by USEPA on May 12, 2010. A summary of the investigation is provided in the "Eastern Property Boundary Investigation Summary and Evaluation Report" dated 20 October 2010, and summarized below. The U.S. EPA requested additional soil vapor samples along the Eastern Property Boundary to confirm the initial results.

4.29.1 Scope of Work

As described in the Work Plan, the initial evaluation of the potential vapor intrusion pathway included a multi-media approach that was based on characterization of potential impacts to soil, groundwater and subsurface vapor along the eastern property boundary. Specifically, the following investigation activities were conducted, in concert with Field Events #1, #2A, and #2B:

New Monitoring Well Installations and Groundwater Sampling: Five shallow monitoring wells (MW-1001 to MW-1005) were installed along the eastern property boundary, the locations of which are shown on Figure 2. The new monitoring wells were installed to target the first water bearing unit (the water table) and well screens were placed to intercept the water table, with screened intervals approximately 5 to 15-ft bgs.

To characterize groundwater quality for vapor intrusion purposes, selected existing monitoring wells, MW-10H, MW-11H and PZ-43 and the five new monitoring wells were sampled. Groundwater samples were analyzed for VOCs, SVOCs, and inorganic parameters, in accordance with the Quality Assurance Project Plan (QAPP) (Appendix F of the RFI Work Plan 2009. Monitoring wells were installed January 2010 and sampled in February 2010. A second round of groundwater samples were collected in July 2010.

Soil Sampling: Two soil samples were collected from each of the new monitoring well locations. One sample was collected from 0 to 2-ft bgs and a second sample was collected from the 8 to 10-ft bgs interval. In addition, samples were collected from intervals two feet above the water table (4 – 6 ft bgs) at four additional soil borings (MW-1001A, 1002A, 1004A, and 1005A) per additional sampling requirements stipulated in the conditional approval of the Work Plan. During sample collection activities, no evidence of contamination was identified via field screening of samples

with a portable PID and visual observations. Therefore, no additional soil samples were collected

Soil Vapor Sampling: The Work Plan identified that four shallow soil gas vapor points would be installed immediately below the existing pavement (0.5 to 2-ft) at the locations shown in Figure 4 to evaluate potential off-site subslab vapor concentrations, in accordance with Operating Procedure 2.5 of the Field Sampling Plan (Appendix E of the RFI Work Plan 2009). However, the location of sample SV-3 was flooded at the time of sampling. Therefore, no soil vapor sample was collected at location SV-3. Consequently, three soil vapor samples were collected.

To confirm the initial results that indicated that there was no evidence that a potentially complete vapor intrusion pathway does not exist at off-site residences near the Eastern Property Boundary, the U.S. EPA requested additional samples along the property boundary. Two additional rounds of soil vapor sampling were conducted in Field Event #2A in February 2011, and Field Event #2B in June 2011. Due to the frozen water in the permanent soil vapor points SV-1, SV-2, and SV-3 during the February 2011 sampling, temporary points were installed adjacent to the permanent points. During the June 2011 sampling in Field Event #2B, an ambient air sample was also collected.

The samples were collected in a laboratory certified clean 1-liter SUMMA® canister (or equivalent) using a certified flow controller calibrated at the laboratory, to a rate of less than 50 ml/min, as detailed in Operating Procedure 5.8 of the Field Sampling Plan (Appendix E of the RFI Work Plan 2009). Leak detection was performed using helium as a tracer gas and a handheld multi-gas leak locater in the field prior to sampling each location, as detailed in Operating Procedure 5.8 of the Field Sampling Plan (Appendix E of the RFI Work Plan 2009). The soil vapor samples were analyzed for VOCs following U.S. EPA Method TO-15.

4.29.2 Investigation Results

Analytical data for the soil, groundwater, and soil vapor samples are presented in Tables 5A, 8, and 9 respectively. The following discussion of investigation results focuses on VOCs, since only VOCs are of interest for evaluating the vapor intrusion exposure pathway.

Soil Data: As indicated in Table 5A and Figure 17, VOCs were detected infrequently in soil and at very low concentrations. Ethylbenzene, toluene, xylenes, and methyl cyclohexane were detected in the 0 – 2 ft bgs sample at location MW-1001 at concentrations between 0.01 (J) mg/kg and 0.07 (J) mg/kg. Toluene and xylenes were detected in the 0-2 ft bgs sample at locations MW-2002 and MW-2005 at concentrations of 0.007 (J) mg/kg to 0.01 (J) mg/kg/. Methyl cyclohexane was detected in the 0 – 2 ft bgs samples at locations MW-1004 and MW-1005 at concentrations of 0.01 (J) mg/kg and 0.04 (J) mg/kg. No VOCs were detected in the 4 – 6 ft bgs or deeper (8 – 10 ft bgs) subsurface soil samples. The results of the soil sampling

and analysis suggest that no sources of VOCs are present within soils along the Eastern Property Boundary.

Groundwater Data: As indicated in Table 14 and Figure 27, VOCs were detected in groundwater at very low concentrations. The majority of detections were recorded during the February 2010 sampling event, primarily at monitoring wells MW-1004 and MW-1005. Six of the fourteen VOCs (2-butanone, 4-methyl-2-pentanone, carbon disulfide, chloroform, methyl acetate, and trichloroethene) were detected during the February groundwater sampling round at concentrations between 1 ug/L and 3 ug/L. Among these compounds, only chloroform and trichloroethene were detected in the July 2010 sampling event, at concentrations of only 0.8 J and 0.2 J ug/L (chloroform at MW-1003 and MW-1005) and 0.3 J ug/L (TCE at MW-1001). The other eight VOCs detected in groundwater were reported at concentrations below 1 ug/L and were only detected during the February 2010 sampling event. All VOCs were below detectable levels in the June 2011 sampling event. Given the low concentrations of the VOCs that were detected, and the lack of detections in the July 2010 and June 2011 sampling events, the results of the groundwater sampling and analysis suggest that no sources of VOCs exist in shallow groundwater along the Eastern Property Boundary. Further, as discussed in Section 3.6, the groundwater flow pattern in the overburden on the eastern side of the Site is towards the west. This indicates that the Eastern Property Boundary area lies on the upgradient side of the site.

Soil Gas Data: Several VOCs were detected in soil gas samples (Table 9 and Figure 19), typically with concentrations less than 1 ppbV or less. All of the detected VOCs were below the residential soil gas screening values, with the exception of bromodichloromethane and chloroform detected in soil gas samples at SV-2 (bromodichloromethane and chloroform) and SV-3 (chloroform). These two constituents were not identified as Site-related and there have been no known releases of these VOCs. The significance of these detections is discussed below.

4.29.3 **Discussion of Results**

As discussed above, the analytical data from soil sampling suggest that a VOC source is not present in soil, as the only detections of VOCs were associated with 10 ug/kg to 70 ug/kg concentrations of toluene, ethylbenzene, xylenes, and methyl cyclohexane in the 0 – 2 ft bgs samples. No VOCs were detected in the deeper 4 – 6 ft bgs or 8 – 10 ft bgs soil samples. These findings indicate it is unlikely that soil is a source medium for a potentially complete vapor intrusion pathway at the off-site residences. Nonetheless, groundwater and soil gas data are evaluated as additional lines of evidence.

Table 14 provides a summary of groundwater analytical data compared to groundwater VISLs (Appendix E, Attachment A). As indicated in Table 14 and Figure 27, chloroform concentrations exceeded the groundwater VISLs in upgradient monitoring wells MW-1002 and MW-1005 during the February 2010 sampling event only. However, subsequent samples collected during the July 2010 and June 2011 groundwater events were below groundwater

VISLs. This indicates that groundwater is not a source of VOCs that could pose a potentially complete vapor intrusion exposure pathway.

Two VOCs (bromodichloromethane and chloroform) were detected in soil gas samples at concentrations greater than the residential soil gas screening values at SV-2 and SV-3 (chloroform only). However, these constituents were only detected in groundwater at concentrations over one order of magnitude lower than the vapor intrusion screening values, and were not detected in any subsurface soil samples. These two constituents were not identified as Site-related and there have been no known releases of these VOCs. Further, the groundwater flow patterns at the site indicate that the Eastern Property Boundary lies on the upgradient side of the Site. Overall, the lines of evidence indicate that the presence of chloroform and dibromochlormethane in soil gas samples collected from locations along the eastern property boundary is not related to the Site. Since no other constituents were detected in soil gas samples at concentrations greater than vapor intrusion screening values, which are protective for residential exposures, it is concluded that the vapor intrusion exposure pathway for off-property receptors is insignificant.

5. SUMMARY

The RFI was conducted at the Site to fulfill one of the requirements of the USEPA Administrative Order on Consent #RCRA-05-2010-0001 effective September 30, 2009 for the Textileather 3729 Twining Street, Toledo, Ohio Facility. The RFI was conducted at the Site in a phased approach, with three main phases of investigation being implemented during the period of January 2010 through August 2011. Field investigations focused on the 26 AOIs designated for investigation in the RFI Work Plan, and one additional area identified during the implementation of the RFI. The findings of the investigations were communicated to USEPA through data reports, meetings and conference calls.

The RFI was designed to evaluate Site conditions, to determine if a release of hazardous waste or hazardous constituents has occurred, and where a potentially significant release is identified, to characterize the nature and extent of hazardous constituents in the environmental media. After each phase, adequacy of the data was evaluated to determine whether additional data collection was warranted. As indicated above, three main field events were conducted to collect soil, surface water, and groundwater data necessary to achieve RFI objectives. When data of sufficient quality and quantity had been collected, the data were used to support decisions regarding the need for interim or corrective measures. A human health assessment is included as Appendix E in this RFI Report to provide a basis for determining whether the presence of these hazardous constituents poses an unacceptable risk to human health and the environment that would warrant corrective measures. The findings of the risk evaluations are summarized below.

5.1 Human Health Risk Evaluation

During the implementation of the RFI, the sampling results for each area were compared with conservative generic risk-based screening criteria to identify whether a potentially significant release of hazardous constituents to the environment has occurred and to asses the adequacy of the characterization of these potentially significant releases. As documented in Section 4 of this report, it was concluded that adequate data had been collected from each AOI and the three additional areas to support a risk evaluation.

The significance of potential exposure to soil at and adjacent to the site was evaluated based on current and reasonably likely future land use conditions, assuming that the site is restricted to industrial/commercial future use and potable and non-potable overburden groundwater use is unlikely on-Site. Potential receptors considered in this evaluation included on-site and off-site routine workers, on-site and off-site construction workers, on-site trespassers and off-site residents.

The human health risk assessment (HHRA), Appendix E, characterized cancer and non-cancer risks associated with potential exposures to soil, storm water, and groundwater under current and possible future commercial/industrial land uses. Under current land use conditions, the results of the HHRA indicate that for adolescent trespassers who may contact unpaved soil and storm water, and for adult maintenance workers who may contact unpaved soil, cancer risks are within the excess lifetime cancer risk range of 10^{-6} to 10^{-4} and non-cancer HI values do not exceed 1. In addition, under the current and

continuing use conditions, there are no complete vapor intrusion exposure pathways associated with the Site. Future use of the Site will be commercial/industrial; the use will be stipulated in a deed restriction that prevents residential development of the Site to occur.

The HHRA evaluated health risks associated with future land use under the assumption that:

- Existing pavement and buildings are removed, thereby making soil accessible for exposure;
- Subsurface soil could be excavated and placed on the ground surface (i.e., becoming surface soil), thereby making is accessible for exposure; and
- Commercial/industrial buildings could be constructed over groundwater containing elevated concentrations of VOCs, thereby making the vapor intrusion exposure pathway potentially complete for future on-property buildings;

The HHRA characterized future land use cancer and non-cancer risks for:

- Future full-time outdoor commercial workers under the assumption that exposure to surface soil and subsurface soil by direct contact and dust and vapor inhalation pathways are complete,
- Future construction workers under the assumption that exposure to surface soil and subsurface soil by direct contact and dust and vapor inhalation exposure pathways are complete, as well direct contact and inhalation exposures to groundwater under the assumption that deep excavation activities are performed, and dermal exposure to NAPL that could be encountered during excavation activities; and
- Future full-time indoor commercial workers under the assumption that: 1) inhalation exposure to vapor in indoor air occurs in new buildings are constructed over groundwater with VOCs, 2) sub-slab soil gas at AOI 28 migrates into the existing building, and 3) contact with NAPL in the Calender Basement occurs.

The results of the HHRA indicate that cancer risks are below or within the excess lifetime cancer risk range of 10^{-6} to 10^{-4} and non-cancer hazard index values are below 1, for all future land use receptor scenarios evaluated, with the exception of:

- Subsurface soils associated with AOI-01,
- Soil gas associated with AOI 28,
- NAPL in the Calender Basement associated with AOI-01, and
- NAPL associated with AOI-15.

The risks associated with AOI-01 subsurface soils and NAPL in the Calender Basement at AOI-01 are attributable to Aroclor-1242. The risks associated with NAPL at AOI-15 are attributable to Aroclor-1242 and bis(2-ethyhexyl)phthalate. The risks associated with soil gas at AOI 28 are associated with tetrachloroethene and trichloroethene under the assumption that soil gas migrates to indoor air. This indicates that, aside from soil gas associated with AOI 28, subsurface soil and NAPL associated with AOI-01, and NAPL associated with AOI-15, commercial/industrial use of the Site can occur without restriction.

REFERENCES

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TABLES

TABLE 1
SUMMARY OF AREAS OF INVESTIGATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Areas of Interest	Area Designation	Summary of Materials Managed	Current/Historic	Further Investigation Recommended	AOI Investigated During Field Event				
					#1	#2	#2A	#2B	#3
AOI-01	PCB Area	- PCBs - Oils	- Historic PCB releases - Active oil use at time of shut down	Yes	SO, GW	SO, GW, ST, SS	GW		IA
AOI-02	Solvent Recovery Area	- Virgin solvents - Waste inks (F003, F005, D001, D007, D008, and D035) - Solvent recovery still bottoms (F005) from on-site and off-site sources - PCBs - Nonhazardous waste - Unknowns	- Active at time of shut down - Historic solvent recycling from off-site sources	Yes	SO	SO, GW			
AOI-03	Oil Interceptor Basins	- Storm water contaminated with oil	- Current	Yes	SO	SO			
AOI-04	Eastern Refuse Handling Area	- Nonhazardous waste (scrap metal, broken wooden pallets, defective or scrap vinyl, and general refuse)	- Active at time of shut down	Yes					
AOI-05	Northern Refuse and Oil Handling Area	- Nonhazardous waste (scrap metal, broken wooden pallets, defective or scrap vinyl, and general refuse) - Used oil	- Active at time of shut down	Yes	SO				
AOI-06	General Refuse Hoppers	- Nonhazardous waste (scrap metal, broken wooden pallets, defective or scrap vinyl, and general refuse)	- Active at time of shut down	No (Inspection Only)					
AOI-07	Container Storage Area	- Waste inks (F003, F005, D001, D007, D008, and D035) and debris	- Active at time of shut down	No (Inspection Only)					
AOI-08	Buildings 2 through 6	- Waste plasticizer and debris (D002, D006, D007, and D008) - Solvents, dyes and other additives	- Active at time of shut down	Yes	SO	SO			
AOI-09	Coater Lines	- Waste plasticizer and debris (D002, D006, D007, and D008) - Solvents, dyes and other additives	- Active at time of shut down	Yes	SO, GW				
AOI-10	Dope Room and Can Wash	- Plasticizers, solvents, inks, dyes and other additives	- Active at time of shut down	Yes	SO				
AOI-11	Print Finish Department	- Inks	- Active at time of shut down	Yes	SO				

TABLE 1
SUMMARY OF AREAS OF INVESTIGATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Areas of Interest	Area Designation	Summary of Materials Managed	Current/Historic	Further Investigation Recommended	AOI Investigated During Field Event				
					#1	#2	#2A	#2B	#3
AOI-12	Hazardous Waste Storage Room	- Waste inks (F003, F005, D001, D007, D008, and D035) and debris - Waste plasticizer and debris (D002, D006, D007, and D008) - Solvent recovery still bottoms (F005) - Other hazardous and non-hazardous wastes	- Active at time of shut down	No					
AOI-13	Building 69	- Solvents and plasticiers	- Active at time of shut down	Yes	SO	SO, GW			
AOI-14	South UST Farm	- Solvents	- Active at time of shut down	Yes	SO	GW			
AOI-15	South AST Farm	- Plasticizers	- Active at time of shut down	Yes	SO	SO			
AOI-16	Powerhouse	- Fuel oil and diesel fuel	- Active at time of shut down	Yes	SO	SO			
AOI-17	Former Fuel Oil AST and Former Hazardous Waste Storage Area	- Fuel oil, waste solvents, waste plasticizers, waste inks and dyes	- Historic	Yes	SO				
AOI-18	Former Fire Response Training Area	- Wooden pallets	- Historic	No					
AOI-19	Battery Charging Area	- Acids and metals	- Active at time of shut down	Yes	SO	SO			
AOI-20	Rail Car Unloading Area	- Plasticizers and solvents	- Active at time of shut down	Yes	SO	SO			
AOI-21	North Former AST Farm and Current AST Farm	- Plasticizers	- Active at time of shut down	Yes	SO	GW			
AOI-22	Former North Fuel Oil AST Farm	- Fuel oil	- Historic	Yes	SO	SO, GW			
AOI-23	Northern Phthalate Leak Remediation Area	- Waste plasticizer	- Historic	Yes	SO, GW	GW			
AOI-24	South East USTs	- Gasoline and diesel fuels	- Historic	Yes	SO				
AOI-25	Tolex Courtyard Chiller	- Ethylene glycol	- Historic	Yes	SO				
AOI-26	Outpost Outside Storage Area	- Unknown	- Historic	Yes	SO				
AOI-27	Site-Wide Groundwater	- NA	- NA	Yes	GW	SO, GW, ST, SS			

TABLE 1
SUMMARY OF AREAS OF INVESTIGATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Areas of Interest	Area Designation	Summary of Materials Managed	Current/Historic	Further Investigation Recommended	AOI Investigated During Field Event				
					#1	#2	#2A	#2B	#3
AOI-28	Former Sample Print Finish Room			Yes	SO	SO		SV	SO, GW, IA
	Background Soil Samples (Additional)	- NA	- NA	Yes	SO				
	Eastern Property Boundary	- NA	- NA	Yes	GW		SV	GW, SV	

Notes and Abbreviations:
SO: Soil
GW: Groundwater
SV: Soil Vapor
IA: Indoor Air
ST: Storm Sewer
SS: Sanitary Sewer

TABLE 2
PARAMETER LIST, ANALYTICAL METHODS AND TARGET QUANTITATION LIMITS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

	CAS #	Analytical Method		Detection Limits Limits[1]			
		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
TCL Volatile Organic Compounds (VOC)							
Acetone	67-64-1	SW8260	SW8260	0.8	10	1.7	10
Benzene	71-43-2	SW8260	SW8260	0.1	5	0.6	5
Bromochloromethane	74-97-5	SW8260	SW8260	0.4	5	0.9	5
Bromodichloromethane	75-27-4	SW8260	SW8260	0.2	5	0.7	5
Bromoform	75-25-2	SW8260	SW8260	0.2	5	0.9	5
Bromomethane	74-83-9	SW8260	SW8260	0.5	5	0.9	5
2-Butanone	78-93-3	SW8260	SW8260	0.5	10	0.5	10
Carbon disulfide	75-15-0	SW8260	SW8260	0.2	5	0.5	5
Carbon tetrachloride	56-23-5	SW8260	SW8260	0.2	5	0.7	5
Chlorobenzene	108-90-7	SW8260	SW8260	0.1	5	0.6	5
Chloroethane	75-00-3	SW8260	SW8260	0.2	5	0.9	5
Chloroform	67-66-3	SW8260	SW8260	0.1	5	0.5	5
Chloromethane	74-87-3	SW8260	SW8260	0.2	5	0.9	5
Cyclohexane	110-82-7	SW8260	SW8260	0.3	10	0.9	10
Dibromochloromethane	124-48-1	SW8260	SW8260	0.1	5	0.6	5
1,2-Dibromo-3-chloropropane	96-12-8	SW8260	SW8260	0.4	10	1.0	10
1,2-Dibromoethane	106-93-4	SW8260	SW8260	0.2	5	0.8	5
1,2-Dichlorobenzene	95-50-1	SW8260	SW8260	0.1	5	0.5	5
1,3-Dichlorobenzene	541-73-1	SW8260	SW8260	0.1	5	0.6	5
1,4-Dichlorobenzene	106-46-7	SW8260	SW8260	0.2	5	0.5	5
Dichlorodifluoromethane	75-71-8	SW8260	SW8260	0.4	5	2.5	5
1,1-Dichloroethane	75-34-3	SW8260	SW8260	0.1	5	0.6	5
1,2-Dichloroethane	107-06-2	SW8260	SW8260	0.2	5	0.6	5
1,1-Dichloroethene	75-35-4	SW8260	SW8260	0.3	5	1.0	5
cis-1,2-Dichloroethene	156-59-2	SW8260	SW8260	0.3	2.5	1.0	5
trans-1,2-Dichloroethene	156-60-5	SW8260	SW8260	0.2	2.5	0.6	5
1,2-Dichloropropane	78-87-5	SW8260	SW8260	0.2	5	0.7	5
cis-1,3-Dichloropropene	10061-01-5	SW8260	SW8260	0.1	5	0.5	5
trans-1,3-Dichloropropene	10061-02-6	SW8260	SW8260	0.1	5	0.6	5
Ethylbenzene	100-41-4	SW8260	SW8260	0.1	5	0.5	5
2-Hexanone	561-78-6	SW8260	SW8260	0.2	10	0.8	10
Isopropylbenzene	98-82-8	SW8260	SW8260	0.1	5	0.5	5
Mehtyl acetate	79-20-9	SW8260	SW8260	0.6	10	0.6	10
Methylene chloride	75-09-02	SW8260	SW8260	0.3	5	0.7	5
Methylcyclohexane	108-87-2	SW8260	SW8260	0.1	10	0.9	10
4-Methly-2-pentanone	108-10-1	SW8260	SW8260	0.3	10	0.7	10
Methyl tert-butyl ether	1634-04-4	SW8260	SW8260	0.2	5	0.5	5
Propyl benzene	103-65-1	SW8260	SW8260	0.1	5	0.6	5
Styrene	100-42-5	SW8260	SW8260	0.1	5	0.6	5
1,1,2,2-Tetrachloroethane	79-34-5	SW8260	SW8260	0.1	5	0.4	5
Tetrachloroethene	127-18-4	SW8260	SW8260	0.2	5	1.2	5
Tetrahydrofuran	109-99-9	SW8260	SW8260	0.7	5	0.8	5
Toluene	108-88-3	SW8260	SW8260	0.1	5	0.7	5
1,2,4-Trichlorobenzene	120-82-1	SW8260	SW8260	0.2	5	0.7	5
1,1,1-Trichloroethane	71-55-6	SW8260	SW8260	0.1	5	0.4	5
1,1,2-Trichloroethane	79-00-5	SW8260	SW8260	0.2	5	0.6	5
Trichloroethene	79-01-6	SW8260	SW8260	0.2	5	1.0	5
Trichlorofluoromethane	75-69-4	SW8260	SW8260	0.2	5	1.3	5
1,1,2-Trichloro-1,2,2-trifluoroetha	76-13-1	SW8260	SW8260	0.2	5	1.5	5
Vinyl Chloride	75-01-4	SW8260	SW8260	0.3	5	1.6	5
Xylenes (total)	1330-20-7	SW8260	SW8260	0.3	10	1.4	10

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TEXTILEATHER FACILITY
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	CAS #	Analytical Method		Detection Limits Limits[1]			
		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
TCL Semi-Volatile Organic Compounds (SVOC)							
Acenapthene	83-32-9	SW8270	SW8270	0.035	10	1.2	330
Acenaphthylene	208-96-8	SW8270	SW8270	0.047	10	1.6	330
Acetophenone	98-86-2	SW8270	SW8270	0.041	10	1.4	330
Anthracene	120-12-7	SW8270	SW8270	0.045	10	1.5	330
Atrazine	1912-24-9	SW8270	SW8270	0.053	10	1.8	330
Benzaldehyde	100-52-7	SW8270	SW8270	0.053	10	1.8	330
Benzo(a)anthracene	56-55-3	SW8270	SW8270	0.064	10	2.1	330
Benzo(b)fluoranthene	205-99-2	SW8270	SW8270	0.064	10	2.1	330
Benoz(k)fluorathene	207-08-9	SW8270	SW8270	0.069	10	2.3	330
Benzo(g,h,I)perylene	191-24-2	SW8270	SW8270	0.096	10	3.2	330
Benzo(a)pyrene	50-32-8	SW8270	SW8270	0.080	10	2.7	330
1,1-Biphenyl	92-52-4	SW8270	SW8270	0.027	10	0.9	330
4-Bromophenylphenyl ether	101-55-3	SW8270	SW8270	0.057	10	1.9	330
Butyl benzyl phthalate	85-68-7	SW8270	SW8270	0.137	10	4.6	330
di-n-Butyl phthalate	87-74-2	SW8270	SW8270	0.074	10	2.5	330
Caprolactam	105-60-2	SW8270	SW8270	0.147	10	4.9	330
Carbazole	86-74-8	SW8270	SW8270	0.048	10	1.6	330
4-Chloroaniline	106-47-8	SW8270	SW8270	0.064	10	2.1	330
bis(2-Chloroethoxy)methane	111-91-1	SW8270	SW8270	0.042	10	1.4	330
bis(2-Chloroethyl)ether	111-44-4	SW8270	SW8270	0.025	10	0.8	330
bis(2-Chloroisopropyl)ether	108-60-1	SW8270	SW8270	0.030	10	1.0	330
4-Chloro-3-methylphenol	59-50-7	SW8270	SW8270	0.070	10	2.3	330
2-Chloronaphthalene	91-58-7	SW8270	SW8270	0.032	10	1.1	330
2-Chlorophenol	95-57-8	SW8270	SW8270	0.058	10	1.9	330
4-Chlorophenyl phenyl ether	7005-72-3	SW8270	SW8270	0.053	10	1.8	330
Chrysene	218-01-9	SW8270	SW8270	0.032	10	1.1	330
Dibenz(a,h)anthracene	53-70-3	SW8270	SW8270	0.094	10	3.1	330
Dibenzofuran	132-64-9	SW8270	SW8270	0.048	10	1.6	330
3,3-Dichlorobenzidine	91-94-1	SW8270	SW8270	0.182	10	6.1	330
2,4-Dichlorophenol	120-83-2	SW8270	SW8270	0.081	10	2.7	330
Diethylphthalate	84-66-2	SW8270	SW8270	0.071	10	2.4	330
2,4-Dimethylphenol	105-67-9	SW8270	SW8270	0.072	10	2.4	330
Dimethylphthalate	121-11-3	SW8270	SW8270	0.055	10	1.8	330
4,6-Dinitro-2-methylphenol	534-52-1	SW8270	SW8270	0.085	25	2.8	830
2,4-Dinitrophenol	51-28-5	SW8270	SW8270	0.072	25	2.4	830
2,4-Dinitrotoluene	121-14-2	SW8270	SW8270	0.128	10	4.3	330
2,6-Dinitrotoluene	606-20-2	SW8270	SW8270	0.099	10	3.3	330
bis(2-Ethylhexyl)phthalate	117-81-7	SW8270	SW8270	0.114	10	3.8	330
Fluoranthene	206-44-0	SW8270	SW8270	0.076	10	2.5	330
Fluorene	86-73-7	SW8270	SW8270	0.047	10	1.6	330
Hexachlorobenzene	118-74-1	SW8270	SW8270	0.074	10	2.5	330
Hexachlorobutadiene	87-68-3	SW8270	SW8270	0.045	10	1.5	330
Hexachlorocyclopentadiene	77-47-4	SW8270	SW8270	0.037	10	1.2	330
Hexachloroethane	67-72-1	SW8270	SW8270	0.030	10	1.0	330
Indeno(1,2,3-cd)pyrene	193-39-5	SW8270	SW8270	0.083	10	2.8	330
Isophorone	78-59-1	SW8270	SW8270	0.059	10	2.0	330
2-Methylnaphthalene	91-57-6	SW8270	SW8270	0.039	10	1.3	330
2-Methylphenol	95-48-7	SW8270	SW8270	0.063	10	2.1	330
4-Methylphenol	106-44-5	SW8270	SW8270	0.053	10	1.8	330
Naphthalene	91-20-3	SW8270	SW8270	0.021	10	0.7	330
2-Nitroaniline	88-74-4	SW8270	SW8270	0.129	25	4.3	830

TABLE 2
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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

	CAS #	Analytical Method		Detection Limits Limits[1]			
		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
TCL Semi-Volatile Organic Compounds (SVOC) (continued)							
3-Nitroaniline	99-09-2	SW8270	SW8270	0.107	25	3.6	830
4-Nitroaniline	100-01-6	SW8270	SW8270	0.136	25	4.5	830
Nitrobenzene	98-95-3	SW8270	SW8270	0.067	10	2.2	330
2-Nitrophenol	88-75-5	SW8270	SW8270	0.096	10	3.2	330
4-Nitrophenol	100-02-7	SW8270	SW8270	0.186	25	6.2	830
N-Nitroso-di-n-propylamine	621-64-7	SW8270	SW8270	0.051	10	1.7	330
N-Nitrosodiphenylamine (dipheny	86-30-6	SW8270	SW8270	0.062	10	2.1	330
di-n-Octyl phthalate	117-84-0	SW8270	SW8270	0.180	10	6.0	330
Pentachlorophenol	87-86-5	SW8270	SW8270	0.120	10	4.0	330
Phenanthrene	85-01-8	SW8270	SW8270	0.053	10	1.8	330
Phenol	108-95-2	SW8270	SW8270	0.059	10	2.0	330
Pyrene	129-00-0	SW8270	SW8270	0.067	10	2.2	330
2,4,5-Trichlorophenol	95-95-4	SW8270	SW8270	0.110	25	3.7	830
2,4,6-Trichlorophenol	88-06-2	SW8270	SW8270	0.092	10	3.1	330
TCL Polychlorinated Biphenyls (PCB)							
Aroclor 1016	12674-11-2	SW8082	SW8082	0.07	1	2.9	33
Aroclor 1221	11104-28-2	SW8082	SW8082	0.07	1	3.1	33
Aroclor 1232	11141-16-5	SW8082	SW8082	0.08	1	3.7	33
Aroclor 1242	53469-21-9	SW8082	SW8082	0.07	1	4.6	33
Aroclor 1248	12672-29-6	SW8082	SW8082	0.08	1	4.5	33
Aroclor 1254	11097-69-1	SW8082	SW8082	0.05	1	5.7	33
Aroclor 1260	11096-82-5	SW8082	SW8082	0.07	1	2.2	33
TAL Metals							
Antimony	7440-36-0	SW6020	SW6020	0.05	60	2	6000
Arsenic	7440-38-2	SW6020	SW6020	0.11	10	4.4	1000
Barium	7440-39-3	SW6020	SW6020	0.18	200	7.2	20000
Beryllium	7440-41-7	SW6020	SW6020	0.12	5	4.8	500
Cadmium	7440-43-9	SW6020	SW6020	0.08	5	3.2	500
Chromium	7440-47-3	SW6020	SW6020	0.08	10	3.2	500
Cobalt	7440-48-4	SW6020	SW6020	0.03	50	1.2	5000
Copper	7440-50-8	SW6020	SW6020	0.07	25	2.8	2500
Lead	7439-92-1	SW6020	SW6020	0.06	3	2.4	300
Manganese	7439-96-5	SW6020	SW6020	0.1	15	4	1500
Mercury	7439-97-6	SW7470	SW7471	0.008	0.2	0.4	100
Nickel	7440-02-0	SW6020	SW6020	0.12	40	4.8	4000
Selenium	7782-49-2	SW6020	SW6020	0.2	5	8	500
Silver	7740-22-4	SW6020	SW6020	0.03	10	1.2	1000
Thallium	7440-28-0	SW6020[4]	SW6020	0.1	1	4	1000
Vanadium	7440-62-2	SW6020	SW6020	0.51	50	20.4	5000
Zinc	7440-66-6	SW6020	SW6020	0.7	20	28	2000
Cyanide (total)	57-12-5	SW9012	SW9012	4	10	80	500

TABLE 2
PARAMETER LIST, ANALYTICAL METHODS AND TARGET QUANTITATION LIMITS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

	CAS #	Analytical Method		Detection Limits Limits[1]			
		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
Glycols							
Ethylene glycol	107-21-1	SW8015	SW8015	2.64	1000	4.3	1000

Notes:

1. Please note that target these quantitation limits are presented for guidance only. Actual quantitation limits are highly matrix dependent and may be elevated due to matrix effects, QA/QC problems and high concentrations of target and non-target analytes.
   Lab MDL - Laboratory Method Detection Limit
   PQL - Target Practical Quantitation Limit

2. TAL Metals aluminum, calcium, iron, magnesium, potassium and sodium will not be analyzed due to the low risk associated with these parameters.

3. TCL VOC and TCL SVOC analysis excludes dioxins, pesticides, and herbicides.

4. Thallium requires SW6020 ICP-MS.

TABLE 3
WELL INSTALLATION SUMMARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Well ID	Ground Surface Elevation (feet)	Casing Reference Elevation (feet above MSL)	Installation Date	Total Depth of Well (feet)	Screened Interval (feet BGS)	Formation of Screened Interval
MW-1001	596.27	595.83	1/12/2010	15	5 - 15	Lacustrine
MW-1002	595.47	595.23	1/13/2010	15	5 - 15	Lacustrine
MW-1003	594.37	594.01	1/13/2010	15	5 - 15	Lacustrine
MW-1004	594.46	594.06	1/13/2010	15	5 - 15	Lacustrine
MW-1005	593.39	592.8	1/14/2010	15	5 - 15	Lacustrine
MW-1006	592.63	592.1	1/14/2010	15	5 - 15	Lacustrine
MW-1007	593.42	593.16	1/11/2010	15	5 - 15	Lacustrine
MW-1008	594.78	594.4	1/12/2010	15	5 - 15	Lacustrine
MW-1009	595.62	595.23	1/12/2010	15	5 - 15	Lacustrine
MW-1015	593.52	593.23	7/14/2010	14	4 - 14	Lacustrine
MW-1016	593.54	593.28	7/14/2010	14.5	4.5 - 14.5	Lacustrine
MW-1017	593.52	593.17	7/14/2010	15	5 - 15	Lacustrine
MW-1018	593.92	593.47	7/15/2010	15	5 - 15	Lacustrine
MW-1019	592.96	592.63	7/13/2010	15	5 - 15	Lacustrine
MW-1020	593.73	593.31	7/15/2010	14	4 - 14	Lacustrine
MW-1021	594.4	594.19	7/13/2010	14	4 - 14	Lacustrine
MW-1022	*	*	7/26/2011	15.3	5 - 15	Lacustrine
MW-1BBL	593.70	593.04	12/1/1992	16	6 - 16	Lacustrine
MW-2BBL	593.14	592.64	12/1/1992	12.5	2.5 - 12.5	Lacustrine
MW-3BBL	595.61	595.3	12/1/1992	12.5	2.5 - 12.5	Lacustrine
MW-4BBL	593.75	593.51	12/1/1992	14	4 - 14	Lacustrine
MW-1H	594.27	593.79	3/4/1995	12	4.8 - 12	Lacustrine
MW-3H	593.09	593.74	3/7/1995	14	4 - 14	Lacustrine
MW-7H	593.55	593.06	N/A	17.41	N/A	Lacustrine
MW-8H	593.36	596.05	3/9/1995	10	5 - 10	Lacustrine
MW-10H	592.98	592.57	3/14/1995	16.2	9.8 - 15.8	Lacustrine
MW-11H	594.39	593.82	3/12/1995	14.7	5.5 - 14.5	Lacustrine
MW-13H	593.31	593.02	3/15/1995	13	8 - 13	Lacustrine
MW-14H	593.81	593.42	3/15/1995	12.5	7.5 - 12.5	Lacustrine
MW-19H	593.56	593	3/8/1995	12	5.5 - 12	Lacustrine
MW-21H	593.17	595.91	3/10/1995	14	7 - 14	Lacustrine
MW-23H	594.17	593.78	3/9/1995	12.2	5.2 - 12.2	Lacustrine
MW-1TL	593.72	593.58	N/A	16.73	N/A	Lacustrine
MW-2TL	593.45	593.2	N/A	16.28	N/A	Lacustrine
MW-3TL	593.46	593.26	N/A	17.06	N/A	Lacustrine
PZ-1	582.6	585.53	N/A	8.3	N/A	Lacustrine
PZ-2	582.6	585.85	N/A	8.58	N/A	Lacustrine
PZ-3	582.6	585.69	N/A	7.24	N/A	Lacustrine
PZ-4	582.6	586.47	N/A	3.1	N/A	Lacustrine
PZ-25	595.05	594.63	8/10/1999	11.75	9 - 19	Lacustrine
PZ-26	595.09	594.81	8/11/1999	17	7 - 17	Lacustrine
PZ-29	595.25	594.98	8/12/1999	16.5	6.5 - 16.5	Lacustrine
PZ-31	594.64	594.19	8/17/1999	14.5	4.5 - 14.5	Lacustrine
PZ-32	593.59	593.08	8/17/1999	14	4 - 14	Lacustrine
PZ-33	594.34	593.92	8/12/1999	16	6 - 16	Lacustrine
PZ-35	594.53	594.25	8/18/1999	14	4 - 14	Lacustrine
PZ-37	593.38	593.05	8/12/1999	16	6 - 16	Lacustrine
PZ-38	593.07	592.61	8/18/1999	14	4 - 14	Lacustrine
PZ-39	589.87	589.56	8/17/1999	14	4 - 14	Lacustrine
PZ-41	593.35	592.84	8/18/1999	14	4 - 14	Lacustrine
PZ-43	593.74	593.21	12/2/1999	26	16 - 26	Lacustrine

TABLE 3
WELL INSTALLATION SUMMARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Well ID	Ground Surface Elevation (feet)	Casing Reference Elevation (feet above MSL)	Installation Date	Total Depth of Well (feet)	Screened Interval (feet BGS)	Formation of Screened Interval
PZ-1010	596.21	596	2/18/2010	19	9 - 19	Lacustrine
PZ-1011	593.494	593.29	2/18/2010	14.5	4.5 - 14.5	Lacustrine
PZ-1012	596.40	596.22	2/22/2010	15	5 - 15	Lacustrine
PZ-1013	593.53	593.34	2/22/2010	14	4 - 14	Lacustrine
PZ-1014	593.55	593.38	2/18/2010	15	5 - 15	Lacustrine
TMW-101	593.74	595.87	5/4/2005	21	11 - 21	Lacustrine
TMW-102	594.37	593.7	5/4/2005	21	11 - 21	Lacustrine
TMW-103	594.49	596.15	5/4/2005	21	11 - 21	Lacustrine

Notes and Abbreviations:
N/A Boring logs unavailable, information unknown.
* Survey pending at time of Table Completion.

TABLE 4
SUMMARY OF RISING HEAD PERMEABILITY TESTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Well Identification	Test Date	Measured Static Water Level (ft)	Well Depth (ft)	Well Casing Radius (ft)	Borehole Radius (ft)	Saturated Thickness (ft)	Screen Length (ft)	Effective Screen Length (ft)	Hydraulic Conductivity[1] (cm/sec)	Screened Unit	Soil Type
MW-1TL[2]	3/3/2011	3.32	17.57	0.083	0.25	14.25	10	10	5.6E-05	Lacustrine	Silty Clay to Clayey Silt
MW-3TL[2]	05/20/11	3.12	17.65	0.083	0.25	14.53	10	10	4.0E-05	Lacustrine	Silty Clay to Clayey Silt
MW-8H	02/24/11	5.03	12.7	0.083	0.25	7.67	5	5	6.0E-06	Lacustrine	Silty Clay to Clayey Silt
MW-10H	03/29/11	5.06	16.08	0.083	0.25	11.02	6	6	1.2E-04	Lacustrine	Silty Clay to Clayey Silt
MW-21H	03/01/11	7.51	16.57	0.083	0.25	9.06	7	7	1.1E-04	Lacustrine	Clayey Silt to Silty Clay
MW-1001	03/03/11	3.9	14.98	0.083	0.25	11.08	10	10	7.2E-07	Lacustrine	Clayey Silt
MW-1002	03/02/11	5.75	14.98	0.083	0.25	9.23	10	9.23	9.9E-07	Lacustrine	Clayey Silt to Silty Clay
MW-1003	03/02/11	1.91	14.96	0.083	0.25	13.05	10	10	4.8E-06	Lacustrine	Silty Clay to Clayey Silt
MW-1004	03/29/11	7.61	14.48	0.083	0.25	6.87	10	6.87	2.8E-06	Lacustrine	Silty Clay to Clayey Silt
MW-1005	03/01/11	5.01	14.53	0.083	0.25	9.52	10	9.52	3.6E-06	Lacustrine	Silty Clay to Clayey Silt
MW-1006	02/24/11	5.1	15.18	0.083	0.25	10.08	10	10	5.9E-06	Lacustrine	Silty Clay to Clayey Silt
MW-1007	03/30/11	2.33	15.13	0.083	0.25	12.8	10	10	2.5E-07	Lacustrine	Lean Clay
MW-1009	05/20/11	8.62	14.73	0.083	0.25	6.11	10	6.11	8.3E-07	Lacustrine	Silty Clay to Clayey Silt
MW-1017	05/20/11	6.13	14.75	0.083	0.25	8.37	10	8.37	7.0E-06	Lacustrine	Silty Clay
MW-1020	05/20/11	2.25	13.81	0.083	0.25	11.56	10	10	2.6E-05	Lacustrine	Silty Clay to Clayey Silt
MW-1021	03/01/11	1.32	13.85	0.083	0.25	12.53	10	10	3.4E-06	Lacustrine	Silty Clay
PZ-35	03/01/11	3.46	13.73	0.083	0.25	10.27	10	10	4.2E-06	Lacustrine	Clay

Notes and Abbreviations:

[1]Determined via the Bouwer-Rice Method.

[2]Installation logs unavailable, well construction specifications assumed for calculation purposes.

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			Background	Background	Background	Background	Background	Background	Background	Background	Background	Background
Location Name			SB-BACK-01	SB-BACK-01	SB-BACK-02	SB-BACK-02	SB-BACK-03	SB-BACK-03	SB-BACK-04	SB-BACK-04	SB-BACK-05	SB-BACK-05
Sample Name			1318-022410-0840	1318-022410-0850	1318-022410-0920	1318-022410-0930	1318-022410-1000	1318-022410-1010	1318-022410-1105	1318-022410-1115	1318-030910-0930	1318-030910-0940
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	**0.37 J**	< 0.5	**1.04**	< 0.5	**0.16 J**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Arsenic, Total	13	1.6	**2.11 J [A]**	**0.75 J**	**1.23 J**	**0.92 J**	**2.44 J [A]**	**1.45 J**	**1.13**	**1.67 [A]**	**1.37**	**2.59 [A]**
Barium, Total	140	190000	**53.4**	**58.9**	**93.3**	**41.6**	**89.8**	**42.8**	**74.1 J**	**34.5 J**	**86.4**	**83.1**
Beryllium, Total	-	2000	**0.34**	**0.37**	**0.33**	**0.26**	**0.66**	**0.3**	**0.53**	**0.21**	**0.62**	**0.47**
Cadmium, Total	1.25	800	**0.67**	**0.27**	**1.44**	**0.17 J**	**0.49**	**0.21**	**0.34**	**0.28**	**0.33**	**0.18 J**
Chromium, Total	22	-	**5.42**	**6.47**	**10.7**	**3.98**	**5.07**	**3.19**	**3.84 J**	**2.97 J**	**9.07**	**11.8**
Cobalt, Total	-	300	**2.95**	**10.9**	**3.05**	**1.91**	**3.53**	**3.97**	**2.03**	**4.29**	**5.91**	**7.27**
Copper, Total	-	41000	**19.3**	**12.8**	**20.1**	**10.2**	**17.9**	**6.55**	**15.9**	**11**	**14.6**	**16.5**
Cyanide	-	140	< 0.1	**0.2**	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**21.3**	**10.3**	**39.5**	**7.42**	**24.8**	**6.07**	**16.4**	**5.82**	**11.7**	**8.43**
Manganese, Total	-	23000	**177**	**653**	**248**	**168**	**147**	**452**	**246**	**229**	**269**	**363**
Mercury, Total	0.13	43	**0.057**	**0.02 J**	**0.069**	**0.02 J**	**0.07**	**0.02 J**	**0.071**	**0.03 J**	**0.03 J**	**0.01 J**
Nickel, Total	33	20000	**9.44**	**19.3**	**10.6**	**8.84**	**7.63**	**15.3**	**4.24**	**12.5**	**12.3**	**22.4**
Selenium, Total	-	5100	**0.6**	**0.29 J**	**0.26 J**	**1.99**	**0.7**	**0.23 J**	**0.24 J**	**0.5**	< 0.5	**0.15 J**
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	**0.1 J**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	< 0.5	**0.11 J**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.24 J**
Vanadium, Total	-	5200	**6.09 J**	**8.41 J**	**8.1 J**	**6.3 J**	**9.36 J**	**4.9 J**	**10.3**	**5.4**	**13.3**	**15.1**
Zinc, Total	90	310000	**43.4**	**31.4**	**182**	**20.3**	**38.1**	**16.5**	**17.7**	**17.9**	**43.6**	**45.9**
Other (%)												
Total Solids	-	-	**79**	**78**	**78**	**79**	**77**	**79**	**83**	**80**	**79**	**78**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 1.01 J	< 0.67 J	< 2.56 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.07 J**	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			Background	Background	Background	Background	Background	Background	Background	Background	Background	Background
Location Name			SB-BACK-01	SB-BACK-01	SB-BACK-02	SB-BACK-02	SB-BACK-03	SB-BACK-03	SB-BACK-04	SB-BACK-04	SB-BACK-05	SB-BACK-05
Sample Name			1318-022410-0840	1318-022410-0850	1318-022410-0920	1318-022410-0930	1318-022410-1000	1318-022410-1010	1318-022410-1105	1318-022410-1115	1318-030910-0930	1318-030910-0940
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.64 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33 J	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	**0.2 J**	< 0.33	**0.5 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	**0.35 J** [A]	< 0.33	**0.81** [A]	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	**0.45 J**	< 0.33	**1.04**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	**0.1 J**	< 0.33	**0.5 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	**0.35 J**	< 0.33	**0.97**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	**0.77**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	**0.47**	< 0.33	**0.91**	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33 J	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33 J	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33
Fluoranthene	-	22000	**0.69**	< 0.33	**1.31**	< 0.33	**0.04 J**	< 0.33	**0.02 J**	< 0.33	**0.05 J**	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	**0.1 J**	< 0.33	**0.4 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33
Nitrobenzene	-	24	< 0.25	< 0.2	< 0.64	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	R	R	R	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.64 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	**0.3 J**	< 0.33	**0.5 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	**0.51**	< 0.33	**1.19**	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.007	< 0.007	< 0.08	< 0.006	< 0.08	< 0.006	< 0.005	< 0.08	< 0.007	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,1-Dichloroethane	-	17	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,1-Dichloroethene	-	1100	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.007	< 0.007	< 0.2	< 0.006	< 0.2	< 0.006	< 0.005	< 0.2	< 0.007	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.08	< 0.01	< 0.08	< 0.01	< 0.01	< 0.08	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.007	< 0.007	< 0.08	< 0.006	< 0.08	< 0.006	< 0.005	< 0.08	< 0.007	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			Background	Background	Background	Background	Background	Background	Background	Background	Background	Background
Location Name			SB-BACK-01	SB-BACK-01	SB-BACK-02	SB-BACK-02	SB-BACK-03	SB-BACK-03	SB-BACK-04	SB-BACK-04	SB-BACK-05	SB-BACK-05
Sample Name			1318-022410-0840	1318-022410-0850	1318-022410-0920	1318-022410-0930	1318-022410-1000	1318-022410-1010	1318-022410-1105	1318-022410-1115	1318-030910-0930	1318-030910-0940
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,2-Dichloropropane	-	4.7	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,3-Dichlorobenzene	-	-	< 0.007	< 0.007	< 0.08	< 0.006	< 0.08	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
1,4-Dichlorobenzene	-	12	< 0.007	< 0.007	< 0.08	< 0.006	< 0.08	< 0.006	< 0.005	< 0.08	< 0.007	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.09 J**	< 0.01 J
Benzene	-	5.4	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Bromodichloromethane	-	1.4	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Bromoform	-	220	< 0.007	< 0.007 J	< 0.007	< 0.006 J	< 0.007	< 0.006 J	< 0.005 J	< 0.08	< 0.007	< 0.005
Bromomethane (Methyl Bromide)	-	32	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Carbon disulfide	-	3700	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	**0.0009 J**	< 0.005
Carbon tetrachloride	-	3	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Chlorobenzene	-	1400	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Chlorobromomethane	-	680	< 0.007	< 0.006	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Chloroethane	-	61000	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.007	< 0.007 J	< 0.007 J	< 0.006 J	< 0.007 J	< 0.006 J	< 0.005	< 0.006	< 0.007	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.08 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005 J
Dichlorodifluoromethane (CFC-12)	-	400	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Isopropylbenzene	-	11000	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
m&p-Xylene	-	-	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0008 J**
Methyl Tert Butyl Ether	-	220	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Methylene chloride	-	960	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
n-Propylbenzene	-	21000	< 0.007 J	< 0.006	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
o-Xylene	-	3000	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Styrene	-	36000	< 0.007 J	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Tetrachloroethene	-	110	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Tetrahydrofuran	-	95000	< 0.007 J	< 0.006 J	< 0.007 J	< 0.006 J	< 0.007 J	< 0.006 J	< 0.005 J	< 0.006 J	< 0.007	< 0.005
Toluene	-	45000	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Trichloroethene	-	6.4	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Vinyl chloride	-	1.7	< 0.007	< 0.007	< 0.007	< 0.006	< 0.007	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			Background	Background	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			SB-BACK-06	SB-BACK-06	MW-1015	MW-1015	MW-1015	MW-1017	MW-1017	MW-1017	PZ-1013	PZ-1013
Sample Name			1318-030910-1005	1318-030910-1015	1318-071410-1310	1318-071410-1315	1318-071410-1320	1318-071410-1025	1318-071410-1030	1318-071410-1035	1318-022210-1200	1318-022210-1210
Sample Date		RSL	3/9/2010	3/9/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.3 - 6.8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	**1.22**	**5.32** [A]	-	-	-	-	-	-	-	-
Barium, Total	140	190000	**60.1**	**101**	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	**0.41**	**0.52**	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	**0.56**	**0.22**	-	-	-	-	-	-	-	-
Chromium, Total	22	-	**6.43**	**11.8**	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	**3.06**	**8.31**	-	-	-	-	-	-	-	-
Copper, Total	-	41000	**40.2**	**16.5**	-	-	-	-	-	-	-	-
Cyanide	-	140	< 0.1	< 0.1	-	-	-	-	-	-	-	-
Lead, Total	37	800	**261**	**9.38**	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	**91**	**590**	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	**0.03 J**	**0.02 J**	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	**6.06**	**26.3**	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	< 0.5	**0.16 J**	-	-	-	-	-	-	-	-
Silver, Total	-	5100	**0.21**	< 0.2	-	-	-	-	-	-	-	-
Thallium, Total	-	10	< 0.5	**0.28 J**	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	**8.07**	**17**	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	**47.4**	**46.7**	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**83**	**79**	**83**	**79**	**79**	**79**	**82**	**80**	**84**	**77**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	< 0.33	< 2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	-	-	< 0.33	< 2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	-	-	< 0.33	< 2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	-	-	< 0.33	**19** [A]	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	-	-	< 0.33	< 2	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	-	-	< 0.33	< 2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	-	-	< 0.33	< 2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			Background	Background	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			SB-BACK-06	SB-BACK-06	MW-1015	MW-1015	MW-1015	MW-1017	MW-1017	MW-1017	PZ-1013	PZ-1013
Sample Name			1318-030910-1005	1318-030910-1015	1318-071410-1310	1318-071410-1315	1318-071410-1320	1318-071410-1025	1318-071410-1030	1318-071410-1035	1318-022210-1200	1318-022210-1210
Sample Date		RSL	3/9/2010	3/9/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.3 - 6.8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.07 J**	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.09 J**	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	**0.07 J**	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	**10.2**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	**0.06 J**	**2.1**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Fluoranthene	-	22000	< 0.33	< 0.33	**0.07 J**	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	**0.1 J**	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.06 J**	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.32	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	R	R
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.006	-	-	-	-	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			Background	Background	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			SB-BACK-06	SB-BACK-06	MW-1015	MW-1015	MW-1015	MW-1017	MW-1017	MW-1017	PZ-1013	PZ-1013
Sample Name			1318-030910-1005	1318-030910-1015	1318-071410-1310	1318-071410-1315	1318-071410-1320	1318-071410-1025	1318-071410-1030	1318-071410-1035	1318-022210-1200	1318-022210-1210
Sample Date		RSL	3/9/2010	3/9/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	7/14/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.3 - 6.8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	< 0.005	< 0.006	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	< 0.005	< 0.006	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01 J	-	-	-	-	-	-	-	-
2-Hexanone	-	1400	< 0.01	< 0.01	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	-	-	-	-	-	-	-	-
Acetone	-	630000	< 0.01	< 0.01 J	-	-	-	-	-	-	-	-
Benzene	-	5.4	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Bromodichloromethane	-	1.4	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Bromoform	-	220	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Carbon disulfide	-	3700	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Chlorobenzene	-	1400	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Chlorobromomethane	-	680	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Chloroethane	-	61000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.006	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	-	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005 J	< 0.006	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Isopropylbenzene	-	11000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
m&p-Xylene	-	-	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Methyl acetate	-	1000000	< 0.01	< 0.01	-	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	< 0.01	< 0.01	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Methylene chloride	-	960	< 0.005	< 0.006	-	-	-	-	-	-	-	-
n-Propylbenzene	-	21000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
o-Xylene	-	3000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Styrene	-	36000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	< 0.005 J	< 0.006	-	-	-	-	-	-	-	-
Toluene	-	45000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.006	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Trichloroethene	-	6.4	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	< 0.005	< 0.006	-	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			PZ-1014	PZ-1014	SB-01-01	SB-01-01	SB-01-01	SB-01-02	SB-01-02	SB-01-02	SB-01-03	SB-01-03
Sample Name			1318-021810-1415	1318-021810-1425	1318-021510-1450	1318-021510-1455	1318-021510-1500	1318-021510-1600	1318-021510-0002	1318-021510-1610	1318-021510-1540	1318-021510-1550
Sample Date		RSL	2/18/2010	2/18/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 7 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 8.8 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**80**	**79**	**93**	**78**	**81**	**95**	**95**	**81**	**97**	**95**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	< 10	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	< 10	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	< 10	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	**100** [A]	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.33	< 10	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	< 10	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	< 10	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 2.56 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.64	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33 J	< 0.33 J	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.64	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.64 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.64	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			PZ-1014	PZ-1014	SB-01-01	SB-01-01	SB-01-01	SB-01-02	SB-01-02	SB-01-02	SB-01-03	SB-01-03
Sample Name			1318-021810-1415	1318-021810-1425	1318-021510-1450	1318-021510-1455	1318-021510-1500	1318-021510-1600	1318-021510-0002	1318-021510-1610	1318-021510-1540	1318-021510-1550
Sample Date		RSL	2/18/2010	2/18/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 7 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 8.8 (ft)
4-Nitrophenol	-	-	< 0.67	< 0.67	< 0.67 J	< 0.64 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	**0.03 J**	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	**0.04 J**	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	**0.04 J**	< 0.33	< 0.33	< 0.64	< 0.33	**0.04 J**	**0.09 J**	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	**0.04 J**	< 0.33	< 0.33	< 0.64	< 0.33	**0.04 J**	**0.09 J**	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	**0.04 J**	< 0.33	< 0.33	< 0.64	< 0.33	**0.03 J**	**0.08 J**	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	**1.31**	< 0.64	< 0.33	**2.2**	**3.8**	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	**0.05 J**	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	**0.09 J**	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	**3.6**	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33
Fluoranthene	-	22000	**0.08 J**	< 0.33	< 0.33	< 0.64	< 0.33	**0.02 J**	**0.09 J**	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33 J	< 0.64 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	**0.03 J**	< 0.33	< 0.33	< 0.64	< 0.33	**0.03 J**	**0.09 J**	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.64	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	R	R	R	R	< 0.33 J	R	R	R
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	**0.05 J**	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	**0.06 J**	< 0.33	< 0.33	< 0.64	< 0.33	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-

TABLE 5A
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TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			PZ-1014	PZ-1014	SB-01-01	SB-01-01	SB-01-01	SB-01-02	SB-01-02	SB-01-02	SB-01-03	SB-01-03
Sample Name			1318-021810-1415	1318-021810-1425	1318-021510-1450	1318-021510-1455	1318-021510-1500	1318-021510-1600	1318-021510-0002	1318-021510-1610	1318-021510-1540	1318-021510-1550
Sample Date		RSL	2/18/2010	2/18/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 7 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 8.8 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	-	-
2-Hexanone	-	1400	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	-	-	-	-	-	-	-
Acetone	-	630000	-	-	-	-	-	-	-	-	-	-
Benzene	-	5.4	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	-	-
Bromoform	-	220	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	3700	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	-	680	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	61000	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	2000	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	-	29000	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	11000	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	-	1000000	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	220	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	-	21000	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	-	-	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	690	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			SB-01-04	SB-01-04	SB-01-04	SB-01-05	SB-01-05	SB-01-05	SB-01-06	SB-01-06	SB-01-06	SB-01-06
Sample Name			1318-021610-1020	1318-021610-1025	1318-021610-1030	1318-063010-1535	1318-063010-1540	1318-063010-1545	1318-063010-1050	1318-063010-1055	1318-063010-1100	1318-063010-0003
Sample Date		RSL	2/16/2010	2/16/2010	2/16/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	FD
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**82**	**80**	**80**	**77**	**76**	**78**	**77**	**76**	**79**	**79**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			SB-01-04	SB-01-04	SB-01-04	SB-01-05	SB-01-05	SB-01-05	SB-01-06	SB-01-06	SB-01-06	SB-01-06
Sample Name			1318-021610-1020	1318-021610-1025	1318-021610-1030	1318-063010-1535	1318-063010-1540	1318-063010-1545	1318-063010-1050	1318-063010-1055	1318-063010-1100	1318-063010-0003
Sample Date		RSL	2/16/2010	2/16/2010	2/16/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	FD
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	**0.41**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	**0.34** [A]	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	**12.5**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	**0.09 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	**0.4**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	**0.94**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	**0.81**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	**0.77**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-

TABLE 5A
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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01
Location Name			SB-01-04	SB-01-04	SB-01-04	SB-01-05	SB-01-05	SB-01-05	SB-01-06	SB-01-06	SB-01-06	SB-01-06
Sample Name			1318-021610-1020	1318-021610-1025	1318-021610-1030	1318-063010-1535	1318-063010-1540	1318-063010-1545	1318-063010-1050	1318-063010-1055	1318-063010-1100	1318-063010-0003
Sample Date		RSL	2/16/2010	2/16/2010	2/16/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	FD
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	-	-
2-Hexanone	-	1400	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	-	-	-	-	-	-	-
Acetone	-	630000	-	-	-	-	-	-	-	-	-	-
Benzene	-	5.4	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	-	-
Bromoform	-	220	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	3700	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	-	680	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	61000	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	2000	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	-	29000	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	11000	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	-	1000000	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	220	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	-	21000	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	-	-	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	690	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-02	AOI-02
Location Name			SB-01-07	SB-01-07	SB-01-07	SB-01-07	SB-01-08	SB-01-08	SB-01-08	SB-01-08	MW-1018	MW-1018
Sample Name			1318-063010-1025	1318-063010-1030	1318-063010-0004	1318-063010-1035	1318-063010-1115	1318-063010-1120	1318-063010-0005	1318-063010-1125	1318-071510-1015	1318-071510-0001
Sample Date		RSL	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	7/15/2010	7/15/2010
Sample Type		Industrial Soil	N	N	SPL	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**97**	**77**	**77**	**77**	**97**	**90**	**90**	**81**	**83**	**77**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.043	< 0.33	< 0.33	< 333	< 333	< 0.6	-	-
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.043	< 0.33	< 0.33	< 333	< 333	< 0.6	-	-
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.043	< 0.33	< 0.33	< 333	< 333	< 0.6	-	-
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.043	< 0.33	< 0.33	**2167 [A]**	**2000 [A]**	**4.3 [A]**	-	-
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.043	< 0.33	< 0.33	< 333	< 333	< 0.6	-	-
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.043	< 0.33	< 0.33	< 333	< 333	< 0.6	-	-
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.043	< 0.33	< 0.33	< 333	< 333	< 0.6	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.87	< 0.67 J	< 0.67 J	< 2.22 J	< 3.7 J	< 0.67 J	< 0.67	< 0.67
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.87	< 0.67	< 0.67	< 2.22	< 3.7	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	-	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.87	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.87	< 0.67	< 0.67	< 2.22	< 3.7	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.87	< 0.67 J	< 0.67 J	< 2.22 J	< 3.7 J	< 0.67 J	< 0.67	< 0.67
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	< 0.43	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.87	< 0.67	< 0.67	< 2.22	< 3.7	< 0.67	< 0.67 J	< 0.67 J

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-02	AOI-02
Location Name			SB-01-07	SB-01-07	SB-01-07	SB-01-07	SB-01-08	SB-01-08	SB-01-08	SB-01-08	MW-1018	MW-1018
Sample Name			1318-063010-1025	1318-063010-1030	1318-063010-0004	1318-063010-1035	1318-063010-1115	1318-063010-1120	1318-063010-0005	1318-063010-1125	1318-071510-1015	1318-071510-0001
Sample Date		RSL	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	7/15/2010	7/15/2010
Sample Type		Industrial Soil	N	N	SPL	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.87	< 0.67 J	< 0.67 J	< 2.22 J	< 3.7 J	< 0.67 J	< 0.67	< 0.67
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.086	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33 J	< 0.33 J	< 0.43	< 0.33 J	< 0.33 J	< 2.22 J	< 3.7 J	< 0.33 J	< 0.33 J	< 0.33 J
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	**0.59**	< 0.33	**0.11 J**	< 0.33	< 0.33	< 2.22	**3.78**	< 0.33	< 0.33	**3.24**
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33 J	< 0.33 J
Carbazole	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	< 0.43	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	**0.05 J**	< 0.43	< 0.33	< 0.33	**3.42 J**	**8.89 J**	**0.1 J**	**1.25**	**16.8**
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33 J	< 0.33 J	< 2.1	< 0.33 J	< 0.33 J	< 2.22 J	< 3.7 J	< 0.33 J	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.26	< 0.2	< 0.2	< 2.22	< 3.7	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 2.22	< 3.7	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	< 0.006	< 0.006
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	-	-	-	-	-	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	< 0.006	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-02	AOI-02
Location Name			SB-01-07	SB-01-07	SB-01-07	SB-01-07	SB-01-08	SB-01-08	SB-01-08	SB-01-08	MW-1018	MW-1018
Sample Name			1318-063010-1025	1318-063010-1030	1318-063010-0004	1318-063010-1035	1318-063010-1115	1318-063010-1120	1318-063010-0005	1318-063010-1125	1318-071510-1015	1318-071510-0001
Sample Date		RSL	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	7/15/2010	7/15/2010
Sample Type		Industrial Soil	N	N	SPL	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	< 0.006	< 0.005
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	< 0.006	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	**0.02**	**0.003 J**
2-Hexanone	-	1400	-	-	-	-	-	-	-	-	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	-	-	-	-	-	< 0.01	< 0.01
Acetone	-	630000	-	-	-	-	-	-	-	-	**0.06**	**0.01**
Benzene	-	5.4	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Bromoform	-	220	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Carbon disulfide	-	3700	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Chlorobromomethane	-	680	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Chloroethane	-	61000	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	< 0.006	< 0.005
cis-1,2-Dichloroethene	-	2000	-	-	-	-	-	-	-	-	< 0.006	< 0.005
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Cyclohexane	-	29000	-	-	-	-	-	-	-	-	< 0.01	< 0.01
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	-	-	-	-	-	< 0.006 J	< 0.005 J
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	-	-	-	-	-	**0.001 J**	< 0.005
Isopropylbenzene	-	11000	-	-	-	-	-	-	-	-	**0.002 J**	**0.003 J**
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	**0.006 J**	**0.003 J**
Methyl acetate	-	1000000	-	-	-	-	-	-	-	-	< 0.01	< 0.01
Methyl cyclohexane	-	-	-	-	-	-	-	-	-	-	**0.0006 J**	**0.007 J**
Methyl Tert Butyl Ether	-	220	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Methylene chloride	-	960	-	-	-	-	-	-	-	-	< 0.006	< 0.005
n-Propylbenzene	-	21000	-	-	-	-	-	-	-	-	< 0.006 J	**0.002 J**
o-Xylene	-	3000	-	-	-	-	-	-	-	-	**0.0009 J**	**0.0005 J**
Styrene	-	36000	-	-	-	-	-	-	-	-	< 0.006 J	< 0.005 J
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Toluene	-	45000	-	-	-	-	-	-	-	-	**0.038**	< 0.005
trans-1,2-Dichloroethene	-	690	-	-	-	-	-	-	-	-	< 0.006	< 0.005
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	< 0.006	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			MW-1018	MW-1018	SB-02-01	SB-02-01	SB-02-01	SB-02-01	SB-02-02	SB-02-02	SB-02-02	SB-02-03
Sample Name			1318-071510-1020	1318-071510-1025	1318-022410-1245	1318-022410-1250	1318-022410-0002	1318-022410-1255	1318-022510-0845	1318-022510-0850	1318-022510-0855	1318-022410-1740
Sample Date		RSL	7/15/2010	7/15/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/25/2010	2/25/2010	2/25/2010	2/24/2010
Sample Type		Industrial Soil	N	N	N	N	FD	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	2.5 - 4 (ft)	2.5 - 4 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.87**
Arsenic, Total	13	1.6	-	-	**1.61 [A]**	< 0.1	**0.75**	**1.93 [A]**	**1.57**	**7.91 [A]**	**1.42**	**1.98 [A]**
Barium, Total	140	190000	-	-	**96.5 J**	**109 J**	**114 J**	**42.1 J**	**86.7 J**	**67.6 J**	**34.2 J**	**95.4 J**
Beryllium, Total	-	2000	-	-	**0.61**	**0.42**	**0.58**	**0.24**	**0.6**	**0.35**	**0.22**	**0.42**
Cadmium, Total	1.25	800	-	-	**0.32**	**0.1 J**	**0.58**	**0.22**	**0.24**	**0.14 J**	**0.16 J**	**1.61**
Chromium, Total	22	-	-	-	**3 J**	**5.83 J**	**5.47 J**	**3.62 J**	**4.25 J**	**5.03 J**	**2.87 J**	**16.6 J**
Cobalt, Total	-	300	-	-	**2.9**	**5.95**	**7.15**	**4.35**	**6.3**	**3.55**	**1.34**	**5.54**
Copper, Total	-	41000	-	-	**14.6**	**10.5**	**13.7**	**12.1**	**15.3**	**12.2**	**6.17**	**18.8**
Cyanide	-	140	-	-	< 0.1	< 0.1	< 0.1	< 0.1	**0.3**	**0.2**	< 0.1	< 0.1
Lead, Total	37	800	-	-	**11.7**	**6.52**	**10.8**	**7.43**	**14.3**	**8.82**	**5.93**	**26.9**
Manganese, Total	-	23000	-	-	**230**	**756**	**1030**	**494**	**553**	**185**	**194**	**475**
Mercury, Total	0.13	43	-	-	**0.069**	**0.03 J**	**0.04 J**	**0.02 J**	**0.03 J**	**0.03 J**	**0.02 J**	**0.113**
Nickel, Total	33	20000	-	-	**4.3**	**12.5**	**12.8**	**12.3**	**9.91**	**8.91**	**6.78**	**14.4**
Selenium, Total	-	5100	-	-	**0.32 J**	**0.26 J**	< 0.5	**0.18 J**	**0.22 J**	**0.21 J**	< 0.5	**0.46 J**
Silver, Total	-	5100	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.11 J**
Vanadium, Total	-	5200	-	-	**11.4**	**6.86**	**8.55**	**6.68**	**12.4**	**9.55**	**4.78**	**11**
Zinc, Total	90	310000	-	-	**18.1**	**33.3**	**30.7**	**21.6**	**23.7**	**29.4**	**13.2**	**109**
Other (%)												
Total Solids	-	-	**77**	**77**	**78**	**81**	**80**	**80**	**79**	**77**	**79**	**79**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2,4,5-Trichlorophenol	-	62000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2,4,6-Trichlorophenol	-	160	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2,4-Dichlorophenol	-	1800	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2,4-Dimethylphenol	-	12000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2,4-Dinitrophenol	-	1200	< 4.33	< 6.49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 8.44 J
2,4-Dinitrotoluene	-	5.5	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2,6-Dinitrotoluene	-	620	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2-Chloronaphthalene	-	82000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2-Chlorophenol	-	5100	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2-Methylnaphthalene	-	2200	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2-Methylphenol	-	31000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
2-Nitroaniline	-	6000	< 4.33	< 6.49	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 2.11
2-Nitrophenol	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
3&4-Methylphenol	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
3,3'-Dichlorobenzidine	-	3.8	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
3-Nitroaniline	-	-	< 4.33	< 6.49	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 2.11
4,6-Dinitro-2-methylphenol	-	49	< 4.33	< 6.49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 2.11 J
4-Bromophenyl phenyl ether	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
4-Chloro-3-methylphenol	-	62000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
4-Chloroaniline	-	8.6	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
4-Chlorophenyl phenyl ether	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 4.33 J	< 6.49 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 2.11

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			MW-1018	MW-1018	SB-02-01	SB-02-01	SB-02-01	SB-02-01	SB-02-02	SB-02-02	SB-02-02	SB-02-03
Sample Name			1318-071510-1020	1318-071510-1025	1318-022410-1245	1318-022410-1250	1318-022410-0002	1318-022410-1255	1318-022510-0845	1318-022510-0850	1318-022510-0855	1318-022410-1740
Sample Date		RSL	7/15/2010	7/15/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/25/2010	2/25/2010	2/25/2010	2/24/2010
Sample Type		Industrial Soil	N	N	N	N	FD	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	2.5 - 4 (ft)	2.5 - 4 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 4.33	< 6.49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 2.11 J
Acenaphthene	-	33000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Acenaphthylene	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Acetophenone	-	100000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Anthracene	-	170000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Atrazine	-	7.5	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Benzaldehyde	-	100000	< 4.33 J	< 6.49 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Benzo(a)anthracene	-	2.1	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Benzo(a)pyrene	-	0.21	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Benzo(b)fluoranthene	-	2.1	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Benzo(g,h,i)perylene	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Benzo(k)fluoranthene	-	21	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Biphenyl	-	210	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
bis(2-Chloroethoxy)methane	-	1800	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
bis(2-Chloroethyl)ether	-	1	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
bis(2-Ethylhexyl)phthalate	-	120	**206 [A]**	**209 [A]**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Butyl benzylphthalate	-	910	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Caprolactam	-	310000	< 4.33 J	< 6.49 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Carbazole	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Chrysene	-	210	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Dibenz(a,h)anthracene	-	0.21	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Dibenzofuran	-	1000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Diethyl phthalate	-	490000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Dimethyl phthalate	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Dimethylformamide	-	62000	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Di-n-butylphthalate	-	62000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Di-n-octyl phthalate	-	7400	**585**	**884**	**0.06 J**	< 0.33	**0.04 J**	**0.08 J**	**0.1 J**	**0.05 J**	**0.04 J**	**66.9 J**
Fluoranthene	-	22000	< 4.33	< 6.49	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Fluorene	-	22000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Hexachlorobenzene	-	1.1	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Hexachlorobutadiene	-	22	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Hexachlorocyclopentadiene	-	3700	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Hexachloroethane	-	43	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Indeno(1,2,3-cd)pyrene	-	2.1	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Isophorone	-	1800	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Naphthalene	-	18	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Nitrobenzene	-	24	< 4.33	< 6.49	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 2.11
N-Nitrosodi-n-propylamine	-	0.25	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
N-Nitrosodiphenylamine	-	350	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Pentachlorophenol	-	2.7	< 4.33	< 6.49	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 2.11 J
Phenanthrene	-	-	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Phenol	-	180000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Pyrene	-	17000	< 4.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 2.11
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.08	< 0.16	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.08
1,1,2-Trichloroethane	-	5.3	< 0.008	< 0.26	< 0.7	< 30 J	< 7 J	< 0.006	< 0.005	< 0.6	< 0.008	< 0.04
1,1-Dichloroethane	-	17	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
1,1-Dichloroethene	-	1100	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.2	< 0.2	< 1	< 2	< 0.006	< 0.005	< 0.005	< 0.005	< 0.2
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.08	< 0.08	< 0.7	< 0.8	< 0.01	< 0.01	< 0.01	< 0.01	< 0.08
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.08	< 0.08	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.08

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			MW-1018	MW-1018	SB-02-01	SB-02-01	SB-02-01	SB-02-01	SB-02-02	SB-02-02	SB-02-02	SB-02-03
Sample Name			1318-071510-1020	1318-071510-1025	1318-022410-1245	1318-022410-1250	1318-022410-0002	1318-022410-1255	1318-022510-0845	1318-022510-0850	1318-022510-0855	1318-022410-1740
Sample Date		RSL	7/15/2010	7/15/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/25/2010	2/25/2010	2/25/2010	2/24/2010
Sample Type		Industrial Soil	N	N	N	N	FD	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	2.5 - 4 (ft)	2.5 - 4 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
1,2-Dichloropropane	-	4.7	< 0.005	< 0.08	< 0.006	< 1 J	< 0.8 J	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
1,3-Dichlorobenzene	-	-	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
1,4-Dichlorobenzene	-	12	< 0.005	< 0.08	< 0.08	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.08
2-Butanone (Methyl Ethyl Ketone)	-	200000	**0.004 J**	< 1	**0.07 J**	< 10 J	< 10 J	< 0.01 J	**0.004 J**	< 0.01	< 0.01	< 0.01 J
2-Hexanone	-	1400	< 0.01	< 4	< 0.15	R	R	< 0.01	< 0.01	< 0.16	< 0.01	< 0.02
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 4	< 0.01	< 40	< 40	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	**0.02**	< 1	**0.2 J**	< 10 J	< 10	< 0.01 J	**0.02**	**0.02**	< 0.01	**0.06 J**
Benzene	-	5.4	< 0.005	< 0.08	**0.004 J**	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	**0.002 J**
Bromodichloromethane	-	1.4	< 0.005	< 0.08	< 0.05	< 0.7	< 0.8	< 0.006	< 0.005	< 0.09	< 0.005	< 0.006
Bromoform	-	220	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005 J	< 0.005 J	< 0.005 J	< 0.006
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.4	< 0.006	< 4	< 4	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Carbon disulfide	-	3700	< 0.005	< 0.4	**0.002 J**	< 4	< 4	**0.0006 J**	< 0.005	**0.0004 J**	< 0.005	**0.0009 J**
Carbon tetrachloride	-	3	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Chlorobenzene	-	1400	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Chlorobromomethane	-	680	< 0.005	< 0.08	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Chloroethane	-	61000	< 0.005	< 0.4	< 0.006	< 4	< 4	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.4	< 0.006	< 4	< 4	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Cyclohexane	-	29000	< 0.01	< 0.08	< 0.01 J	< 0.7 J	< 0.8 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005 J	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.08	< 0.006	< 0.7 J	< 0.8 J	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006 J
Isopropylbenzene	-	11000	**0.003 J**	**0.02 J**	**0.255**	**0.9 J**	**0.4 J**	**0.022**	< 0.005	**0.002 J**	< 0.005	**0.009 J**
m&p-Xylene	-	-	**0.003 J**	< 0.08	< 0.015	< 0.7	< 0.8	**0.0008 J**	< 0.005	< 0.005	< 0.005	**0.005 J**
Methyl acetate	-	1000000	< 0.01	< 4	< 0.02	< 40	< 40	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J
Methyl cyclohexane	-	-	**0.009 J**	< 0.11	< 0.8	**56.6 J**	**14.9 J**	< 0.01	< 0.01	< 0.6	**0.03**	**0.04 J**
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.4	< 0.006	< 4	< 4	< 0.006	< 0.005	< 0.005	**0.001 J**	< 0.006
Methylene chloride	-	960	< 0.005	< 0.4	< 0.006	< 4	< 4	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
n-Propylbenzene	-	21000	**0.002 J**	**0.02 J**	**0.319**	**0.207 J**	**0.453 J**	**0.003 J**	< 0.005	**0.001 J**	**0.0006 J**	**0.005 J**
o-Xylene	-	3000	**0.0006 J**	< 0.08	< 0.006	< 0.7 J	< 0.8 J	< 0.006	< 0.005	< 0.005	< 0.005	**0.003 J**
Styrene	-	36000	< 0.005 J	< 0.08 J	< 0.006	< 0.7 J	< 0.8 J	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Tetrachloroethene	-	110	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Tetrahydrofuran	-	95000	< 0.005	< 0.8	< 0.006 J	< 0.08 J	< 0.05 J	< 0.006 J	< 0.005 J	**0.016 J**	< 0.005 J	< 0.006 J
Toluene	-	45000	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	**0.003 J**
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Trichloroethene	-	6.4	< 0.005	< 0.08	< 0.006	< 0.7	< 0.8	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.2	< 0.006	< 1	< 2	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	< 0.2	< 0.006	< 1	< 2	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Vinyl chloride	-	1.7	< 0.005	< 0.2	< 0.006	< 1	< 2	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-03	SB-02-03	SB-02-04	SB-02-04	SB-02-04	SB-02-05	SB-02-05	SB-02-06	SB-02-06	SB-02-07
Sample Name			1318-022410-1745	1318-022410-1750	1318-022410-1710	1318-022410-1715	1318-022410-1720	1318-022410-1600	1318-022410-1610	1318-022510-1005	1318-022510-1015	1318-022510-0935
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	3.5 - 4 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	**2.75**	**0.22 J**	< 0.5	**1.23**	< 0.5	**0.22 J**	< 0.5	**5.43**
Arsenic, Total	13	1.6	**0.36**	**2.41 [A]**	**4.4 [A]**	**1.75 [A]**	**3.02 [A]**	**1.2**	**1.38**	**1.5**	**0.45**	**2.64 [A]**
Barium, Total	140	190000	**111 J**	**48.8 J**	**163 J**	**68.7 J**	**76.1 J**	**20 J**	**59.4 J**	**78.6 J**	**58.4 J**	**106 J**
Beryllium, Total	-	2000	**0.62**	**0.33**	**0.54**	**0.57**	**0.32**	< 0.2	**0.39**	**0.44**	**0.23**	**0.32**
Cadmium, Total	1.25	800	**0.17 J**	**0.31**	**2.33**	**0.45**	**0.17 J**	**1.92**	**0.43**	**4.11**	**0.32**	**2.27**
Chromium, Total	22	-	**7.15 J**	**5.69 J**	**10.5 J**	**4.08 J**	**4.58 J**	**1.67 J**	**4.43 J**	**5.05 J**	**4.67 J**	**6.56 J**
Cobalt, Total	-	300	**6.99**	**6.31**	**4.54**	**4.7**	**3.84**	**1.47**	**3.9**	**5.27**	**3.31**	**2.53**
Copper, Total	-	41000	**10.8**	**16.4**	**18.3**	**22.7**	**13.3**	**7.78**	**13.7**	**22.8**	**12.4**	**19.2**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	**0.3**
Lead, Total	37	800	**7.05**	**11.5**	**56.6**	**14.9**	**8.91**	**6.76**	**7.99**	**14.5**	**7.18**	**34.4**
Manganese, Total	-	23000	**753**	**513**	**161**	**259**	**226**	**79.4**	**446**	**472**	**429**	**172**
Mercury, Total	0.13	43	**0.04 J**	**0.03 J**	**0.225**	**0.03 J**	**0.04 J**	**0.188**	**0.03 J**	**0.059**	**0.02 J**	**0.41**
Nickel, Total	33	20000	**14.7**	**16**	**9.27**	**10.3**	**9.29**	**4.21**	**13.2**	**8.07**	**8.86**	**5.97**
Selenium, Total	-	5100	< 0.5	< 0.5	**0.49 J**	**0.32 J**	**0.26 J**	< 0.5	**0.36 J**	**0.27 J**	**0.21 J**	**0.14 J**
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	**0.11 J**	< 0.2	< 0.2	**0.1 J**	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	< 0.5	**0.11 J**	< 0.5	< 0.5	**0.11 J**	< 0.5	**0.1 J**	< 0.5	**0.12 J**	< 0.5
Vanadium, Total	-	5200	**9.06**	**10.6**	**10.7**	**13**	**9.21**	**1.65**	**8.77**	**9.54**	**9.36**	**5.03**
Zinc, Total	90	310000	**33.6**	**35.9**	**72.5**	**26**	**30.7**	**28.6**	**23.8**	**59.9**	**18.2**	**111**
Other (%)												
Total Solids	-	-	**83**	**78**	**85**	**80**	**77**	**91**	**80**	**80**	**80**	**88**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 8.03 J	< 0.67 J	< 0.67 J	< 0.67 J	< 43.26 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 2.01	< 0.33	**0.2 J**	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 2.01	< 0.67	< 0.67	< 0.67	< 10.82	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 2.01	< 0.33	**0.2 J**	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 2.01	< 0.67	< 0.67	< 0.67	< 10.82	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 2.01 J	< 0.67 J	< 0.67 J	< 0.67 J	< 10.82 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 2.01	< 0.67	< 0.67	< 0.67	< 10.82	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-03	SB-02-03	SB-02-04	SB-02-04	SB-02-04	SB-02-05	SB-02-05	SB-02-06	SB-02-06	SB-02-07
Sample Name			1318-022410-1745	1318-022410-1750	1318-022410-1710	1318-022410-1715	1318-022410-1720	1318-022410-1600	1318-022410-1610	1318-022510-1005	1318-022510-1015	1318-022510-0935
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	3.5 - 4 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 2.01 J	< 0.67 J	< 0.67 J	< 0.67 J	< 10.82 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.36**	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 2.01	< 0.33	**0.04 J**	< 0.33	< 10.82	**0.9**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 2.01	< 0.33	**0.05 J**	< 0.33	< 10.82	**1.17** [A]	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 2.01	< 0.33	**0.06 J**	< 0.33	< 10.82	**1.1**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 2.01	< 0.33	**0.03 J**	< 0.33	< 10.82	**0.43**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 2.01	< 0.33	**0.04 J**	< 0.33	< 10.82	**1**	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 2.01	< 0.33	**4.65**	< 0.33	**598** [A]	**24.6**	< 0.33	< 0.33	< 0.33	**6.43**
Butyl benzylphthalate	-	910	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.47**	< 0.33	< 0.33	< 0.33	**0.55**
Caprolactam	-	310000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 2.01	< 0.33	**0.08 J**	**0.03 J**	< 10.82	**1.4**	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 2.01	< 0.33	**0.03 J**	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	< 2.01	< 0.33	< 0.33	< 0.33	< 6.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-butylphthalate	-	62000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**165 J**	**7.62 J**	**9.75 J**	< 0.33	**861 J**	**1.85 J**	< 0.33	**0.06 J**	**0.04 J**	< 0.33
Fluoranthene	-	22000	< 2.01	< 0.33	**0.2 J**	**0.05 J**	< 10.82	**2.84**	< 0.33	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.42**	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 2.01	< 0.33	**0.1 J**	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 2.01	< 0.2	< 0.2	< 0.2	< 10.82	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 2.01 J	< 0.33 J	< 0.33 J	< 0.33 J	< 10.82 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 2.01	< 0.33	**0.2 J**	< 0.33	< 10.82	**1.26**	< 0.33	< 0.33	< 0.33	**0.04 J**
Phenol	-	180000	< 2.01	< 0.33	< 0.33	< 0.33	< 10.82	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 2.01	< 0.33	**0.1 J**	**0.04 J**	< 10.82	**2.12**	< 0.33	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.05	< 0.01	< 0.08	< 0.03	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,1-Dichloroethane	-	17	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,1-Dichloroethene	-	1100	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-03	SB-02-03	SB-02-04	SB-02-04	SB-02-04	SB-02-05	SB-02-05	SB-02-06	SB-02-06	SB-02-07
Sample Name			1318-022410-1745	1318-022410-1750	1318-022410-1710	1318-022410-1715	1318-022410-1720	1318-022410-1600	1318-022410-1610	1318-022510-1005	1318-022510-1015	1318-022510-0935
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/24/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	3.5 - 4 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dichloropropane	-	4.7	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,3-Dichlorobenzene	-	-	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
1,4-Dichlorobenzene	-	12	< 0.005	< 0.006	**0.0006 J**	**0.001 J**	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	**0.009 J**	< 0.01 J	**0.02 J**	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01	< 0.01 J	< 0.01
2-Hexanone	-	1400	< 0.04	< 0.01	< 0.03	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	**0.04**	< 0.01 J	**0.07 J**	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	**0.007 J**	< 0.01 J	< 0.01
Benzene	-	5.4	< 0.005	< 0.006	**0.009**	< 0.006	< 0.007	**0.0003 J**	< 0.006	< 0.005	**0.001 J**	< 0.005
Bromodichloromethane	-	1.4	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Bromoform	-	220	< 0.005 J	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005 J	< 0.006	< 0.005 J
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Carbon disulfide	-	3700	< 0.005	**0.001 J**	< 0.005	**0.001 J**	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Carbon tetrachloride	-	3	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Chlorobenzene	-	1400	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Chlorobromomethane	-	680	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Chloroethane	-	61000	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	**0.0005 J**	< 0.006	**0.0007 J**	< 0.006	< 0.005
Isopropylbenzene	-	11000	**0.007**	**0.002 J**	**0.013 J**	**0.014**	**0.003 J**	< 0.005 J	< 0.006	< 0.005	< 0.006	< 0.005
m&p-Xylene	-	-	< 0.005	**0.001 J**	**0.004 J**	**0.004 J**	**0.0007 J**	**0.0007 J**	< 0.006	**0.0005 J**	< 0.006	< 0.005
Methyl acetate	-	1000000	< 0.01	< 0.01	**0.003 J**	< 0.01	< 0.01	**0.005 J**	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	**0.02**	**0.005 J**	**0.06 J**	**0.02 J**	**0.006 J**	**0.0007 J**	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Methylene chloride	-	960	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
n-Propylbenzene	-	21000	**0.003 J**	< 0.006	**0.009 J**	**0.009**	**0.001 J**	< 0.005 J	< 0.006	< 0.005	< 0.006	< 0.005
o-Xylene	-	3000	< 0.005	< 0.006	**0.001 J**	**0.0009 J**	< 0.007	**0.0003 J**	< 0.006	< 0.005	< 0.006	< 0.005
Styrene	-	36000	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Tetrachloroethene	-	110	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	**0.0006 J**	< 0.006	< 0.005	< 0.006	< 0.005
Tetrahydrofuran	-	95000	< 0.005 J	< 0.006 J	< 0.005 J	**0.007 J**	< 0.007 J	**0.011 J**	< 0.006 J	< 0.005 J	< 0.006 J	< 0.005 J
Toluene	-	45000	**0.0005 J**	< 0.006	**0.033**	**0.001 J**	**0.0009 J**	**0.001 J**	< 0.006	< 0.005	< 0.006	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Trichloroethene	-	6.4	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Vinyl chloride	-	1.7	< 0.005	< 0.006	< 0.005	< 0.006	< 0.007	< 0.005	< 0.006	< 0.005	< 0.006	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-07	SB-02-07	SB-02-08	SB-02-08	SB-02-08	SB-02-09	SB-02-09	SB-02-09	SB-02-10	SB-02-10
Sample Name			1318-022510-0940	1318-022510-0945	1318-022510-1110	1318-022510-1115	1318-022510-1120	1318-022510-1340	1318-022510-1345	1318-022510-1350	1318-022510-1210	1318-022510-1215
Sample Date		RSL	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	6.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	**7.93**	< 0.5	< 0.5	**3.79**	< 0.5	< 0.5	< 0.5	< 0.5
Arsenic, Total	13	1.6	**8.41** [A]	**1.79** [A]	**3.17** [A]	**0.9**	**2.63** [A]	**2.43** [A]	**0.69**	**2.47** [A]	**0.58**	**0.36**
Barium, Total	140	190000	**59.3 J**	**56.2 J**	**80.4**	**79**	**63.9**	**48.4**	**88.3**	**70.8**	**96.5**	**90.4**
Beryllium, Total	-	2000	**0.35**	**0.25**	**0.45**	**0.52**	**0.33**	**0.45**	**0.47**	**0.49**	**0.52**	**0.34**
Cadmium, Total	1.25	800	**0.19 J**	**0.13 J**	**0.26**	**0.22**	**0.21**	**0.31**	**0.33**	**0.75**	**0.81**	**0.11 J**
Chromium, Total	22	-	**5.29 J**	**4.72 J**	**4.8**	**4.77**	**4.43**	**6.82**	**4.23**	**5.92**	**4.61**	**5.07**
Cobalt, Total	-	300	**6.17**	**3.01**	**5.97**	**5.09**	**8.3**	**1.86**	**4.16**	**9.07**	**3.33**	**5.51**
Copper, Total	-	41000	**16.8**	**14.4**	**21**	**18.8**	**17.6**	**35.4**	**12.2**	**25.1**	**16.9**	**9.71**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**7.82**	**8.69**	**26.1**	**12.1**	**10**	**143**	**9.31**	**18.5**	**9.99**	**9.3**
Manganese, Total	-	23000	**353**	**265**	**483**	**606**	**912**	**144**	**337**	**342**	**154**	**215**
Mercury, Total	0.13	43	**0.02 J**	**0.02 J**	**0.03 J**	**0.03 J**	**0.02 J**	**0.093**	**0.03 J**	**0.02 J**	**0.075**	**0.02 J**
Nickel, Total	33	20000	**15.8**	**10.2**	**12.3**	**11.5**	**15**	**4.61**	**8.14**	**16.2**	**5.66**	**8.13**
Selenium, Total	-	5100	< 0.5	< 0.5	**0.25 J**	**0.38 J**	**0.13 J**	**0.13 J**	< 0.5	**0.21 J**	**0.29 J**	< 0.5
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	**0.11 J**	**0.1 J**	< 0.5	< 0.5	**0.1 J**	< 0.5	< 0.5	**0.1 J**	< 0.5	< 0.5
Vanadium, Total	-	5200	**10.8**	**8.78**	**8.11**	**11.7**	**11.2**	**6.38**	**9.54**	**15.5**	**3.32**	**4.74**
Zinc, Total	90	310000	**35.2**	**26**	**43.4**	**27.6**	**30.6**	**58.1**	**26.8**	**31.1**	**391**	**34.9**
Other (%)												
Total Solids	-	-	**80**	**80**	**83**	**80**	**78**	**85**	**82**	**78**	**79**	**79**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	**0.4 J**	**0.2 J**
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 1.18 J	< 0.67 J	< 0.67 J	< 3.38 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	< 0.33	< 0.84	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	**1.65**	**0.07 J**	< 0.33	< 0.84	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**2.5**	< 0.33	**4.49**	**2.83**
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.84	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**2.14**	< 0.33	**3.12**	**2.79**
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.84	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.84 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.84	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-07	SB-02-07	SB-02-08	SB-02-08	SB-02-08	SB-02-09	SB-02-09	SB-02-09	SB-02-10	SB-02-10
Sample Name			1318-022510-0940	1318-022510-0945	1318-022510-1110	1318-022510-1115	1318-022510-1120	1318-022510-1340	1318-022510-1345	1318-022510-1350	1318-022510-1210	1318-022510-1215
Sample Date		RSL	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	6.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.84 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.84	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.99**	< 0.33	< 0.84	**0.59**
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.84	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Dimethylformamide	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Di-n-octyl phthalate	-	7400	**0.3 J**	**0.1 J**	**0.1 J**	**0.64**	**0.57**	< 0.33	< 0.33	< 0.33	**20.4**	**0.74**
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.09 J**	< 0.33	< 0.33	< 0.84	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Naphthalene	-	18	< 0.33	**0.09 J**	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.84	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.29	< 0.2	< 0.2	< 0.84	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	R	R	R	< 0.84	< 0.33
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.84 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**1.11**	< 0.33	< 0.33	< 0.84	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.84	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
1,1,2,2-Tetrachloroethane	-	2.8	< 0.03	< 0.07	< 0.006	< 0.7	< 0.006 J	< 0.006	< 7	< 0.006	< 0.04	< 0.8
1,1,2-Trichloroethane	-	5.3	< 0.08	< 0.006	< 0.006	< 4	< 0.006	< 0.006	< 7	< 0.006	< 1.4	< 4
1,1-Dichloroethane	-	17	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
1,1-Dichloroethene	-	1100	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
1,2,4-Trichlorobenzene	-	99	< 0.006	< 0.1	< 0.006	< 1	< 0.006 J	< 0.006	< 10	< 0.006	< 0.005	< 2
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.07	< 0.01	< 0.7	< 0.01 J	< 0.01	< 7	< 0.01	< 0.01	< 0.8
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
1,2-Dichlorobenzene	-	9800	< 0.006	< 0.07	< 0.006	< 0.7	< 0.006 J	< 0.006	< 7	< 0.006	**0.004 J**	< 0.8

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-07	SB-02-07	SB-02-08	SB-02-08	SB-02-08	SB-02-09	SB-02-09	SB-02-09	SB-02-10	SB-02-10
Sample Name			1318-022510-0940	1318-022510-0945	1318-022510-1110	1318-022510-1115	1318-022510-1120	1318-022510-1340	1318-022510-1345	1318-022510-1350	1318-022510-1210	1318-022510-1215
Sample Date		RSL	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	6.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)
1,2-Dichloroethane	-	2.2	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
1,2-Dichloropropane	-	4.7	< 0.006	< 0.015	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.08	< 0.8
1,3-Dichlorobenzene	-	-	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006 J	< 0.006	< 7	< 0.006	**0.0004 J**	< 0.8
1,4-Dichlorobenzene	-	12	< 0.006	< 0.07	< 0.006	< 0.7	< 0.006 J	< 0.006	< 7	< 0.006	**0.003 J**	< 0.8
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01 J	< 0.01 J	< 0.01 J	< 10	< 0.01 J	< 0.01 J	< 100	< 0.01 J	< 0.05	< 10
2-Hexanone	-	1400	< 0.03	< 0.01	< 0.01	< 40	< 0.01	< 0.01	< 400	< 0.01	< 0.3	< 40
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 40	< 0.01	< 0.01	< 400	**0.01**	< 0.6	< 40
Acetone	-	630000	< 0.01 J	< 0.01 J	< 0.01 J	< 10 J	< 0.01 J	< 0.01	< 100 J	< 0.01	< 0.01	< 10 J
Benzene	-	5.4	< 0.006	**0.011 J**	< 0.006	< 0.7	< 0.006	< 0.006	**0.8 J**	**0.003 J**	**0.076**	**0.2 J**
Bromodichloromethane	-	1.4	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.15	< 0.8
Bromoform	-	220	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005 J	< 0.8
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.006	< 0.006	< 4	< 0.006	< 0.006	< 40	< 0.006	< 0.005	< 4
Carbon disulfide	-	3700	**0.001 J**	< 0.006	< 0.006	< 4	< 0.006	< 0.006	< 40	< 0.006	**0.001 J**	< 4
Carbon tetrachloride	-	3	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
Chlorobenzene	-	1400	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
Chlorobromomethane	-	680	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005
Chloroethane	-	61000	< 0.006	< 0.006	< 0.006	< 4	< 0.006	< 0.006	< 40	< 0.006	< 0.005	< 4
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
Chloromethane (Methyl Chloride)	-	500	< 0.006	< 0.006	< 0.006	< 4	< 0.006	< 0.006 J	< 40	< 0.006 J	< 0.005	< 4
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	**0.004 J**	< 0.8
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
Cyclohexane	-	29000	< 0.01 J	**0.51 J**	< 0.01 J	< 0.7 J	< 0.01 J	< 0.01 J	< 7 J	< 0.01 J	**0.48 J**	< 0.8 J
Dibromochloromethane	-	3.3	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.006	< 0.8
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.006	**3.13 J**	< 0.006	< 0.7	< 0.006	**0.002 J**	**10**	**0.004 J**	**7**	**2.5**
Isopropylbenzene	-	11000	**0.125**	**0.579 J**	< 0.006	**0.3 J**	< 0.006	< 0.006	< 7	**0.003 J**	**0.148**	**0.2 J**
m&p-Xylene	-	-	< 0.006	**3.96 J**	**0.003 J**	< 0.7	< 0.006	**0.009**	**39**	**0.024**	**40**	**13.2**
Methyl acetate	-	1000000	< 0.01	< 0.3	< 0.01	< 40	< 0.01	R	< 400	R	< 0.01	< 40
Methyl cyclohexane	-	-	< 0.15	**0.92 J**	**0.003 J**	**27.9**	**0.001 J**	**0.001 J**	**15**	**0.01**	**18**	**13.8**
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.006	< 0.006	< 4	< 0.006	< 0.006	< 40	< 0.006	< 0.005	< 4
Methylene chloride	-	960	< 0.006	< 0.006	< 0.006	< 4	< 0.006	< 0.006	< 40	< 0.006	< 0.005	< 4
n-Propylbenzene	-	21000	**0.133**	**0.394**	**0.0009 J**	**0.139 J**	< 0.006 J	< 0.006	**0.222 J**	**0.002 J**	**0.127**	**0.104 J**
o-Xylene	-	3000	< 0.006	**1.05 J**	< 0.006	< 0.7	< 0.006	**0.002 J**	**6 J**	**0.003 J**	**12**	**3.5**
Styrene	-	36000	< 0.006	< 0.04	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.09	< 0.8
Tetrachloroethene	-	110	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	**0.024**	< 7	< 0.006	**0.068**	< 0.8
Tetrahydrofuran	-	95000	< 0.006 J	< 0.006 J	< 0.006 J	< 0.1 J	< 0.006 J	< 0.006	< 0.005 J	**0.08 J**	< 0.02 J	< 0.005 J
Toluene	-	45000	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	**0.108**	**1280**	**0.357**	**306**	**108**
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	< 0.005	< 0.8
Trichloroethene	-	6.4	< 0.006	< 0.006	< 0.006	< 0.7	< 0.006	< 0.006	< 7	< 0.006	**0.063**	< 0.8
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.006	< 0.006	< 1	< 0.006	< 0.006	< 10	< 0.006	< 0.005	< 2
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.006	< 0.006	< 0.006	< 1	< 0.006	< 0.006	< 10	< 0.006	< 0.005	< 2
Vinyl chloride	-	1.7	< 0.006	< 0.006	< 0.006	< 1	< 0.006	< 0.006	< 10	< 0.006	< 0.005	< 2
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-10	SB-02-11	SB-02-11	SB-02-11	SB-02-12	SB-02-12	SB-02-14	SB-02-14	SB-02-14	SB-02-15
Sample Name			1318-022510-1220	1318-022510-1425	1318-022510-1430	1318-022510-1435	1318-022510-1145	1318-022510-1155	1318-062910-0815	1318-062910-0820	1318-062910-0825	1318-062910-1155
Sample Date		RSL	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-
Arsenic, Total	13	1.6	**2.27** [A]	**1.03**	**1.77** [A]	**2.8** [A]	**1.94** [A]	**4.16** [A]	-	-	-	-
Barium, Total	140	190000	**98**	**46.8**	**63.9**	**56.7**	**106**	**55.7**	-	-	-	-
Beryllium, Total	-	2000	**0.41**	**0.3**	**0.44**	**0.3**	**0.59**	**0.33**	-	-	-	-
Cadmium, Total	1.25	800	**0.17 J**	**0.14 J**	**0.11 J**	**0.39**	**0.52**	**0.14 J**	-	-	-	-
Chromium, Total	22	-	**5.37**	**3.73**	**5.56**	**3.66**	**6.54**	**5.21**	-	-	-	-
Cobalt, Total	-	300	**4.75**	**2.35**	**5.76**	**4.59**	**5.24**	**5.41**	-	-	-	-
Copper, Total	-	41000	**14**	**40.9**	**17.7**	**16.4**	**18.4**	**15.6**	-	-	-	-
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-
Lead, Total	37	800	**10.8**	**8.84**	**8.11**	**11.4**	**15.6**	**6.94**	-	-	-	-
Manganese, Total	-	23000	**49.9**	**49.8**	**392**	**547**	**224**	**385**	-	-	-	-
Mercury, Total	0.13	43	**0.03 J**	**0.092**	**0.02 J**	**0.02 J**	**2.664**	**0.02 J**	-	-	-	-
Nickel, Total	33	20000	**9.91**	**2.42**	**12.8**	**13.7**	**10.2**	**15.3**	-	-	-	-
Selenium, Total	-	5100	< 0.5	**0.11 J**	< 0.5	**0.47 J**	**0.23 J**	**0.33 J**	-	-	-	-
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-
Thallium, Total	-	10	< 0.5	< 0.5	**0.1 J**	**0.13 J**	< 0.5	**0.11 J**	-	-	-	-
Vanadium, Total	-	5200	**9.29**	**7.1**	**11.7**	**7.55**	**11.3**	**8.44**	-	-	-	-
Zinc, Total	90	310000	**52.1**	**21.5**	**30.6**	**23.2**	**45.3**	**29**	-	-	-	-
Other (%)												
Total Solids	-	-	**76**	**83**	**77**	**80**	**78**	**78**	**84**	**78**	**80**	**86**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	**0.07 J**	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2,4-Dinitrophenol	-	1200	< 0.67 J	< 1.2 J	< 0.67 J	< 0.67 J	< 1.71 J	< 0.67 J	< 0.67 J	< 6.41 J	< 2.08 J	-
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.03 J**	< 6.41	< 2.08	-
2-Methylphenol	-	31000	< 0.33	< 0.33	**1.93**	**0.63**	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.43	< 0.67	< 0.67	< 6.41	< 2.08	-
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
3&4-Methylphenol	-	-	< 0.33	< 0.33	**2.17**	**1.07**	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.43	< 0.67	< 0.67	< 6.41	< 2.08	-
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.43 J	< 0.67 J	< 0.67 J	< 6.41 J	< 2.08 J	-
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.43	< 0.67	< 0.67	< 6.41	< 2.08	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-10	SB-02-11	SB-02-11	SB-02-11	SB-02-12	SB-02-12	SB-02-14	SB-02-14	SB-02-14	SB-02-15
Sample Name			1318-022510-1220	1318-022510-1425	1318-022510-1430	1318-022510-1435	1318-022510-1145	1318-022510-1155	1318-062910-0815	1318-062910-0820	1318-062910-0825	1318-062910-1155
Sample Date		RSL	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.43 J	< 0.67 J	< 0.67	< 6.41	< 2.08	-
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Benzaldehyde	-	100000	< 0.33	< 0.33	**1**	**0.36**	< 0.43	< 0.33	< 0.33 J	< 6.41 J	< 2.08 J	-
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.02 J**	< 6.41 J	< 2.08 J	-
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.33**	**399 J** [A]	**55.6**	-
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41 J	< 2.08 J	-
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.03 J**	< 6.41	< 2.08	-
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33 J	< 6.41 J	< 2.08 J	-
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Dimethylformamide	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Di-n-octyl phthalate	-	7400	**0.05 J**	< 0.33	< 0.33	< 0.33	**18.2**	**0.09 J**	**0.08 J**	**460 J**	**66 J**	-
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.04 J**	< 6.41	< 2.08	-
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33 J	< 6.41 J	< 2.08 J	-
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Nitrobenzene	-	24	< 0.2	< 0.3	< 0.2	< 0.2	< 0.43	< 0.2	< 0.2	< 6.41	< 2.08	-
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
N-Nitrosodiphenylamine	-	350	< 0.33	R	R	R	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.43 J	< 0.33 J	< 0.33	< 6.41	< 2.08	-
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.05 J**	< 6.41	< 2.08	-
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 6.41	< 2.08	-
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.04 J**	< 6.41	< 2.08	-
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.007	< 0.005	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.15	< 0.005	< 0.005
1,1-Dichloroethane	-	17	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.006	< 20	< 7	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 8	< 4	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-10	SB-02-11	SB-02-11	SB-02-11	SB-02-12	SB-02-12	SB-02-14	SB-02-14	SB-02-14	SB-02-15
Sample Name			1318-022510-1220	1318-022510-1425	1318-022510-1430	1318-022510-1435	1318-022510-1145	1318-022510-1155	1318-062910-0815	1318-062910-0820	1318-062910-0825	1318-062910-1155
Sample Date		RSL	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	-	12	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01 J	< 100	< 60	< 0.01 J	< 0.01 J	**0.006 J**	**0.004 J**	< 0.01	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 400	< 200	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 400	< 200	**0.002 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 100 J	< 60 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	**0.116**	**0.001 J**	**2 J**	**0.8 J**	< 0.006	**0.177**	**0.005**	< 0.005	< 0.005	< 0.005
Bromodichloromethane	-	1.4	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Bromoform	-	220	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.006	< 40	< 20	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	-	3700	**0.0009 J**	< 0.006	< 40	< 20	< 0.006	< 0.006	**0.0004 J**	**0.001 J**	< 0.005	< 0.005
Carbon tetrachloride	-	3	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	-	1400	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobromomethane	-	680	< 0.005	< 0.006	< 0.005	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	-	61000	< 0.005	< 0.006	< 40	< 20	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.006 J	< 40	< 20	< 0.006 J	< 0.006 J	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 8 J	< 4 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	**0.016**	**0.01**	**6 J**	**2 J**	< 0.006	**0.002 J**	< 0.005	< 0.005	< 0.005	< 0.005
Isopropylbenzene	-	11000	**0.008**	**0.0006 J**	< 8	< 4	< 0.006	**0.001 J**	< 0.005	**0.015**	**0.0006 J**	< 0.005
m&p-Xylene	-	-	**0.175**	**0.071**	**29**	**9**	**0.002 J**	**0.043**	**0.002 J**	**0.001 J**	**0.002 J**	**0.0004 J**
Methyl acetate	-	1000000	< 0.01	< 0.01 J	< 400	< 200	R	R	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	**0.04**	**0.04**	**22**	**2 J**	< 0.01	**0.002 J**	**0.002 J**	**0.04**	**0.002 J**	**0.0003 J**
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.006	< 40	< 20	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	-	960	< 0.005	< 0.006	< 40	< 20	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	21000	**0.008**	**0.0007 J**	**0.103 J**	**0.021 J**	< 0.006	< 0.006	< 0.005	**0.009**	**0.0004 J**	< 0.005
o-Xylene	-	3000	**0.013**	**0.025**	**9**	**3 J**	**0.0007 J**	**0.0009 J**	< 0.005	**0.0004 J**	**0.0006 J**	< 0.005
Styrene	-	36000	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene	-	110	< 0.005	**0.005 J**	< 8	< 4	**0.018**	< 0.006	< 0.005	< 0.005	< 0.005	**0.004 J**
Tetrahydrofuran	-	95000	< 0.005 J	< 0.006	**0.328 J**	**0.43 J**	< 0.006	< 0.006	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J
Toluene	-	45000	**0.192**	**0.562**	**688**	**234**	**0.01**	**0.009**	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	-	6.4	< 0.005	< 0.006	< 8	< 4	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.006	< 20	< 7	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	< 0.006	< 20	< 7	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	-	1.7	< 0.005	< 0.006	< 20	< 7	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-15	SB-02-15	SB-02-16	SB-02-16	SB-02-16	SB-02-16	SB-02-17	SB-02-17	SB-02-17	SB-02-17
Sample Name			1318-062910-1200	1318-062910-1205	1318-063010-1700	1318-063010-0007	1318-063010-1705	1318-063010-1710	1318-062910-1320	1318-062910-1325	1318-062910-0003	1318-062910-1330
Sample Date		RSL	6/29/2010	6/29/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	SPL	N	N	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.75 - 6.75 (ft)	4.75 - 6.75 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**81**	**80**	**81**	**77.1**	**78**	**80**	**79**	**79**	**79**	**76**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	-	62000	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	-	160	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	-	1800	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	-	12000	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	-	1200	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	-	5.5	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	-	620	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	-	82000	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	-	5100	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	-	2200	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	-	31000	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	-	6000	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	-	3.8	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	49	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	-	8.6	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	-	-	-	-	-	-	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-15	SB-02-15	SB-02-16	SB-02-16	SB-02-16	SB-02-16	SB-02-17	SB-02-17	SB-02-17	SB-02-17
Sample Name			1318-062910-1200	1318-062910-1205	1318-063010-1700	1318-063010-0007	1318-063010-1705	1318-063010-1710	1318-062910-1320	1318-062910-1325	1318-062910-0003	1318-062910-1330
Sample Date		RSL	6/29/2010	6/29/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	SPL	N	N	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.75 - 6.75 (ft)	4.75 - 6.75 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	-	33000	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	-	100000	-	-	-	-	-	-	-	-	-	-
Anthracene	-	170000	-	-	-	-	-	-	-	-	-	-
Atrazine	-	7.5	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	-	100000	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	-	2.1	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	-	0.21	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	-	2.1	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	-	21	-	-	-	-	-	-	-	-	-	-
Biphenyl	-	210	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	1800	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	-	1	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	120	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	-	910	-	-	-	-	-	-	-	-	-	-
Caprolactam	-	310000	-	-	-	-	-	-	-	-	-	-
Carbazole	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	-	210	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	-	0.21	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	-	1000	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	-	490000	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	-	7400	-	-	-	-	-	-	-	-	-	-
Fluoranthene	-	22000	-	-	-	-	-	-	-	-	-	-
Fluorene	-	22000	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	-	1.1	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	22	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	3700	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	-	43	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	2.1	-	-	-	-	-	-	-	-	-	-
Isophorone	-	1800	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	18	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	-	24	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	0.25	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	-	350	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	-	2.7	-	-	-	-	-	-	-	-	-	-
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	-	180000	-	-	-	-	-	-	-	-	-	-
Pyrene	-	17000	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	< 0.6	< 1	< 0.12	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
1,1,2-Trichloroethane	-	5.3	< 2	< 1	< 0.2	< 7.5	< 1	< 0.005	< 0.005	< 13	< 5	< 0.006
1,1-Dichloroethane	-	17	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
1,1-Dichloroethene	-	1100	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
1,2,4-Trichlorobenzene	-	99	< 1	< 3	< 0.1	< 7.5	< 3	< 0.005	< 0.005	< 1	< 1	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.6	< 1	< 0.07	< 15	< 1	< 0.01	< 0.01	< 0.7	< 0.7	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
1,2-Dichlorobenzene	-	9800	< 0.6	< 1	< 0.07 J	< 7.5	< 1 J	< 0.005 J	< 0.005	< 0.7	< 0.7	< 0.006

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-02-15	SB-02-15	SB-02-16	SB-02-16	SB-02-16	SB-02-16	SB-02-17	SB-02-17	SB-02-17	SB-02-17
Sample Name			1318-062910-1200	1318-062910-1205	1318-063010-1700	1318-063010-0007	1318-063010-1705	1318-063010-1710	1318-062910-1320	1318-062910-1325	1318-062910-0003	1318-062910-1330
Sample Date		RSL	6/29/2010	6/29/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	SPL	N	N	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.75 - 6.75 (ft)	4.75 - 6.75 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
1,2-Dichloropropane	-	4.7	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
1,3-Dichlorobenzene	-	-	< 0.6	< 1	< 0.07 J	< 7.5	< 1 J	< 0.005 J	< 0.005	< 0.7	< 0.7	< 0.006
1,4-Dichlorobenzene	-	12	< 0.6	< 1	< 0.07 J	< 7.5	< 1 J	< 0.005 J	< 0.005	< 0.7	< 0.7	< 0.006
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 10	< 20	< 1	< 30	< 20	**0.002 J**	< 0.01	< 10	< 10	**0.006 J**
2-Hexanone	-	1400	< 30	< 70	< 4	< 30	< 70	< 0.01	< 0.01	< 30	< 30	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 30	< 70	< 4	< 30	< 70	< 0.01	< 0.01	< 30	< 30	< 0.01
Acetone	-	630000	**1 J**	< 20	< 1	< 30	**2 J**	**0.01**	< 0.01	< 10	**1 J**	< 0.01
Benzene	-	5.4	**0.3 J**	**0.4 J**	< 0.07 J	< 7.5	< 1 J	**0.491 J**	**0.0005 J**	< 0.7	< 0.7	< 0.006
Bromodichloromethane	-	1.4	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Bromoform	-	220	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Bromomethane (Methyl Bromide)	-	32	< 3	< 7	< 0.4	< 7.5 J	< 7	< 0.005	< 0.005	< 3	< 3	< 0.006
Carbon disulfide	-	3700	< 3	< 7	< 0.4	< 7.5	< 7	< 0.005	< 0.005	< 3	< 3	< 0.006
Carbon tetrachloride	-	3	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Chlorobenzene	-	1400	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Chlorobromomethane	-	680	< 0.6	< 1	< 0.07	-	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Chloroethane	-	61000	< 3	< 7	< 0.4	< 7.5	< 7	< 0.005	< 0.005	< 3	< 3	< 0.006
Chloroform (Trichloromethane)	-	1.5	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Chloromethane (Methyl Chloride)	-	500	< 3	< 7	< 0.4	< 7.5	< 7	< 0.005	< 0.005	< 3	< 3	< 0.006
cis-1,2-Dichloroethene	-	2000	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
cis-1,3-Dichloropropene	-	-	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Cyclohexane	-	29000	< 5 J	< 1 J	< 0.07 J	< 15	< 1 J	< 0.01 J	< 0.01 J	< 2 J	< 1.5 J	**0.02 J**
Dibromochloromethane	-	3.3	< 0.6 J	< 1 J	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7 J	< 0.7 J	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	< 0.6	< 1	< 0.07 J	R	< 1 J	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	**5.2**	**1 J**	**0.01 J**	**3.8 J**	**0.8 J**	**0.004 J**	< 0.005	< 0.7	< 0.7	< 0.006
Isopropylbenzene	-	11000	**0.5 J**	< 1	**0.01 J**	**0.28 J**	< 1 J	**0.008 J**	< 0.005	**0.3 J**	**0.2 J**	**0.005 J**
m&p-Xylene	-	-	**2.1**	**6**	**0.1**	-	**6**	**0.011**	< 0.005	< 0.7	< 0.7	**0.002 J**
Methyl acetate	-	1000000	< 30	< 70	< 4	< 15	< 70	< 0.01	< 0.01	< 30	< 30	< 0.01
Methyl cyclohexane	-	-	**17.4**	**0.4 J**	**0.17**	**6.9 J**	**1 J**	**0.03**	< 0.01	**45.9 J**	**15.8**	**0.07**
Methyl Tert Butyl Ether	-	220	< 3	< 7	< 0.4	< 30	< 7	< 0.005	< 0.005	< 3	< 3	< 0.006
Methylene chloride	-	960	< 3	< 7	< 0.4	< 7.5	< 7	< 0.005	< 0.005	< 3	< 3	< 0.006
n-Propylbenzene	-	21000	**0.6**	< 1	**0.02 J**	-	< 1 J	**0.008 J**	< 0.005	**0.3 J**	**0.3 J**	**0.003 J**
o-Xylene	-	3000	< 0.6	**0.9 J**	**0.07 J**	-	**0.6 J**	**0.001 J**	< 0.005	< 0.7	< 0.7	< 0.006
Styrene	-	36000	< 0.6	< 1	< 0.07 J	< 7.5	< 1 J	< 0.005 J	< 0.005	< 0.7	< 0.7	< 0.006
Tetrachloroethene	-	110	< 0.6	< 1	**0.02 J**	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Tetrahydrofuran	-	95000	< 0.6 J	< 1 J	**0.3 J**	-	**1 J**	< 0.005 J	< 0.005 J	< 0.7 J	< 0.7 J	**0.251 J**
Toluene	-	45000	< 0.6	**175**	**0.26 J**	**230**	< 1 J	**0.068 J**	**0.007**	< 0.7	< 0.7	< 0.006
trans-1,2-Dichloroethene	-	690	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
trans-1,3-Dichloropropene	-	-	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Trichloroethene	-	6.4	< 0.6	< 1	< 0.07	< 7.5	< 1	< 0.005	< 0.005	< 0.7	< 0.7	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	< 1	< 3	< 0.1	< 7.5	< 3	< 0.005	< 0.005	< 1	< 1	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	< 1	< 3	< 0.1	< 7.5	< 3	< 0.005	< 0.005	< 1	< 1	< 0.006
Vinyl chloride	-	1.7	< 1	< 3	< 0.1	< 7.5	< 3	< 0.005	< 0.005	< 1	< 1	< 0.006
Xylene (total)	-	2700	-	-	-	**26**	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03
Location Name			SB-03-01	SB-03-01	SB-03-02	SB-03-02	SB-03-03	SB-03-03	SB-03-04	SB-03-04	SB-03-05	SB-03-05
Sample Name			1318-022410-1125	1318-022410-1135	1318-022410-1540	1318-022410-1550	1318-030910-0900	1318-030910-0910	1318-062810-1715	1318-062810-1725	1318-062810-1635	1318-062810-1645
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	3/9/2010	3/9/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**88**	**78**	**80**	**75**	**83**	**78**	**83**	**80**	**90**	**79**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 6.06 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 1.52	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 1.52	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 1.52	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 1.52 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 1.52	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03
Location Name			SB-03-01	SB-03-01	SB-03-02	SB-03-02	SB-03-03	SB-03-03	SB-03-04	SB-03-04	SB-03-05	SB-03-05
Sample Name			1318-022410-1125	1318-022410-1135	1318-022410-1540	1318-022410-1550	1318-030910-0900	1318-030910-0910	1318-062810-1715	1318-062810-1725	1318-062810-1635	1318-062810-1645
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	3/9/2010	3/9/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 1.52 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67
Acenaphthene	-	33000	< 1.52	< 0.33	< 0.33	**0.42**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 1.52	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	**1 J**	< 0.33	< 0.33	**1.53**	< 0.33	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33
Atrazine	-	7.5	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 1.52 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Benzo(a)anthracene	-	2.1	**6.09** [A]	< 0.33	**0.04 J**	**2.78** [A]	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.2 J**	< 0.33
Benzo(a)pyrene	-	0.21	**5.94 J** [A]	< 0.33	**0.05 J**	**2.45** [A]	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.2 J**	< 0.33
Benzo(b)fluoranthene	-	2.1	**6.15 J** [A]	< 0.33	**0.05 J**	**2.9** [A]	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.1 J**	< 0.33
Benzo(g,h,i)perylene	-	-	**1.82 J**	< 0.33	< 0.33	**1**	< 0.33	< 0.33	**0.08 J**	< 0.33 J	**0.09 J**	< 0.33 J
Benzo(k)fluoranthene	-	21	**5.61 J**	< 0.33	**0.05 J**	**2.23**	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.1 J**	< 0.33
Biphenyl	-	210	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 1.52	< 0.33	**12.2 J**	< 0.33	< 0.33	< 0.33	**5.43 J**	< 0.33	**9.32 J**	< 0.33
Butyl benzylphthalate	-	910	< 1.52	< 0.33	**1.1**	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.2 J**	< 0.33
Caprolactam	-	310000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 1.52	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	**6.09**	< 0.33	**0.06 J**	**3.99**	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.2 J**	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 1.52 J	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Dibenzofuran	-	1000	< 1.52	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**1.73 J**	< 0.33	**0.8 J**	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33 J	**0.3 J**	< 0.33 J
Fluoranthene	-	22000	**12.4**	< 0.33	**0.1 J**	**10.1**	< 0.33	< 0.33	**0.3 J**	< 0.33	**0.37**	< 0.33
Fluorene	-	22000	**0.3 J**	< 0.33	< 0.33	**0.75**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	**1.82 J**	< 0.33	< 0.33	**1.06**	< 0.33	< 0.33	**0.07 J**	< 0.33 J	**0.08 J**	< 0.33 J
Isophorone	-	1800	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 1.52	< 0.2	< 0.2	< 0.2	< 0.32	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 1.52	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 1.52 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	**4.64**	< 0.33	**0.08 J**	**7.33**	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.2 J**	< 0.33
Phenol	-	180000	< 1.52	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	**11**	< 0.33	**0.08 J**	**6.13**	< 0.33	< 0.33	**0.3 J**	< 0.33	**0.3 J**	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,1,2-Trichloroethane	-	5.3	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,1-Dichloroethane	-	17	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,1-Dichloroethene	-	1100	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,2,4-Trichlorobenzene	-	99	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,2-Dichlorobenzene	-	9800	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03	AOI-03
Location Name			SB-03-01	SB-03-01	SB-03-02	SB-03-02	SB-03-03	SB-03-03	SB-03-04	SB-03-04	SB-03-05	SB-03-05
Sample Name			1318-022410-1125	1318-022410-1135	1318-022410-1540	1318-022410-1550	1318-030910-0900	1318-030910-0910	1318-062810-1715	1318-062810-1725	1318-062810-1635	1318-062810-1645
Sample Date		RSL	2/24/2010	2/24/2010	2/24/2010	2/24/2010	3/9/2010	3/9/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,2-Dichloropropane	-	4.7	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,3-Dichlorobenzene	-	-	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
1,4-Dichlorobenzene	-	12	< 0.006	< 0.007	< 0.006	< 0.007	**0.0006 J**	< 0.005	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01 J	< 0.01 J	< 0.01	< 0.01	-	-	-	-
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-
Acetone	-	630000	< 0.01	< 0.01	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	-	-	-	-
Benzene	-	5.4	< 0.006	< 0.007	< 0.006	< 0.007	**0.0005 J**	< 0.005	-	-	-	-
Bromodichloromethane	-	1.4	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Bromoform	-	220	< 0.006 J	< 0.007 J	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Carbon disulfide	-	3700	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Carbon tetrachloride	-	3	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Chlorobenzene	-	1400	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Chlorobromomethane	-	680	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Chloroethane	-	61000	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	-	-	-	-
Dibromochloromethane	-	3.3	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005 J	< 0.005 J	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Isopropylbenzene	-	11000	< 0.006	< 0.007	< 0.006 J	< 0.007	< 0.005	< 0.005	-	-	-	-
m&p-Xylene	-	-	< 0.006	< 0.007	< 0.006	< 0.007	**0.0005 J**	< 0.005	-	-	-	-
Methyl acetate	-	1000000	**0.01 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	**0.0006 J**	**0.0005 J**	-	-	-	-
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Methylene chloride	-	960	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
n-Propylbenzene	-	21000	< 0.006	< 0.007	< 0.006 J	< 0.007	< 0.005	< 0.005	-	-	-	-
o-Xylene	-	3000	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Styrene	-	36000	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Tetrachloroethene	-	110	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Tetrahydrofuran	-	95000	< 0.006 J	< 0.007 J	< 0.006 J	< 0.007 J	< 0.005	< 0.005	-	-	-	-
Toluene	-	45000	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Trichloroethene	-	6.4	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Vinyl chloride	-	1.7	< 0.006	< 0.007	< 0.006	< 0.007	< 0.005	< 0.005	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-03	AOI-03	AOI-03	AOI-03	AOI-04	AOI-04	AOI-04	AOI-04	AOI-04	AOI-04
Location Name			SB-03-06	SB-03-06	SB-03-07	SB-03-07	SB-04-01	SB-04-01	SB-04-02	SB-04-02	SB-04-03	SB-04-03
Sample Name			1318-062810-1605	1318-062810-1615	1318-062810-1520	1318-062810-1530	1318-070110-0815	1318-070110-0825	1318-070110-0830	1318-070110-0840	1318-070110-0920	1318-070110-0930
Sample Date		RSL	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**89**	**80**	**84**	**80**	**85**	**80**	**74**	**79**	**78**	**80**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	**0.06 J**	< 0.33	**0.03 J**	< 0.33	**0.05 J**	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-03	AOI-03	AOI-03	AOI-03	AOI-04	AOI-04	AOI-04	AOI-04	AOI-04	AOI-04
Location Name			SB-03-06	SB-03-06	SB-03-07	SB-03-07	SB-04-01	SB-04-01	SB-04-02	SB-04-02	SB-04-03	SB-04-03
Sample Name			1318-062810-1605	1318-062810-1615	1318-062810-1520	1318-062810-1530	1318-070110-0815	1318-070110-0825	1318-070110-0830	1318-070110-0840	1318-070110-0920	1318-070110-0930
Sample Date		RSL	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.06 J**	< 0.33	**0.08 J**	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33	**0.06 J**	< 0.33	**0.06 J**	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33	**0.05 J**	< 0.33	**0.05 J**	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	**0.05 J**	< 0.33	**0.05 J**	< 0.33	**0.04 J**	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	**0.07 J**	< 0.33	**0.05 J**	< 0.33	**0.05 J**	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.07 J**	< 0.33	**0.08 J**	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.09 J**	< 0.33
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	**0.1 J**	< 0.33	**0.1 J**	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	**0.04 J**	< 0.33	**0.04 J**	< 0.33	**0.03 J**	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	**0.1 J**	< 0.33	**0.1 J**	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.1 J**	< 0.33	**0.1 J**	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-03	AOI-03	AOI-03	AOI-03	AOI-04	AOI-04	AOI-04	AOI-04	AOI-04	AOI-04
Location Name			SB-03-06	SB-03-06	SB-03-07	SB-03-07	SB-04-01	SB-04-01	SB-04-02	SB-04-02	SB-04-03	SB-04-03
Sample Name			1318-062810-1605	1318-062810-1615	1318-062810-1520	1318-062810-1530	1318-070110-0815	1318-070110-0825	1318-070110-0830	1318-070110-0840	1318-070110-0920	1318-070110-0930
Sample Date		RSL	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010	7/1/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	-	-
2-Hexanone	-	1400	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	-	-	-	-	-	-	-
Acetone	-	630000	-	-	-	-	-	-	-	-	-	-
Benzene	-	5.4	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	-	-
Bromoform	-	220	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	3700	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	-	680	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	61000	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	2000	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	-	29000	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	11000	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	-	1000000	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	220	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	-	21000	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	-	-	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	690	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05
Location Name			MW-1016	MW-1016	MW-1016	SB-05-01	SB-05-01	SB-05-01	SB-05-02	SB-05-02	SB-05-02	SB-05-03
Sample Name			1318-071410-1450	1318-071410-1455	1318-071410-1500	1318-021610-0855	1318-021610-0900	1318-021610-0905	1318-021610-0955	1318-021610-1000	1318-021610-1005	1318-031010-0905
Sample Date		RSL	7/14/2010	7/14/2010	7/14/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	3/10/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**80**	**79**	**80**	**81**	**83**	**80**	**96**	**83**	**80**	**85**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.96 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05
Location Name			MW-1016	MW-1016	MW-1016	SB-05-01	SB-05-01	SB-05-01	SB-05-02	SB-05-02	SB-05-02	SB-05-03
Sample Name			1318-071410-1450	1318-071410-1455	1318-071410-1500	1318-021610-0855	1318-021610-0900	1318-021610-0905	1318-021610-0955	1318-021610-1000	1318-021610-1005	1318-031010-0905
Sample Date		RSL	7/14/2010	7/14/2010	7/14/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	3/10/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	**5.71**	< 0.33	< 0.33	**1.44**	**0.37**	**2.58**	**30.2**	**1.11**	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	**0.2 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**12.3**
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.24	< 0.2	< 0.29
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	R	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J
Phenanthrene	-	-	< 0.33	**0.1 J**	< 0.33	**0.02 J**	**0.02 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-

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TOLEDO, OHIO

Area of Interest			AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05	AOI-05
Location Name			MW-1016	MW-1016	MW-1016	SB-05-01	SB-05-01	SB-05-01	SB-05-02	SB-05-02	SB-05-02	SB-05-03
Sample Name			1318-071410-1450	1318-071410-1455	1318-071410-1500	1318-021610-0855	1318-021610-0900	1318-021610-0905	1318-021610-0955	1318-021610-1000	1318-021610-1005	1318-031010-0905
Sample Date		RSL	7/14/2010	7/14/2010	7/14/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	3/10/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	-	-
2-Hexanone	-	1400	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	-	-	-	-	-	-	-
Acetone	-	630000	-	-	-	-	-	-	-	-	-	-
Benzene	-	5.4	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	-	-
Bromoform	-	220	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	3700	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	-	680	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	61000	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	2000	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	-	29000	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	11000	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	-	1000000	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	220	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	-	21000	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	-	-	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	690	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-05	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08
Location Name			SB-05-03	SB-08-01	SB-08-01	SB-08-02	SB-08-02	SB-08-03	SB-08-03a	SB-08-03a	SB-08-04	SB-08-04a
Sample Name			1318-031010-0915	1318-021510-1135	1318-021510-1145	1318-021510-1215	1318-021510-1225	1318-021510-1320	1318-071310-1620	1318-071310-1630	1318-021510-1335	1318-071310-1715
Sample Date		RSL	3/10/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	7/13/2010	7/13/2010	2/15/2010	7/13/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	**0.13 J**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.15 J**
Arsenic, Total	13	1.6	-	**1.15 J**	**1.66 J [A]**	**1.37 J**	**0.78 J**	**0.56 J**	**1.34**	**2.95 [A]**	**0.51 J**	**0.88**
Barium, Total	140	190000	-	**37.3**	**49.4**	**27.3**	**59.3**	**7.83**	**13.7**	**68.9**	**7.43**	**11.4**
Beryllium, Total	-	2000	-	**0.06 J**	**0.35**	**0.18 J**	**0.34**	**0.03 J**	**0.03 J**	**0.56**	**0.02 J**	**0.03 J**
Cadmium, Total	1.25	800	-	**0.05 J**	**0.36**	**0.19 J**	**0.33**	**0.05 J**	**0.07 J**	**0.36**	**0.03 J**	**0.05 J**
Chromium, Total	22	-	-	**2 J**	**5.9 J**	**13.3 J**	**3.86 J**	**0.96 J**	**13.8**	**10.2**	**0.69 J**	**1.41**
Cobalt, Total	-	300	-	**1.56**	**6.24**	**1.91**	**3.57**	**0.74**	**0.9**	**7.98**	**0.62**	**0.87**
Copper, Total	-	41000	-	**2.97**	**11**	**7.88**	**14.4**	**1.92**	**6.19**	**18.1**	**1.63**	**3**
Cyanide	-	140	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	-	**5.55**	**9.83**	**15.3**	**8.03**	**1.24**	**2.23**	**12.2**	**1.25**	**2.2**
Manganese, Total	-	23000	-	**71.1**	**425**	**133**	**202**	**29.9**	**41.4**	**570**	**20.9**	**35.2**
Mercury, Total	0.13	43	-	< 0.05	**0.01 J**	< 0.05	**0.04 J**	< 0.05	**0.01 J**	**0.03 J**	< 0.05	< 0.05
Nickel, Total	33	20000	-	**7.56**	**16.1**	**5.05**	**7.26**	**1.86**	**3.04**	**16.6**	**1.44**	**2.59**
Selenium, Total	-	5100	-	**0.41 J**	**0.53**	< 0.5	**0.24 J**	< 0.5	< 0.5	**0.34 J**	< 0.5	< 0.5
Silver, Total	-	5100	-	< 0.2	**0.04 J**	**0.03 J**	**0.08 J**	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	-	**0.06 J**	**0.11 J**	< 0.5	**0.07 J**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vanadium, Total	-	5200	-	**2.5**	**7.95**	**3.36**	**6.11**	**0.96**	**2.28**	**10.4**	**0.68**	**1.81**
Zinc, Total	90	310000	-	**19.1**	**28.3**	**20.2**	**25.7**	**3.51**	**9.5**	**40.6**	**2.48**	**6.46**
Other (%)												
Total Solids	-	-	**80**	**96**	**79**	**96**	**80**	**97**	**93**	**78**	**99**	**98**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67	< 0.67 J

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-05	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08
Location Name			SB-05-03	SB-08-01	SB-08-01	SB-08-02	SB-08-02	SB-08-03	SB-08-03a	SB-08-03a	SB-08-04	SB-08-04a
Sample Name			1318-031010-0915	1318-021510-1135	1318-021510-1145	1318-021510-1215	1318-021510-1225	1318-021510-1320	1318-071310-1620	1318-071310-1630	1318-021510-1335	1318-071310-1715
Sample Date		RSL	3/10/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	7/13/2010	7/13/2010	2/15/2010	7/13/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67 J	< 0.67
Acenaphthene	-	33000	< 0.33	**0.02 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J
Benzaldehyde	-	100000	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J
Benzo(a)anthracene	-	2.1	< 0.33	**0.45**	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	**0.68** [A]	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	**0.61**	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	**0.57**	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	**0.59**	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33	< 0.33 J
Carbazole	-	-	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	**0.85**	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**0.1 J**	**0.03 J**	< 0.33	**0.03 J**	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	**0.2 J**
Fluoranthene	-	22000	< 0.33	**1.47**	< 0.33	**0.1 J**	< 0.33	**0.02 J**	< 0.33	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33 J	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	**0.52**	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	R	R	R	R	R	< 0.33	< 0.33	R	< 0.33
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	**0.69**	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	**0.97**	< 0.33	**0.09 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2-Trichloroethane	-	5.3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethane	-	17	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trichlorobenzene	-	99	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichlorobenzene	-	9800	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-05	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08
Location Name			SB-05-03	SB-08-01	SB-08-01	SB-08-02	SB-08-02	SB-08-03	SB-08-03a	SB-08-03a	SB-08-04	SB-08-04a
Sample Name			1318-031010-0915	1318-021510-1135	1318-021510-1145	1318-021510-1215	1318-021510-1225	1318-021510-1320	1318-071310-1620	1318-071310-1630	1318-021510-1335	1318-071310-1715
Sample Date		RSL	3/10/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	2/15/2010	7/13/2010	7/13/2010	2/15/2010	7/13/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	-	12	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	1400	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	-	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01	**0.02**	< 0.01 J	< 0.01
Benzene	-	5.4	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromodichloromethane	-	1.4	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromoform	-	220	-	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005
Bromomethane (Methyl Bromide)	-	32	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	-	3700	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	-	1400	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobromomethane	-	680	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	-	61000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	-	1.5	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,2-Dichloroethene	-	2000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,3-Dichloropropene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cyclohexane	-	29000	-	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.005 J	< 0.005	< 0.005 J
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Isopropylbenzene	-	11000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
m&p-Xylene	-	-	-	**0.0003 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methyl acetate	-	1000000	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	-	960	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	21000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
o-Xylene	-	3000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Styrene	-	36000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene	-	110	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	-	95000	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Toluene	-	45000	-	**0.0004 J**	**0.0005 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,2-Dichloroethene	-	690	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	-	6.4	-	**0.004 J**	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005	< 0.005	**0.002 J**	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.001	< 0.005
Vinyl chloride	-	1.7	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-09	AOI-09	AOI-09	AOI-09
Location Name			SB-08-04a	SB-08-05	SB-08-05a	SB-08-06a	SB-08-07	SB-08-08	PZ-1010	PZ-1010	PZ-1011	PZ-1011
Sample Name			1318-071310-1725	1318-021510-1410	1318-071310-1750	1318-071410-0915	1318-062910-1720	1318-062910-1730	1318-021810-0915	1318-021810-0925	1318-021810-1145	1318-021810-1155
Sample Date		RSL	7/13/2010	2/15/2010	7/13/2010	7/14/2010	6/29/2010	6/29/2010	2/18/2010	2/18/2010	2/18/2010	2/18/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	< 0.5	-	-	< 0.5	< 0.5	**0.15 J**	< 0.5
Arsenic, Total	13	1.6	**1.17**	**0.21 J**	**0.27**	**4.26 [A]**	-	-	**0.33**	**1.01**	**8.91 [A]**	**1.4**
Barium, Total	140	190000	**70.3**	**7.68**	**7.88**	**87**	-	-	**7.61**	**46.9**	**105**	**57.7**
Beryllium, Total	-	2000	**0.5**	**0.06 J**	< 0.2	**0.7**	-	-	**0.08 J**	**0.46**	**0.85**	**0.44**
Cadmium, Total	1.25	800	**0.38**	**0.03 J**	< 0.2	**0.5**	-	-	**0.04 J**	**0.24**	**1.27**	**0.31**
Chromium, Total	22	-	**9.45**	**3.22 J**	**1.28**	**45**	-	-	**1.54**	**8.74**	**58.1**	**9.11**
Cobalt, Total	-	300	**8.31**	**0.42 J**	**0.49 J**	**7.39**	-	-	**0.73**	**5.01**	**6.53**	**13.4**
Copper, Total	-	41000	**23.9**	**1.02**	**0.46 J**	**20.4**	-	-	**1.28**	**14.3**	**76.7**	**16.5**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	-	-	< 0.1	< 0.1	**0.4**	< 0.1
Lead, Total	37	800	**11.5**	**1.34**	**1.37**	**14.2**	-	-	**1.33**	**9.29**	**197**	**9.87**
Manganese, Total	-	23000	**266**	**22.9**	**24.8**	**529**	-	-	**124**	**338**	**381**	**895**
Mercury, Total	0.13	43	**0.03 J**	< 0.05	< 0.05	**0.188**	-	-	< 0.05	**0.02 J**	**0.917**	**0.02 J**
Nickel, Total	33	20000	**18.9**	**0.66**	**0.85**	**15.4**	-	-	**1.77**	**16.9**	**63.7**	**31.8**
Selenium, Total	-	5100	**0.26 J**	< 0.5	< 0.5	**0.26 J**	-	-	< 0.5	< 0.5	< 0.5	< 0.5
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	-	-	< 0.2	< 0.2	**0.31**	< 0.2
Thallium, Total	-	10	**0.17 J**	< 0.5	< 0.5	**0.11 J**	-	-	< 0.5	**0.15 J**	**0.35 J**	**0.16 J**
Vanadium, Total	-	5200	**13.9**	**1.17**	**1.47**	**15**	-	-	**2.74**	**11.2**	**12.3**	**13.6**
Zinc, Total	90	310000	**42.2**	**1.93**	**2.11**	**91.6**	-	-	**2.81**	**37.4**	**236**	**41.3**
Other (%)												
Total Solids	-	-	**78**	**99**	**99**	**82**	**81**	**85**	**97**	**80**	**83**	**80**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	< 0.33	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 3.21 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.8	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8 J	< 0.33 J
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.8	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.8 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67 J	< 0.67	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.8	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-09	AOI-09	AOI-09	AOI-09
Location Name			SB-08-04a	SB-08-05	SB-08-05a	SB-08-06a	SB-08-07	SB-08-08	PZ-1010	PZ-1010	PZ-1011	PZ-1011
Sample Name			1318-071310-1725	1318-021510-1410	1318-071310-1750	1318-071410-0915	1318-062910-1720	1318-062910-1730	1318-021810-0915	1318-021810-0925	1318-021810-1145	1318-021810-1155
Sample Date		RSL	7/13/2010	2/15/2010	7/13/2010	7/14/2010	6/29/2010	6/29/2010	2/18/2010	2/18/2010	2/18/2010	2/18/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67	< 0.67 J	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.8	< 0.67
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.8	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	**0.09 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	**0.77**	< 0.33	< 0.33	< 0.33	< 0.33	**145** [A]	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.02 J**	< 0.33	< 0.8	< 0.33
Caprolactam	-	310000	< 0.33 J	< 0.33	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Chrysene	-	210	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	**0.59**	< 0.33	< 0.8	< 0.33
Fluoranthene	-	22000	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33 J	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.8	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.8	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.8	< 0.33
Pyrene	-	17000	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,1,2-Trichloroethane	-	5.3	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,1-Dichloroethane	-	17	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,1-Dichloroethene	-	1100	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,2,4-Trichlorobenzene	-	99	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,2-Dichlorobenzene	-	9800	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-08	AOI-09	AOI-09	AOI-09	AOI-09
Location Name			SB-08-04a	SB-08-05	SB-08-05a	SB-08-06a	SB-08-07	SB-08-08	PZ-1010	PZ-1010	PZ-1011	PZ-1011
Sample Name			1318-071310-1725	1318-021510-1410	1318-071310-1750	1318-071410-0915	1318-062910-1720	1318-062910-1730	1318-021810-0915	1318-021810-0925	1318-021810-1145	1318-021810-1155
Sample Date		RSL	7/13/2010	2/15/2010	7/13/2010	7/14/2010	6/29/2010	6/29/2010	2/18/2010	2/18/2010	2/18/2010	2/18/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,2-Dichloropropane	-	4.7	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,3-Dichlorobenzene	-	-	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
1,4-Dichlorobenzene	-	12	< 0.006	< 0.005	< 0.005	**0.0005 J**	-	-	< 0.005	< 0.006	< 0.005	< 0.006
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	**0.004 J**
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	**0.03**	< 0.01 J	< 0.01	**0.01**	-	-	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Bromodichloromethane	-	1.4	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Bromoform	-	220	< 0.006	< 0.005 J	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Carbon disulfide	-	3700	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	**0.0008 J**	< 0.006
Carbon tetrachloride	-	3	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Chlorobenzene	-	1400	< 0.006	< 0.005	< 0.005	**0.0004 J**	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Chlorobromomethane	-	680	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Chloroethane	-	61000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Chloromethane (Methyl Chloride)	-	500	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	-	-	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006 J	< 0.005	< 0.005 J	< 0.005 J	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.006	< 0.005	< 0.005	< 0.005	-	-	**0.004 J**	< 0.006	< 0.005	< 0.006
Isopropylbenzene	-	11000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
m&p-Xylene	-	-	< 0.006	< 0.005	< 0.005	< 0.005	-	-	**0.017**	< 0.006	**0.0003 J**	**0.001 J**
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Methylene chloride	-	960	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
n-Propylbenzene	-	21000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
o-Xylene	-	3000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	**0.005**	< 0.006	< 0.005	< 0.006
Styrene	-	36000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Tetrachloroethene	-	110	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Tetrahydrofuran	-	95000	< 0.006	**0.001 J**	< 0.005	< 0.005	-	-	< 0.005 J	< 0.006 J	< 0.005	< 0.006
Toluene	-	45000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Trichloroethene	-	6.4	< 0.006	< 0.005 J	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.006	< 0.001	< 0.005	< 0.005	-	-	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl chloride	-	1.7	< 0.006	< 0.005	< 0.005	< 0.005	-	-	< 0.005	< 0.006	< 0.005	< 0.006
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-09	AOI-09	AOI-09	AOI-09	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10
Location Name			SB-09-01	SB-09-01	SB-09-02	SB-09-02	SB-10-01	SB-10-01	SB-10-02	SB-10-02	SB-10-03	SB-10-03
Sample Name			1318-021710-1450	1318-021710-1500	1318-021810-0830	1318-021810-0840	1318-021710-1415	1318-021710-1425	1318-021610-1715	1318-021610-1725	1318-021610-1640	1318-021610-1650
Sample Date		RSL	2/17/2010	2/17/2010	2/18/2010	2/18/2010	2/17/2010	2/17/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.17 J**	< 0.5	**0.51**	< 0.5
Arsenic, Total	13	1.6	**1.25**	**0.4**	**0.19**	**3.45 [A]**	**3.23 [A]**	**2.6 [A]**	**9.8 J [A]**	**2.56 J [A]**	**10.8 J [A]**	**0.66 J**
Barium, Total	140	190000	**80.9**	**66.1**	**6.17**	**61.2**	**88.6**	**79.1**	**82.7**	**53.3**	**73.9**	**53.4**
Beryllium, Total	-	2000	**0.6**	**0.44**	**0.06 J**	**0.53**	**0.65**	**0.34**	**0.64**	**0.38**	**0.41**	**0.39**
Cadmium, Total	1.25	800	**0.27**	**0.24**	**0.03 J**	**0.15 J**	**0.26**	**0.46**	**0.66**	**0.17 J**	**0.24**	**0.14 J**
Chromium, Total	22	-	**7.01**	**7.21**	**0.97**	**7.66**	**6.35**	**6.72**	**31.9 J**	**5.98 J**	**7.08 J**	**3.68 J**
Cobalt, Total	-	300	**5.73**	**4.26**	**0.48 J**	**3.36**	**4**	**13.9**	**7.96**	**2.8**	**3.59**	**5.03**
Copper, Total	-	41000	**14.5**	**19.5**	**1.06**	**13.2**	**10.9**	**15.5**	**27.1**	**7.72**	**14.9**	**15.9**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**9.95**	**8.04**	**1.01**	**13.8**	**10.9**	**12.2**	**57.6**	**7.61**	**38.5**	**9.68**
Manganese, Total	-	23000	**337**	**127**	**83.7**	**126**	**405**	**1270**	**1040**	**217**	**585**	**394**
Mercury, Total	0.13	43	**0.053**	**0.03 J**	< 0.05	**0.03 J**	**0.05 J**	**0.02 J**	**0.138**	**0.02 J**	**0.339**	**0.02 J**
Nickel, Total	33	20000	**12.2**	**10.9**	**1.35**	**9.59**	**6.21**	**27.7**	**9.48**	**8.64**	**9.49**	**9.19**
Selenium, Total	-	5100	< 0.5	< 0.5	< 0.5	**0.33 J**	**0.29 J**	< 0.5	**0.31 J**	**0.24 J**	**0.34 J**	< 0.5
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.06 J**	**0.05 J**	**0.08 J**	**0.05 J**
Thallium, Total	-	10	< 0.5	**0.16 J**	< 0.5	< 0.5	< 0.5	**0.21 J**	**0.25 J**	< 0.5	**0.14 J**	**0.07 J**
Vanadium, Total	-	5200	**9.14**	**6.88**	**2.01**	**18.5**	**10.7**	**11.8**	**10.1**	**7.02**	**12.6**	**7.46**
Zinc, Total	90	310000	**39.3**	**40.2**	**1.92**	**35.1**	**22.7**	**30.4**	**77.9**	**18.5**	**37.4**	**21.3**
Other (%)												
Total Solids	-	-	**80**	**76**	**97**	**79**	**76**	**79**	**89**	**79**	**88**	**78**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-09	AOI-09	AOI-09	AOI-09	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10
Location Name			SB-09-01	SB-09-01	SB-09-02	SB-09-02	SB-10-01	SB-10-01	SB-10-02	SB-10-02	SB-10-03	SB-10-03
Sample Name			1318-021710-1450	1318-021710-1500	1318-021810-0830	1318-021810-0840	1318-021710-1415	1318-021710-1425	1318-021610-1715	1318-021610-1725	1318-021610-1640	1318-021610-1650
Sample Date		RSL	2/17/2010	2/17/2010	2/18/2010	2/18/2010	2/17/2010	2/17/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33	**0.06 J**	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.35**	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.44** [A]	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.41**	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.07 J**	< 0.33	**0.3 J**	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.43**	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	**0.59**	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	< 0.33	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**0.2 J**	< 0.33	< 0.33	**0.06 J**	**0.08 J**	< 0.33	**0.3 J**	< 0.33	**3.18**	< 0.33
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	**0.42**	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.07 J**	< 0.33	**0.3 J**	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.06 J**	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	**0.33**	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethane	-	17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-09	AOI-09	AOI-09	AOI-09	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10
Location Name			SB-09-01	SB-09-01	SB-09-02	SB-09-02	SB-10-01	SB-10-01	SB-10-02	SB-10-02	SB-10-03	SB-10-03
Sample Name			1318-021710-1450	1318-021710-1500	1318-021810-0830	1318-021810-0840	1318-021710-1415	1318-021710-1425	1318-021610-1715	1318-021610-1725	1318-021610-1640	1318-021610-1650
Sample Date		RSL	2/17/2010	2/17/2010	2/18/2010	2/18/2010	2/17/2010	2/17/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	-	12	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01 J	< 0.01	**0.006 J**	< 0.01	**0.007 J**	**0.007 J**	**1.8**	**0.02**
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.001 J**	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.005	< 0.005	< 0.005	< 0.005	**0.002 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromodichloromethane	-	1.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromoform	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.005 J	< 0.005	< 0.005 J
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	-	3700	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.001 J**	< 0.005
Carbon tetrachloride	-	3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	-	1400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobromomethane	-	680	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	-	61000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005 J	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.005	< 0.005	**0.0003 J**	< 0.005	< 0.005	< 0.005	< 0.005	**0.0005 J**	< 0.005
Isopropylbenzene	-	11000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
m&p-Xylene	-	-	< 0.005	< 0.005	**0.0008 J**	**0.001 J**	**0.0003 J**	< 0.005	< 0.005	< 0.005	**0.002 J**	< 0.005
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	-	960	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	21000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
o-Xylene	-	3000	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	< 0.005	< 0.005	**0.0006 J**	< 0.005
Styrene	-	36000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene	-	110	< 0.005	< 0.005	< 0.005	**0.0006 J**	< 0.005	< 0.005	< 0.005	< 0.005	**0.003 J**	**0.005**
Tetrahydrofuran	-	95000	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	**0.017 J**	< 0.005 J	**0.008 J**	< 0.005 J	**0.101 J**	< 0.005 J
Toluene	-	45000	< 0.005	< 0.005	< 0.005	< 0.005	**0.003 J**	< 0.005	< 0.005	< 0.005	**0.014**	**0.0007 J**
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	-	6.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.001 J**
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl chloride	-	1.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-11	AOI-11	AOI-11
Location Name			SB-10-04	SB-10-04	SB-10-05	SB-10-05	SB-10-05	SB-10-06	SB-10-06	SB-11-01	SB-11-01	SB-11-02
Sample Name			1318-021710-0900	1318-021710-0910	1318-021710-1300	1318-021710-1310	1318-021710-1320	1318-021710-0925	1318-021710-0935	1318-021610-1135	1318-021610-1145	1318-021610-1205
Sample Date		RSL	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/16/2010	2/16/2010	2/16/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.1 J**	< 0.5	**0.38 J**
Arsenic, Total	13	1.6	**12.8 J [A]**	**1.61 J [A]**	**1.36**	**2.41 [A]**	**2.27 [A]**	**15.9 J [A]**	**1.54 J**	**1.32 J**	**1.74 J [A]**	**0.92 J**
Barium, Total	140	190000	**83.7**	**33.4**	**102**	**96.4**	**64.2**	**135**	**43.5**	**20.1**	**50.5**	**11.1**
Beryllium, Total	-	2000	**0.7**	**0.28**	**0.66**	**0.41**	**0.38**	**1.05**	**0.29**	**0.14 J**	**0.25**	**0.07 J**
Cadmium, Total	1.25	800	**0.39**	**0.16 J**	**0.32**	**0.33**	**0.38**	**0.79**	**0.17 J**	**0.27**	**0.24**	**0.14 J**
Chromium, Total	22	-	**4.76 J**	**3.04 J**	**5.75**	**7.94**	**6.88**	**6.65 J**	**3.5 J**	**2.47 J**	**3.28 J**	**2.45 J**
Cobalt, Total	-	300	**4.69**	**2.03**	**8.8**	**9.4**	**8.01**	**3.06**	**5.61**	**2.49**	**6.07**	**0.74**
Copper, Total	-	41000	**15.1**	**6.74**	**6.43**	**16.5**	**14**	**22.1**	**7.43**	**3.17**	**8.22**	**1.97**
Cyanide	-	140	**0.3**	< 0.1	< 0.1	< 0.1	< 0.1	**0.8**	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**15.2**	**6.16**	**10.6**	**8.87**	**8.86**	**42.6**	**6.04**	**4.56**	**5.74**	**4.89**
Manganese, Total	-	23000	**345**	**225**	**466**	**1200**	**604**	**365**	**295**	**262**	**451**	**101**
Mercury, Total	0.13	43	**0.051**	**0.02 J**	**0.05 J**	**0.02 J**	**0.02 J**	**0.133**	**0.02 J**	**0.01 J**	**0.02 J**	**0.01 J**
Nickel, Total	33	20000	**5.48**	**7.68**	**7.7**	**21.2**	**22.3**	**4.05**	**10.8**	**8.92**	**11.9**	**5.32**
Selenium, Total	-	5100	**1.17**	**0.17 J**	**0.22 J**	**0.31 J**	< 0.5	**0.66**	< 0.5	**0.49 J**	**0.19 J**	**0.18 J**
Silver, Total	-	5100	**0.07 J**	**0.03 J**	< 0.2	< 0.2	< 0.2	**0.07 J**	**0.04 J**	< 0.2	**0.03 J**	< 0.2
Thallium, Total	-	10	**0.27 J**	**0.06 J**	< 0.5	**0.17 J**	**0.16 J**	**0.26 J**	**0.06 J**	< 0.5	**0.06 J**	< 0.5
Vanadium, Total	-	5200	**15.2**	**5.51**	**10.1**	**10.7**	**11.6**	**16.3**	**5.79**	**4**	**5.25**	**3.33**
Zinc, Total	90	310000	**21**	**14.3**	**17.1**	**37.2**	**31.7**	**178**	**16.1**	**7.3**	**19.7**	**4.89**
Other (%)												
Total Solids	-	-	**76**	**79**	**85**	**79**	**79**	**80**	**80**	**88**	**79**	**96**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-11	AOI-11	AOI-11
Location Name			SB-10-04	SB-10-04	SB-10-05	SB-10-05	SB-10-05	SB-10-06	SB-10-06	SB-11-01	SB-11-01	SB-11-02
Sample Name			1318-021710-0900	1318-021710-0910	1318-021710-1300	1318-021710-1310	1318-021710-1320	1318-021710-0925	1318-021710-0935	1318-021610-1135	1318-021610-1145	1318-021610-1205
Sample Date		RSL	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/16/2010	2/16/2010	2/16/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.02 J**	< 0.33	**0.08 J**
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	**0.08 J**
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	**0.08 J**
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.02 J**	< 0.33	**0.07 J**
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	**0.1 J**
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33	**0.2 J**
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	**0.2 J**
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	**0.0005 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethane	-	17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.002 J**	< 0.005	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-10	AOI-11	AOI-11	AOI-11
Location Name			SB-10-04	SB-10-04	SB-10-05	SB-10-05	SB-10-05	SB-10-06	SB-10-06	SB-11-01	SB-11-01	SB-11-02
Sample Name			1318-021710-0900	1318-021710-0910	1318-021710-1300	1318-021710-1310	1318-021710-1320	1318-021710-0925	1318-021710-0935	1318-021610-1135	1318-021610-1145	1318-021610-1205
Sample Date		RSL	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/16/2010	2/16/2010	2/16/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	-	12	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	**0.04**	**0.004 J**	**0.005 J**	**0.02**	**0.006 J**	**0.01**	< 0.01	**0.002 J**	**0.002 J**	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.011	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromodichloromethane	-	1.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromoform	-	220	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	-	3700	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	-	1400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobromomethane	-	680	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	-	61000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Isopropylbenzene	-	11000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
m&p-Xylene	-	-	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	< 0.005	**0.001 J**	< 0.005	< 0.005
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	-	960	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	21000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
o-Xylene	-	3000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.0003 J**	< 0.005	< 0.005
Styrene	-	36000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene	-	110	**0.027**	< 0.005	< 0.005	< 0.005	< 0.005	**0.003 J**	< 0.005	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	-	95000	**0.009 J**	< 0.005 J	**0.03 J**	**0.014 J**	**13.9**	< 0.005 J	< 0.005 J	**0.009 J**	< 0.005 J	< 0.005 J
Toluene	-	45000	**0.0005 J**	< 0.005	< 0.005	**0.0004 J**	**0.017**	**0.0004 J**	< 0.005	**0.002 J**	< 0.005	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	-	6.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl chloride	-	1.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-11	AOI-11	AOI-11	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13
Location Name			SB-11-02	SB-11-03	SB-11-03	SB-13-01	SB-13-01	SB-13-01	SB-13-01	SB-13-02	SB-13-02	SB-13-02
Sample Name			1318-021610-1215	1318-021610-1230	1318-021610-1240	1318-030910-1555	1318-030910-1600	1318-030910-1605	1318-030910-0004	1318-030910-1520	1318-030910-1525	1318-030910-1530
Sample Date		RSL	2/16/2010	2/16/2010	2/16/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 7.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	**2.13 J [A]**	**0.89 J**	**1.09 J**	-	-	-	-	-	-	-
Barium, Total	140	190000	**47**	**13.8**	**45.3**	-	-	-	-	-	-	-
Beryllium, Total	-	2000	**0.29**	**0.05 J**	**0.25**	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	**0.22**	**0.28**	**0.17 J**	-	-	-	-	-	-	-
Chromium, Total	22	-	**4.88 J**	**2.41 J**	**2.9 J**	-	-	-	-	-	-	-
Cobalt, Total	-	300	**4.46**	**0.76**	**3.23**	-	-	-	-	-	-	-
Copper, Total	-	41000	**9.63**	**2.36**	**13.9**	-	-	-	-	-	-	-
Cyanide	-	140	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	-
Lead, Total	37	800	**8.02**	**1.82**	**8.17**	-	-	-	-	-	-	-
Manganese, Total	-	23000	**297**	**122**	**226**	-	-	-	-	-	-	-
Mercury, Total	0.13	43	**0.02 J**	**0.05 J**	**0.02 J**	-	-	-	-	-	-	-
Nickel, Total	33	20000	**10.7**	**8.43**	**8.56**	-	-	-	-	-	-	-
Selenium, Total	-	5100	**0.43 J**	< 0.5	**0.61**	-	-	-	-	-	-	-
Silver, Total	-	5100	**0.05 J**	< 0.2	**0.06 J**	-	-	-	-	-	-	-
Thallium, Total	-	10	< 0.5	< 0.5	**0.08 J**	-	-	-	-	-	-	-
Vanadium, Total	-	5200	**6.25**	**3.34**	**5.83**	-	-	-	-	-	-	-
Zinc, Total	90	310000	**20.7**	**8.55**	**18**	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**86**	**96**	**80**	**93**	**78**	**79**	**80**	**95**	**74**	**80**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 5.26 J	< 45.05 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	**0.1 J**	< 5.26	< 45.05	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 5.26	< 45.05	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	**0.04 J**	< 5.26	< 45.05	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 5.26	< 45.05	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 5.26 J	< 45.05 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 5.26	< 45.05	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-11	AOI-11	AOI-11	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13
Location Name			SB-11-02	SB-11-03	SB-11-03	SB-13-01	SB-13-01	SB-13-01	SB-13-01	SB-13-02	SB-13-02	SB-13-02
Sample Name			1318-021610-1215	1318-021610-1230	1318-021610-1240	1318-030910-1555	1318-030910-1600	1318-030910-1605	1318-030910-0004	1318-030910-1520	1318-030910-1525	1318-030910-1530
Sample Date		RSL	2/16/2010	2/16/2010	2/16/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 7.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 5.26 J	< 45.05 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Benzaldehyde	-	100000	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	**0.08 J**	< 5.26	< 45.05	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Chrysene	-	210	**0.03 J**	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Dimethylformamide	-	62000	-	-	-	< 0.33	**0.92**	**78.1**	**89.9**	< 5.26	< 6.76	< 0.33
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Di-n-octyl phthalate	-	7400	**0.05 J**	< 0.33	< 0.33	**0.1 J**	**11**	**0.3 J**	**0.2 J**	< 5.26	**2900**	**24.9**
Fluoranthene	-	22000	**0.03 J**	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 5.26	< 45.05	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 5.26 J	< 45.05 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Pyrene	-	17000	**0.03 J**	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 5.26	< 45.05	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.012	< 0.011
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,1-Dichloroethane	-	17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,1-Dichloroethene	-	1100	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.005	< 0.005	< 0.005	< 2	< 200	< 70	< 0.005	< 0.007	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.8	< 80	< 40	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-11	AOI-11	AOI-11	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13
Location Name			SB-11-02	SB-11-03	SB-11-03	SB-13-01	SB-13-01	SB-13-01	SB-13-01	SB-13-02	SB-13-02	SB-13-02
Sample Name			1318-021610-1215	1318-021610-1230	1318-021610-1240	1318-030910-1555	1318-030910-1600	1318-030910-1605	1318-030910-0004	1318-030910-1520	1318-030910-1525	1318-030910-1530
Sample Date		RSL	2/16/2010	2/16/2010	2/16/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	FD	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 7.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,2-Dichloropropane	-	4.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,3-Dichlorobenzene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
1,4-Dichlorobenzene	-	12	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
2-Butanone (Methyl Ethyl Ketone)	-	200000	**0.003 J**	**0.002 J**	**0.003 J**	< 0.01	< 10 J	< 1000 J	< 600 J	< 0.01	**0.04 J**	< 0.01 J
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 40 J	< 4000 J	< 2000 J	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 40	< 4000 J	< 2000 J	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01	< 0.01	< 10 J	< 1000 J	< 600 J	< 0.01	**0.1 J**	< 0.01 J
Benzene	-	5.4	< 0.005	< 0.005	< 0.005	< 0.005	**1.4**	< 80	**5 J**	< 0.005	< 0.007	< 0.006
Bromodichloromethane	-	1.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Bromoform	-	220	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.005	< 0.005	< 0.005	< 4	< 400	< 200	< 0.005	< 0.007	< 0.006
Carbon disulfide	-	3700	< 0.005	< 0.005	< 0.005	< 0.005	< 4	< 400	< 200	< 0.005	**0.004 J**	< 0.006
Carbon tetrachloride	-	3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Chlorobenzene	-	1400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	**0.0008 J**
Chlorobromomethane	-	680	< 0.005	< 0.005	< 0.005	< 0.005	< 8	< 80	< 40	< 0.005	< 0.007	< 0.006
Chloroethane	-	61000	< 0.005	< 0.005	< 0.005	< 0.005	< 4	< 400	< 200	< 0.005	< 0.007	< 0.006
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.005	< 0.005	< 0.005	< 4	< 400	< 200	< 0.005	< 0.007	< 0.006
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	**24.6 J**	< 80 J	< 40 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.8 J	< 80	< 40	< 0.005 J	< 0.007	< 0.006
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	**0.0004 J**	< 0.005	< 0.005	**2.2**	< 80	**4 J**	< 0.005	< 0.007	**0.001 J**
Isopropylbenzene	-	11000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	**0.016**	**0.012**
m&p-Xylene	-	-	**0.0003 J**	**0.001 J**	< 0.005	< 0.005	**7.3**	**12 J**	**12 J**	**0.0003 J**	**0.002 J**	**0.007**
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	< 40	< 4000	< 2000	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	**1.2**	< 80	< 40	**0.0006 J**	**0.04**	**0.04**
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 4	< 400	< 200	< 0.005	**0.001 J**	**0.004 J**
Methylene chloride	-	960	< 0.005	< 0.005	< 0.005	< 0.005	< 4	< 400	< 200	< 0.005	< 0.007	< 0.006
n-Propylbenzene	-	21000	< 0.005	< 0.005	< 0.005	< 0.005	< 8	< 80	< 40	< 0.005	**0.035**	**0.02**
o-Xylene	-	3000	< 0.005	**0.0004 J**	< 0.005	< 0.005	**2.1**	< 80	< 40	< 0.005	< 0.007	**0.001 J**
Styrene	-	36000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Tetrachloroethene	-	110	< 0.005	< 0.005	< 0.005	**0.002 J**	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Tetrahydrofuran	-	95000	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 80	< 800	**5500**	< 0.005 J	< 0.007	< 0.006
Toluene	-	45000	**0.0004 J**	**0.0008 J**	< 0.005	< 0.005	**188**	**920**	**1060**	< 0.005	< 0.007	< 0.006
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Trichloroethene	-	6.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.8	< 80	< 40	< 0.005	< 0.007	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.005	< 0.005	< 0.005	< 2	< 200	< 70	< 0.005	< 0.007	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.001	< 0.001	< 0.001	< 0.005	< 2	< 200	< 70	< 0.005	< 0.007	< 0.006
Vinyl chloride	-	1.7	< 0.005	< 0.005	< 0.005	< 0.005	< 2	< 200	< 70	< 0.005	< 0.007	< 0.006
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13
Location Name			SB-13-03	SB-13-03	SB-13-03	SB-13-03	SB-13-04	SB-13-04	SB-13-04	SB-13-05	SB-13-05	SB-13-05
Sample Name			1318-063010-1630	1318-063010-1635	1318-063010-0006	1318-063010-1640	1318-062910-1120	1318-062910-1125	1318-062910-1130	1318-062910-1030	1318-062910-1035	1318-062910-1040
Sample Date		RSL	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	SPL	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**84**	**81**	**79.2**	**79**	**87**	**82**	**78**	**89**	**80**	**78**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.85	< 0.67 J	< 0.67 J	< 3.05 J	< 0.67 J	< 0.67 J	< 12.5 J	< 4.27 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2-Methylnaphthalene	-	2200	**0.09 J**	< 0.33	< 0.42	< 0.33	**0.51**	< 3.05	< 0.33	**0.2 J**	< 12.5	< 4.27
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.85	< 0.67	< 0.67	< 3.05	< 0.67	< 0.67	< 12.5	< 4.27
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
3&4-Methylphenol	-	-	< 0.33	< 0.33	-	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.85	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.85	< 0.67	< 0.67	< 3.05	< 0.67	< 0.67	< 12.5	< 4.27
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.85	< 0.67 J	< 0.67 J	< 3.05 J	< 0.67 J	< 0.67 J	< 12.5 J	< 4.27 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
4-Methylphenol	-	62000	-	-	< 0.42	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.85	< 0.67	< 0.67	< 3.05	< 0.67	< 0.67	< 12.5	< 4.27

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13
Location Name			SB-13-03	SB-13-03	SB-13-03	SB-13-03	SB-13-04	SB-13-04	SB-13-04	SB-13-05	SB-13-05	SB-13-05
Sample Name			1318-063010-1630	1318-063010-1635	1318-063010-0006	1318-063010-1640	1318-062910-1120	1318-062910-1125	1318-062910-1130	1318-062910-1030	1318-062910-1035	1318-062910-1040
Sample Date		RSL	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	SPL	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67	< 0.67	< 0.85	< 0.67	< 0.67 J	< 3.05 J	< 0.67 J	< 0.67	< 12.5	< 4.27
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Acetophenone	-	100000	< 0.33	< 0.33	< 0.084	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Anthracene	-	170000	< 0.33	< 0.33	< 0.42	< 0.33	**0.2 J**	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Atrazine	-	7.5	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Benzaldehyde	-	100000	< 0.33 J	< 0.33 J	< 0.42	< 0.33 J	< 0.46 J	< 3.05 J	< 0.33 J	< 0.33 J	< 12.5 J	< 4.27 J
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.42	< 0.33	**0.6**	< 3.05	< 0.33	**0.08 J**	< 12.5	< 4.27
Benzo(a)pyrene	-	0.21	**0.05 J**	< 0.33	< 0.42	< 0.33	**0.2 J**	< 3.05	< 0.33	**0.07 J**	< 12.5	< 4.27
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.42	< 0.33	**0.2 J**	< 3.05	< 0.33	**0.08 J**	< 12.5	< 4.27
Benzo(g,h,i)perylene	-	-	**0.3 J**	< 0.33	< 0.42	< 0.33	**0.1 J**	< 3.05	< 0.33	**0.08 J**	< 12.5 J	< 4.27 J
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.42	< 0.33	**0.1 J**	< 3.05	< 0.33	**0.07 J**	< 12.5	< 4.27
Biphenyl	-	210	< 0.33	< 0.33	< 0.42	< 0.33	**0.1 J**	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	**0.061 J**	< 0.33	**3.03**	< 3.05	< 0.33	**1.88**	**15 J**	< 4.27 J
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Caprolactam	-	310000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33 J	< 12.5 J	< 4.27
Carbazole	-	-	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Chrysene	-	210	< 0.33	< 0.33	< 0.42	< 0.33	**1.1**	< 3.05	< 0.33	**0.1 J**	< 12.5	< 4.27
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33 J	< 12.5 J	< 4.27 J
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	**0.07 J**	< 12.5	< 4.27
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Dimethylformamide	-	62000	-	-	< 0.42	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.42	< 0.33	**1.4 J**	**252 J**	**7.38 J**	< 0.33 J	**2250 J**	**510 J**
Fluoranthene	-	22000	**0.04 J**	< 0.33	< 0.42	< 0.33	**0.47**	< 3.05	< 0.33	**0.1 J**	< 12.5	< 4.27
Fluorene	-	22000	< 0.33	< 0.33	< 0.42	< 0.33	**0.3 J**	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 2	< 0.33	< 0.46 J	< 3.05 J	< 0.33 J	< 0.33	< 12.5	< 4.27
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Indeno(1,2,3-cd)pyrene	-	2.1	**0.04 J**	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33 J	< 12.5 J	< 4.27 J
Isophorone	-	1800	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Naphthalene	-	18	**0.04 J**	< 0.33	< 0.42	< 0.33	**0.2 J**	< 3.05	< 0.33	**0.1 J**	< 12.5	< 4.27
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.25	< 0.2	< 0.46	< 3.05	< 0.2	< 0.28	< 12.5	< 4.27
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Phenanthrene	-	-	**0.2 J**	< 0.33	< 0.42	< 0.33	**1.25**	< 3.05	< 0.33	**0.2 J**	< 12.5	< 4.27
Phenol	-	180000	< 0.33	< 0.33	< 0.42	< 0.33	< 0.46	< 3.05	< 0.33	< 0.33	< 12.5	< 4.27
Pyrene	-	17000	**0.1 J**	< 0.33	< 0.42	< 0.33	**2.24**	< 3.05	< 0.33	**0.2 J**	< 12.5	< 4.27
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.005	< 2.9	< 7	< 0.07	< 1	< 3	< 0.01	< 0.005	< 0.07
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.014	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
1,1-Dichloroethane	-	17	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
1,1-Dichloroethene	-	1100	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.005	**0.15 J**	< 10	< 0.1	< 3	< 7	< 0.006	< 0.005	< 0.1
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 5.7	< 7	< 0.05	< 1	< 3	< 0.01	< 0.01	< 0.07
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005 J	< 0.07
1,2-Dichlorobenzene	-	9800	< 0.005 J	< 0.005 J	< 2.9	< 7 J	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13	AOI-13
Location Name			SB-13-03	SB-13-03	SB-13-03	SB-13-03	SB-13-04	SB-13-04	SB-13-04	SB-13-05	SB-13-05	SB-13-05
Sample Name			1318-063010-1630	1318-063010-1635	1318-063010-0006	1318-063010-1640	1318-062910-1120	1318-062910-1125	1318-062910-1130	1318-062910-1030	1318-062910-1035	1318-062910-1040
Sample Date		RSL	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	SPL	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
1,2-Dichloropropane	-	4.7	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
1,3-Dichlorobenzene	-	-	< 0.005 J	< 0.005 J	< 2.9	< 7 J	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
1,4-Dichlorobenzene	-	12	< 0.005 J	< 0.005 J	< 2.9	< 7 J	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
2-Butanone (Methyl Ethyl Ketone)	-	200000	**0.006 J**	**0.002 J**	< 11	< 100	< 0.8	< 20	< 50	< 0.02	**0.006 J**	< 1
2-Hexanone	-	1400	< 0.01	< 0.01	< 11	< 300	< 3	< 70	< 200	< 0.01	< 0.01	< 4
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 11	< 300	< 3	< 70	< 200	< 0.01	< 0.01	< 4
Acetone	-	630000	**0.03**	**0.01 J**	< 11	**8 J**	**0.1 J**	< 20	< 50	< 0.01	< 0.01	< 1
Benzene	-	5.4	< 0.005 J	< 0.005 J	< 2.9	< 7 J	**0.01 J**	< 1	< 3	< 0.006	< 0.005	< 0.07
Bromodichloromethane	-	1.4	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Bromoform	-	220	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.005	< 2.9 J	< 30	< 0.3	< 7	< 20	< 0.006	< 0.005	< 0.4
Carbon disulfide	-	3700	**0.0007 J**	< 0.005	< 2.9	< 30	< 0.3	< 7	< 20	**0.0005 J**	**0.0004 J**	< 0.4
Carbon tetrachloride	-	3	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Chlorobenzene	-	1400	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Chlorobromomethane	-	680	< 0.005	< 0.005	-	< 7	< 0.5	< 1	< 3	< 0.006	< 0.005	< 0.07
Chloroethane	-	61000	< 0.005	< 0.005	< 2.9	< 30	< 0.3	< 7	< 20	< 0.006	< 0.005	< 0.4
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.005	< 2.9	< 30	< 0.3	< 7	< 20	< 0.006	< 0.005	< 0.4
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Cyclohexane	-	29000	< 0.01 J	**0.17 J**	< 5.7	< 7 J	< 0.14 J	< 1 J	< 3 J	< 0.01 J	**0.07 J**	**0.36 J**
Dibromochloromethane	-	3.3	< 0.005	< 0.005	< 2.9	< 7	< 0.05 J	< 1 J	< 3 J	< 0.006	< 0.005	< 0.07
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	< 0.005	R	< 7 J	< 0.05	< 1	< 3	< 0.006 J	< 0.005	< 0.07 J
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.005	< 2.9	< 7	< 0.05	**0.7 J**	**1 J**	< 0.006	< 0.005	**0.06 J**
Isopropylbenzene	-	11000	< 0.005 J	**0.004 J**	< 2.9	< 7 J	< 0.05	< 1	< 3	< 0.006	**0.003 J**	**0.01 J**
m&p-Xylene	-	-	< 0.005	**0.002 J**	-	< 7	**0.03 J**	**0.9 J**	**2 J**	**0.0002 J**	**0.0008 J**	**0.02 J**
Methyl acetate	-	1000000	< 0.01	< 0.01	< 5.7	< 300	**0.3 J**	< 70	< 200	< 0.04	< 0.01	< 4
Methyl cyclohexane	-	-	< 0.01	< 0.04	< 5.7	< 7	**0.13**	**0.4 J**	**0.8 J**	< 0.04	**0.02**	**0.07**
Methyl Tert Butyl Ether	-	220	< 0.005	**0.018**	**0.17 J**	< 30	**0.03 J**	< 7	< 20	< 0.006	**0.056**	**0.2 J**
Methylene chloride	-	960	< 0.005	< 0.005	< 2.9	< 30	< 0.3	< 7	< 20	< 0.006	< 0.005	< 0.4
n-Propylbenzene	-	21000	< 0.005 J	**0.0004 J**	-	< 7 J	< 0.5	< 1	< 3	< 0.006	**0.003 J**	< 0.07
o-Xylene	-	3000	< 0.005	< 0.005	-	< 7	**0.02 J**	< 1	< 3	**0.0002 J**	< 0.005	< 0.07
Styrene	-	36000	< 0.005 J	< 0.005 J	< 2.9	< 7 J	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Tetrachloroethene	-	110	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Tetrahydrofuran	-	95000	< 0.005 J	**0.473 J**	-	**615 J**	**29.4 J**	**222 J**	**389 J**	< 0.006 J	< 0.005 J	**4.99 J**
Toluene	-	45000	< 0.005 J	< 0.005 J	< 2.9	< 7 J	**0.03 J**	< 1	< 3	< 0.006	< 0.005	< 0.07
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Trichloroethene	-	6.4	< 0.005	< 0.005	< 2.9	< 7	< 0.05	< 1	< 3	< 0.006	< 0.005	< 0.07
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.005	< 2.9	< 10	< 0.1	< 3	< 7	< 0.006	< 0.005	< 0.1
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	< 0.005	< 2.9	< 10	< 0.1	< 3	< 7	< 0.006	< 0.005	< 0.1
Vinyl chloride	-	1.7	< 0.005	< 0.005	< 2.9	< 10	< 0.1	< 3	< 7	< 0.006	< 0.005	< 0.1
Xylene (total)	-	2700	-	-	< 5.7	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-15	AOI-15
Location Name			SB-14-01	SB-14-01	SB-14-01	SB-14-02	SB-14-02	SB-14-03	SB-14-03	SB-14-03	SB-15-01	SB-15-01
Sample Name			1318-031010-1120	1318-031010-1125	1318-031010-1130	1318-030910-1640	1318-030910-1650	1318-030910-1145	1318-030910-1155	1318-030910-0002	1318-030910-1445	1318-030910-1450
Sample Date		RSL	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 7 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	6.5 - 7.5 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**81**	**82**	**81**	**98**	**90**	**78**	**77**	**78**	**94**	**76**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.85 J	< 0.67 J	< 0.67 J	< 0.67 J	< 26.32 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.85	< 0.67	< 0.67	< 0.67	< 26.32
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.85	< 0.67	< 0.67	< 0.67	< 26.32
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.85 J	< 0.67 J	< 0.67 J	< 0.67 J	< 26.32 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.85	< 0.67	< 0.67	< 0.67	< 26.32

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-15	AOI-15
Location Name			SB-14-01	SB-14-01	SB-14-01	SB-14-02	SB-14-02	SB-14-03	SB-14-03	SB-14-03	SB-15-01	SB-15-01
Sample Name			1318-031010-1120	1318-031010-1125	1318-031010-1130	1318-030910-1640	1318-030910-1650	1318-030910-1145	1318-030910-1155	1318-030910-0002	1318-030910-1445	1318-030910-1450
Sample Date		RSL	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 7 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	6.5 - 7.5 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.85 J	< 0.67 J	< 0.67 J	< 0.67 J	< 26.32 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.4 J**	< 0.33	< 0.33	< 0.33	< 26.32
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.5 J [A]**	< 0.33	< 0.33	< 0.33	< 26.32
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.6 J**	< 0.33	< 0.33	< 0.33	< 26.32
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	< 26.32
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.5 J**	< 0.33	< 0.33	< 0.33	< 26.32
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.6 J**	< 0.33	< 0.33	< 0.33	< 26.32
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Dimethylformamide	-	62000	< 0.33	**0.55**	< 0.33	**0.05 J**	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 6.58
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Di-n-octyl phthalate	-	7400	**0.09 J**	**0.04 J**	**2.19**	**0.02 J**	**1.4**	**7.81**	**31.7**	**36.2**	**0.03 J**	**2800**
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**1.09**	< 0.33	< 0.33	< 0.33	< 26.32
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	< 26.32
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.85	< 0.26	< 0.26	< 0.2	< 26.32
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.85 J	< 0.33 J	< 0.33 J	< 0.33 J	< 26.32 J
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.5 J**	< 0.33	< 0.33	< 0.33	< 26.32
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.85	< 0.33	< 0.33	< 0.33	< 26.32
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.94**	< 0.33	< 0.33	< 0.33	< 26.32
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
1,1,2,2-Tetrachloroethane	-	2.8	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.15	< 0.008	< 0.005	< 0.11
1,1,2-Trichloroethane	-	5.3	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 4.2	< 0.5	< 0.005	< 0.007
1,1-Dichloroethane	-	17	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
1,1-Dichloroethene	-	1100	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
1,2,4-Trichlorobenzene	-	99	< 0.1	< 3	< 7	< 0.005	< 0.1	< 0.007	< 0.2	< 0.006	< 0.005	< 0.2
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.07	< 1	< 4	< 0.01	< 0.07	< 0.01	< 0.08	< 0.01	< 0.01	< 0.08
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
1,2-Dichlorobenzene	-	9800	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.08

TABLE 5A
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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-14	AOI-15	AOI-15
Location Name			SB-14-01	SB-14-01	SB-14-01	SB-14-02	SB-14-02	SB-14-03	SB-14-03	SB-14-03	SB-15-01	SB-15-01
Sample Name			1318-031010-1120	1318-031010-1125	1318-031010-1130	1318-030910-1640	1318-030910-1650	1318-030910-1145	1318-030910-1155	1318-030910-0002	1318-030910-1445	1318-030910-1450
Sample Date		RSL	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 7 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	6.5 - 7.5 (ft)
1,2-Dichloroethane	-	2.2	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
1,2-Dichloropropane	-	4.7	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.13	< 0.08	< 0.005	< 0.007
1,3-Dichlorobenzene	-	-	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.08
1,4-Dichlorobenzene	-	12	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.08
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 1 J	< 20 J	< 50 J	< 0.01 J	< 1 J	< 0.01 J	< 1 J	**0.05 J**	< 0.01	< 0.01 J
2-Hexanone	-	1400	< 4 J	< 70 J	< 200 J	< 0.01	< 3 J	< 0.01	< 4 J	< 4 J	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 4	< 70 J	< 200 J	< 0.01	< 3	< 0.01	< 4	< 4	< 0.01	< 0.01
Acetone	-	630000	< 1 J	< 20 J	< 50 J	< 0.01 J	< 1 J	< 0.01 J	< 1 J	< 0.01 J	< 0.01 J	< 0.01 J
Benzene	-	5.4	**0.02 J**	< 1	**0.5 J**	< 0.005	**0.01 J**	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Bromodichloromethane	-	1.4	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 1	< 0.018	< 0.005	< 0.007
Bromoform	-	220	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Bromomethane (Methyl Bromide)	-	32	< 0.4	< 7	< 20	< 0.005	< 0.3	< 0.007	< 0.4	< 0.006	< 0.005	< 0.007
Carbon disulfide	-	3700	< 0.4	< 7	< 20	< 0.005	< 0.3	**0.003 J**	< 0.4	< 0.006	< 0.005	**0.002 J**
Carbon tetrachloride	-	3	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Chlorobenzene	-	1400	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Chlorobromomethane	-	680	< 0.7	< 1	< 4	< 0.005	< 3	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Chloroethane	-	61000	< 0.4	< 7	< 20	< 0.005	< 0.3	< 0.007	< 0.4	< 0.006	< 0.005	< 0.007
Chloroform (Trichloromethane)	-	1.5	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Chloromethane (Methyl Chloride)	-	500	< 0.4	< 7	< 20	< 0.005	< 0.3	< 0.007	< 0.4	< 0.006	< 0.005	< 0.007
cis-1,2-Dichloroethene	-	2000	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
cis-1,3-Dichloropropene	-	-	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Cyclohexane	-	29000	< 0.09 J	< 1 J	< 4 J	< 0.01 J	< 0.07 J	< 0.01 J	< 0.16 J	< 0.08 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005 J	< 0.007
Dichlorodifluoromethane (CFC-12)	-	400	< 0.07 J	< 1	< 4	< 0.005	< 0.07 J	< 0.007	< 0.08 J	< 0.006	< 0.005	< 0.007
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	**0.07 J**	< 1	< 4	< 0.005	**0.04 J**	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Isopropylbenzene	-	11000	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	**1.92**	**0.668**	< 0.005	**0.003 J**
m&p-Xylene	-	-	**0.1**	< 1	< 4	< 0.005	**0.01 J**	< 0.007	< 0.08	< 0.006	< 0.005	**0.003 J**
Methyl acetate	-	1000000	**0.1 J**	< 70	< 200	< 0.01	< 3	< 0.01	< 4	**0.03**	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.07	< 1	< 4	**0.0003 J**	< 0.07	< 0.01	< 7	< 2	**0.0008 J**	**0.006 J**
Methyl Tert Butyl Ether	-	220	**0.1 J**	< 7	< 20	< 0.005	< 0.3	< 0.007	< 0.4	< 0.006	< 0.005	< 0.007
Methylene chloride	-	960	< 0.4	< 7	< 20	< 0.005	< 0.3	< 0.007	< 0.4	< 0.006	< 0.005	< 0.007
n-Propylbenzene	-	21000	< 0.7	< 1	< 4	< 0.005	< 3	< 0.007	**2.04**	**0.667**	< 0.005	**0.003 J**
o-Xylene	-	3000	**0.03 J**	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	**0.001 J**
Styrene	-	36000	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Tetrachloroethene	-	110	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Tetrahydrofuran	-	95000	< 7	< 10	< 40	< 0.005	< 30	< 0.007	< 0.8	< 0.006	< 0.005	< 0.007
Toluene	-	45000	R	< 1	< 4	< 0.005	R	< 0.007	R	< 0.006	< 0.005	< 0.007
trans-1,2-Dichloroethene	-	690	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
trans-1,3-Dichloropropene	-	-	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Trichloroethene	-	6.4	< 0.07	< 1	< 4	< 0.005	< 0.07	< 0.007	< 0.08	< 0.006	< 0.005	< 0.007
Trichlorofluoromethane (CFC-11)	-	3400	< 0.1	< 3	< 7	< 0.005	< 0.1	< 0.007	< 0.2	< 0.006	< 0.005	< 0.007
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.1	< 3	< 7	< 0.005	< 0.1	< 0.007	< 0.2	< 0.006	< 0.005	< 0.007
Vinyl chloride	-	1.7	< 0.1	< 3	< 7	< 0.005	< 0.1	< 0.007	< 0.2	< 0.006	< 0.005	< 0.007
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15
Location Name			SB-15-01	SB-15-02	SB-15-02	SB-15-03	SB-15-03	SB-15-04	SB-15-04	SB-15-04	SB-15-04	SB-15-05
Sample Name			1318-030910-1455	1318-031010-1700	1318-031010-1710	1318-031010-1725	1318-031010-1735	1318-062910-0900	1318-062910-0905	1318-062910-0910	1318-062910-0001	1318-062910-0935
Sample Date		RSL	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**63**	**80**	**80**	**84**	**79**	**83**	**79**	**79**	**79**	**83**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 10.58 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 2.6	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 2.6	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 2.6 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 2.6	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15
Location Name			SB-15-01	SB-15-02	SB-15-02	SB-15-03	SB-15-03	SB-15-04	SB-15-04	SB-15-04	SB-15-04	SB-15-05
Sample Name			1318-030910-1455	1318-031010-1700	1318-031010-1710	1318-031010-1725	1318-031010-1735	1318-062910-0900	1318-062910-0905	1318-062910-0910	1318-062910-0001	1318-062910-0935
Sample Date		RSL	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 2.6 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
Acenaphthene	-	33000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Benzaldehyde	-	100000	< 2.6	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Benzo(a)anthracene	-	2.1	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Benzo(k)fluoranthene	-	21	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Dibenzofuran	-	1000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	**3.33**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**67.8**	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	**0.2 J**	**0.06 J**	< 0.33 J	< 0.33 J
Fluoranthene	-	22000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 2.6	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Isophorone	-	1800	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 2.6	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 2.6 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 2.6	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.006	< 0.006 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,1-Dichloroethane	-	17	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,1-Dichloroethene	-	1100	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.006	< 0.006 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.006
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.006	< 0.006 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15	AOI-15
Location Name			SB-15-01	SB-15-02	SB-15-02	SB-15-03	SB-15-03	SB-15-04	SB-15-04	SB-15-04	SB-15-04	SB-15-05
Sample Name			1318-030910-1455	1318-031010-1700	1318-031010-1710	1318-031010-1725	1318-031010-1735	1318-062910-0900	1318-062910-0905	1318-062910-0910	1318-062910-0001	1318-062910-0935
Sample Date		RSL	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 7.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,2-Dichloropropane	-	4.7	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,3-Dichlorobenzene	-	-	< 0.005	< 0.006	< 0.006 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
1,4-Dichlorobenzene	-	12	< 0.005	< 0.006	< 0.006 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	**0.03 J**	< 0.01 J	< 0.01 J	< 0.01 J	**0.01**	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	**0.11 J**	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Bromodichloromethane	-	1.4	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Bromoform	-	220	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Carbon disulfide	-	3700	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	**0.0003 J**	< 0.005	< 0.005	< 0.005	< 0.006
Carbon tetrachloride	-	3	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Chlorobenzene	-	1400	**0.0004 J**	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Chlorobromomethane	-	680	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Chloroethane	-	61000	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005 J	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006 J
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Isopropylbenzene	-	11000	**0.002 J**	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
m&p-Xylene	-	-	**0.0009 J**	< 0.006	**0.0007 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	**0.004 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	**0.003 J**	< 0.006	**0.001 J**	< 0.005	< 0.005	< 0.005	**0.002 J**	**0.003 J**	**0.001 J**	< 0.006
Methylene chloride	-	960	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
n-Propylbenzene	-	21000	**0.002 J**	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
o-Xylene	-	3000	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Styrene	-	36000	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Tetrachloroethene	-	110	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Tetrahydrofuran	-	95000	< 0.005 J	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.006 J
Toluene	-	45000	< 0.005	< 0.006	**0.006 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Trichloroethene	-	6.4	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Vinyl chloride	-	1.7	< 0.005	< 0.006	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-15	AOI-15	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16
Location Name			SB-15-05	SB-15-05	SB-16-01	SB-16-01	SB-16-02	SB-16-02	SB-16-02	SB-16-02	SB-16-03	SB-16-03
Sample Name			1318-062910-0940	1318-062910-0945	1318-030910-1110	1318-030910-1120	1318-030910-1215	1318-030910-1220	1318-030910-1225	1318-030910-0003	1318-030910-1350	1318-030910-1400
Sample Date		RSL	6/29/2010	6/29/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**78**	**79**	**87**	**76**	**90**	**79**	**79**	**79**	**92**	**79**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 9.26 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	**0.35**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	**0.06 J**	< 0.67	< 9.26	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 9.26	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 9.26 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 9.26	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-15	AOI-15	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16
Location Name			SB-15-05	SB-15-05	SB-16-01	SB-16-01	SB-16-02	SB-16-02	SB-16-02	SB-16-02	SB-16-03	SB-16-03
Sample Name			1318-062910-0940	1318-062910-0945	1318-030910-1110	1318-030910-1120	1318-030910-1215	1318-030910-1220	1318-030910-1225	1318-030910-0003	1318-030910-1350	1318-030910-1400
Sample Date		RSL	6/29/2010	6/29/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 9.26 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	**0.1 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.79**	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	**0.1 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.89** [A]	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	**0.1 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.98**	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33 J	< 0.33 J	**0.04 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.43**	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	**0.08 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.93**	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	**0.06 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	**0.1 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.95**	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	**0.04 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	**0.2 J**	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33 J	< 0.33 J	< 0.33	< 0.33	**918**	**16.2**	**2.04**	**0.67**	**0.88**	**0.04 J**
Fluoranthene	-	22000	< 0.33	< 0.33	**0.2 J**	< 0.33	**2 J**	< 0.33	< 0.33	< 0.33	**1.43**	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.38**	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	**0.09 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 9.26	< 0.25	< 0.2	< 0.2	< 0.27	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 9.26 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 0.33	**0.2 J**	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	**0.58**	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 9.26	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	**0.2 J**	< 0.33	**2 J**	< 0.33	< 0.33	< 0.33	**1.23**	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 1	< 0.005	< 0.08	< 0.005 J	< 0.005 J
1,1,2-Trichloroethane	-	5.3	< 0.4	< 0.08	< 0.005	< 0.007	< 0.006	< 11	< 0.05	< 0.43	< 0.005	< 0.005
1,1-Dichloroethane	-	17	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 2	< 0.005	< 0.006	< 0.005 J	< 0.005 J
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.8	< 0.01	< 0.01	< 0.01 J	< 0.01 J
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006 J	< 0.005 J	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005 J	< 0.005 J

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-15	AOI-15	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16	AOI-16
Location Name			SB-15-05	SB-15-05	SB-16-01	SB-16-01	SB-16-02	SB-16-02	SB-16-02	SB-16-02	SB-16-03	SB-16-03
Sample Name			1318-062910-0940	1318-062910-0945	1318-030910-1110	1318-030910-1120	1318-030910-1215	1318-030910-1220	1318-030910-1225	1318-030910-0003	1318-030910-1350	1318-030910-1400
Sample Date		RSL	6/29/2010	6/29/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.01	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005 J	< 0.005 J
1,4-Dichlorobenzene	-	12	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005 J	< 0.005 J
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.08	**0.03**	< 0.01	< 0.01 J	< 0.01 J	< 10 J	< 0.01	< 0.01	< 0.01 J	< 0.01
2-Hexanone	-	1400	< 0.06	< 0.01	< 0.01	< 0.01	< 0.01	< 40 J	< 0.03	< 4 J	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 40	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01 J	< 0.01 J	< 0.01 J	< 10 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Benzene	-	5.4	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Bromodichloromethane	-	1.4	< 0.2	< 0.005	< 0.005	< 0.007	< 0.006	< 1.4	< 0.012	< 0.1	< 0.005	< 0.005
Bromoform	-	220	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 4	< 0.005	< 0.006	< 0.005	< 0.005
Carbon disulfide	-	3700	< 0.006	< 0.005	< 0.005	**0.001 J**	**0.013**	< 4	< 0.005	< 0.006	< 0.005	< 0.005
Carbon tetrachloride	-	3	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Chlorobenzene	-	1400	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Chlorobromomethane	-	680	< 0.005	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Chloroethane	-	61000	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 4	< 0.005	< 0.006	< 0.005	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 4	< 0.005	< 0.006	< 0.005	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Cyclohexane	-	29000	< 0.07 J	< 0.15 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.9 J	< 0.02 J	< 0.08 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.006	< 0.005	< 0.005 J	< 0.007	< 0.006	< 0.8	< 0.005 J	< 0.006 J	< 0.005 J	< 0.005 J
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8 J	< 0.005	< 0.006	< 0.005	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Isopropylbenzene	-	11000	**0.07**	**0.014**	< 0.005	< 0.007	< 0.006	**3.9**	**0.592**	**0.676**	**0.0007 J**	< 0.005
m&p-Xylene	-	-	**0.006 J**	< 0.005	< 0.005	< 0.007	**0.001 J**	< 0.8	< 0.005	< 0.006	**0.0008 J**	< 0.005
Methyl acetate	-	1000000	< 0.21	< 0.01	< 0.01	< 0.01	< 0.01	< 40	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 2.1	< 0.5	**0.0006 J**	< 0.01	< 0.01	**41.2**	**0.19**	**0.36**	**0.001 J**	**0.0009 J**
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 4	< 0.005	< 0.006	< 0.005	< 0.005
Methylene chloride	-	960	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 4	< 0.005	< 0.006	< 0.005	< 0.005
n-Propylbenzene	-	21000	**0.073**	**0.005**	< 0.005	< 0.007	< 0.006	**5**	**0.331**	**0.201**	**0.0008 J**	< 0.005
o-Xylene	-	3000	**0.001 J**	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	**0.0004 J**	< 0.005
Styrene	-	36000	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Tetrachloroethene	-	110	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Tetrahydrofuran	-	95000	< 0.005 J	< 0.005 J	< 0.005	< 0.007	< 0.006	< 8	< 0.005	< 0.006	< 0.005	< 0.005
Toluene	-	45000	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	R	< 0.005	< 0.006	< 0.005	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Trichloroethene	-	6.4	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 0.8	< 0.005	< 0.006	< 0.005	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 2	< 0.005	< 0.006	< 0.005	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 2	< 0.005	< 0.006	< 0.005	< 0.005
Vinyl chloride	-	1.7	< 0.006	< 0.005	< 0.005	< 0.007	< 0.006	< 2	< 0.005	< 0.006	< 0.005	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-16	AOI-16	AOI-16	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17
Location Name			SB-16-04	SB-16-04	SB-16-05	SB-17-01	SB-17-01	SB-17-02	SB-17-02A	SB-17-02A	SB-17-02A	SB-17-03
Sample Name			1318-062910-0004	1318-062910-1430	1318-062910-1445	1318-022410-1420	1318-022410-1430	1318-022410-1510	1318-031010-1355	1318-031010-0003	1318-031010-1405	1318-022410-1440
Sample Date		RSL	6/29/2010	6/29/2010	6/29/2010	2/24/2010	2/24/2010	2/24/2010	3/10/2010	3/10/2010	3/10/2010	2/24/2010
Sample Type		Industrial Soil	SPL	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**87.7**	**87**	**88**	**81**	**80**	**79**	**84**	**86**	**78**	**84**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.76	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	**0.19 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	**0.07 J**	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.76	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.76	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.76	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.76	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	< 0.38	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.76	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-16	AOI-16	AOI-16	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17
Location Name			SB-16-04	SB-16-04	SB-16-05	SB-17-01	SB-17-01	SB-17-02	SB-17-02A	SB-17-02A	SB-17-02A	SB-17-03
Sample Name			1318-062910-0004	1318-062910-1430	1318-062910-1445	1318-022410-1420	1318-022410-1430	1318-022410-1510	1318-031010-1355	1318-031010-0003	1318-031010-1405	1318-022410-1440
Sample Date		RSL	6/29/2010	6/29/2010	6/29/2010	2/24/2010	2/24/2010	2/24/2010	3/10/2010	3/10/2010	3/10/2010	2/24/2010
Sample Type		Industrial Soil	SPL	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.76	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	**0.014 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.076	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.38	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33
Benzo(a)anthracene	-	2.1	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.09 J**	**0.05 J**	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	**0.022 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	**0.05 J**	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	**0.042 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	**0.05 J**	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	**0.014 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	**0.05 J**	< 0.33	< 0.33
Biphenyl	-	210	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	**1.4**	**0.72**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	**0.046 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.09 J**	**0.06 J**	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	**0.062 J**	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.38	**0.37 J**	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	**0.43**	< 0.33	< 0.33
Fluoranthene	-	22000	**0.046 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	**0.1 J**	< 0.33	< 0.33
Fluorene	-	22000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 1.8	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33
Hexachloroethane	-	43	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	**0.019 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	**0.094 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.23	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.3	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.38	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	**30.3 J** [A]	**3.98 J** [A]	< 0.33 J	< 0.33 J
Phenanthrene	-	-	**0.11 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	**0.1 J**	< 0.33	< 0.33
Phenol	-	180000	< 0.38	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	**0.041 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.2 J**	**0.1 J**	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006 J	< 0.006	< 0.006	< 0.005
1,1,2-Trichloroethane	-	5.3	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
1,1-Dichloroethane	-	17	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
1,1-Dichloroethene	-	1100	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
1,2,4-Trichlorobenzene	-	99	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006 J	< 0.006	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
1,2-Dichlorobenzene	-	9800	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006 J	< 0.006	< 0.006	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-16	AOI-16	AOI-16	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17	AOI-17
Location Name			SB-16-04	SB-16-04	SB-16-05	SB-17-01	SB-17-01	SB-17-02	SB-17-02A	SB-17-02A	SB-17-02A	SB-17-03
Sample Name			1318-062910-0004	1318-062910-1430	1318-062910-1445	1318-022410-1420	1318-022410-1430	1318-022410-1510	1318-031010-1355	1318-031010-0003	1318-031010-1405	1318-022410-1440
Sample Date		RSL	6/29/2010	6/29/2010	6/29/2010	2/24/2010	2/24/2010	2/24/2010	3/10/2010	3/10/2010	3/10/2010	2/24/2010
Sample Type		Industrial Soil	SPL	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
1,2-Dichloropropane	-	4.7	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
1,3-Dichlorobenzene	-	-	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006 J	< 0.006	< 0.006	< 0.005
1,4-Dichlorobenzene	-	12	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006 J	< 0.006	< 0.006	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
2-Hexanone	-	1400	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	-	-	-	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Benzene	-	5.4	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Bromodichloromethane	-	1.4	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Bromoform	-	220	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Bromomethane (Methyl Bromide)	-	32	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Carbon disulfide	-	3700	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Carbon tetrachloride	-	3	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Chlorobenzene	-	1400	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Chlorobromomethane	-	680	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Chloroethane	-	61000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Chloroform (Trichloromethane)	-	1.5	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Chloromethane (Methyl Chloride)	-	500	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
cis-1,2-Dichloroethene	-	2000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
cis-1,3-Dichloropropene	-	-	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Cyclohexane	-	29000	-	-	-	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Isopropylbenzene	-	11000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005 J
m&p-Xylene	-	-	-	-	-	< 0.006	< 0.006	< 0.006	**0.0009 J**	< 0.006	< 0.006	< 0.005
Methyl acetate	-	1000000	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.002 J**
Methyl cyclohexane	-	-	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.0006 J**
Methyl Tert Butyl Ether	-	220	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Methylene chloride	-	960	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
n-Propylbenzene	-	21000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005 J
o-Xylene	-	3000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Styrene	-	36000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Tetrachloroethene	-	110	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Tetrahydrofuran	-	95000	-	-	-	< 0.006 J	< 0.006 J	< 0.006 J	< 0.006	< 0.006	< 0.006	< 0.005 J
Toluene	-	45000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
trans-1,2-Dichloroethene	-	690	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
trans-1,3-Dichloropropene	-	-	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Trichloroethene	-	6.4	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Vinyl chloride	-	1.7	-	-	-	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-17	AOI-19	AOI-19	AOI-19	AOI-19	AOI-19	AOI-19	AOI-20	AOI-20	AOI-20
Location Name			SB-17-03	SB-19-01	SB-19-01	SB-19-02	SB-19-02	SB-19-03	SB-19-04	SB-20-01	SB-20-01	SB-20-02
Sample Name			1318-022410-1445	1318-021610-1515	1318-021610-1525	1318-021610-1555	1318-021610-1605	1318-062910-1625	1318-062910-1605	1318-022310-1325	1318-022310-1335	1318-022310-1530
Sample Date		RSL	2/24/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	6/29/2010	6/29/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	**0.29 J**	< 0.5	**92.5**	< 0.5	< 0.5	**1.29**	**0.35 J**	< 0.5	**1.62**
Arsenic, Total	13	1.6	-	**1.73 J [A]**	**1.38 J**	**3.69 J [A]**	**2.68 J [A]**	**1.38**	**3.47 [A]**	**3.76 J [A]**	**1.76 J [A]**	**5.46 J [A]**
Barium, Total	140	190000	-	**16.3**	**56**	**399**	**57**	**58**	**143**	**67.1**	**21.9**	**90.8**
Beryllium, Total	-	2000	-	**0.06 J**	**0.3**	**0.22**	**0.27**	**0.43**	**0.49**	**0.45**	**0.27**	**0.52**
Cadmium, Total	1.25	800	-	**0.1 J**	**0.42**	**21.5**	**0.32**	**0.17 J**	**2.51**	**0.84**	**0.3**	**1.52**
Chromium, Total	22	-	-	**4.07 J**	**4.04 J**	**810 J**	**3.48 J**	**8.99**	**27.2**	**4.08**	**3.49**	**81.3**
Cobalt, Total	-	300	-	**1.27**	**5.35**	**2.33**	**5.64**	**2.65**	**6.67**	**3.68**	**4.45**	**4.43**
Copper, Total	-	41000	-	**3.3**	**14.5**	**215**	**7.73**	**12.9**	**48.2**	**18.7**	**18.8**	**110**
Cyanide	-	140	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	-	**4.99**	**10.4**	**3140 [A]**	**6.75**	**11.5**	**171**	**28.3**	**10.2**	**45.3**
Manganese, Total	-	23000	-	**135**	**187**	**151**	**636**	**101**	**526**	**220**	**286**	**412**
Mercury, Total	0.13	43	-	< 0.05	**0.02 J**	**0.209**	**0.01 J**	**0.03 J**	**0.03 J**	**0.05 J**	**0.02 J**	**0.604**
Nickel, Total	33	20000	-	**9.39**	**9.64**	**11.3**	**16**	**7.17**	**18.9**	**2.84**	**14**	**9.4**
Selenium, Total	-	5100	-	**0.42 J**	**0.16 J**	**3.19**	< 0.5	**0.56**	**0.35 J**	**0.5**	**0.35 J**	**0.2 J**
Silver, Total	-	5100	-	**0.05 J**	**0.07 J**	**0.23**	**0.03 J**	**0.06 J**	**0.07 J**	< 0.2	< 0.2	**0.45**
Thallium, Total	-	10	-	**0.06 J**	**0.06 J**	**0.07 J**	**0.09 J**	**0.05 J**	**0.09 J**	< 0.5	**0.2 J**	< 0.5
Vanadium, Total	-	5200	-	**4.81**	**10**	< 0.5	**6.51**	**5.79**	**9.61**	**6.43 J**	**7.07 J**	**7.28 J**
Zinc, Total	90	310000	-	**6.72**	**23.2**	**178**	**17.4**	**29.8**	**51.4**	**70**	**28.6**	**116**
Other (%)												
Total Solids	-	-	**80**	**95**	**79**	**93**	**79**	**80**	**81**	**81**	**79**	**85**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	< 0.33	< 0.33	**0.02 J**
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	-	-	-	-	-	-	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	-	-	-	-	-	-	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	-	-	-	-	-	-	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	-	-	-	-	-	-	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	-	-	-	-	-	-	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-17	AOI-19	AOI-19	AOI-19	AOI-19	AOI-19	AOI-19	AOI-20	AOI-20	AOI-20
Location Name			SB-17-03	SB-19-01	SB-19-01	SB-19-02	SB-19-02	SB-19-03	SB-19-04	SB-20-01	SB-20-01	SB-20-02
Sample Name			1318-022410-1445	1318-021610-1515	1318-021610-1525	1318-021610-1555	1318-021610-1605	1318-062910-1625	1318-062910-1605	1318-022310-1325	1318-022310-1335	1318-022310-1530
Sample Date		RSL	2/24/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	6/29/2010	6/29/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	-	-	-	-	-	-	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.2 J**
Acenaphthylene	-	-	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	-	-	-	-	-	-	**0.04 J**	< 0.33	**0.45**
Atrazine	-	7.5	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	-	-	-	-	-	-	**0.1 J**	< 0.33	**1.03**
Benzo(a)pyrene	-	0.21	< 0.33	-	-	-	-	-	-	**0.1 J**	< 0.33	**1.17** [A]
Benzo(b)fluoranthene	-	2.1	< 0.33	-	-	-	-	-	-	**0.1 J**	< 0.33	**1.22**
Benzo(g,h,i)perylene	-	-	< 0.33	-	-	-	-	-	-	**0.07 J**	< 0.33	**0.48**
Benzo(k)fluoranthene	-	21	< 0.33	-	-	-	-	-	-	**0.1 J**	< 0.33	**1.07**
Biphenyl	-	210	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**6.96**
Butyl benzylphthalate	-	910	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.08 J**
Caprolactam	-	310000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.3 J**
Chrysene	-	210	< 0.33	-	-	-	-	-	-	**0.2 J**	< 0.33	**1.72**
Dibenz(a,h)anthracene	-	0.21	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.04 J**
Dibenzofuran	-	1000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.1 J**
Diethyl phthalate	-	490000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.07 J**
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**0.05 J**	-	-	-	-	-	-	**0.97**	< 0.33	< 0.33
Fluoranthene	-	22000	< 0.33	-	-	-	-	-	-	**0.3 J**	< 0.33	**3.7**
Fluorene	-	22000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.2 J**
Hexachlorobenzene	-	1.1	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	-	-	-	-	-	-	**0.07 J**	< 0.33	**0.47**
Isophorone	-	1800	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	**0.04 J**
Nitrobenzene	-	24	< 0.2	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	-	-	-	-	-	-	R	R	R
Pentachlorophenol	-	2.7	< 0.33 J	-	-	-	-	-	-	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 0.33	-	-	-	-	-	-	**0.2 J**	< 0.33	**2.78**
Phenol	-	180000	< 0.33	-	-	-	-	-	-	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	-	-	-	-	-	-	**0.2 J**	< 0.33	**2.53**
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1-Dichloroethane	-	17	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1-Dichloroethene	-	1100	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2-Dichlorobenzene	-	9800	**0.002 J**	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005

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Area of Interest			AOI-17	AOI-19	AOI-19	AOI-19	AOI-19	AOI-19	AOI-19	AOI-20	AOI-20	AOI-20
Location Name			SB-17-03	SB-19-01	SB-19-01	SB-19-02	SB-19-02	SB-19-03	SB-19-04	SB-20-01	SB-20-01	SB-20-02
Sample Name			1318-022410-1445	1318-021610-1515	1318-021610-1525	1318-021610-1555	1318-021610-1605	1318-062910-1625	1318-062910-1605	1318-022310-1325	1318-022310-1335	1318-022310-1530
Sample Date		RSL	2/24/2010	2/16/2010	2/16/2010	2/16/2010	2/16/2010	6/29/2010	6/29/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2-Dichloropropane	-	4.7	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,3-Dichlorobenzene	-	-	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
1,4-Dichlorobenzene	-	12	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01 J	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01
2-Hexanone	-	1400	< 0.01	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01 J	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Bromodichloromethane	-	1.4	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Bromoform	-	220	< 0.005	-	-	-	-	-	-	< 0.005 J	< 0.006 J	< 0.005 J
Bromomethane (Methyl Bromide)	-	32	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Carbon disulfide	-	3700	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Carbon tetrachloride	-	3	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Chlorobenzene	-	1400	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Chlorobromomethane	-	680	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Chloroethane	-	61000	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006 J	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Cyclohexane	-	29000	< 0.01 J	-	-	-	-	-	-	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Isopropylbenzene	-	11000	< 0.005 J	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
m&p-Xylene	-	-	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Methyl acetate	-	1000000	< 0.01	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Methylene chloride	-	960	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
n-Propylbenzene	-	21000	< 0.005 J	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
o-Xylene	-	3000	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Styrene	-	36000	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Tetrachloroethene	-	110	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Tetrahydrofuran	-	95000	< 0.005 J	-	-	-	-	-	-	< 0.005 J	< 0.006 J	< 0.005 J
Toluene	-	45000	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Trichloroethene	-	6.4	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Vinyl chloride	-	1.7	< 0.005	-	-	-	-	-	-	< 0.005	< 0.006	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-20	AOI-20	AOI-20	AOI-20	AOI-20	AOI-21	AOI-21	AOI-21	AOI-21	AOI-21
Location Name			SB-20-02	SB-20-03	SB-20-03	SB-20-04	SB-20-05	MW-1020	MW-1020	SB-21-01	SB-21-01	SB-21-01
Sample Name			1318-022310-1540	1318-022310-1555	1318-022310-1605	1318-062810-1455	1318-062810-1440	1318-071510-0825	1318-071510-0835	1318-022310-1105	1318-022310-1110	1318-022310-1115
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	6/28/2010	6/28/2010	7/15/2010	7/15/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.8 - 6.8 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	**0.2 J**	< 0.5	-	-	-	-	**0.44 J**	< 0.5	< 0.5
Arsenic, Total	13	1.6	**2.75 J [A]**	**2.81 J [A]**	**1.13 J**	-	-	-	-	**2.3 J [A]**	**3.28 J [A]**	**6.52 J [A]**
Barium, Total	140	190000	**49.3**	**73.6**	**58.3**	-	-	-	-	**75.6**	**66.2**	**65.8**
Beryllium, Total	-	2000	**0.33**	**0.61**	**0.41**	-	-	-	-	**0.56**	**0.33**	**0.39**
Cadmium, Total	1.25	800	**0.23**	**0.4**	**0.24**	-	-	-	-	**0.64**	**0.14 J**	**0.47**
Chromium, Total	22	-	**3.2**	**4.09**	**2.79**	-	-	-	-	**474**	**3.1**	**4.58**
Cobalt, Total	-	300	**5.44**	**3.33**	**3.88**	-	-	-	-	**3.75**	**3.76**	**17.7**
Copper, Total	-	41000	**8.25**	**20.2**	**11.1**	-	-	-	-	**71.5**	**13.1**	**17.3**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	-	-	-	-	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**7.57**	**34.2**	**10.6**	-	-	-	-	**25.9**	**15.2**	**10.5**
Manganese, Total	-	23000	**391**	**262**	**272**	-	-	-	-	**293**	**459**	**1190**
Mercury, Total	0.13	43	**0.02 J**	**0.162**	**0.04 J**	-	-	-	-	**0.179**	**0.03 J**	**0.02 J**
Nickel, Total	33	20000	**12**	**5.04**	**10.1**	-	-	-	-	**8.57**	**6.92**	**31.2**
Selenium, Total	-	5100	**0.22 J**	**0.35 J**	**0.14 J**	-	-	-	-	**0.4 J**	**0.23 J**	**0.17 J**
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	-	-	-	-	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	**0.11 J**	< 0.5	< 0.5	-	-	-	-	< 0.5	< 0.5	**0.21 J**
Vanadium, Total	-	5200	**6.97 J**	**7.33 J**	**5.77 J**	-	-	-	-	**5.24 J**	**9.46 J**	**8.94 J**
Zinc, Total	90	310000	**18.3**	**22.8**	**24**	-	-	-	-	**51.1**	**13.4**	**32**
Other (%)												
Total Solids	-	-	**78**	**83**	**75**	**93**	**85**	**86**	**80**	**83**	**81**	**78**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	**0.19 J**	< 0.33	-	-	< 0.33	< 0.33	**0.03 J**	**0.02 J**	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67 J	< 41.15 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 10.29	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67	< 10.29	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67 J	< 10.29 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 10.29	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-20	AOI-20	AOI-20	AOI-20	AOI-20	AOI-21	AOI-21	AOI-21	AOI-21	AOI-21
Location Name			SB-20-02	SB-20-03	SB-20-03	SB-20-04	SB-20-05	MW-1020	MW-1020	SB-21-01	SB-21-01	SB-21-01
Sample Name			1318-022310-1540	1318-022310-1555	1318-022310-1605	1318-062810-1455	1318-062810-1440	1318-071510-0825	1318-071510-0835	1318-022310-1105	1318-022310-1110	1318-022310-1115
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	6/28/2010	6/28/2010	7/15/2010	7/15/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.8 - 6.8 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 10.29 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	**0.05 J**	< 0.33	**0.02 J**	**0.04 J**	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Anthracene	-	170000	< 0.33	**0.1 J**	< 0.33	**0.05 J**	**0.08 J**	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33	< 0.33 J	< 0.33	< 0.33	< 10.29	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 10.29	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	**0.42**	< 0.33	**0.2 J**	**0.35**	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	**0.51** [A]	< 0.33	**0.2 J**	**0.41** [A]	< 0.33	< 0.33	**0.04 J**	< 10.29	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	**0.56**	< 0.33	**0.2 J**	**0.43**	< 0.33	< 0.33	**0.03 J**	< 10.29	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	**0.2 J**	< 0.33	**0.1 J**	**0.2 J**	< 0.33 J	< 0.33 J	< 0.33	< 10.29	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	**0.52**	< 0.33	**0.2 J**	**0.38**	< 0.33	< 0.33	**0.04 J**	< 10.29	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	**5.09**	< 0.33	**2.27 J**	**1.9 J**	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Butyl benzylphthalate	-	910	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33	< 10.29	< 0.33
Carbazole	-	-	< 0.33	**0.09 J**	< 0.33	**0.04 J**	**0.07 J**	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Chrysene	-	210	< 0.33	**0.73**	< 0.33	**0.3 J**	**0.43**	< 0.33	< 0.33	**0.04 J**	< 10.29	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 10.29	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Dimethyl phthalate	-	-	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	**1.31 J**	**12.5 J**	**0.07 J**	< 0.33	**0.1 J**	**1010**	**4.02**
Fluoranthene	-	22000	< 0.33	**1.33**	< 0.33	**0.47**	**0.78**	**0.03 J**	< 0.33	**0.06 J**	< 10.29	< 0.33
Fluorene	-	22000	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	**0.2 J**	< 0.33	**0.1 J**	**0.1 J**	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 10.29	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	< 0.33	< 0.33	< 0.33	< 0.33	R	R	R
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 10.29 J	< 0.33 J
Phenanthrene	-	-	< 0.33	**0.76**	< 0.33	**0.3 J**	**0.44**	**0.03 J**	< 0.33	< 0.33	< 10.29	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 10.29	< 0.33
Pyrene	-	17000	< 0.33	**0.92**	< 0.33	**0.42**	**0.73**	**0.02 J**	< 0.33	**0.04 J**	< 10.29	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1-Dichloroethane	-	17	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,1-Dichloroethene	-	1100	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	-	-	-	-	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-20	AOI-20	AOI-20	AOI-20	AOI-20	AOI-21	AOI-21	AOI-21	AOI-21	AOI-21
Location Name			SB-20-02	SB-20-03	SB-20-03	SB-20-04	SB-20-05	MW-1020	MW-1020	SB-21-01	SB-21-01	SB-21-01
Sample Name			1318-022310-1540	1318-022310-1555	1318-022310-1605	1318-062810-1455	1318-062810-1440	1318-071510-0825	1318-071510-0835	1318-022310-1105	1318-022310-1110	1318-022310-1115
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	6/28/2010	6/28/2010	7/15/2010	7/15/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5.8 - 6.8 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,2-Dichloropropane	-	4.7	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,3-Dichlorobenzene	-	-	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
1,4-Dichlorobenzene	-	12	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01	-	-	-	-	< 0.01	< 0.01	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	-	-	-	-	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	-	-	-	-	< 0.01	< 0.01	**0.0007 J**
Acetone	-	630000	< 0.01	< 0.01	< 0.01	-	-	-	-	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Bromodichloromethane	-	1.4	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Bromoform	-	220	< 0.007 J	< 0.005 J	< 0.005 J	-	-	-	-	< 0.005 J	< 0.006 J	< 0.005 J
Bromomethane (Methyl Bromide)	-	32	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Carbon disulfide	-	3700	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Carbon tetrachloride	-	3	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Chlorobenzene	-	1400	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Chlorobromomethane	-	680	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.007
Chloroethane	-	61000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.007 J	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006 J	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	-	-	-	-	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Isopropylbenzene	-	11000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
m&p-Xylene	-	-	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	-	-	-	-	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	-	-	-	-	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Methylene chloride	-	960	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
n-Propylbenzene	-	21000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.007
o-Xylene	-	3000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Styrene	-	36000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Tetrachloroethene	-	110	< 0.007	**0.0008 J**	**0.001 J**	-	-	-	-	< 0.005	< 0.006	< 0.005
Tetrahydrofuran	-	95000	< 0.007 J	< 0.005 J	< 0.005 J	-	-	-	-	< 0.005 J	< 0.006 J	**0.49 J**
Toluene	-	45000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Trichloroethene	-	6.4	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Vinyl chloride	-	1.7	< 0.007	< 0.005	< 0.005	-	-	-	-	< 0.005	< 0.006	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-21	AOI-21	AOI-21	AOI-21	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22
Location Name			SB-21-02	SB-21-02	SB-21-03	SB-21-03	MW-1021	MW-1021	MW-1021	SB-22-01	SB-22-01	SB-22-02
Sample Name			1318-022310-1135	1318-022310-1145	1318-022310-1300	1318-022310-1310	1318-071310-1345	1318-071310-1350	1318-071310-1355	1318-022210-1700	1318-022210-1710	1318-022210-1740
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	2/23/2010	7/13/2010	7/13/2010	7/13/2010	2/22/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	**1.11**	< 0.5	< 0.5	< 0.5	-	-	-	**0.25 J**	**0.18 J**	**0.21 J**
Arsenic, Total	13	1.6	**2.03 J [A]**	**0.88 J**	**0.59 J**	**0.95 J**	-	-	-	**1.92 J [A]**	**0.38 J**	**1.06 J**
Barium, Total	140	190000	**46.7**	**9.45**	**7.7**	**62.5**	-	-	-	**68.2**	**3.84**	**3.83**
Beryllium, Total	-	2000	**0.25**	**0.07 J**	**0.04 J**	**0.03 J**	-	-	-	**0.38**	< 0.2	< 0.2
Cadmium, Total	1.25	800	**0.6**	**0.05 J**	**0.05 J**	**0.05 J**	-	-	-	**0.64**	**0.04 J**	**0.1 J**
Chromium, Total	22	-	**8.26**	**1.27**	**1.04**	**1.94**	-	-	-	**3.97**	**1.37**	**0.64**
Cobalt, Total	-	300	**1.53**	**0.69**	**0.53**	**0.48 J**	-	-	-	**3.75**	**0.5**	**1.19**
Copper, Total	-	41000	**42.6**	**2.42**	**2.31**	**1.04**	-	-	-	**9.95**	**0.78 J**	**1.58**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**15.6**	**1.99**	**1.68**	**1.69**	-	-	-	**17.8**	**2.79**	**4.22**
Manganese, Total	-	23000	**163**	**52.5**	**63.9**	**42.9**	-	-	-	**265**	**44.9**	**77.3**
Mercury, Total	0.13	43	**0.02 J**	< 0.05	< 0.05	< 0.05	-	-	-	**0.04 J**	< 0.05	**0.01 J**
Nickel, Total	33	20000	**3.56**	**1.77**	**1.97**	**6.88**	-	-	-	**7.2**	**7.92**	**10.4**
Selenium, Total	-	5100	< 0.5	< 0.5	< 0.5	**1.45**	-	-	-	**0.54**	< 0.5	< 0.5
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5
Vanadium, Total	-	5200	**4.53 J**	**1.64 J**	**1.53 J**	**0.76 J**	-	-	-	**5.68**	**0.86**	**1.69**
Zinc, Total	90	310000	**28.7**	**9.06**	**5.61**	**17.7**	-	-	-	**25.7**	**15.9**	**53.1**
Other (%)												
Total Solids	-	-	**85**	**89**	**96**	**90**	**86**	**81**	**80**	**83**	**93**	**82**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 1	< 0.33	< 0.33	< 0.33	**0.02 J**	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	**0.1 J**	< 0.33	< 0.33	< 0.33	**4.7 [A]**	< 0.33	< 0.33	**0.15 J**	< 0.33	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 7.84 J	< 22.47 J	< 1.04 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 1.96	< 5.62	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 1.96	< 5.62	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 1.96 J	< 5.62 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 1.96	< 5.62	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-21	AOI-21	AOI-21	AOI-21	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22
Location Name			SB-21-02	SB-21-02	SB-21-03	SB-21-03	MW-1021	MW-1021	MW-1021	SB-22-01	SB-22-01	SB-22-02
Sample Name			1318-022310-1135	1318-022310-1145	1318-022310-1300	1318-022310-1310	1318-071310-1345	1318-071310-1350	1318-071310-1355	1318-022210-1700	1318-022210-1710	1318-022210-1740
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	2/23/2010	7/13/2010	7/13/2010	7/13/2010	2/22/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 1.96 J	< 5.62 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 1.96 J	< 5.62 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 1.96	< 5.62	**0.08 J**	< 0.33	**0.03 J**	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 1.96	< 5.62	**0.1 J**	**0.03 J**	**0.04 J**	< 0.33	< 0.33	**0.08 J**	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 1.96	< 5.62	**0.1 J**	< 0.33	**0.05 J**	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 1.96	< 5.62	**0.1 J**	< 0.33	**0.05 J**	< 0.33	< 0.33	**0.09 J**	< 0.33	< 0.33
Biphenyl	-	210	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 1.96	< 5.62	< 0.33	< 0.33	**2.38**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 1.96	< 5.62	**0.2 J**	< 0.33	**0.05 J**	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.03 J**
Dibenz(a,h)anthracene	-	0.21	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.06 J**	**0.1 J**	< 0.33
Dimethyl phthalate	-	-	< 1.96	< 5.62	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 1.96	**435**	**5.15**	**0.1 J**	**3.87**	**0.2 J**	< 0.33	**2.84**	**0.05 J**	< 0.33
Fluoranthene	-	22000	< 1.96	< 5.62	**0.47**	< 0.33	**0.07 J**	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.04 J**
Fluorene	-	22000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 1.96	< 5.62	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	R	< 0.33	< 0.33	< 0.33	R	R	R
Pentachlorophenol	-	2.7	< 1.96 J	< 5.62 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 1.96	< 5.62	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33
Phenol	-	180000	< 1.96	< 5.62	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 1.96	< 5.62	**0.3 J**	< 0.33	**0.06 J**	< 0.33	< 0.33	**0.1 J**	< 0.33	**0.03 J**
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	< 0.07	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,1,2-Trichloroethane	-	5.3	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,1-Dichloroethane	-	17	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,1-Dichloroethene	-	1100	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,2,4-Trichlorobenzene	-	99	< 0.1	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.07	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,2-Dichlorobenzene	-	9800	< 0.07	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-21	AOI-21	AOI-21	AOI-21	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22
Location Name			SB-21-02	SB-21-02	SB-21-03	SB-21-03	MW-1021	MW-1021	MW-1021	SB-22-01	SB-22-01	SB-22-02
Sample Name			1318-022310-1135	1318-022310-1145	1318-022310-1300	1318-022310-1310	1318-071310-1345	1318-071310-1350	1318-071310-1355	1318-022210-1700	1318-022210-1710	1318-022210-1740
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	2/23/2010	7/13/2010	7/13/2010	7/13/2010	2/22/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	4.5 - 5.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,2-Dichloropropane	-	4.7	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,3-Dichlorobenzene	-	-	< 0.07	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
1,4-Dichlorobenzene	-	12	< 0.07	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01 J	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01 J	< 0.01
Benzene	-	5.4	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Bromodichloromethane	-	1.4	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Bromoform	-	220	< 0.006	< 0.005 J	< 0.005 J	< 0.005 J	-	-	-	< 0.006 J	< 0.005 J	< 0.006 J
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Carbon disulfide	-	3700	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Carbon tetrachloride	-	3	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Chlorobenzene	-	1400	**0.0009 J**	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Chlorobromomethane	-	680	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Chloroethane	-	61000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Chloromethane (Methyl Chloride)	-	500	< 0.3	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Cyclohexane	-	29000	< 0.07 J	**0.03 J**	< 0.01 J	< 0.01 J	-	-	-	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.006	**0.01 J**	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Isopropylbenzene	-	11000	< 0.006	**0.001 J**	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
m&p-Xylene	-	-	**0.001 J**	**0.0005 J**	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	**0.002 J**	**0.005 J**	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	**0.0009 J**
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Methylene chloride	-	960	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
n-Propylbenzene	-	21000	**0.0007 J**	**0.001 J**	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
o-Xylene	-	3000	< 0.006	**0.0003 J**	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Styrene	-	36000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Tetrachloroethene	-	110	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Tetrahydrofuran	-	95000	< 0.006 J	**0.011 J**	< 0.005 J	< 0.005 J	-	-	-	< 0.006 J	< 0.005 J	< 0.006 J
Toluene	-	45000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	**0.001 J**
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Trichloroethene	-	6.4	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.001	< 0.001	< 0.001
Vinyl chloride	-	1.7	< 0.006	< 0.005	< 0.005	< 0.005	-	-	-	< 0.006	< 0.005	< 0.006
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22
Location Name			SB-22-02	SB-22-03	SB-22-03	SB-22-04	SB-22-04	SB-22-04	SB-22-05	SB-22-05	SB-22-05	SB-22-06
Sample Name			1318-022210-1750	1318-022210-1720	1318-022210-1730	1318-022310-0905	1318-022310-0905	1318-022310-0915	1318-022310-1015	1318-022310-1020	1318-022310-1025	1318-022310-0930
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	**0.13 J**	< 0.5	**0.37 J**	-	**0.99**	< 0.5	**1.59**	< 0.5	< 0.5	**2.04**
Arsenic, Total	13	1.6	**0.52 J**	**2.44 J [A]**	**0.54 J**	-	**2.69 J [A]**	**3.55 J [A]**	**4.2 J [A]**	**1.9 J [A]**	**3.23 J [A]**	**4.33 J [A]**
Barium, Total	140	190000	**7.4**	**52.5**	**3.69**	-	**37.6**	**68.5**	**81.3**	**55.8**	**40.4**	**81.2**
Beryllium, Total	-	2000	< 0.2	**0.31**	< 0.2	-	**0.21**	**0.38**	**0.73**	**0.37**	**0.26**	**0.45**
Cadmium, Total	1.25	800	**0.05 J**	**0.24**	**0.11 J**	-	**2.25**	**0.39**	**0.84**	**0.33**	**0.17 J**	**6**
Chromium, Total	22	-	**1.35**	**3.7**	**1.57**	-	**15.2**	**3.87**	**41.3**	**4.1**	**3.08**	**48.7**
Cobalt, Total	-	300	**0.51**	**5.37**	**0.54**	-	**2.68**	**13.4**	**2.77**	**4.81**	**4.11**	**3.89**
Copper, Total	-	41000	**0.93 J**	**14.3**	**0.84 J**	-	**16.6**	**11.7**	**23.6**	**8.71**	**12.9**	**43.3**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	**0.4**	< 0.1	< 0.1	**0.3**
Lead, Total	37	800	**1.9**	**9.93**	**2.45**	-	**24**	**9.13**	**36.3**	**5.81**	**9.7**	**157**
Manganese, Total	-	23000	**49.2**	**398**	**47.8**	-	**218**	**795**	**323**	**413**	**312**	**326**
Mercury, Total	0.13	43	< 0.05	**0.03 J**	< 0.05	-	**0.02 J**	**0.02 J**	**0.06**	**0.02 J**	**0.04 J**	**0.052**
Nickel, Total	33	20000	**8.5**	**13.2**	**7.72**	-	**9.42**	**25.1**	**7.25**	**18**	**10.1**	**7.31**
Selenium, Total	-	5100	< 0.5	**0.67**	< 0.5	-	**0.51**	< 0.5	< 0.5	**0.55**	< 0.5	**0.35 J**
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	< 0.5	**0.1 J**	< 0.5	-	< 0.5	**0.19 J**	< 0.5	**0.15 J**	< 0.5	< 0.5
Vanadium, Total	-	5200	**0.88**	**6.67**	**0.96**	-	**6.2**	**8.56**	**6.14**	**7.27**	**6.89**	**6.87**
Zinc, Total	90	310000	**15**	**23.9**	**13**	-	**104**	**28.9**	**34**	**21.3**	**20**	**136**
Other (%)												
Total Solids	-	-	**93**	**80**	**93**	-	**91**	**80**	**82**	**80**	**77**	**87**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.33	-	**0.77 [A]**	**0.1 J**	< 0.33	< 0.33	**0.01 J**	**4.4 [A]**
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 2.2 J	-	< 3.33 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	-	< 0.83	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	-	< 0.83	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	-	< 0.83 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67 J	-	< 0.83	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22
Location Name			SB-22-02	SB-22-03	SB-22-03	SB-22-04	SB-22-04	SB-22-04	SB-22-05	SB-22-05	SB-22-05	SB-22-06
Sample Name			1318-022210-1750	1318-022210-1720	1318-022210-1730	1318-022310-0905	1318-022310-0905	1318-022310-0915	1318-022310-1015	1318-022310-1020	1318-022310-1025	1318-022310-0930
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	-	< 0.83 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.55 J	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	**0.07 J**
Benzo(a)pyrene	-	0.21	**0.03 J**	< 0.33	< 0.33	< 0.55	-	< 0.83	**0.03 J**	< 0.33	< 0.33	**0.09 J**
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	**0.03 J**	< 0.33	< 0.33	**0.1 J**
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	**0.03 J**
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	**0.03 J**	< 0.33	< 0.33	**0.09 J**
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.55	-	**147** [A]	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	**0.03 J**	< 0.33	< 0.33	< 0.55	-	< 0.83	**0.04 J**	< 0.33	< 0.33	**0.1 J**
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	**0.1 J**	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	**0.06 J**
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**0.2 J**	**0.3 J**	**0.08 J**	**4.19**	-	**4.73**	**0.67**	**0.57**	< 0.33	**9.83**
Fluoranthene	-	22000	**0.07 J**	< 0.33	< 0.33	**0.1 J**	-	< 0.83	**0.03 J**	< 0.33	< 0.33	**0.2 J**
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	**0.03 J**
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.55	-	< 0.83	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	R	-	R	R	R	R	R
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.55 J	-	< 0.83 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	**0.03 J**	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	**0.1 J**
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.55	-	< 0.83	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	**0.05 J**	< 0.33	< 0.33	**0.1 J**	-	< 0.83	**0.03 J**	< 0.33	< 0.33	**0.2 J**
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethane	-	17	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22
Location Name			SB-22-02	SB-22-03	SB-22-03	SB-22-04	SB-22-04	SB-22-04	SB-22-05	SB-22-05	SB-22-05	SB-22-06
Sample Name			1318-022210-1750	1318-022210-1720	1318-022210-1730	1318-022310-0905	1318-022310-0905	1318-022310-0915	1318-022310-1015	1318-022310-1020	1318-022310-1025	1318-022310-0930
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	7 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	-	12	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01 J	< 0.01 J	< 0.01 J	-	< 0.01 J	**0.009**	< 0.01	< 0.01	< 0.01	< 0.01 J
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01
Acetone	-	630000	< 0.01 J	< 0.01 J	< 0.01 J	-	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J
Benzene	-	5.4	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Bromodichloromethane	-	1.4	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Bromoform	-	220	< 0.005 J	< 0.005 J	< 0.005 J	-	< 0.005 J	< 0.006 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	-	3700	**0.0003 J**	< 0.005	< 0.005	-	< 0.005	**0.002 J**	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	3	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	-	1400	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobromomethane	-	680	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	-	61000	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	-	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.005	< 0.005	-	**0.0006 J**	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Isopropylbenzene	-	11000	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
m&p-Xylene	-	-	< 0.005	< 0.005	< 0.005	-	**0.002 J**	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	-	**0.004 J**	< 0.01	**0.002 J**	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	-	960	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	21000	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
o-Xylene	-	3000	< 0.005	< 0.005	< 0.005	-	**0.0004 J**	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Styrene	-	36000	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene	-	110	< 0.005	< 0.005	< 0.005	-	< 0.005	**0.003 J**	< 0.005	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	-	95000	< 0.005 J	< 0.005 J	< 0.005 J	-	< 0.005 J	< 0.006 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J
Toluene	-	45000	**0.0004 J**	< 0.005	**0.0003 J**	-	**0.017**	< 0.006	**0.0006 J**	< 0.005	< 0.005	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	-	6.4	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl chloride	-	1.7	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-23	AOI-23	AOI-23	AOI-23
Location Name			SB-22-06	SB-22-06	SB-22-06	SB-22-07	SB-22-08	SB-22-08	MW-1019	MW-1019	MW-1019	MW-1019
Sample Name			1318-022310-0935	1318-022310-0001	1318-022310-0940	1318-062810-1430	1318-062810-1410	1318-062810-0002	1318-071310-1040	1318-071310-1045	1318-071310-0001	1318-071310-1050
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	6/28/2010	6/28/2010	6/28/2010	7/13/2010	7/13/2010	7/13/2010	7/13/2010
Sample Type		Industrial Soil	N	FD	N	N	N	FD	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	**1.82 J [A]**	**1.53 J**	**2.64 J [A]**	-	-	-	-	-	-	-
Barium, Total	140	190000	**58.1**	**43.8**	**63.1**	-	-	-	-	-	-	-
Beryllium, Total	-	2000	**0.29**	**0.33**	**0.32**	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	**0.45**	**0.51**	**0.17 J**	-	-	-	-	-	-	-
Chromium, Total	22	-	**2.9**	**3.64**	**3.52**	-	-	-	-	-	-	-
Cobalt, Total	-	300	**4.64**	**6.46**	**4.47**	-	-	-	-	-	-	-
Copper, Total	-	41000	**16.3**	**19.7**	**8.71**	-	-	-	-	-	-	-
Cyanide	-	140	< 0.1	< 0.1	< 0.1	-	-	-	-	-	-	-
Lead, Total	37	800	**8.62**	**10.7**	**8.57**	-	-	-	-	-	-	-
Manganese, Total	-	23000	**1190**	**1460**	**300**	-	-	-	-	-	-	-
Mercury, Total	0.13	43	**0.03 J**	**0.03 J**	**0.02 J**	-	-	-	-	-	-	-
Nickel, Total	33	20000	**13.8**	**16.1**	**10.5**	-	-	-	-	-	-	-
Selenium, Total	-	5100	< 0.5	< 0.5	**0.37 J**	-	-	-	-	-	-	-
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Thallium, Total	-	10	**0.13 J**	**0.12 J**	< 0.5	-	-	-	-	-	-	-
Vanadium, Total	-	5200	**9.13**	**10.5**	**5.85**	-	-	-	-	-	-	-
Zinc, Total	90	310000	**15.8**	**21**	**19.2**	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**78**	**78**	**79**	**82**	**87**	**85**	**83**	**81**	**81**	**82**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	**0.01 J**	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	**0.1 J**	**0.08 J**	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 12.82 J	< 12.82 J	< 2.53 J	< 0.67 J	< 1.15 J	< 1.96 J	< 0.8 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	**7.95**	**8.85**	< 0.63	< 0.33	**0.3 J**	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 3.21	< 3.21	< 0.67	< 0.67	< 1.15	< 1.96	< 0.8	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 3.21	< 3.21	< 0.67	< 0.67	< 1.15	< 1.96	< 0.8	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 3.21 J	< 3.21 J	< 0.67 J	< 0.67 J	< 1.15 J	< 1.96 J	< 0.8 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 3.21	< 3.21	< 0.67	< 0.67	< 1.15	< 1.96	< 0.8 J	< 0.67 J	< 0.67 J	< 0.67 J

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-23	AOI-23	AOI-23	AOI-23
Location Name			SB-22-06	SB-22-06	SB-22-06	SB-22-07	SB-22-08	SB-22-08	MW-1019	MW-1019	MW-1019	MW-1019
Sample Name			1318-022310-0935	1318-022310-0001	1318-022310-0940	1318-062810-1430	1318-062810-1410	1318-062810-0002	1318-071310-1040	1318-071310-1045	1318-071310-0001	1318-071310-1050
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	6/28/2010	6/28/2010	6/28/2010	7/13/2010	7/13/2010	7/13/2010	7/13/2010
Sample Type		Industrial Soil	N	FD	N	N	N	FD	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 3.21 J	< 3.21 J	< 0.67 J	< 0.67	< 1.15	< 1.96	< 0.8	< 0.67	< 0.67	< 0.67
Acenaphthene	-	33000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 3.21	< 3.21	< 0.63	< 0.33 J	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 3.21	< 3.21	< 0.63	< 0.33 J	< 1.15 J	< 1.96 J	< 0.4	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 3.21	< 3.21	< 0.63	< 0.33 J	< 1.15 J	< 1.96 J	< 0.4	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 3.21	< 3.21	< 0.63	**0.54 J**	**80.2 J**	**160 J** [A]	< 7	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15 J	< 1.96	< 0.4 J	< 0.33 J	< 0.33 J	< 0.33 J
Carbazole	-	-	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 3.21 J	< 3.21 J	< 0.63 J	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 3.21	< 3.21	< 0.63	< 0.33 J	< 1.15 J	< 1.96 J	< 0.4	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 3.21	< 3.21	**36.6**	**6.97 J**	**2.64 J**	**2.67 J**	**21.3**	**0.91**	**1.25**	**0.03 J**
Fluoranthene	-	22000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	**1 J**	**1 J**	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 3.21	< 3.21	< 0.63	< 0.33 J	< 1.15 J	< 1.96 J	< 0.4	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 3.21	< 3.21	< 0.63	< 0.33	**0.2 J**	**0.4 J**	< 0.4	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 3.21	< 3.21	< 0.63	< 0.2	< 1.15	< 1.96	< 0.4	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 3.21 J	< 3.21 J	< 0.63 J	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	**2 J**	**3 J**	< 0.63	< 0.33	**0.4 J**	**0.5 J**	< 0.4	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 3.21	< 3.21	< 0.63	< 0.33	< 1.15	< 1.96	< 0.4	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	< 0.09	< 0.04	< 0.007	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	99	< 0.009	< 0.005	< 0.007	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01 J	< 0.01 J	< 0.01	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-

TABLE 5A
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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-22	AOI-23	AOI-23	AOI-23	AOI-23
Location Name			SB-22-06	SB-22-06	SB-22-06	SB-22-07	SB-22-08	SB-22-08	MW-1019	MW-1019	MW-1019	MW-1019
Sample Name			1318-022310-0935	1318-022310-0001	1318-022310-0940	1318-062810-1430	1318-062810-1410	1318-062810-0002	1318-071310-1040	1318-071310-1045	1318-071310-0001	1318-071310-1050
Sample Date		RSL	2/23/2010	2/23/2010	2/23/2010	6/28/2010	6/28/2010	6/28/2010	7/13/2010	7/13/2010	7/13/2010	7/13/2010
Sample Type		Industrial Soil	N	FD	N	N	N	FD	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	**0.09**	**0.02**	**0.02**	-	-	-	-	-	-	-
2-Hexanone	-	1400	< 0.015 J	< 0.007 J	< 0.01	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01 J	< 0.01 J	< 0.01	-	-	-	-	-	-	-
Acetone	-	630000	**0.16**	< 0.01	< 0.01	-	-	-	-	-	-	-
Benzene	-	5.4	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Bromodichloromethane	-	1.4	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Bromoform	-	220	< 0.006 J	< 0.005 J	< 0.007 J	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Carbon disulfide	-	3700	**0.001 J**	< 0.005	< 0.007	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Chlorobenzene	-	1400	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Chlorobromomethane	-	680	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Chloroethane	-	61000	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.006	**0.0005 J**	< 0.007	-	-	-	-	-	-	-
Isopropylbenzene	-	11000	**0.063**	**0.038**	**0.0007 J**	-	-	-	-	-	-	-
m&p-Xylene	-	-	< 0.006	< 0.005	**0.002 J**	-	-	-	-	-	-	-
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	**0.04**	**0.03**	**0.0009 J**	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Methylene chloride	-	960	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
n-Propylbenzene	-	21000	**0.08**	**0.051**	**0.002 J**	-	-	-	-	-	-	-
o-Xylene	-	3000	< 0.006	**0.0004 J**	< 0.007	-	-	-	-	-	-	-
Styrene	-	36000	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Tetrachloroethene	-	110	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	< 0.006 J	< 0.005 J	< 0.007 J	-	-	-	-	-	-	-
Toluene	-	45000	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Trichloroethene	-	6.4	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.001	< 0.001	< 0.001	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	< 0.006	< 0.005	< 0.007	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23
Location Name			PZ-1012	PZ-1012	SB-23-01	SB-23-01	SB-23-02	SB-23-02	SB-23-03	SB-23-03	SB-23-03	SB-23-04
Sample Name			1318-022210-1050	1318-022210-1100	1318-022210-1510	1318-022210-1520	1318-022210-1455	1318-022210-1505	1318-022210-1415	1318-022210-1420	1318-022210-1425	1318-022210-1540
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**90**	**75**	**79**	**79**	**92**	**81**	**94**	**73**	**81**	**73**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 1.74 J	< 0.67 J	< 0.67 J	< 3.65 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.43	< 0.67	< 0.67	< 0.91	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.43	< 0.67	< 0.67	< 0.91	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.43 J	< 0.67 J	< 0.67 J	< 0.91 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.43	< 0.67	< 0.67	< 0.91	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23
Location Name			PZ-1012	PZ-1012	SB-23-01	SB-23-01	SB-23-02	SB-23-02	SB-23-03	SB-23-03	SB-23-03	SB-23-04
Sample Name			1318-022210-1050	1318-022210-1100	1318-022210-1510	1318-022210-1520	1318-022210-1455	1318-022210-1505	1318-022210-1415	1318-022210-1420	1318-022210-1425	1318-022210-1540
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.43 J	< 0.67 J	< 0.67 J	< 0.91 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	**0.02 J**	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.03 J**	< 0.91	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.03 J**	< 0.91	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.05 J**	< 0.91	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.02 J**	< 0.91	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.02 J**	< 0.91 J	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	**0.49**	**0.1 J**	**0.3 J**	**0.93**	< 0.33	< 0.91	< 0.33	**0.09 J**
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.03 J**	< 0.91	< 0.33	**0.03 J**
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.03 J**	< 0.91	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.43	< 0.2	< 0.2	< 0.91	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	R	R	R	R	R	R	R
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.43 J	< 0.33 J	< 0.33 J	< 0.91 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Phenol	-	180000	**0.2 J**	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	< 0.33	< 0.91	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.43	< 0.33	**0.02 J**	< 0.91	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23	AOI-23
Location Name			PZ-1012	PZ-1012	SB-23-01	SB-23-01	SB-23-02	SB-23-02	SB-23-03	SB-23-03	SB-23-03	SB-23-04
Sample Name			1318-022210-1050	1318-022210-1100	1318-022210-1510	1318-022210-1520	1318-022210-1455	1318-022210-1505	1318-022210-1415	1318-022210-1420	1318-022210-1425	1318-022210-1540
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010	2/22/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	5 - 6 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	-	-
2-Hexanone	-	1400	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	-	-	-	-	-	-	-
Acetone	-	630000	-	-	-	-	-	-	-	-	-	-
Benzene	-	5.4	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	-	-
Bromoform	-	220	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	3700	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	-	-
Chlorobromomethane	-	680	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	61000	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	-	2000	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	-	29000	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	-	11000	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	-	1000000	-	-	-	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	220	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	-	-	-	-
n-Propylbenzene	-	21000	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	-	-	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	-	690	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-23	AOI-23	AOI-23	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24
Location Name			SB-23-04	SB-23-04	SB-23-04	SB-24-01	SB-24-01	SB-24-02	SB-24-02	SB-24-02	SB-24-03	SB-24-03
Sample Name			1318-022210-0002	1318-022210-1545	1318-022210-1550	1318-022510-1525	1318-022510-1535	1318-022510-1550	1318-022510-1600	1318-022510-0002	1318-022510-1615	1318-022510-0003
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	FD	N	N	N	N	N	N	FD	N	FD
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	< 0.5	< 0.5	**0.1 J**	< 0.5	< 0.5	< 0.5	< 0.5
Arsenic, Total	13	1.6	-	-	-	**0.43**	**1.7 [A]**	**2.33 [A]**	**2.25 [A]**	**0.98**	**1.72 [A]**	**1.99 [A]**
Barium, Total	140	190000	-	-	-	**13.9**	**48.1**	**166**	**60.2**	**111**	**75.2**	**79.6**
Beryllium, Total	-	2000	-	-	-	< 0.2	**0.26**	**0.57**	**0.31**	**0.42**	**0.61**	**0.41**
Cadmium, Total	1.25	800	-	-	-	**0.03 J**	**0.26**	**0.71**	**0.28**	**0.19 J**	**0.43**	**0.46**
Chromium, Total	22	-	-	-	-	**1.67**	**4.38**	**5.13**	**4.34**	**4.99**	**5.57**	**4.71**
Cobalt, Total	-	300	-	-	-	**0.5**	**5.14**	**5.69**	**5.41**	**5.61**	**5.02**	**5.07**
Copper, Total	-	41000	-	-	-	**0.8 J**	**12.1**	**14.6**	**14.4**	**13.9**	**16.4**	**11.3**
Cyanide	-	140	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	-	-	-	**3.56**	**6.92**	**56.5**	**11.7**	**10.6**	**14.5**	**10.4**
Manganese, Total	-	23000	-	-	-	**49.1**	**742**	**584**	**1180**	**962**	**230**	**342**
Mercury, Total	0.13	43	-	-	-	< 0.05	**0.02 J**	**0.077**	**0.03 J**	**0.05 J**	**0.05 J**	**0.04 J**
Nickel, Total	33	20000	-	-	-	**8.01**	**12.7**	**12.4**	**12.8**	**9.14**	**10.4**	**11.5**
Selenium, Total	-	5100	-	-	-	**0.98**	**0.24 J**	**0.22 J**	**0.12 J**	< 0.5	**0.16 J**	< 0.5
Silver, Total	-	5100	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Thallium, Total	-	10	-	-	-	< 0.5	**0.1 J**	**0.13 J**	< 0.5	< 0.5	< 0.5	< 0.5
Vanadium, Total	-	5200	-	-	-	**1.06**	**7.69**	**7.93**	**8.71**	**8.01**	**12.4**	**9.12**
Zinc, Total	90	310000	-	-	-	**16**	**20.9**	**52.9**	**23.5**	**28.2**	**34.2**	**34.9**
Other (%)												
Total Solids	-	-	**79**	**81**	**74**	**94**	**79**	**81**	**79**	**81**	**78**	**78**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	< 0.33	< 0.33	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 4.96 J	< 5.41 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	**0.43**	**0.08 J**	**0.06 J**	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 1.23	< 1.35	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 1.23	< 1.35	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 1.23 J	< 1.35 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 1.23	< 1.35	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-23	AOI-23	AOI-23	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24
Location Name			SB-23-04	SB-23-04	SB-23-04	SB-24-01	SB-24-01	SB-24-02	SB-24-02	SB-24-02	SB-24-03	SB-24-03
Sample Name			1318-022210-0002	1318-022210-1545	1318-022210-1550	1318-022510-1525	1318-022510-1535	1318-022510-1550	1318-022510-1600	1318-022510-0002	1318-022510-1615	1318-022510-0003
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	FD	N	N	N	N	N	N	FD	N	FD
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 1.23 J	< 1.35 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 1.23	< 1.35	**0.02 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 1.23	< 1.35	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	**0.03 J**	< 1.23	< 1.35	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 1.23	< 1.35	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 1.23	< 1.35	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 1.23	< 1.35	**0.04 J**	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	**0.03 J**
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	**0.2 J**	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**0.1 J**	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Fluoranthene	-	22000	**0.03 J**	< 1.23	< 1.35	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	**0.04 J**
Fluorene	-	22000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 1.23	< 1.35	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 1.23	< 1.35	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	R	R	R	R	R	R	R
Pentachlorophenol	-	2.7	< 0.33 J	< 1.23 J	< 1.35 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	**0.09 J**	< 0.33	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 1.23	< 1.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 1.23	< 1.35	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**	**0.03 J**
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	< 0.005	< 0.8	< 0.006	< 0.3	< 0.13	< 0.006	< 0.006
1,1,2-Trichloroethane	-	5.3	-	-	-	< 0.005	< 4	< 0.006	< 9	< 3.5	< 0.006	< 0.006
1,1-Dichloroethane	-	17	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
1,1-Dichloroethene	-	1100	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
1,2,4-Trichlorobenzene	-	99	-	-	-	< 0.005	< 2	< 0.006	< 0.2	< 0.1	< 0.006	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	-	-	-	< 0.01	< 0.8	< 0.01	< 0.08	< 0.07	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
1,2-Dichlorobenzene	-	9800	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-23	AOI-23	AOI-23	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24	AOI-24
Location Name			SB-23-04	SB-23-04	SB-23-04	SB-24-01	SB-24-01	SB-24-02	SB-24-02	SB-24-02	SB-24-03	SB-24-03
Sample Name			1318-022210-0002	1318-022210-1545	1318-022210-1550	1318-022510-1525	1318-022510-1535	1318-022510-1550	1318-022510-1600	1318-022510-0002	1318-022510-1615	1318-022510-0003
Sample Date		RSL	2/22/2010	2/22/2010	2/22/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010	2/25/2010
Sample Type		Industrial Soil	FD	N	N	N	N	N	N	FD	N	FD
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	5.5 - 6.5 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
1,2-Dichloropropane	-	4.7	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
1,3-Dichlorobenzene	-	-	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
1,4-Dichlorobenzene	-	12	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	< 0.01 J	< 10	< 0.01 J	< 1	< 1	< 0.01 J	< 0.01 J
2-Hexanone	-	1400	-	-	-	< 0.01	< 40	< 0.01	< 10	< 5	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	-	-	-	< 0.01	< 40	< 0.01	< 4	< 4	< 0.01	< 0.01
Acetone	-	630000	-	-	-	< 0.01	< 10 J	< 0.01	< 1 J	< 1 J	< 0.01	< 0.01
Benzene	-	5.4	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Bromodichloromethane	-	1.4	-	-	-	< 0.005	< 0.9	< 0.006	< 1.4	< 0.5	< 0.006	< 0.006
Bromoform	-	220	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Bromomethane (Methyl Bromide)	-	32	-	-	-	< 0.005	< 4	< 0.006	< 0.4	< 0.4	< 0.006	< 0.006
Carbon disulfide	-	3700	-	-	-	< 0.005	< 4	< 0.006	< 0.4	< 0.4	< 0.006	< 0.006
Carbon tetrachloride	-	3	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Chlorobenzene	-	1400	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Chlorobromomethane	-	680	-	-	-	< 0.006	< 0.005	< 0.006	< 0.006	< 0.007	< 0.006	< 0.006
Chloroethane	-	61000	-	-	-	< 0.005	< 4	< 0.006	< 0.4	< 0.4	< 0.006	< 0.006
Chloroform (Trichloromethane)	-	1.5	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Chloromethane (Methyl Chloride)	-	500	-	-	-	< 0.005 J	< 4	< 0.006 J	< 0.4	< 0.4	< 0.006 J	< 0.006 J
cis-1,2-Dichloroethene	-	2000	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
cis-1,3-Dichloropropene	-	-	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Cyclohexane	-	29000	-	-	-	< 0.01 J	< 0.8 J	< 0.01 J	< 0.08 J	< 0.07 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	**0.0006 J**	< 0.8	< 0.006	< 0.08	< 0.07	**0.0007 J**	**0.001 J**
Isopropylbenzene	-	11000	-	-	-	< 0.005	**0.1 J**	< 0.006	**0.25**	**0.11**	< 0.006	< 0.006
m&p-Xylene	-	-	-	-	-	**0.002 J**	< 0.8	**0.002 J**	< 0.08	< 0.07	**0.002 J**	**0.004 J**
Methyl acetate	-	1000000	-	-	-	R	< 40	R	< 4	< 4	R	R
Methyl cyclohexane	-	-	-	-	-	**0.0008 J**	**36.8**	**0.001 J**	< 10	< 4	**0.003 J**	**0.003 J**
Methyl Tert Butyl Ether	-	220	-	-	-	< 0.005	< 4	< 0.006	< 0.4	< 0.4	< 0.006	< 0.006
Methylene chloride	-	960	-	-	-	< 0.005	< 4	< 0.006	< 0.4	< 0.4	< 0.006	< 0.006
n-Propylbenzene	-	21000	-	-	-	< 0.006	**0.045 J**	< 0.006	**0.074 J**	**0.102 J**	**0.0006 J**	< 0.006
o-Xylene	-	3000	-	-	-	< 0.005	< 0.8	**0.0007 J**	< 0.08	< 0.07	**0.0007 J**	**0.0009 J**
Styrene	-	36000	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Tetrachloroethene	-	110	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Tetrahydrofuran	-	95000	-	-	-	< 0.006	< 0.005	< 0.006	< 0.006	< 0.007	< 0.006	< 0.006
Toluene	-	45000	-	-	-	**0.022**	< 0.8	**0.03**	< 0.08	< 0.07	**0.011**	**0.046**
trans-1,2-Dichloroethene	-	690	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
trans-1,3-Dichloropropene	-	-	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Trichloroethene	-	6.4	-	-	-	< 0.005	< 0.8	< 0.006	< 0.08	< 0.07	< 0.006	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	< 0.005	< 2	< 0.006	< 0.2	< 0.1	< 0.006	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	-	-	-	< 0.005	< 2	< 0.006	< 0.2	< 0.1	< 0.006	< 0.006
Vinyl chloride	-	1.7	-	-	-	< 0.005	< 2	< 0.006	< 0.2	< 0.1	< 0.006	< 0.006
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-24	AOI-25	AOI-25	AOI-25	AOI-25	AOI-25	AOI-25	AOI-26	AOI-26	AOI-26
Location Name			SB-24-03	SB-25-01	SB-25-01	SB-25-02	SB-25-02	SB-25-03	SB-25-03	SB-26-01	SB-26-01	SB-26-02
Sample Name			1318-022510-1625	1318-022310-1740	1318-022310-1750	1318-022310-1700	1318-022310-1710	1318-022310-1720	1318-022310-1730	1318-031010-1600	1318-031010-1610	1318-031010-1535
Sample Date		RSL	2/25/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	**0.26 J**	< 0.5	**0.24 J**	< 0.5	**0.93**	< 0.5	< 0.5	< 0.5	< 0.5
Arsenic, Total	13	1.6	**1.77 [A]**	**0.96 J**	**1.35 J**	**3.07 J [A]**	**1.24 J**	**3.65 J [A]**	**1.33 J**	**2.24 [A]**	**3.69 [A]**	**4.4 [A]**
Barium, Total	140	190000	**58.1**	**2.43**	**43.8**	**58.2**	**40.6**	**96**	**25.4**	**88.7**	**55.4**	**104**
Beryllium, Total	-	2000	**0.35**	**0.02 J**	**0.39**	**0.51**	**0.37**	**0.54**	**0.21**	**0.59**	**0.37**	**1.25**
Cadmium, Total	1.25	800	**0.27**	**0.06 J**	**0.25**	**0.28**	**0.3**	**1.27**	**0.17 J**	**1.43**	**0.24**	**0.36**
Chromium, Total	22	-	**4.76**	**0.62**	**5.67**	**3.28**	**4.53**	**5.97**	**2.29**	**12.2**	**9.59**	**62.3**
Cobalt, Total	-	300	**5.2**	**0.77**	**7.12**	**2.53**	**3.73**	**4.54**	**1.42**	**10.6**	**8.19**	**7.04**
Copper, Total	-	41000	**15.2**	**1.18**	**13**	**14.1**	**10.9**	**14**	**7.58**	**23.1**	**17.9**	**63.3**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**11.6**	**4.83**	**9.78**	**16.8**	**8.62**	**37.7**	**4.72**	**13**	**10.4**	**35**
Manganese, Total	-	23000	**798**	**60.4**	**373**	**108**	**346**	**398**	**175**	**720**	**583**	**673**
Mercury, Total	0.13	43	**0.03 J**	< 0.05	**0.02 J**	**0.062**	**0.02 J**	**0.05109**	**0.02 J**	**0.04 J**	**0.02 J**	**0.102**
Nickel, Total	33	20000	**12**	**8.26**	**15.1**	**6.28**	**12.6**	**10**	**6.05**	**23.3**	**21.7**	**19.7**
Selenium, Total	-	5100	< 0.5	**2.06**	< 0.5	**0.53**	**0.16 J**	**0.34 J**	**0.4 J**	< 0.5	**0.22 J**	**0.43 J**
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	**0.11 J**	**0.1 J**	< 0.2
Thallium, Total	-	10	**0.11 J**	< 0.5	**0.1 J**	< 0.5	< 0.5	< 0.5	< 0.5	**0.2 J**	**0.25 J**	**0.29 J**
Vanadium, Total	-	5200	**9.14**	**1.43 J**	**8.06 J**	**8.76 J**	**6.65 J**	**8.65 J**	**3.6 J**	**16.9**	**12.7**	**15.7**
Zinc, Total	90	310000	**24**	**21.9**	**29.5**	**27.2**	**24.9**	**40.2**	**13.9**	**65**	**42.5**	**76.2**
Other (%)												
Total Solids	-	-	**78**	**95**	**80**	**78**	**78**	**80**	**77**	**83**	**80**	**77**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-24	AOI-25	AOI-25	AOI-25	AOI-25	AOI-25	AOI-25	AOI-26	AOI-26	AOI-26
Location Name			SB-24-03	SB-25-01	SB-25-01	SB-25-02	SB-25-02	SB-25-03	SB-25-03	SB-26-01	SB-26-01	SB-26-02
Sample Name			1318-022510-1625	1318-022310-1740	1318-022310-1750	1318-022310-1700	1318-022310-1710	1318-022310-1720	1318-022310-1730	1318-031010-1600	1318-031010-1610	1318-031010-1535
Sample Date		RSL	2/25/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	**0.08 J**	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.08 J**	< 0.33	< 0.33
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	**0.06 J**	< 0.33	**0.1 J**	< 0.33	**0.04 J**	< 0.33	**0.03 J**
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	R	R	R	R	R	R	R	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	**0.05 J**	< 0.33	**0.08 J**	< 0.33	**0.03 J**	< 0.33	**0.03 J**
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	< 11	< 12	< 12	< 13	< 13	< 13	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
1,1,2,2-Tetrachloroethane	-	2.8	< 0.007	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006 J	< 0.007
1,1,2-Trichloroethane	-	5.3	< 0.016	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
1,1-Dichloroethane	-	17	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
1,1-Dichloroethene	-	1100	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
1,2,4-Trichlorobenzene	-	99	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006 J	< 0.007
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
1,2-Dichlorobenzene	-	9800	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006 J	< 0.007

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-24	AOI-25	AOI-25	AOI-25	AOI-25	AOI-25	AOI-25	AOI-26	AOI-26	AOI-26
Location Name			SB-24-03	SB-25-01	SB-25-01	SB-25-02	SB-25-02	SB-25-03	SB-25-03	SB-26-01	SB-26-01	SB-26-02
Sample Name			1318-022510-1625	1318-022310-1740	1318-022310-1750	1318-022310-1700	1318-022310-1710	1318-022310-1720	1318-022310-1730	1318-031010-1600	1318-031010-1610	1318-031010-1535
Sample Date		RSL	2/25/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	2/23/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
1,2-Dichloropropane	-	4.7	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
1,3-Dichlorobenzene	-	-	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006 J	< 0.007
1,4-Dichlorobenzene	-	12	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006 J	< 0.007
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01 J	< 0.01 J
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01 J	< 0.01 J
Benzene	-	5.4	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Bromodichloromethane	-	1.4	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Bromoform	-	220	< 0.006	< 0.005 J	< 0.006 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.006 J	< 0.006	< 0.006	< 0.007
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Carbon disulfide	-	3700	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Carbon tetrachloride	-	3	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Chlorobenzene	-	1400	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Chlorobromomethane	-	680	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Chloroethane	-	61000	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Chloromethane (Methyl Chloride)	-	500	< 0.006 J	< 0.005	< 0.006 J	< 0.005	< 0.005	< 0.005	< 0.006 J	< 0.006	< 0.006	< 0.007
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J
Dibromochloromethane	-	3.3	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	**0.0008 J**	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Isopropylbenzene	-	11000	**0.004 J**	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
m&p-Xylene	-	-	**0.002 J**	**0.0003 J**	**0.001 J**	< 0.005	< 0.005	< 0.005	< 0.006	**0.0007 J**	< 0.006	**0.0009 J**
Methyl acetate	-	1000000	R	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	**0.13**	< 0.01	**0.0009 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Methylene chloride	-	960	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
n-Propylbenzene	-	21000	< 0.006	< 0.005	**0.0007 J**	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
o-Xylene	-	3000	**0.0009 J**	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Styrene	-	36000	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Tetrachloroethene	-	110	< 0.006	**0.0009 J**	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Tetrahydrofuran	-	95000	< 0.006	< 0.005 J	< 0.006 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.006 J	< 0.006	< 0.006	< 0.007
Toluene	-	45000	**0.016**	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	**0.005 J**	**0.005 J**	**0.006 J**
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Trichloroethene	-	6.4	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Vinyl chloride	-	1.7	< 0.006	< 0.005	< 0.006	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.007
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-26	AOI-26	AOI-26	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name			SB-26-02	SB-26-03	SB-26-03	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003
Sample Name			1318-031010-1545	1318-031010-1505	1318-031010-1515	1318-011210-1505	1318-011210-1515	1318-011310-1110	1318-011310-1120	1318-011310-0002	1318-011310-1355	1318-011310-1405
Sample Date		RSL	3/10/2010	3/10/2010	3/10/2010	1/12/2010	1/12/2010	1/13/2010	1/13/2010	1/13/2010	1/13/2010	1/13/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	**0.11 J**	**0.03 J**	**0.08 J**	**0.04 J**	< 0.5	< 0.5	< 0.5
Arsenic, Total	13	1.6	**4.22 [A]**	**2.26 [A]**	**2.47 [A]**	**2.33 J [A]**	**2.06 J [A]**	**2.73 [A]**	**1.43**	**1.25**	**0.96**	**2.04 [A]**
Barium, Total	140	190000	**57.5**	**81.3**	**47.2**	**95.8**	**117**	**62.2**	**43.8**	**40.4**	**111**	**99.3**
Beryllium, Total	-	2000	**0.27**	**0.81**	**0.42**	**0.67**	**0.31**	**0.3**	**0.24**	**0.3**	**0.68**	**0.33**
Cadmium, Total	1.25	800	**0.21**	**0.59**	**0.28**	**0.27**	**0.39**	**0.2**	**0.23**	**0.25**	**0.23**	**0.22**
Chromium, Total	22	-	**6.77**	**16.1**	**11.9**	**7.31**	**5.55**	**7.73**	**3.34**	**5.13**	**7.52**	**5.39**
Cobalt, Total	-	300	**8.64**	**5.71**	**12.5**	**8.88**	**9.51**	**6.08**	**5.27**	**4.54**	**8.98**	**7.49**
Copper, Total	-	41000	**12.1**	**26.7**	**20.1**	**12.7**	**9.94**	**12.7**	**11.3**	**14.6**	**10.1**	**9.54**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**6.75**	**58.2**	**10.8**	**18.6**	**8.37**	**9.14**	**7.23**	**8.63**	**11.4**	**7.57**
Manganese, Total	-	23000	**444**	**158**	**430**	**676**	**833**	**445**	**509**	**316**	**513**	**351**
Mercury, Total	0.13	43	**0.02 J**	**0.097**	**0.02 J**	< 0.05	< 0.05	**0.023 J**	**0.022 J**	**0.021 J**	**0.049 J**	**0.025 J**
Nickel, Total	33	20000	**20**	**17.5**	**26.6**	**17.3**	**26.2**	**16.1**	**13.4**	**15**	**14.4**	**15.2**
Selenium, Total	-	5100	**0.21 J**	**0.89**	**0.48 J**	< 0.5	< 0.5	**0.13 J**	< 0.5	**0.24 J**	**0.16 J**	**0.21 J**
Silver, Total	-	5100	< 0.2	**0.33**	< 0.2	**0.13 J**	**0.03 J**	**0.09 J**	**0.07 J**	**0.07 J**	**0.05 J**	**0.04 J**
Thallium, Total	-	10	**0.18 J**	**0.33 J**	**0.21 J**	**0.07 J**	**0.16 J**	**0.14 J**	**0.13 J**	**0.16 J**	< 0.5	**0.18 J**
Vanadium, Total	-	5200	**9.97**	**15.6**	**14.9**	**10.6**	**8.58**	**10.2**	**6.43**	**9.09**	**10.2**	**8.22**
Zinc, Total	90	310000	**34**	**97.4**	**50**	**27.8**	**24.6**	**28.2**	**19.3**	**27.2**	**27**	**22.2**
Other (%)												
Total Solids	-	-	**77**	**74**	**80**	**80**	**80**	**79**	**79**	**80**	**78**	**79**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.83 J	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-26	AOI-26	AOI-26	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name			SB-26-02	SB-26-03	SB-26-03	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003
Sample Name			1318-031010-1545	1318-031010-1505	1318-031010-1515	1318-011210-1505	1318-011210-1515	1318-011310-1110	1318-011310-1120	1318-011310-0002	1318-011310-1355	1318-011310-1405
Sample Date		RSL	3/10/2010	3/10/2010	3/10/2010	1/12/2010	1/12/2010	1/13/2010	1/13/2010	1/13/2010	1/13/2010	1/13/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	**0.2 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	**0.03 J**	< 0.33	**0.3 J** [A]	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	**0.41**	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	**0.03 J**	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Fluoranthene	-	22000	< 0.33	**0.04 J**	< 0.33	**0.74**	< 0.33	**0.05 J**	< 0.33	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.21 J	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	**0.45**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	**0.04 J**	< 0.33	**0.51**	< 0.33	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,1,2,2-Tetrachloroethane	-	2.8	< 0.006 J	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,1,2-Trichloroethane	-	5.3	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,1-Dichloroethane	-	17	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,1-Dichloroethene	-	1100	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,2,4-Trichlorobenzene	-	99	< 0.006 J	< 0.006	< 0.006	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01 J	< 0.01	< 0.01	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,2-Dichlorobenzene	-	9800	< 0.006 J	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-26	AOI-26	AOI-26	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name			SB-26-02	SB-26-03	SB-26-03	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003
Sample Name			1318-031010-1545	1318-031010-1505	1318-031010-1515	1318-011210-1505	1318-011210-1515	1318-011310-1110	1318-011310-1120	1318-011310-0002	1318-011310-1355	1318-011310-1405
Sample Date		RSL	3/10/2010	3/10/2010	3/10/2010	1/12/2010	1/12/2010	1/13/2010	1/13/2010	1/13/2010	1/13/2010	1/13/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,2-Dichloropropane	-	4.7	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,3-Dichlorobenzene	-	-	< 0.006 J	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
1,4-Dichlorobenzene	-	12	< 0.006 J	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01 J	< 0.01 J	< 0.01 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 4	< 4	< 3	< 3	< 4	< 3	< 3
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 4	< 4	< 3	< 3	< 4	< 3	< 3
Acetone	-	630000	< 0.01 J	< 0.01 J	< 0.01 J	< 1 J	< 1 J	< 1	< 1	< 1	< 1	< 1
Benzene	-	5.4	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Bromodichloromethane	-	1.4	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Bromoform	-	220	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Bromomethane (Methyl Bromide)	-	32	< 0.006	< 0.006	< 0.006	< 0.4	< 0.4	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3
Carbon disulfide	-	3700	< 0.006	< 0.006	< 0.006	< 0.4	< 0.4	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3
Carbon tetrachloride	-	3	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorobenzene	-	1400	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chlorobromomethane	-	680	< 0.006	< 0.006	< 0.006	< 0.05	< 0.05	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chloroethane	-	61000	< 0.006	< 0.006	< 0.006	< 0.4	< 0.4	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Chloromethane (Methyl Chloride)	-	500	< 0.006	< 0.006	< 0.006	< 0.4	< 0.4	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3
cis-1,2-Dichloroethene	-	2000	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.08 J	< 0.08 J	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Dibromochloromethane	-	3.3	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Dichlorodifluoromethane (CFC-12)	-	400	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.006	< 0.006	< 0.006	**0.01 J**	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Isopropylbenzene	-	11000	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
m&p-Xylene	-	-	< 0.006	**0.0008 J**	< 0.006	**0.1**	< 0.08	**0.009 J**	< 0.07	< 0.07	< 0.07	< 0.07
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 4	< 4	< 3	< 3	< 4	< 3	< 3
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	**0.07 J**	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Methyl Tert Butyl Ether	-	220	< 0.006	< 0.006	< 0.006	< 0.4	< 0.4	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3
Methylene chloride	-	960	< 0.006	< 0.006	< 0.006	< 0.4	< 0.4	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3
n-Propylbenzene	-	21000	< 0.006	< 0.006	< 0.006	< 0.05	< 0.05	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
o-Xylene	-	3000	< 0.006	< 0.006	< 0.006	**0.04 J**	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Styrene	-	36000	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Tetrachloroethene	-	110	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Tetrahydrofuran	-	95000	< 0.006	< 0.006	< 0.006	< 0.5	< 0.5	< 0.7 J	< 0.7 J	< 0.7 J	< 0.7 J	< 0.7 J
Toluene	-	45000	< 0.006	**0.005 J**	< 0.006	**0.06 J**	< 0.08	**0.009 J**	< 0.07	< 0.07	< 0.07	< 0.07
trans-1,2-Dichloroethene	-	690	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Trichloroethene	-	6.4	< 0.006	< 0.006	< 0.006	< 0.08	< 0.08	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.006	< 0.006	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.006	< 0.006	< 0.006	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	-	1.7	< 0.006	< 0.006	< 0.006	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name			MW-1004	MW-1004	MW-1005	MW-1005	MW-1006	MW-1006	MW-1007	MW-1007	MW-1008	MW-1008
Sample Name			1318-011310-1535	1318-011310-1545	1318-011410-0835	1318-011410-0845	1318-011410-1020	1318-011410-1030	1318-011110-1420	1318-011110-1430	1318-011210-0835	1318-011210-0845
Sample Date		RSL	1/13/2010	1/13/2010	1/14/2010	1/14/2010	1/14/2010	1/14/2010	1/11/2010	1/11/2010	1/12/2010	1/12/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	**0.22 J**	< 0.5	**0.46 J**	< 0.5	**0.21 J**	**0.05 J**	**0.03 J**	**0.03 J**
Arsenic, Total	13	1.6	**0.79**	**1.82 [A]**	**5.98 [A]**	**2.05 [A]**	**6.85 [A]**	**1.14**	**2.01 J [A]**	**1.99 J [A]**	**0.88 J**	**1.47 J**
Barium, Total	140	190000	**80.6**	**72.3**	**197**	**35.3**	**65.8**	**32.4**	**63.9**	**62.1**	**37.6**	**43.8**
Beryllium, Total	-	2000	**0.45**	**0.33**	**1.48**	**0.24**	**0.57**	**0.28**	**0.35**	**0.33**	**0.24**	**0.25**
Cadmium, Total	1.25	800	**0.16 J**	**0.21**	**0.69**	**0.23**	**0.38**	**0.32**	**0.87**	**0.26**	**0.06 J**	**0.19 J**
Chromium, Total	22	-	**6.91**	**4.76**	**8.35**	**3.24**	**4.83**	**5.05**	**12.7**	**5.98**	**4**	**4.86**
Cobalt, Total	-	300	**5**	**6.64**	**4.17**	**2.93**	**3.88**	**2.25**	**3.49**	**12.1**	**2.46**	**4.85**
Copper, Total	-	41000	**11.2**	**13.1**	**25.5**	**6.99**	**15.6**	**8.13**	**16.1**	**12.6**	**2.39**	**7.27**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Lead, Total	37	800	**8.49**	**8.92**	**42.8**	**6.14**	**57.1**	**7.08**	**53.9**	**10.4**	**4.09**	**5.57**
Manganese, Total	-	23000	**138**	**398**	**494**	**219**	**181**	**214**	**160**	**564**	**220**	**329**
Mercury, Total	0.13	43	**0.036 J**	**0.029 J**	**0.059**	**0.025 J**	**0.073**	**0.028 J**	**0.012 J**	**0.017 J**	**0.029 J**	**0.018 J**
Nickel, Total	33	20000	**13.3**	**14.8**	**11.2**	**8.66**	**6.7**	**10.3**	**10.3**	**20.7**	**6.61**	**12.2**
Selenium, Total	-	5100	**0.26 J**	**0.3 J**	**0.56**	< 0.5	**0.31 J**	**0.21 J**	**0.31 J**	< 0.5	< 0.5	< 0.5
Silver, Total	-	5100	**0.05 J**	**0.05 J**	**0.05 J**	**0.03 J**	**0.04 J**	**0.04 J**	**0.07 J**	**0.03 J**	< 0.2	< 0.2
Thallium, Total	-	10	< 0.5	**0.08 J**	**0.1 J**	< 0.5	**0.06 J**	**0.09 J**	**0.06 J**	**0.13 J**	< 0.5	**0.1 J**
Vanadium, Total	-	5200	**8.1**	**7.24**	**10.6**	**5.6**	**9.4**	**6.98**	**10.2**	**9.86**	**5.08**	**6.96**
Zinc, Total	90	310000	**44.1**	**25.2**	**73.5**	**13.6**	**36.1**	**22.1**	**58.3**	**27.3**	**7.87**	**19.9**
Other (%)												
Total Solids	-	-	**79**	**78**	**84**	**80**	**80**	**76**	**82**	**79**	**87**	**79**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 1.25 J	< 0.67 J	< 1.95 J	< 0.67 J	< 0.67 J	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67	< 0.67	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67	< 0.67	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67 J	< 0.67	< 0.67	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name			MW-1004	MW-1004	MW-1005	MW-1005	MW-1006	MW-1006	MW-1007	MW-1007	MW-1008	MW-1008
Sample Name			1318-011310-1535	1318-011310-1545	1318-011410-0835	1318-011410-0845	1318-011410-1020	1318-011410-1030	1318-011110-1420	1318-011110-1430	1318-011210-0835	1318-011210-0845
Sample Date		RSL	1/13/2010	1/13/2010	1/14/2010	1/14/2010	1/14/2010	1/14/2010	1/11/2010	1/11/2010	1/12/2010	1/12/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	**0.2**	< 0.33	< 0.33	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	**0.79 J**	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	**0.3 J [A]**	< 0.33	< 0.33	< 0.33	**1.05 J [A]**	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	**1.24 J**	< 0.33	< 0.33	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	**0.4**	< 0.33	< 0.33	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	**0.3 J**	< 0.33	< 0.33	< 0.33	**1.05 J**	< 0.33	< 0.33	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Chrysene	-	210	< 0.33	< 0.33	**0.4**	< 0.33	< 0.33	< 0.33	**1.42 J**	< 0.33	< 0.33	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Fluoranthene	-	22000	< 0.33	< 0.33	**0.72**	< 0.33	**0.09 J**	< 0.33	**1.99 J**	< 0.33	< 0.33	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	**0.1 J**	< 0.33	< 0.33	< 0.33	**0.4**	< 0.33	< 0.33	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.31	< 0.2	< 0.49 J	< 0.2	< 0.2	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	**0.45**	< 0.33	**0.08 J**	< 0.33	**0.91 J**	< 0.33	< 0.33	< 0.33
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49 J	< 0.33	< 0.33	< 0.33
Pyrene	-	17000	< 0.33	< 0.33	**0.5**	< 0.33	**0.07 J**	< 0.33	**1.74 J**	< 0.33	< 0.33	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,1,2,2-Tetrachloroethane	-	2.8	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,1,2-Trichloroethane	-	5.3	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,1-Dichloroethane	-	17	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,1-Dichloroethene	-	1100	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,2,4-Trichlorobenzene	-	99	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,2-Dichlorobenzene	-	9800	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name			MW-1004	MW-1004	MW-1005	MW-1005	MW-1006	MW-1006	MW-1007	MW-1007	MW-1008	MW-1008
Sample Name			1318-011310-1535	1318-011310-1545	1318-011410-0835	1318-011410-0845	1318-011410-1020	1318-011410-1030	1318-011110-1420	1318-011110-1430	1318-011210-0835	1318-011210-0845
Sample Date		RSL	1/13/2010	1/13/2010	1/14/2010	1/14/2010	1/14/2010	1/14/2010	1/11/2010	1/11/2010	1/12/2010	1/12/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,2-Dichloropropane	-	4.7	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,3-Dichlorobenzene	-	-	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
1,4-Dichlorobenzene	-	12	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1
2-Hexanone	-	1400	< 4	< 3	< 3	< 3	< 3	< 4	< 3 J	< 3 J	< 3 J	< 3 J
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 4	< 3	< 3	< 3	< 3	< 4	< 3	< 3	< 3	< 3
Acetone	-	630000	< 1	< 1	< 1	< 1	< 1	< 1	< 0.9	< 1	< 0.9	< 1
Benzene	-	5.4	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Bromodichloromethane	-	1.4	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Bromoform	-	220	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Bromomethane (Methyl Bromide)	-	32	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3
Carbon disulfide	-	3700	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3
Carbon tetrachloride	-	3	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Chlorobenzene	-	1400	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Chlorobromomethane	-	680	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Chloroethane	-	61000	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3
Chloroform (Trichloromethane)	-	1.5	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Chloromethane (Methyl Chloride)	-	500	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3
cis-1,2-Dichloroethene	-	2000	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
cis-1,3-Dichloropropene	-	-	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Cyclohexane	-	29000	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06 J	< 0.07 J	< 0.06 J	< 0.07 J
Dibromochloromethane	-	3.3	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Dichlorodifluoromethane (CFC-12)	-	400	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Dimethylformamide	-	62000	-	-	-	-	-	-	< 0.6	-	-	-
Ethylbenzene	-	27	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Isopropylbenzene	-	11000	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
m&p-Xylene	-	-	< 0.07	< 0.07	**0.01 J**	< 0.07	**0.02 J**	< 0.07	**0.009 J**	< 0.07	< 0.06	< 0.07
Methyl acetate	-	1000000	< 4	< 3	< 3	< 3	< 3	< 4	< 3	< 3	< 3	< 3
Methyl cyclohexane	-	-	**0.01 J**	< 0.07	**0.04 J**	< 0.07	**0.03 J**	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Methyl Tert Butyl Ether	-	220	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3
Methylene chloride	-	960	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3
n-Propylbenzene	-	21000	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
o-Xylene	-	3000	< 0.07	< 0.07	**0.007 J**	< 0.07	**0.01 J**	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Styrene	-	36000	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Tetrachloroethene	-	110	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Tetrahydrofuran	-	95000	< 0.7 J	< 0.7 J	< 0.6 J	< 0.7 J	< 0.7 J	< 0.7 J	< 0.6	< 0.7	< 0.6	< 0.7
Toluene	-	45000	< 0.07	< 0.07	< 0.06	< 0.07	**0.01 J**	< 0.07	**0.009 J**	< 0.07	< 0.06	< 0.07
trans-1,2-Dichloroethene	-	690	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
trans-1,3-Dichloropropene	-	-	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Trichloroethene	-	6.4	< 0.07	< 0.07	< 0.06	< 0.07	< 0.07	< 0.07	< 0.06	< 0.07	< 0.06	< 0.07
Trichlorofluoromethane (CFC-11)	-	3400	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	-	1.7	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name			MW-1009	MW-1009	SB-MW-1001A	SB-MW-1002A	SB-MW-1004A	SB-MW-1005A	SB-MW-1006A	MW-1022	MW-1022	SB-28-01
Sample Name			1318-011210-1330	1318-011210-1340	1318-062810-1115	1318-062810-1140	1318-062810-1205	1318-062810-1225	1318-062810-1340	1318-072611-1015	1318-072611-1025	1318-021710-1530
Sample Date		RSL	1/12/2010	1/12/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/26/2011	7/26/2011	2/17/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	**0.05 J**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	< 0.5
Arsenic, Total	13	1.6	**1.35 J**	**1.37 J**	**2.04 [A]**	**1.79 [A]**	**1.01**	**2.04 [A]**	**1.83 [A]**	-	-	**1.34**
Barium, Total	140	190000	**202**	**42.4**	**60.6**	**67.8**	**122**	**70.6**	**71.4**	-	-	**66.4**
Beryllium, Total	-	2000	**0.35**	**0.34**	**0.46**	**0.45**	**0.56**	**0.49**	**0.33**	-	-	**0.6**
Cadmium, Total	1.25	800	**0.23**	**0.19 J**	**0.2**	**0.2**	**0.15 J**	**0.18 J**	**0.16 J**	-	-	**0.31**
Chromium, Total	22	-	**6.79**	**6.85**	**6.73**	**6.53**	**5.76**	**4.21**	**3.97**	-	-	**5.83**
Cobalt, Total	-	300	**3.03**	**5.26**	**5.57**	**5.44**	**5.58**	**9.75**	**4.9**	-	-	**2.41**
Copper, Total	-	41000	**50**	**12.3**	**12.2**	**10.6**	**10.6**	**10.2**	**8.22**	-	-	**32.4**
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	< 0.1
Lead, Total	37	800	**33.7**	**7.71**	**9.75**	**9.6**	**9.42**	**13.1**	**7.17**	-	-	**15.5**
Manganese, Total	-	23000	**168**	**226**	**265**	**377**	**495**	**296**	**308**	-	-	**38.5**
Mercury, Total	0.13	43	**0.051**	< 0.05	**0.04 J**	**0.01 J**	**0.04 J**	**0.02 J**	**0.02 J**	-	-	**0.06**
Nickel, Total	33	20000	**4.93**	**15.8**	**14.3**	**15.3**	**14.6**	**10.9**	**11.4**	-	-	**9.62**
Selenium, Total	-	5100	**0.2 J**	**0.26 J**	**0.11 J**	**0.3 J**	**0.16 J**	**0.42 J**	**0.48 J**	-	-	**0.69**
Silver, Total	-	5100	**0.04 J**	**0.05 J**	**0.06 J**	**0.06 J**	**0.08 J**	**0.09 J**	**0.07 J**	-	-	< 0.2
Thallium, Total	-	10	< 0.5	**0.1 J**	**0.09 J**	**0.11 J**	**0.04 J**	**0.03 J**	**0.04 J**	-	-	< 0.5
Vanadium, Total	-	5200	**8.09**	**9.63**	**10.2**	**8.67**	**5.75**	**7.43**	**4.94**	-	-	**8.07**
Zinc, Total	90	310000	**42.6**	**28**	**35.5**	**31.7**	**30.9**	**26.6**	**26**	-	-	**39.8**
Other (%)												
Total Solids	-	-	**82**	**78**	**79**	**79**	**79**	**79**	**80**	**80**	**80**	**75**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	< 0.33
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	< 0.33
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	< 0.33
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	< 0.33
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	< 0.33
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	< 0.33
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	< 0.33
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2,4-Dinitrophenol	-	1200	< 0.81 J	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	-	-	< 0.67 J
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	-	-	< 0.67
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	-	-	< 0.67
4,6-Dinitro-2-methylphenol	-	49	< 0.67	< 0.67	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	-	-	< 0.67 J
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	-	-	< 0.67

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name			MW-1009	MW-1009	SB-MW-1001A	SB-MW-1002A	SB-MW-1004A	SB-MW-1005A	SB-MW-1006A	MW-1022	MW-1022	SB-28-01
Sample Name			1318-011210-1330	1318-011210-1340	1318-062810-1115	1318-062810-1140	1318-062810-1205	1318-062810-1225	1318-062810-1340	1318-072611-1015	1318-072611-1025	1318-021710-1530
Sample Date		RSL	1/12/2010	1/12/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/26/2011	7/26/2011	2/17/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	-	-	< 0.67 J
Acenaphthene	-	33000	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	-	-	< 0.33
Benzo(a)anthracene	-	2.1	**0.04 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Benzo(a)pyrene	-	0.21	**0.07 J**	< 0.33	< 0.33	< 0.33	**0.04 J**	< 0.33	< 0.33	-	-	< 0.33
Benzo(b)fluoranthene	-	2.1	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	-	-	< 0.33
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	-	-	< 0.33
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Diethyl phthalate	-	490000	< 0.33	**0.03 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Dimethylformamide	-	62000	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	**0.07 J**	**0.05 J**	**0.03 J**	< 0.33 J	< 0.33 J	-	-	**0.1 J**
Fluoranthene	-	22000	**0.07 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	< 0.33 J	-	-	< 0.33
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	-	-	< 0.2
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	**0.03 J**
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Pyrene	-	17000	**0.06 J**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	< 0.33
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethane	-	17	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.1	< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.0005 J**	< 0.005	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.07	< 0.07	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.07	< 0.07	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name			MW-1009	MW-1009	SB-MW-1001A	SB-MW-1002A	SB-MW-1004A	SB-MW-1005A	SB-MW-1006A	MW-1022	MW-1022	SB-28-01
Sample Name			1318-011210-1330	1318-011210-1340	1318-062810-1115	1318-062810-1140	1318-062810-1205	1318-062810-1225	1318-062810-1340	1318-072611-1015	1318-072611-1025	1318-021710-1530
Sample Date		RSL	1/12/2010	1/12/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/26/2011	7/26/2011	2/17/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	0 - 2 (ft)	8 - 10 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	-	12	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 1	< 1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	1400	< 4	< 3	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 4	< 3	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 1 J	< 1 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromodichloromethane	-	1.4	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromoform	-	220	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Bromomethane (Methyl Bromide)	-	32	< 0.4	< 0.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	-	3700	< 0.4	< 0.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	3	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	-	1400	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobromomethane	-	680	< 0.05	< 0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	-	61000	< 0.4	< 0.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.4	< 0.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cyclohexane	-	29000	< 0.07 J	< 0.07 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01	< 0.01	< 0.01 J
Dibromochloromethane	-	3.3	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.002 J**
Isopropylbenzene	-	11000	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
m&p-Xylene	-	-	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.008**
Methyl acetate	-	1000000	< 4	< 3	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.07	< 0.07	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.4	< 0.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	-	960	< 0.4	< 0.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	21000	< 0.05	< 0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
o-Xylene	-	3000	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.003 J**
Styrene	-	36000	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Tetrachloroethene	-	110	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.03051**	< 0.005	< 0.005
Tetrahydrofuran	-	95000	< 0.5	< 0.5	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.01	< 0.01	< 0.005 J
Toluene	-	45000	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.032**
trans-1,2-Dichloroethene	-	690	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	-	6.4	< 0.07	< 0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.00796**	< 0.005	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.1	< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.1	< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.001
Vinyl chloride	-	1.7	< 0.1	< 0.1	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels,
   (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are
   are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-01	SB-28-02	SB-28-02	SB-28-03	SB-28-03	SB-28-04	SB-28-04	SB-28-04	SB-28-04	SB-28-05
Sample Name			1318-021710-1540	1318-021710-1630	1318-021710-1640	1318-021710-1600	1318-021710-1610	1318-063010-0900	1318-063010-0905	1318-063010-0001	1318-063010-0910	1318-063010-0830
Sample Date		RSL	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	-
Arsenic, Total	13	1.6	**1.17**	**3.25** [A]	**2.71** [A]	**3.92** [A]	**1.69** [A]	-	-	-	-	-
Barium, Total	140	190000	**46.8**	**67.1**	**74**	**95.3**	**47.3**	-	-	-	-	-
Beryllium, Total	-	2000	**0.36**	**0.58**	**0.48**	**0.68**	**0.38**	-	-	-	-	-
Cadmium, Total	1.25	800	**0.27**	**0.35**	**0.32**	**0.39**	**0.22**	-	-	-	-	-
Chromium, Total	22	-	**8**	**6.31**	**8.59**	**7.16**	**7.06**	-	-	-	-	-
Cobalt, Total	-	300	**4.9**	**3.58**	**10.7**	**4.22**	**5.22**	-	-	-	-	-
Copper, Total	-	41000	**13.6**	**24.1**	**13**	**28.7**	**10.9**	-	-	-	-	-
Cyanide	-	140	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-	-
Lead, Total	37	800	**8.22**	**16.1**	**7.97**	**14.1**	**6.51**	-	-	-	-	-
Manganese, Total	-	23000	**444**	**113**	**525**	**226**	**400**	-	-	-	-	-
Mercury, Total	0.13	43	**0.02 J**	**0.05 J**	**0.01 J**	**0.067**	**0.02 J**	-	-	-	-	-
Nickel, Total	33	20000	**18.5**	**10.1**	**22.5**	**12.9**	**14.5**	-	-	-	-	-
Selenium, Total	-	5100	< 0.5	**0.49 J**	< 0.5	**0.38 J**	< 0.5	-	-	-	-	-
Silver, Total	-	5100	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-
Thallium, Total	-	10	**0.13 J**	< 0.5	**0.18 J**	< 0.5	**0.16 J**	-	-	-	-	-
Vanadium, Total	-	5200	**10.6**	**13.9**	**11.6**	**17.3**	**8.54**	-	-	-	-	-
Zinc, Total	90	310000	**34.4**	**39.1**	**39**	**45.6**	**31.3**	-	-	-	-	-
Other (%)												
Total Solids	-	-	**82**	**77**	**75**	**70**	**79**	**74**	**78**	**77**	**80**	**89**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2,4,5-Trichlorophenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2,4,6-Trichlorophenol	-	160	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2,4-Dichlorophenol	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2,4-Dimethylphenol	-	12000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2,4-Dinitrophenol	-	1200	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	-	-	-	-	-
2,4-Dinitrotoluene	-	5.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2,6-Dinitrotoluene	-	620	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2-Chloronaphthalene	-	82000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2-Chlorophenol	-	5100	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2-Methylnaphthalene	-	2200	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2-Methylphenol	-	31000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
2-Nitroaniline	-	6000	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	-	-	-	-	-
2-Nitrophenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
3&4-Methylphenol	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
3,3'-Dichlorobenzidine	-	3.8	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
3-Nitroaniline	-	-	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	49	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
4-Chloro-3-methylphenol	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
4-Chloroaniline	-	8.6	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	-	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-01	SB-28-02	SB-28-02	SB-28-03	SB-28-03	SB-28-04	SB-28-04	SB-28-04	SB-28-04	SB-28-05
Sample Name			1318-021710-1540	1318-021710-1630	1318-021710-1640	1318-021710-1600	1318-021710-1610	1318-063010-0900	1318-063010-0905	1318-063010-0001	1318-063010-0910	1318-063010-0830
Sample Date		RSL	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	< 0.67 J	-	-	-	-	-
Acenaphthene	-	33000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Acenaphthylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Acetophenone	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Anthracene	-	170000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Atrazine	-	7.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Benzaldehyde	-	100000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Benzo(a)anthracene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Benzo(a)pyrene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Benzo(b)fluoranthene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Benzo(g,h,i)perylene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Benzo(k)fluoranthene	-	21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Biphenyl	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
bis(2-Chloroethyl)ether	-	1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	120	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Butyl benzylphthalate	-	910	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Caprolactam	-	310000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Carbazole	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Chrysene	-	210	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Dibenz(a,h)anthracene	-	0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Dibenzofuran	-	1000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Diethyl phthalate	-	490000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Dimethyl phthalate	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Di-n-octyl phthalate	-	7400	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Fluoranthene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Fluorene	-	22000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Hexachlorobenzene	-	1.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Hexachlorobutadiene	-	22	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Hexachlorocyclopentadiene	-	3700	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Hexachloroethane	-	43	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Isophorone	-	1800	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Naphthalene	-	18	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Nitrobenzene	-	24	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	0.25	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
N-Nitrosodiphenylamine	-	350	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Pentachlorophenol	-	2.7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Phenanthrene	-	-	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Phenol	-	180000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Pyrene	-	17000	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	-	-	-	-	-
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,1-Dichloroethane	-	17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,1-Dichloroethene	-	1100	< 0.005	< 0.005	< 0.005	< 0.005	**0.001 J**	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.1
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.06
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06

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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
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Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-01	SB-28-02	SB-28-02	SB-28-03	SB-28-03	SB-28-04	SB-28-04	SB-28-04	SB-28-04	SB-28-05
Sample Name			1318-021710-1540	1318-021710-1630	1318-021710-1640	1318-021710-1600	1318-021710-1610	1318-063010-0900	1318-063010-0905	1318-063010-0001	1318-063010-0910	1318-063010-0830
Sample Date		RSL	2/17/2010	2/17/2010	2/17/2010	2/17/2010	2/17/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	6 - 8 (ft)	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,2-Dichloropropane	-	4.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,3-Dichlorobenzene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
1,4-Dichlorobenzene	-	12	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.8
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 3
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 3
Acetone	-	630000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.1 J**
Benzene	-	5.4	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Bromodichloromethane	-	1.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Bromoform	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.3
Carbon disulfide	-	3700	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.3
Carbon tetrachloride	-	3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Chlorobenzene	-	1400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Chlorobromomethane	-	680	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Chloroethane	-	61000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.3
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.005	< 0.005	**0.002 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.3
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.005	< 0.005	< 0.005	**0.002 J**	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.01 J	< 0.06 J
Dibromochloromethane	-	3.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06 J
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005 J	< 0.005	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Isopropylbenzene	-	11000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
m&p-Xylene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 3
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.06
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.3
Methylene chloride	-	960	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.3
n-Propylbenzene	-	21000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
o-Xylene	-	3000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Styrene	-	36000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Tetrachloroethene	-	110	< 0.005	**0.002 J**	< 0.005	**12.1**	**0.006**	**0.005**	**0.005**	**0.005**	< 0.006	**5.28**
Tetrahydrofuran	-	95000	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005 J	< 0.006 J	< 0.06 J
Toluene	-	45000	**0.0008 J**	**0.0006 J**	< 0.005	**0.002 J**	**0.001 J**	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.005	< 0.005	< 0.005	**0.0008 J**	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.06
Trichloroethene	-	6.4	< 0.005	< 0.005	< 0.005	**5.28**	**0.208**	**0.0009 J**	**0.001 J**	**0.001 J**	< 0.006	**1.54**
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.1
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.005	< 0.006	< 0.1
Vinyl chloride	-	1.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.1
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-05	SB-28-05	SB-28-06	SB-28-06	SB-28-07	SB-28-07	SB-28-08	SB-28-08	SB-28-08	SB-28-09
Sample Name			1318-063010-0835	1318-063010-0840	1318-072611-1145	1318-072611-1155	1318-072611-1205	1318-072611-1215	1318-072611-1230	1318-072611-0002	1318-072611-1240	1318-072611-1305
Sample Date		RSL	6/30/2010	6/30/2010	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
Inorganic Compounds (mg/kg)												
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	-	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-
Cyanide	-	140	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	-	-	-	-	-	-	-	-	-	-
Manganese, Total	-	23000	-	-	-	-	-	-	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-
Other (%)												
Total Solids	-	-	**80**	**81**	**75**	**80**	**73**	**77**	**81**	**80**	**79**	**83**
PCBs (mg/kg)												
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)												
2,2'-oxybis(1-Chloropropane)	-	22	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	-	62000	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	-	160	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	-	1800	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	-	12000	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	-	1200	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	-	5.5	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	-	620	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	-	82000	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	-	5100	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	-	2200	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	-	31000	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	-	6000	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	-	3.8	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	49	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	-	8.6	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	-	86	-	-	-	-	-	-	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-05	SB-28-05	SB-28-06	SB-28-06	SB-28-07	SB-28-07	SB-28-08	SB-28-08	SB-28-08	SB-28-09
Sample Name			1318-063010-0835	1318-063010-0840	1318-072611-1145	1318-072611-1155	1318-072611-1205	1318-072611-1215	1318-072611-1230	1318-072611-0002	1318-072611-1240	1318-072611-1305
Sample Date		RSL	6/30/2010	6/30/2010	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	-	33000	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-
Acetophenone	-	100000	-	-	-	-	-	-	-	-	-	-
Anthracene	-	170000	-	-	-	-	-	-	-	-	-	-
Atrazine	-	7.5	-	-	-	-	-	-	-	-	-	-
Benzaldehyde	-	100000	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	-	2.1	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	-	0.21	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	-	2.1	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	-	21	-	-	-	-	-	-	-	-	-	-
Biphenyl	-	210	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	1800	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	-	1	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	120	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	-	910	-	-	-	-	-	-	-	-	-	-
Caprolactam	-	310000	-	-	-	-	-	-	-	-	-	-
Carbazole	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	-	210	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	-	0.21	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	-	1000	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	-	490000	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	-	7400	-	-	-	-	-	-	-	-	-	-
Fluoranthene	-	22000	-	-	-	-	-	-	-	-	-	-
Fluorene	-	22000	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	-	1.1	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	22	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	3700	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	-	43	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	2.1	-	-	-	-	-	-	-	-	-	-
Isophorone	-	1800	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	18	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	-	24	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	0.25	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	-	350	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	-	2.7	-	-	-	-	-	-	-	-	-	-
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	-	180000	-	-	-	-	-	-	-	-	-	-
Pyrene	-	17000	-	-	-	-	-	-	-	-	-	-
Total Petroleum Hydrocarbons (mg/kg)												
Ethylene glycol	-	1200000	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)												
1,1,1-Trichloroethane	-	38000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,1,2,2-Tetrachloroethane	-	2.8	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,1,2-Trichloroethane	-	5.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,1-Dichloroethane	-	17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,1-Dichloroethene	-	1100	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,2,4-Trichlorobenzene	-	99	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,2-Dichlorobenzene	-	9800	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-05	SB-28-05	SB-28-06	SB-28-06	SB-28-07	SB-28-07	SB-28-08	SB-28-08	SB-28-08	SB-28-09
Sample Name			1318-063010-0835	1318-063010-0840	1318-072611-1145	1318-072611-1155	1318-072611-1205	1318-072611-1215	1318-072611-1230	1318-072611-0002	1318-072611-1240	1318-072611-1305
Sample Date		RSL	6/30/2010	6/30/2010	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011
Sample Type		Industrial Soil	N	N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)	0 - 2 (ft)
1,2-Dichloroethane	-	2.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,2-Dichloropropane	-	4.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,3-Dichlorobenzene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
1,4-Dichlorobenzene	-	12	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01	< 0.01	**0.0104**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01	< 0.01	**0.0047 J**	**0.0103**	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Bromodichloromethane	-	1.4	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Bromoform	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Bromomethane (Methyl Bromide)	-	32	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Carbon disulfide	-	3700	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Carbon tetrachloride	-	3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Chlorobenzene	-	1400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Chlorobromomethane	-	680	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Chloroethane	-	61000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Chloroform (Trichloromethane)	-	1.5	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Chloromethane (Methyl Chloride)	-	500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
cis-1,2-Dichloroethene	-	2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
cis-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Cyclohexane	-	29000	< 0.01 J	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	-	3.3	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Dichlorodifluoromethane (CFC-12)	-	400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Isopropylbenzene	-	11000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
m&p-Xylene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Methylene chloride	-	960	< 0.005	< 0.005	< 0.005	**0.00053 J**	< 0.005	**0.00035 J**	< 0.006	< 0.006	< 0.006	< 0.006
n-Propylbenzene	-	21000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
o-Xylene	-	3000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Styrene	-	36000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Tetrachloroethene	-	110	**0.12**	**0.003 J**	**0.0008 J**	< 0.005	**0.00524**	< 0.005	**0.19674 J**	**0.52362 J**	< 0.006	**0.01893**
Tetrahydrofuran	-	95000	< 0.005 J	< 0.005 J	< 0.01	< 0.01	**0.0093 J**	< 0.01	< 0.015	< 0.015	< 0.016	< 0.015
Toluene	-	45000	< 0.005	< 0.005	**0.00037 J**	< 0.005	**0.00194 J**	< 0.005	**0.00053 J**	**0.00065 J**	**0.00056 J**	**0.00052 J**
trans-1,2-Dichloroethene	-	690	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
trans-1,3-Dichloropropene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Trichloroethene	-	6.4	**0.178**	**0.014**	< 0.005	< 0.005	**0.00882**	< 0.005	**0.03357 J**	**0.11368 J**	< 0.006	< 0.006
Trichlorofluoromethane (CFC-11)	-	3400	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Vinyl chloride	-	1.7	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.006	< 0.006	< 0.006	< 0.006
Xylene (total)	-	2700	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-09	SB-28-10	SB-28-10	SB-28-10
Sample Name			1318-072611-1315	1318-072611-1245	1318-072611-0003	1318-072611-1255
Sample Date		RSL	7/26/2011	7/26/2011	7/26/2011	7/26/2011
Sample Type		Industrial Soil	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)
Inorganic Compounds (mg/kg)						
Antimony, Total	-	410	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-
Barium, Total	140	190000	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-
Chromium, Total	22	-	-	-	-	-
Cobalt, Total	-	300	-	-	-	-
Copper, Total	-	41000	-	-	-	-
Cyanide	-	140	-	-	-	-
Lead, Total	37	800	-	-	-	-
Manganese, Total	-	23000	-	-	-	-
Mercury, Total	0.13	43	-	-	-	-
Nickel, Total	33	20000	-	-	-	-
Selenium, Total	-	5100	-	-	-	-
Silver, Total	-	5100	-	-	-	-
Thallium, Total	-	10	-	-	-	-
Vanadium, Total	-	5200	-	-	-	-
Zinc, Total	90	310000	-	-	-	-
Other (%)						
Total Solids	-	-	**74**	**80**	**87**	**73**
PCBs (mg/kg)						
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)						
2,2'-oxybis(1-Chloropropane)	-	22	-	-	-	-
2,4,5-Trichlorophenol	-	62000	-	-	-	-
2,4,6-Trichlorophenol	-	160	-	-	-	-
2,4-Dichlorophenol	-	1800	-	-	-	-
2,4-Dimethylphenol	-	12000	-	-	-	-
2,4-Dinitrophenol	-	1200	-	-	-	-
2,4-Dinitrotoluene	-	5.5	-	-	-	-
2,6-Dinitrotoluene	-	620	-	-	-	-
2-Chloronaphthalene	-	82000	-	-	-	-
2-Chlorophenol	-	5100	-	-	-	-
2-Methylnaphthalene	-	2200	-	-	-	-
2-Methylphenol	-	31000	-	-	-	-
2-Nitroaniline	-	6000	-	-	-	-
2-Nitrophenol	-	-	-	-	-	-
3&4-Methylphenol	-	-	-	-	-	-
3,3'-Dichlorobenzidine	-	3.8	-	-	-	-
3-Nitroaniline	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	49	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	62000	-	-	-	-
4-Chloroaniline	-	8.6	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	-	-	-	-
4-Methylphenol	-	62000	-	-	-	-
4-Nitroaniline	-	86	-	-	-	-

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-09	SB-28-10	SB-28-10	SB-28-10
Sample Name			1318-072611-1315	1318-072611-1245	1318-072611-0003	1318-072611-1255
Sample Date		RSL	7/26/2011	7/26/2011	7/26/2011	7/26/2011
Sample Type		Industrial Soil	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)
4-Nitrophenol	-	-	-	-	-	-
Acenaphthene	-	33000	-	-	-	-
Acenaphthylene	-	-	-	-	-	-
Acetophenone	-	100000	-	-	-	-
Anthracene	-	170000	-	-	-	-
Atrazine	-	7.5	-	-	-	-
Benzaldehyde	-	100000	-	-	-	-
Benzo(a)anthracene	-	2.1	-	-	-	-
Benzo(a)pyrene	-	0.21	-	-	-	-
Benzo(b)fluoranthene	-	2.1	-	-	-	-
Benzo(g,h,i)perylene	-	-	-	-	-	-
Benzo(k)fluoranthene	-	21	-	-	-	-
Biphenyl	-	210	-	-	-	-
bis(2-Chloroethoxy)methane	-	1800	-	-	-	-
bis(2-Chloroethyl)ether	-	1	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	120	-	-	-	-
Butyl benzylphthalate	-	910	-	-	-	-
Caprolactam	-	310000	-	-	-	-
Carbazole	-	-	-	-	-	-
Chrysene	-	210	-	-	-	-
Dibenz(a,h)anthracene	-	0.21	-	-	-	-
Dibenzofuran	-	1000	-	-	-	-
Diethyl phthalate	-	490000	-	-	-	-
Dimethyl phthalate	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-
Di-n-octyl phthalate	-	7400	-	-	-	-
Fluoranthene	-	22000	-	-	-	-
Fluorene	-	22000	-	-	-	-
Hexachlorobenzene	-	1.1	-	-	-	-
Hexachlorobutadiene	-	22	-	-	-	-
Hexachlorocyclopentadiene	-	3700	-	-	-	-
Hexachloroethane	-	43	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	2.1	-	-	-	-
Isophorone	-	1800	-	-	-	-
Naphthalene	-	18	-	-	-	-
Nitrobenzene	-	24	-	-	-	-
N-Nitrosodi-n-propylamine	-	0.25	-	-	-	-
N-Nitrosodiphenylamine	-	350	-	-	-	-
Pentachlorophenol	-	2.7	-	-	-	-
Phenanthrene	-	-	-	-	-	-
Phenol	-	180000	-	-	-	-
Pyrene	-	17000	-	-	-	-
Total Petroleum Hydrocarbons (mg/kg)						
Ethylene glycol	-	1200000	-	-	-	-
Volatile Organic Compounds (mg/kg)						
1,1,1-Trichloroethane	-	38000	< 0.007	< 0.006	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	< 0.007	< 0.006	< 0.006	< 0.005
1,1,2-Trichloroethane	-	5.3	< 0.007	< 0.006	< 0.006	< 0.005
1,1-Dichloroethane	-	17	< 0.007	< 0.006	< 0.006	< 0.005
1,1-Dichloroethene	-	1100	< 0.007	< 0.006	< 0.006	< 0.005
1,2,4-Trichlorobenzene	-	99	< 0.007	< 0.006	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane (DBCP)	-	0.069	< 0.01	< 0.01	< 0.01	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.17	< 0.007	< 0.006	< 0.006	< 0.005
1,2-Dichlorobenzene	-	9800	< 0.007	< 0.006	< 0.006	< 0.005

TABLE 5A
SUMMARY OF SOIL ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-28	AOI-28	AOI-28	AOI-28
Location Name			SB-28-09	SB-28-10	SB-28-10	SB-28-10
Sample Name			1318-072611-1315	1318-072611-1245	1318-072611-0003	1318-072611-1255
Sample Date		RSL	7/26/2011	7/26/2011	7/26/2011	7/26/2011
Sample Type		Industrial Soil	N	N	FD	N
Sample Depth (bgs)	Background	Screening Level	8 - 10 (ft)	0 - 2 (ft)	0 - 2 (ft)	8 - 10 (ft)
1,2-Dichloroethane	-	2.2	< 0.007	< 0.006	< 0.006	< 0.005
1,2-Dichloropropane	-	4.7	< 0.007	< 0.006	< 0.006	< 0.005
1,3-Dichlorobenzene	-	-	< 0.007	< 0.006	< 0.006	< 0.005
1,4-Dichlorobenzene	-	12	< 0.007	< 0.006	< 0.006	< 0.005
2-Butanone (Methyl Ethyl Ketone)	-	200000	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	1400	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	53000	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	-	5.4	< 0.007	< 0.006	< 0.006	< 0.005
Bromodichloromethane	-	1.4	< 0.007	< 0.006	< 0.006	< 0.005
Bromoform	-	220	< 0.007	< 0.006	< 0.006	< 0.005
Bromomethane (Methyl Bromide)	-	32	< 0.007	< 0.006	< 0.006	< 0.005
Carbon disulfide	-	3700	< 0.007	< 0.006	< 0.006	< 0.005
Carbon tetrachloride	-	3	< 0.007	< 0.006	< 0.006	< 0.005
Chlorobenzene	-	1400	< 0.007	< 0.006	< 0.006	< 0.005
Chlorobromomethane	-	680	< 0.007	< 0.006	< 0.006	< 0.005
Chloroethane	-	61000	< 0.007	< 0.006	< 0.006	< 0.005
Chloroform (Trichloromethane)	-	1.5	< 0.007	< 0.006	< 0.006	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.007	< 0.006	< 0.006	< 0.005
cis-1,2-Dichloroethene	-	2000	< 0.007	< 0.006	< 0.006	< 0.005
cis-1,3-Dichloropropene	-	-	< 0.007	< 0.006	< 0.006	< 0.005
Cyclohexane	-	29000	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	-	3.3	< 0.007	< 0.006	< 0.006	< 0.005
Dichlorodifluoromethane (CFC-12)	-	400	< 0.007	< 0.006	< 0.006	< 0.005
Dimethylformamide	-	62000	-	-	-	-
Ethylbenzene	-	27	< 0.007	< 0.006	< 0.006	< 0.005
Isopropylbenzene	-	11000	< 0.007	< 0.006	< 0.006	< 0.005
m&p-Xylene	-	-	< 0.007	< 0.006	< 0.006	< 0.005
Methyl acetate	-	1000000	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	220	< 0.007	< 0.006	< 0.006	< 0.005
Methylene chloride	-	960	< 0.007	< 0.006	< 0.006	< 0.005
n-Propylbenzene	-	21000	< 0.007	< 0.006	< 0.006	< 0.005
o-Xylene	-	3000	< 0.007	< 0.006	< 0.006	< 0.005
Styrene	-	36000	< 0.007	< 0.006	< 0.006	< 0.005
Tetrachloroethene	-	110	**0.00164 J**	**0.43056**	**0.39348**	**0.01725**
Tetrahydrofuran	-	95000	< 0.016	< 0.016	< 0.015	< 0.01
Toluene	-	45000	**0.00059 J**	**0.00044 J**	**0.00057 J**	< 0.005
trans-1,2-Dichloroethene	-	690	< 0.007	< 0.006	< 0.006	< 0.005
trans-1,3-Dichloropropene	-	-	< 0.007	< 0.006	< 0.006	< 0.005
Trichloroethene	-	6.4	< 0.007	**0.02254**	**0.02284**	**0.0023 J**
Trichlorofluoromethane (CFC-11)	-	3400	< 0.007	< 0.006	< 0.006	< 0.005
Trifluorotrichloroethane (Freon 113)	-	180000	< 0.007	< 0.006	< 0.006	< 0.005
Vinyl chloride	-	1.7	< 0.007	< 0.006	< 0.006	< 0.005
Xylene (total)	-	2700	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate, SPL-Split Sample

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			S10S11-E1MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S4-1MW	S4S6-1MW	S4S6-2MW	S4S6-3MW
Sample Date		RSL	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	2 - 3 (ft)	0 - 1 (ft)	1 - 2 (ft)	1 (ft)	2 (ft)	3 (ft)	4 (ft)	1 - 2 (ft)	0 - 1 (ft)	1 (ft)	0 - 1 (ft)
Inorganic Compounds (mg/kg)													
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-	-
Chromium, Total	22	-	**16**	**13**	-	**16**	**45**	**20**	**21**	**15**	**21**	**18**	**18**
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-	-
Lead, Total	37	800	**14**	**300**	-	**50**	**170**	**41**	**62**	**4.8**	**76**	**93**	**28**
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-	-
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-	-
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-	-
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-	-
PCBs (mg/kg)													
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-	-
Pesticides (mg/kg)													
4,4'-DDD	-	7.2	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	-	5.1	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	-	7	-	-	-	-	-	-	-	-	-	-	-
Aldrin	-	0.1	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	-	0.27	-	-	-	-	-	-	-	-	-	-	-
beta-BHC	-	0.96	-	-	-	-	-	-	-	-	-	-	-
Chlordane	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	-	0.11	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	-	180	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	-	2.1	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	-	0.38	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	-	0.19	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	-	3100	-	-	-	-	-	-	-	-	-	-	-
Toxaphene	-	1.6	-	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)													
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(2-Chloropropane)	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	-	160	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	-	1800	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	-	12000	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	-	1200	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	-	5.5	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	-	620	-	-	-	-	-	-	-	-	-	-	-

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			S10S11-E1MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S4-1MW	S4S6-1MW	S4S6-2MW	S4S6-3MW
Sample Date		RSL	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	2 - 3 (ft)	0 - 1 (ft)	1 - 2 (ft)	1 (ft)	2 (ft)	3 (ft)	4 (ft)	1 - 2 (ft)	0 - 1 (ft)	1 (ft)	0 - 1 (ft)
2-Chloronaphthalene	-	82000	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	-	5100	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	-	3.8	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	49	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	-	33000	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	-	170000	-	-	-	-	-	-	-	-	-	-	-
Benzidine	-	0.0075	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	-	2.1	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	-	0.21	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	-	2.1	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	-	21	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	1800	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	-	1	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	120	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	-	910	-	-	-	-	-	-	-	-	-	-	-
Chrysene	-	210	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	-	0.21	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	-	490000	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	-	22000	-	-	-	-	-	-	-	-	-	-	-
Fluorene	-	22000	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	-	1.1	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	22	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	3700	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	-	43	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	2.1	-	-	-	-	-	-	-	-	-	-	-
Isophorone	-	1800	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	18	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	-	24	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodimethylamine	-	0.034	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	0.25	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	-	350	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	-	2.7	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	-	180000	-	-	-	-	-	-	-	-	-	-	-
Pyrene	-	17000	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)													
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	-	9200	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-	-

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			S10S11-E1MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S10S13MW	S4-1MW	S4S6-1MW	S4S6-2MW	S4S6-3MW
Sample Date		RSL	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	2 - 3 (ft)	0 - 1 (ft)	1 - 2 (ft)	1 (ft)	2 (ft)	3 (ft)	4 (ft)	1 - 2 (ft)	0 - 1 (ft)	1 (ft)	0 - 1 (ft)
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	< 1	< 1	-
2-Chloroethyl vinyl ether	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	-	630000	-	-	-	-	-	-	-	-	-	-	-
Benzene	-	5.4	-	-	**2.43**	**2.05**	**6.8** [A]	**2.8**	**3.9**	-	-	-	-
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	220	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	-	61000	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	< 1	< 1	**2.8**	< 1	**1.9**	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	**5.1**	**4.6**	**18**	**11**	**17**	-	-	-	-
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	-	-	-	-	-
m-xylene	-	2500	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	18	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	-	-	-	-	-	-	-	-	-	-	-
p-Xylene	-	2600	-	-	-	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	-	-	**520**	**91.6**	**5100**	**1400**	**1900**	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	-	2700	-	-	**23.5**	**17.87**	**77**	**48**	**79**	-	-	-	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, Nobember 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			S9S10MW	S9S10MW	S9S10MW	S9S10MW	S9S10MW	S9S10MW	SB-10C	SB-11C	SB-12C	SB-14C	SB-15C
Sample Date		RSL	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	2/20/1990	2/20/1990	2/20/1990	2/20/1990	2/20/1990
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	7 - 8 (ft)	8 - 9 (ft)	9 - 10 (ft)	10 - 11 (ft)	11 - 12 (ft)	12 - 13 (ft)	3 - 5 (ft)	3 - 5 (ft)	6 - 8 (ft)	8 - 10 (ft)	6 - 8 (ft)
Inorganic Compounds (mg/kg)													
Antimony, Total	-	410	-	-	-	-	-	-	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Arsenic, Total	13	1.6	-	-	-	-	-	-	**40 [A]**	**20 [A]**	**20 [A]**	**30 [A]**	**30 [A]**
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	< 2	< 2	< 2	< 2	< 2
Cadmium, Total	1.25	800	-	-	-	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Chromium, Total	22	-	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Copper, Total	-	41000	-	-	-	-	-	-	**20**	**10**	**20**	**20**	**20**
Lead, Total	37	800	-	-	-	-	-	-	< 20	< 20	< 20	< 20	< 20
Mercury, Total	0.13	43	-	-	-	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel, Total	33	20000	-	-	-	-	-	-	**20**	**20**	< 20	**20**	**20**
Selenium, Total	-	5100	-	-	-	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Silver, Total	-	5100	-	-	-	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Thallium, Total	-	10	-	-	-	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Zinc, Total	90	310000	-	-	-	-	-	-	< 50	< 50	< 50	< 50	< 50
PCBs (mg/kg)													
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Pesticides (mg/kg)													
4,4'-DDD	-	7.2	-	-	-	-	-	-	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
4,4'-DDE	-	5.1	-	-	-	-	-	-	< 0.05	< 0.04	< 0.06	< 0.04	< 0.08
4,4'-DDT	-	7	-	-	-	-	-	-	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Aldrin	-	0.1	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
alpha-BHC	-	0.27	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
beta-BHC	-	0.96	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chlordane	-	-	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
delta-BHC	-	-	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Dieldrin	-	0.11	-	-	-	-	-	-	< 0.05	< 0.04	< 0.06	< 0.04	< 0.08
Endosulfan I	-	-	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Endosulfan II	-	-	-	-	-	-	-	-	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Endosulfan sulfate	-	-	-	-	-	-	-	-	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Endrin	-	180	-	-	-	-	-	-	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
Endrin ketone	-	-	-	-	-	-	-	-	< 0.05	< 0.04	< 0.03	< 0.04	< 0.04
gamma-BHC (Lindane)	-	2.1	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Heptachlor	-	0.38	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Heptachlor epoxide	-	0.19	-	-	-	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Methoxychlor	-	3100	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	-	1.6	-	-	-	-	-	-	< 0.5	< 0.4	< 0.3	< 0.4	< 0.4
Semi-Volatile Organic Compounds (mg/kg)													
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2,2'-oxybis(2-Chloropropane)	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2,4,6-Trichlorophenol	-	160	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2,4-Dichlorophenol	-	1800	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2,4-Dimethylphenol	-	12000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2,4-Dinitrophenol	-	1200	-	-	-	-	-	-	< 5	< 5	< 4	< 4	< 4
2,4-Dinitrotoluene	-	5.5	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2,6-Dinitrotoluene	-	620	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			S9S10MW	S9S10MW	S9S10MW	S9S10MW	S9S10MW	S9S10MW	SB-10C	SB-11C	SB-12C	SB-14C	SB-15C
Sample Date		RSL	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	2/20/1990	2/20/1990	2/20/1990	2/20/1990	2/20/1990
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	7 - 8 (ft)	8 - 9 (ft)	9 - 10 (ft)	10 - 11 (ft)	11 - 12 (ft)	12 - 13 (ft)	3 - 5 (ft)	3 - 5 (ft)	6 - 8 (ft)	8 - 10 (ft)	6 - 8 (ft)
2-Chloronaphthalene	-	82000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2-Chlorophenol	-	5100	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
2-Nitrophenol	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
3,3'-Dichlorobenzidine	-	3.8	-	-	-	-	-	-	< 2	< 2	< 1	< 1	< 1
4,6-Dinitro-2-methylphenol	-	49	-	-	-	-	-	-	< 5	< 5	< 4	< 4	< 4
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
4-Chloro-3-methylphenol	-	62000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
4-Nitrophenol	-	-	-	-	-	-	-	-	< 5	< 5	< 4	< 4	< 4
Acenaphthene	-	33000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Acenaphthylene	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Anthracene	-	170000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Benzidine	-	0.0075	-	-	-	-	-	-	< 5	< 5	< 4	< 4	< 4
Benzo(a)anthracene	-	2.1	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Benzo(a)pyrene	-	0.21	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Benzo(b)fluoranthene	-	2.1	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Benzo(k)fluoranthene	-	21	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
bis(2-Chloroethoxy)methane	-	1800	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
bis(2-Chloroethyl)ether	-	1	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
bis(2-Ethylhexyl)phthalate	-	120	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Butyl benzylphthalate	-	910	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Chrysene	-	210	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Dibenz(a,h)anthracene	-	0.21	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Diethyl phthalate	-	490000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Dimethyl phthalate	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Fluoranthene	-	22000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Fluorene	-	22000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Hexachlorobenzene	-	1.1	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Hexachlorobutadiene	-	22	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Hexachlorocyclopentadiene	-	3700	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Hexachloroethane	-	43	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Indeno(1,2,3-cd)pyrene	-	2.1	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Isophorone	-	1800	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Naphthalene	-	18	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Nitrobenzene	-	24	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
N-Nitrosodimethylamine	-	0.034	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
N-Nitrosodi-n-propylamine	-	0.25	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
N-Nitrosodiphenylamine	-	350	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Pentachlorophenol	-	2.7	-	-	-	-	-	-	< 5	< 5	< 4	< 4	< 4
Phenanthrene	-	-	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Phenol	-	180000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Pyrene	-	17000	-	-	-	-	-	-	< 1	< 0.9	< 0.7	< 0.7	< 0.7
Volatile Organic Compounds (mg/kg)													
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,1-Dichloroethane	-	17	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,2-Dichloroethene (total)	-	9200	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			S9S10MW	S9S10MW	S9S10MW	S9S10MW	S9S10MW	S9S10MW	SB-10C	SB-11C	SB-12C	SB-14C	SB-15C
Sample Date		RSL	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	5/7/1996	2/20/1990	2/20/1990	2/20/1990	2/20/1990	2/20/1990
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	7 - 8 (ft)	8 - 9 (ft)	9 - 10 (ft)	10 - 11 (ft)	11 - 12 (ft)	12 - 13 (ft)	3 - 5 (ft)	3 - 5 (ft)	6 - 8 (ft)	8 - 10 (ft)	6 - 8 (ft)
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	-	-	-	-	-	-	-	-	< 2	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	630000	-	-	-	-	-	-	< 20	< 0.1	< 0.1	< 0.1	< 0.1
Benzene	-	5.4	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Bromodichloromethane	-	1.4	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Bromoform	-	220	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	< 2	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	-	3	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Chlorobenzene	-	1400	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Chloroethane	-	61000	-	-	-	-	-	-	< 2	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	< 2	< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Dibromochloromethane	-	3.3	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	-	-	-	-	-	-	**3.1**	**0.32**	< 0.005	< 0.005	< 0.005
m&p-Xylene	-	-	< 100000000	< 100000000	< 100000000	< 100000000	< 100000000	< 100000000	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	< 0.9	**0.014**	**0.008**	**0.013**	**0.006**
m-xylene	-	2500	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	18	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	< 100000000	< 100000000	< 100000000	< 100000000	< 100000000	< 100000000	-	-	-	-	-
p-Xylene	-	2600	-	-	-	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Trichloroethene	-	6.4	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	< 0.9	< 0.007	< 0.005	< 0.005	< 0.005
Vinyl chloride	-	1.7	-	-	-	-	-	-	< 2	< 0.01	< 0.01	< 0.01	< 0.01
Xylene (total)	-	2700	-	-	-	-	-	-	**18**	**0.97**	< 0.005	< 0.005	< 0.005

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, Nobember 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-15C	SB-16C	SB-17C	SB-17C	SB-19H	SB-21H	SB-23H	SB-32MW	SB-36MW	SB-36MW	SB-44MW
Sample Date		RSL	2/20/1990	2/20/1990	2/20/1990	2/20/1990	3/8/1995	3/10/1995	3/9/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995
Sample Type		Industrial Soil	FD	N	N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 5.1 (ft)	6 - 7.7 (ft)	2 - 3.6 (ft)	2 - 3 (ft)	1 - 2 (ft)	2 - 3 (ft)	1 - 2 (ft)
Inorganic Compounds (mg/kg)													
Antimony, Total	-	410	< 0.04	< 0.04	< 0.04	< 0.04	< 3.6	< 3.7	-	-	-	-	-
Arsenic, Total	13	1.6	**30** [A]	**30** [A]	**20** [A]	**30** [A]	**13** [A]	**8.3** [A]	-	-	-	-	-
Barium, Total	140	190000	-	-	-	-	**72**	**83**	-	-	-	-	-
Beryllium, Total	-	2000	< 2	< 2	< 2	< 2	-	-	-	-	-	-	-
Cadmium, Total	1.25	800	< 0.002	< 0.002	< 0.002	< 0.002	< 1.6	< 1.8	-	-	-	-	-
Chromium, Total	22	-	< 0.02	< 0.02	< 0.02	< 0.02	**12**	**21**	-	-	-	-	**34**
Copper, Total	-	41000	**20**	**20**	**20**	**20**	-	-	-	-	-	-	-
Lead, Total	37	800	< 20	< 20	< 20	< 20	**8**	**9.4**	-	-	-	-	**190**
Mercury, Total	0.13	43	< 0.05	< 0.05	< 0.05	< 0.05	< 0.29	< 0.24	-	-	-	-	-
Nickel, Total	33	20000	< 20	< 20	**20**	< 20	-	-	-	-	-	-	-
Selenium, Total	-	5100	< 0.01	< 0.01	< 0.01	< 0.01	< 3.6	< 3.7	-	-	-	-	-
Silver, Total	-	5100	< 0.005	< 0.005	< 0.005	< 0.005	< 1.6	< 1.8	-	-	-	-	-
Thallium, Total	-	10	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
Zinc, Total	90	310000	< 50	< 50	**50**	< 50	-	-	-	-	-	-	-
PCBs (mg/kg)													
Aroclor-1016 (PCB-1016)	-	21	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	0.54	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	0.54	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	0.74	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	0.74	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	0.74	< 0.4	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	0.74	< 0.4	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-
Pesticides (mg/kg)													
4,4'-DDD	-	7.2	< 0.04	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
4,4'-DDE	-	5.1	< 0.08	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
4,4'-DDT	-	7	< 0.04	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
Aldrin	-	0.1	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
alpha-BHC	-	0.27	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
beta-BHC	-	0.96	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
Chlordane	-	-	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
delta-BHC	-	-	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
Dieldrin	-	0.11	< 0.08	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
Endosulfan I	-	-	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
Endosulfan II	-	-	< 0.04	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
Endosulfan sulfate	-	-	< 0.04	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
Endrin	-	180	< 0.04	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
Endrin ketone	-	-	< 0.04	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	-
gamma-BHC (Lindane)	-	2.1	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
Heptachlor	-	0.38	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
Heptachlor epoxide	-	0.19	< 0.02	< 0.02	< 0.02	< 0.02	-	-	-	-	-	-	-
Methoxychlor	-	3100	< 0.2	< 0.2	< 0.2	< 0.2	-	-	-	-	-	-	-
Toxaphene	-	1.6	< 0.4	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/kg)													
1,2,4-Trichlorobenzene	-	99	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2,2'-oxybis(2-Chloropropane)	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	-	160	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2,4-Dichlorophenol	-	1800	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2,4-Dimethylphenol	-	12000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2,4-Dinitrophenol	-	1200	< 4	< 5	< 5	< 5	-	-	-	-	-	-	-
2,4-Dinitrotoluene	-	5.5	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2,6-Dinitrotoluene	-	620	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-15C	SB-16C	SB-17C	SB-17C	SB-19H	SB-21H	SB-23H	SB-32MW	SB-36MW	SB-36MW	SB-44MW
Sample Date		RSL	2/20/1990	2/20/1990	2/20/1990	2/20/1990	3/8/1995	3/10/1995	3/9/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995
Sample Type		Industrial Soil	FD	N	N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 5.1 (ft)	6 - 7.7 (ft)	2 - 3.6 (ft)	2 - 3 (ft)	1 - 2 (ft)	2 - 3 (ft)	1 - 2 (ft)
2-Chloronaphthalene	-	82000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2-Chlorophenol	-	5100	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
2-Nitrophenol	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	-	3.8	< 1	< 2	< 2	< 2	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	49	< 4	< 5	< 5	< 5	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	62000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
4-Nitrophenol	-	-	< 4	< 5	< 5	< 5	-	-	-	-	-	-	-
Acenaphthene	-	33000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Acenaphthylene	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Anthracene	-	170000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Benzidine	-	0.0075	< 4	< 5	< 5	< 5	-	-	-	-	-	-	-
Benzo(a)anthracene	-	2.1	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Benzo(a)pyrene	-	0.21	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Benzo(b)fluoranthene	-	2.1	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Benzo(g,h,i)perylene	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Benzo(k)fluoranthene	-	21	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
bis(2-Chloroethoxy)methane	-	1800	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	-	1	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	120	< 0.7	< 0.9	**3**	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Butyl benzylphthalate	-	910	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Chrysene	-	210	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Dibenz(a,h)anthracene	-	0.21	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Diethyl phthalate	-	490000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Dimethyl phthalate	-	-	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Di-n-octyl phthalate	-	-	< 0.7	< 0.9	**3**	< 0.9	< 0.66	**4.59**	< 0.66	-	-	-	-
Fluoranthene	-	22000	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Fluorene	-	22000	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Hexachlorobenzene	-	1.1	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Hexachlorobutadiene	-	22	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	3700	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Hexachloroethane	-	43	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	2.1	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Isophorone	-	1800	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Naphthalene	-	18	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Nitrobenzene	-	24	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
N-Nitrosodimethylamine	-	0.034	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	-	0.25	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	-	350	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Pentachlorophenol	-	2.7	< 4	< 5	< 5	< 5	-	-	-	-	-	-	-
Phenanthrene	-	-	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Phenol	-	180000	< 0.7	< 0.9	< 1	< 0.9	-	-	-	-	-	-	-
Pyrene	-	17000	< 0.7	< 0.9	< 1	< 0.9	< 0.66	< 0.66	< 0.66	-	-	-	-
Volatile Organic Compounds (mg/kg)													
1,1,1-Trichloroethane	-	38000	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	2.8	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	5.3	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,1-Dichloroethane	-	17	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,1-Dichloroethene	-	1100	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,2-Dichlorobenzene	-	9800	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,2-Dichloroethane	-	2.2	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,2-Dichloroethene (total)	-	9200	< 0.006	**0.013**	< 0.007	< 0.007	-	-	-	-	-	-	-
1,2-Dichloropropane	-	4.7	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
1,4-Dichlorobenzene	-	12	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-15C	SB-16C	SB-17C	SB-17C	SB-19H	SB-21H	SB-23H	SB-32MW	SB-36MW	SB-36MW	SB-44MW
Sample Date		RSL	2/20/1990	2/20/1990	2/20/1990	2/20/1990	3/8/1995	3/10/1995	3/9/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995
Sample Type		Industrial Soil	FD	N	N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	6 - 8 (ft)	8 - 10 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 5.1 (ft)	6 - 7.7 (ft)	2 - 3.6 (ft)	2 - 3 (ft)	1 - 2 (ft)	2 - 3 (ft)	1 - 2 (ft)
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	**0.057**	< 0.05	< 0.05	-	< 400	-	< 0.05
2-Chloroethyl vinyl ether	-	-	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-	-
Acetone	-	630000	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.05	-	< 400	-	**0.0454**
Benzene	-	5.4	< 0.006	< 0.007	< 0.007	< 0.007	< 0.005	< 0.005	< 0.005	**0.21**	< 40	< 2	**0.0454**
Bromodichloromethane	-	1.4	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
Bromoform	-	220	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	-	32	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-	-
Carbon tetrachloride	-	3	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	< 40	-	< 0.005
Chlorobenzene	-	1400	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
Chloroethane	-	61000	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	1.5	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	< 40	-	< 0.005
Chloromethane (Methyl Chloride)	-	500	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	-	-	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
Dibromochloromethane	-	3.3	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
Dimethylformamide	-	62000	-	-	-	-	< 1	< 1	< 1	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-	< 0.66	< 0.66	**3.77 MB**	-	-	-	-
Ethylbenzene	-	27	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	**2.3**	**127** [A]	**29** [A]	**0.0856**
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	**661**	-	**0.618**
Methylene chloride	-	960	**0.008**	< 0.007	**0.017**	**0.01**	< 0.005	< 0.005	**0.00632 MB**	-	< 40	-	< 0.005
m-xylene	-	2500	-	-	-	-	-	-	-	**8**	-	**99**	-
Naphthalene	-	18	-	-	-	-	< 0.005	< 0.005	< 0.005	-	< 40	-	**0.004**
o-Xylene	-	3000	-	-	-	-	-	-	-	**1.3**	**302**	**58**	**0.169**
p-Xylene	-	2600	-	-	-	-	-	-	-	**2.8**	-	**33**	-
Styrene	-	36000	-	-	-	-	< 0.005	< 0.005	< 0.005	-	-	-	-
Tetrachloroethene	-	110	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	< 40	-	< 0.004
Tetrahydrofuran	-	95000	-	-	-	-	**0.4**	< 0.01	**0.0216**	-	< 80	-	< 0.01
Toluene	-	45000	< 0.006	< 0.007	< 0.007	< 0.007	< 0.005	< 0.005	**0.0188**	**5.2**	**5190**	**1900**	**0.0772**
trans-1,3-Dichloropropene	-	-	< 0.006	< 0.007	< 0.007	< 0.007	-	-	-	-	-	-	-
Trichloroethene	-	6.4	< 0.006	**0.03**	< 0.007	< 0.007	-	-	-	-	< 40	-	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	< 0.006	< 0.007	< 0.007	< 0.007	< 0.005	< 0.005	< 0.005	-	-	-	-
Vinyl chloride	-	1.7	< 0.01	< 0.01	< 0.01	< 0.01	-	-	-	-	-	-	-
Xylene (total)	-	2700	< 0.006	< 0.007	< 0.007	< 0.007	< 0.005	< 0.005	< 0.005	**12.1**	**963**	**190**	**0.79**

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, Nobember 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-44MW	SB-44MW	SB-44MW	SB-4MW EAST	SB-4MW NORTH	SB-4MW SOUTH	SB-4MW WEST	SB-4MW	SB-54MW	SB-54MW	SB-8C
Sample Date		RSL	7/6/1995	7/6/1995	8/1/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	2/20/1990
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	2 - 3 (ft)	3 - 4 (ft)	6 - 7 (ft)	0 - 1 (ft)	0 - 1 (ft)	0 - 1 (ft)	0 - 1 (ft)	1 - 2 (ft)	1 - 2 (ft)	2 - 3 (ft)	6 - 8 (ft)
Inorganic Compounds (mg/kg)													
Antimony, Total	-	410	-	-	-	-	-	-	-	-	-	-	< 0.04
Arsenic, Total	13	1.6	-	-	-	-	-	-	-	-	-	-	**20** [A]
Barium, Total	140	190000	-	-	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	2000	-	-	-	-	-	-	-	-	-	-	< 2
Cadmium, Total	1.25	800	-	-	-	-	-	-	-	-	-	-	< 0.002
Chromium, Total	22	-	-	-	-	**140**	**60**	**46**	**45**	**140**	**13**	**20**	< 0.02
Copper, Total	-	41000	-	-	-	-	-	-	-	-	-	-	**20**
Lead, Total	37	800	-	-	-	**450**	**280**	**210**	**200**	**610**	**100**	**14**	< 20
Mercury, Total	0.13	43	-	-	-	-	-	-	-	-	-	-	< 0.05
Nickel, Total	33	20000	-	-	-	-	-	-	-	-	-	-	< 20
Selenium, Total	-	5100	-	-	-	-	-	-	-	-	-	-	< 0.01
Silver, Total	-	5100	-	-	-	-	-	-	-	-	-	-	< 0.005
Thallium, Total	-	10	-	-	-	-	-	-	-	-	-	-	< 0.05
Zinc, Total	90	310000	-	-	-	-	-	-	-	-	-	-	< 50
PCBs (mg/kg)													
Aroclor-1016 (PCB-1016)	-	21	-	-	-	-	-	-	-	-	-	-	< 2
Aroclor-1221 (PCB-1221)	-	0.54	-	-	-	-	-	-	-	-	-	-	< 2
Aroclor-1232 (PCB-1232)	-	0.54	-	-	-	-	-	-	-	-	-	-	< 2
Aroclor-1242 (PCB-1242)	-	0.74	-	-	-	-	-	-	-	-	-	-	< 2
Aroclor-1248 (PCB-1248)	-	0.74	-	-	-	-	-	-	-	-	-	-	< 2
Aroclor-1254 (PCB-1254)	-	0.74	-	-	-	-	-	-	-	-	-	-	< 3
Aroclor-1260 (PCB-1260)	-	0.74	-	-	-	-	-	-	-	-	-	-	< 3
Pesticides (mg/kg)													
4,4'-DDD	-	7.2	-	-	-	-	-	-	-	-	-	-	< 0.3
4,4'-DDE	-	5.1	-	-	-	-	-	-	-	-	-	-	< 0.3
4,4'-DDT	-	7	-	-	-	-	-	-	-	-	-	-	< 0.3
Aldrin	-	0.1	-	-	-	-	-	-	-	-	-	-	< 0.2
alpha-BHC	-	0.27	-	-	-	-	-	-	-	-	-	-	< 0.2
beta-BHC	-	0.96	-	-	-	-	-	-	-	-	-	-	< 0.2
Chlordane	-	-	-	-	-	-	-	-	-	-	-	-	< 2
delta-BHC	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Dieldrin	-	0.11	-	-	-	-	-	-	-	-	-	-	< 0.3
Endosulfan I	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Endosulfan II	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Endosulfan sulfate	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Endrin	-	180	-	-	-	-	-	-	-	-	-	-	< 0.3
Endrin ketone	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
gamma-BHC (Lindane)	-	2.1	-	-	-	-	-	-	-	-	-	-	< 0.2
Heptachlor	-	0.38	-	-	-	-	-	-	-	-	-	-	< 0.2
Heptachlor epoxide	-	0.19	-	-	-	-	-	-	-	-	-	-	< 0.2
Methoxychlor	-	3100	-	-	-	-	-	-	-	-	-	-	< 2
Toxaphene	-	1.6	-	-	-	-	-	-	-	-	-	-	< 3
Semi-Volatile Organic Compounds (mg/kg)													
1,2,4-Trichlorobenzene	-	99	-	-	-	-	-	-	-	-	-	-	< 0.7
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-	< 0.7
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-	< 0.7
2,2'-oxybis(2-Chloropropane)	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
2,4,6-Trichlorophenol	-	160	-	-	-	-	-	-	-	-	-	-	< 0.7
2,4-Dichlorophenol	-	1800	-	-	-	-	-	-	-	-	-	-	< 0.7
2,4-Dimethylphenol	-	12000	-	-	-	-	-	-	-	-	-	-	< 0.7
2,4-Dinitrophenol	-	1200	-	-	-	-	-	-	-	-	-	-	< 4
2,4-Dinitrotoluene	-	5.5	-	-	-	-	-	-	-	-	-	-	< 0.7
2,6-Dinitrotoluene	-	620	-	-	-	-	-	-	-	-	-	-	< 0.7

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-44MW	SB-44MW	SB-44MW	SB-4MW EAST	SB-4MW NORTH	SB-4MW SOUTH	SB-4MW WEST	SB-4MW	SB-54MW	SB-54MW	SB-8C
Sample Date		RSL	7/6/1995	7/6/1995	8/1/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	2/20/1990
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	2 - 3 (ft)	3 - 4 (ft)	6 - 7 (ft)	0 - 1 (ft)	0 - 1 (ft)	0 - 1 (ft)	0 - 1 (ft)	1 - 2 (ft)	1 - 2 (ft)	2 - 3 (ft)	6 - 8 (ft)
2-Chloronaphthalene	-	82000	-	-	-	-	-	-	-	-	-	-	< 0.7
2-Chlorophenol	-	5100	-	-	-	-	-	-	-	-	-	-	< 0.7
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
3,3'-Dichlorobenzidine	-	3.8	-	-	-	-	-	-	-	-	-	-	< 1
4,6-Dinitro-2-methylphenol	-	49	-	-	-	-	-	-	-	-	-	-	< 4
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
4-Chloro-3-methylphenol	-	62000	-	-	-	-	-	-	-	-	-	-	< 0.7
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	< 4
Acenaphthene	-	33000	-	-	-	-	-	-	-	-	-	-	< 0.7
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
Anthracene	-	170000	-	-	-	-	-	-	-	-	-	-	< 0.7
Benzidine	-	0.0075	-	-	-	-	-	-	-	-	-	-	< 4
Benzo(a)anthracene	-	2.1	-	-	-	-	-	-	-	-	-	-	< 0.7
Benzo(a)pyrene	-	0.21	-	-	-	-	-	-	-	-	-	-	< 0.7
Benzo(b)fluoranthene	-	2.1	-	-	-	-	-	-	-	-	-	-	< 0.7
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
Benzo(k)fluoranthene	-	21	-	-	-	-	-	-	-	-	-	-	< 0.7
bis(2-Chloroethoxy)methane	-	1800	-	-	-	-	-	-	-	-	-	-	< 0.7
bis(2-Chloroethyl)ether	-	1	-	-	-	-	-	-	-	-	-	-	< 0.7
bis(2-Ethylhexyl)phthalate	-	120	-	-	-	-	-	-	-	-	-	-	**3.1**
Butyl benzylphthalate	-	910	-	-	-	-	-	-	-	-	-	-	< 0.7
Chrysene	-	210	-	-	-	-	-	-	-	-	-	-	< 0.7
Dibenz(a,h)anthracene	-	0.21	-	-	-	-	-	-	-	-	-	-	< 0.7
Diethyl phthalate	-	490000	-	-	-	-	-	-	-	-	-	-	< 0.7
Dimethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	-	-	-	-	< 0.7
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
Fluoranthene	-	22000	-	-	-	-	-	-	-	-	-	-	< 0.7
Fluorene	-	22000	-	-	-	-	-	-	-	-	-	-	< 0.7
Hexachlorobenzene	-	1.1	-	-	-	-	-	-	-	-	-	-	< 0.7
Hexachlorobutadiene	-	22	-	-	-	-	-	-	-	-	-	-	< 0.7
Hexachlorocyclopentadiene	-	3700	-	-	-	-	-	-	-	-	-	-	< 0.7
Hexachloroethane	-	43	-	-	-	-	-	-	-	-	-	-	< 0.7
Indeno(1,2,3-cd)pyrene	-	2.1	-	-	-	-	-	-	-	-	-	-	< 0.7
Isophorone	-	1800	-	-	-	-	-	-	-	-	-	-	< 0.7
Naphthalene	-	18	-	-	-	-	-	-	-	-	-	-	< 0.7
Nitrobenzene	-	24	-	-	-	-	-	-	-	-	-	-	< 0.7
N-Nitrosodimethylamine	-	0.034	-	-	-	-	-	-	-	-	-	-	< 0.7
N-Nitrosodi-n-propylamine	-	0.25	-	-	-	-	-	-	-	-	-	-	< 0.7
N-Nitrosodiphenylamine	-	350	-	-	-	-	-	-	-	-	-	-	< 0.7
Pentachlorophenol	-	2.7	-	-	-	-	-	-	-	-	-	-	< 4
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-	< 0.7
Phenol	-	180000	-	-	-	-	-	-	-	-	-	-	< 0.7
Pyrene	-	17000	-	-	-	-	-	-	-	-	-	-	< 0.7
Volatile Organic Compounds (mg/kg)													
1,1,1-Trichloroethane	-	38000	-	-	-	-	-	-	-	-	-	-	< 0.005
1,1,2,2-Tetrachloroethane	-	2.8	-	-	-	-	-	-	-	-	-	-	< 0.005
1,1,2-Trichloroethane	-	5.3	-	-	-	-	-	-	-	-	-	-	< 0.005
1,1-Dichloroethane	-	17	-	-	-	-	-	-	-	-	-	-	< 0.005
1,1-Dichloroethene	-	1100	-	-	-	-	-	-	-	-	-	-	< 0.005
1,2-Dichlorobenzene	-	9800	-	-	-	-	-	-	-	-	-	-	< 0.005
1,2-Dichloroethane	-	2.2	-	-	-	-	-	-	-	-	-	-	< 0.005
1,2-Dichloroethene (total)	-	9200	-	-	-	-	-	-	-	-	-	-	< 0.005
1,2-Dichloropropane	-	4.7	-	-	-	-	-	-	-	-	-	-	< 0.005
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	< 0.005
1,4-Dichlorobenzene	-	12	-	-	-	-	-	-	-	-	-	-	< 0.005

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02	AOI-02
Location Name			SB-44MW	SB-44MW	SB-44MW	SB-4MW EAST	SB-4MW NORTH	SB-4MW SOUTH	SB-4MW WEST	SB-4MW	SB-54MW	SB-54MW	SB-8C
Sample Date		RSL	7/6/1995	7/6/1995	8/1/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	7/6/1995	2/20/1990
Sample Type		Industrial Soil	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Background	Screening Level	2 - 3 (ft)	3 - 4 (ft)	6 - 7 (ft)	0 - 1 (ft)	0 - 1 (ft)	0 - 1 (ft)	0 - 1 (ft)	1 - 2 (ft)	1 - 2 (ft)	2 - 3 (ft)	6 - 8 (ft)
2-Butanone (Methyl Ethyl Ketone)	-	200000	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	-	-	-	-	-	-	-	-	-	-	-	-	< 0.01
Acetone	-	630000	-	-	-	-	-	-	-	-	-	-	< 0.1
Benzene	-	5.4	< 4	**0.522**	**0.56**	-	-	-	-	-	-	-	< 0.005
Bromodichloromethane	-	1.4	-	-	-	-	-	-	-	-	-	-	< 0.005
Bromoform	-	220	-	-	-	-	-	-	-	-	-	-	< 0.005
Bromomethane (Methyl Bromide)	-	32	-	-	-	-	-	-	-	-	-	-	< 0.01
Carbon tetrachloride	-	3	-	-	-	-	-	-	-	-	-	-	< 0.005
Chlorobenzene	-	1400	-	-	-	-	-	-	-	-	-	-	< 0.005
Chloroethane	-	61000	-	-	-	-	-	-	-	-	-	-	< 0.01
Chloroform (Trichloromethane)	-	1.5	-	-	-	-	-	-	-	-	-	-	< 0.005
Chloromethane (Methyl Chloride)	-	500	-	-	-	-	-	-	-	-	-	-	< 0.01
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	< 0.005
Dibromochloromethane	-	3.3	-	-	-	-	-	-	-	-	-	-	< 0.005
Dimethylformamide	-	62000	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	62000	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	27	**44** [A]	**2200** [A]	**0.13**	-	-	-	-	-	-	-	< 0.005
m&p-Xylene	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	960	-	-	-	-	-	-	-	-	-	-	**0.014**
m-xylene	-	2500	**135**	**5600** [A]	**12.2**	-	-	-	-	-	-	-	-
Naphthalene	-	18	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	-	3000	**69**	**2900**	**0.109**	-	-	-	-	-	-	-	-
p-Xylene	-	2600	**49**	**2300**	**0.306**	-	-	-	-	-	-	-	-
Styrene	-	36000	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	-	110	-	-	-	-	-	-	-	-	-	-	< 0.005
Tetrahydrofuran	-	95000	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	45000	**3100**	**56800** [A]	**40.3**	-	-	-	-	-	-	-	**0.005**
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	< 0.005
Trichloroethene	-	6.4	-	-	-	-	-	-	-	-	-	-	< 0.005
Trichlorofluoromethane (CFC-11)	-	3400	-	-	-	-	-	-	-	-	-	-	< 0.005
Vinyl chloride	-	1.7	-	-	-	-	-	-	-	-	-	-	< 0.01
Xylene (total)	-	2700	**253**	**10800** [A]	**12.62**	-	-	-	-	-	-	-	< 0.005

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, Nobember 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02
Location Name			SS-1MW
Sample Date		RSL	7/6/1995
Sample Type		Industrial Soil	N
Sample Depth (bgs)	Background	Screening Level	0 - 1 (ft)
Inorganic Compounds (mg/kg)			
Antimony, Total	-	410	-
Arsenic, Total	13	1.6	-
Barium, Total	140	190000	-
Beryllium, Total	-	2000	-
Cadmium, Total	1.25	800	-
Chromium, Total	22	-	**28**
Copper, Total	-	41000	-
Lead, Total	37	800	**200**
Mercury, Total	0.13	43	-
Nickel, Total	33	20000	-
Selenium, Total	-	5100	-
Silver, Total	-	5100	-
Thallium, Total	-	10	-
Zinc, Total	90	310000	-
PCBs (mg/kg)			
Aroclor-1016 (PCB-1016)	-	21	-
Aroclor-1221 (PCB-1221)	-	0.54	-
Aroclor-1232 (PCB-1232)	-	0.54	-
Aroclor-1242 (PCB-1242)	-	0.74	-
Aroclor-1248 (PCB-1248)	-	0.74	-
Aroclor-1254 (PCB-1254)	-	0.74	-
Aroclor-1260 (PCB-1260)	-	0.74	-
Pesticides (mg/kg)			
4,4'-DDD	-	7.2	-
4,4'-DDE	-	5.1	-
4,4'-DDT	-	7	-
Aldrin	-	0.1	-
alpha-BHC	-	0.27	-
beta-BHC	-	0.96	-
Chlordane	-	-	-
delta-BHC	-	-	-
Dieldrin	-	0.11	-
Endosulfan I	-	-	-
Endosulfan II	-	-	-
Endosulfan sulfate	-	-	-
Endrin	-	180	-
Endrin ketone	-	-	-
gamma-BHC (Lindane)	-	2.1	-
Heptachlor	-	0.38	-
Heptachlor epoxide	-	0.19	-
Methoxychlor	-	3100	-
Toxaphene	-	1.6	-
Semi-Volatile Organic Compounds (mg/kg)			
1,2,4-Trichlorobenzene	-	99	-
1,2-Dichlorobenzene	-	9800	-
1,3-Dichlorobenzene	-	-	-
1,4-Dichlorobenzene	-	12	-
2,2'-oxybis(2-Chloropropane)	-	-	-
2,4,6-Trichlorophenol	-	160	-
2,4-Dichlorophenol	-	1800	-
2,4-Dimethylphenol	-	12000	-
2,4-Dinitrophenol	-	1200	-
2,4-Dinitrotoluene	-	5.5	-
2,6-Dinitrotoluene	-	620	-

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02
Location Name			SS-1MW
Sample Date		RSL	7/6/1995
Sample Type		Industrial Soil	N
Sample Depth (bgs)	Background	Screening Level	0 - 1 (ft)
2-Chloronaphthalene	-	82000	-
2-Chlorophenol	-	5100	-
2-Nitrophenol	-	-	-
3,3'-Dichlorobenzidine	-	3.8	-
4,6-Dinitro-2-methylphenol	-	49	-
4-Bromophenyl phenyl ether	-	-	-
4-Chloro-3-methylphenol	-	62000	-
4-Chlorophenyl phenyl ether	-	-	-
4-Nitrophenol	-	-	-
Acenaphthene	-	33000	-
Acenaphthylene	-	-	-
Anthracene	-	170000	-
Benzidine	-	0.0075	-
Benzo(a)anthracene	-	2.1	-
Benzo(a)pyrene	-	0.21	-
Benzo(b)fluoranthene	-	2.1	-
Benzo(g,h,i)perylene	-	-	-
Benzo(k)fluoranthene	-	21	-
bis(2-Chloroethoxy)methane	-	1800	-
bis(2-Chloroethyl)ether	-	1	-
bis(2-Ethylhexyl)phthalate	-	120	-
Butyl benzylphthalate	-	910	-
Chrysene	-	210	-
Dibenz(a,h)anthracene	-	0.21	-
Diethyl phthalate	-	490000	-
Dimethyl phthalate	-	-	-
Di-n-butylphthalate	-	62000	-
Di-n-octyl phthalate	-	-	-
Fluoranthene	-	22000	-
Fluorene	-	22000	-
Hexachlorobenzene	-	1.1	-
Hexachlorobutadiene	-	22	-
Hexachlorocyclopentadiene	-	3700	-
Hexachloroethane	-	43	-
Indeno(1,2,3-cd)pyrene	-	2.1	-
Isophorone	-	1800	-
Naphthalene	-	18	-
Nitrobenzene	-	24	-
N-Nitrosodimethylamine	-	0.034	-
N-Nitrosodi-n-propylamine	-	0.25	-
N-Nitrosodiphenylamine	-	350	-
Pentachlorophenol	-	2.7	-
Phenanthrene	-	-	-
Phenol	-	180000	-
Pyrene	-	17000	-
Volatile Organic Compounds (mg/kg)			
1,1,1-Trichloroethane	-	38000	-
1,1,2,2-Tetrachloroethane	-	2.8	-
1,1,2-Trichloroethane	-	5.3	-
1,1-Dichloroethane	-	17	-
1,1-Dichloroethene	-	1100	-
1,2-Dichlorobenzene	-	9800	-
1,2-Dichloroethane	-	2.2	-
1,2-Dichloroethene (total)	-	9200	-
1,2-Dichloropropane	-	4.7	-
1,3-Dichlorobenzene	-	-	-
1,4-Dichlorobenzene	-	12	-

TABLE 5B
SUMMARY OF SOIL ANALYTICAL RESULTS - HISTORICAL AOI-02
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest			AOI-02
Location Name			SS-1MW
Sample Date		RSL	7/6/1995
Sample Type		Industrial Soil	N
Sample Depth (bgs)	Background	Screening Level	0 - 1 (ft)
2-Butanone (Methyl Ethyl Ketone)	-	200000	-
2-Chloroethyl vinyl ether	-	-	-
Acetone	-	630000	-
Benzene	-	5.4	-
Bromodichloromethane	-	1.4	-
Bromoform	-	220	-
Bromomethane (Methyl Bromide)	-	32	-
Carbon tetrachloride	-	3	-
Chlorobenzene	-	1400	-
Chloroethane	-	61000	-
Chloroform (Trichloromethane)	-	1.5	-
Chloromethane (Methyl Chloride)	-	500	-
cis-1,3-Dichloropropene	-	-	-
Dibromochloromethane	-	3.3	-
Dimethylformamide	-	62000	-
Di-n-butylphthalate	-	62000	-
Ethylbenzene	-	27	-
m&p-Xylene	-	-	-
Methylene chloride	-	960	-
m-xylene	-	2500	-
Naphthalene	-	18	-
o-Xylene	-	3000	-
p-Xylene	-	2600	-
Styrene	-	36000	-
Tetrachloroethene	-	110	-
Tetrahydrofuran	-	95000	-
Toluene	-	45000	-
trans-1,3-Dichloropropene	-	-	-
Trichloroethene	-	6.4	-
Trichlorofluoromethane (CFC-11)	-	3400	-
Vinyl chloride	-	1.7	-
Xylene (total)	-	2700	-

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Soil Screening Levels, (EPA RSL, Nobember 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Results exceeding soil screening criteria and are below Background are are flagged with [A] and are in black.
5. Sample typde codes: N-Normal, FD-Field Duplicate

TABLE 6
SUMMARY OF STORM SEWER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name		ST-105	ST-105	ST-105	ST-105DG	ST-105DG	ST-105DG	ST-111	ST-111	ST-111	ST-121	ST-121	ST-122
Sample Name		2308-072010-1400	1318-110210-1200	1318-110210-1205	1318-110210-1050	1318-110210-1055	4125-052112-1730	2308-072010-1735	4125-052112-1630	4125-052112-0002	2308-072010-1445	4125-052112-1420	2308-072010-1505
Sample Date		7/20/2010	11/2/2010	11/2/2010	11/2/2010	11/2/2010	5/21/2012	7/20/2010	5/21/2012	5/21/2012	7/20/2010	5/21/2012	7/20/2010
Sample Type	Tapwater	N	N	N	N	N	N	N	N	FD	N	N	N
Inorganic Compounds (ug/L)													
Antimony, Total	6	**2 J**	-	-	-	-	**2.7**	**4 J**	**15** [A]	**15** [A]	**23** [A]	**16** [A]	**6**
Arsenic, Total	0.045	< 2	-	-	-	-	**1.7 J** [A]	**3** [A]	**4.2 J** [A]	**4 J** [A]	< 2	**1.3 J** [A]	**2** [A]
Barium, Total	2900	**37**	-	-	-	-	**63**	**348**	**270**	**280**	**54**	**77**	**124**
Beryllium, Total	16	< 1	-	-	-	-	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cadmium, Total	6.9	< 0.5	-	-	-	-	< 1	< 0.5	< 1	< 1	< 0.5	< 1	**5**
Chromium, Total	-	**3 J**	-	-	-	-	< 2	**6**	< 2	< 2	**2 J**	**1.2 J**	**6**
Cobalt, Total	4.7	< 5	-	-	-	-	**0.12 J**	< 5	**0.46 J**	**0.4 J**	< 5	< 1	< 5
Copper, Total	620	**3 J**	-	-	-	-	**1.5 J**	**3 J**	**2.9**	**3**	**3 J**	**2.1**	**5**
Cyanide	1.4	< 5	-	-	-	-	< 10	< 5	< 10	< 10	< 5	< 10	< 5
Lead, Total	-	**1 J**	-	-	-	-	**0.34 J**	< 3	**0.22 J**	< 1	< 3	< 1	**9**
Manganese, Total	320	**27**	-	-	-	-	**39**	**206**	**170**	**160**	**9**	**7.6**	**202**
Mercury, Total	0.63	< 0.1	-	-	-	-	< 0.2	< 0.1	< 0.2	< 0.2	< 0.1	< 0.2	< 0.1
Nickel, Total	300	**2 J**	-	-	-	-	**0.92 J**	**6**	**2.1**	**2**	**1 J**	**0.4 J**	**5 J**
Selenium, Total	78	< 5	-	-	-	-	**1.9 J**	**3 J**	**3.2 J**	**2.6 J**	< 5	**0.58 J**	**4 J**
Silver, Total	71	< 0.5	-	-	-	-	< 1	< 0.5	< 1	< 1	< 0.5	< 1	< 0.5
Thallium, Total	0.16	< 1	-	-	-	-	**0.2 J** [A]	< 1	**0.56 J** [A]	< 1	< 1	**0.37 J** [A]	< 1
Vanadium, Total	78	**2 J**	-	-	-	-	**0.61 J**	**2 J**	**1.1 J**	**1.1 J**	< 4	**0.66 J**	**3 J**
Zinc, Total	4700	**18**	-	-	-	-	< 20	**11**	< 20	< 20	**50**	< 20	**449**
PCBs (ug/L)													
Aroclor-1016 (PCB-1016)	0.96	< 0.5	< 0.3	< 0.1	< 0.1	< 0.1	< 0.48	< 0.1	< 0.48	< 0.48	< 0.1	< 0.48	< 0.4
Aroclor-1221 (PCB-1221)	0.004	< 0.5	< 0.3	< 0.1	< 0.1	< 0.1	< 0.48	< 0.1	< 0.48	< 0.48	< 0.1	< 0.48	< 0.4
Aroclor-1232 (PCB-1232)	0.004	< 0.5	< 0.3	< 0.1	< 0.1	< 0.1	< 0.48	< 0.1	< 0.48	< 0.48	< 0.1	< 0.48	< 0.4
Aroclor-1242 (PCB-1242)	0.034	< 0.5	< 0.3	**0.3** [A]	**0.2** [A]	< 0.1	< 0.48	< 0.1	< 0.48	< 0.48	< 0.1	< 0.48	**2** [A]
Aroclor-1248 (PCB-1248)	0.034	**5** [A]	**1.5** [A]	< 0.1	< 0.1	< 0.1	**1.3** [A]	< 0.1	< 0.48	< 0.48	< 0.1	< 0.48	< 0.4
Aroclor-1254 (PCB-1254)	0.034	< 0.5	< 0.3	< 0.1	< 0.1	< 0.1	< 0.48	< 0.1	< 0.48	< 0.48	< 0.1	< 0.48	< 0.4
Aroclor-1260 (PCB-1260)	0.034	< 0.5	< 0.3	< 0.1	< 0.1	< 0.1	< 0.48	< 0.1	< 0.48	< 0.48	< 0.1	< 0.48	< 0.4
Total PCBs	-	**5**	**1.5**	**0.3**	**0.2**	ND	**1.3**	ND	ND	ND	ND	ND	**2**
PCB Homologs (ug/L)													
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	< 0.47	-	< 0.47	< 0.47	-	< 0.5	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	**0.088 J**	-	< 0.094	< 0.095	-	< 0.1	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	< 0.28	-	< 0.28	< 0.28	-	< 0.3	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	< 0.19	-	< 0.19	< 0.19	-	< 0.2	-
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	< 0.095	-	< 0.094	< 0.095	-	< 0.1	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	< 0.47	-	< 0.47	< 0.47	-	< 0.5	-
Octachlorobiphenyl	-	-	-	-	-	-	< 0.28	-	< 0.28	< 0.28	-	< 0.3	-
Pentachlorobiphenyl	-	-	-	-	-	-	**0.034 J**	-	< 0.19	< 0.19	-	< 0.2	-
Tetrachlorobiphenyl	-	-	-	-	-	-	**0.44**	-	< 0.19	< 0.19	-	< 0.2	-
Trichlorobiphenyl	-	-	-	-	-	-	**0.25**	-	< 0.094	< 0.095	-	< 0.1	-
Total PCB Homologs	-	-	-	-	-	-	**0.812**	-	ND	ND	-	ND	-
Semi-Volatile Organic Compounds (ug/L)													
2,2'-oxybis(1-Chloropropane)	0.31	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
2,4,5-Trichlorophenol	890	< 5	-	-	-	-	< 4.8	< 5	< 4.8	< 4.8	< 5	< 4.8	< 10
2,4,6-Trichlorophenol	3.5	< 5	-	-	-	-	< 4.8	< 5	< 4.8	< 4.8	< 5	< 4.8	< 10
2,4-Dichlorophenol	35	< 10	-	-	-	-	< 1.9	< 10	< 1.9	< 1.9	< 10	< 1.9	< 10
2,4-Dimethylphenol	270	< 5	-	-	-	-	< 1.9	< 5	< 1.9	< 1.9	< 5	< 1.9	< 10
2,4-Dinitrophenol	30	< 20 J	-	-	-	-	< 4.8	< 20 J	< 4.8	< 4.8	< 20 J	< 4.8	< 20 J
2,4-Dinitrotoluene	0.2	< 5	-	-	-	-	< 4.8	< 5	< 4.8	< 4.8	< 5	< 4.8	< 10
2,6-Dinitrotoluene	15	< 5	-	-	-	-	< 4.8	< 5	< 4.8	< 4.8	< 5	< 4.8	< 10
2-Chloronaphthalene	550	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
2-Chlorophenol	71	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
2-Methylnaphthalene	27	< 3	-	-	-	-	< 0.19	< 2	< 0.19	< 0.19	< 2	< 0.19	< 10
2-Methylphenol	720	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
2-Nitroaniline	150	< 20	-	-	-	-	< 1.9	< 20	< 1.9	< 1.9	< 20	< 1.9	< 20
2-Nitrophenol	-	< 5	-	-	-	-	< 1.9	< 5	< 1.9	< 1.9	< 5	< 1.9	< 10
3&4-Methylphenol	-	< 5	-	-	-	-	< 1.9	< 5	< 1.9	< 1.9	< 5	< 1.9	< 10
3,3'-Dichlorobenzidine	0.11	< 10	-	-	-	-	R	< 10	R	R	< 10	R	< 10

TABLE 6
SUMMARY OF STORM SEWER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name		ST-105	ST-105	ST-105	ST-105DG	ST-105DG	ST-105DG	ST-111	ST-111	ST-111	ST-121	ST-121	ST-122
Sample Name		2308-072010-1400	1318-110210-1200	1318-110210-1205	1318-110210-1050	1318-110210-1055	4125-052112-1730	2308-072010-1735	4125-052112-1630	4125-052112-0002	2308-072010-1445	4125-052112-1420	2308-072010-1505
Sample Date		7/20/2010	11/2/2010	11/2/2010	11/2/2010	11/2/2010	5/21/2012	7/20/2010	5/21/2012	5/21/2012	7/20/2010	5/21/2012	7/20/2010
Sample Type	Tapwater	N	N	N	N	N	N	N	N	FD	N	N	N
3-Nitroaniline	-	< 20	-	-	-	-	< 1.9	< 20	< 1.9	< 1.9	< 20	< 1.9	< 20
4,6-Dinitro-2-methylphenol	1.2	< 20 J	-	-	-	-	< 4.8	< 20 J	< 4.8	< 4.8	< 20 J	< 4.8	< 20 J
4-Bromophenyl phenyl ether	-	< 5	-	-	-	-	< 1.9	< 5	< 1.9	< 1.9	< 5	< 1.9	< 10
4-Chloro-3-methylphenol	1100	< 5	-	-	-	-	< 1.9	< 5	< 1.9	< 1.9	< 5	< 1.9	< 10
4-Chloroaniline	0.32	< 10	-	-	-	-	< 1.9	< 10	< 1.9	< 1.9	< 10	< 1.9	< 10
4-Chlorophenyl phenyl ether	-	< 5	-	-	-	-	< 1.9	< 5	< 1.9	< 1.9	< 5	< 1.9	< 10
4-Nitroaniline	3.3	< 20	-	-	-	-	< 1.9	< 20	< 1.9	< 1.9	< 20	< 1.9	< 20
4-Nitrophenol	-	< 20	-	-	-	-	< 4.8	< 20	< 4.8	< 4.8	< 20	< 4.8	< 20
Acenaphthene	400	< 3	-	-	-	-	< 0.19	< 2	< 0.19	< 0.19	< 2	< 0.19	**6 J**
Acenaphthylene	-	< 3	-	-	-	-	< 0.19	< 2	< 0.19	< 0.19	< 2	< 0.19	< 10
Acetophenone	1500	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Anthracene	1300	< 3	-	-	-	-	< 0.19	< 2	< 0.19	< 0.19	< 2	< 0.19	**6 J**
Atrazine	0.26	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Benzaldehyde	1500	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Benzo(a)anthracene	0.029	< 3	-	-	-	-	**0.18 J** [A]	< 1	< 0.19	< 0.19	< 1	< 0.19	**27** [A]
Benzo(a)pyrene	0.0029	< 3	-	-	-	-	**0.19** [A]	< 2	< 0.19	< 0.19	< 2	< 0.19	**35** [A]
Benzo(b)fluoranthene	0.029	< 3	-	-	-	-	**0.35** [A]	< 2	< 0.19	< 0.19	< 2	< 0.19	**35** [A]
Benzo(g,h,i)perylene	-	< 3	-	-	-	-	**0.17 J**	< 2	< 0.19	< 0.19	< 2	< 0.19	**21**
Benzo(k)fluoranthene	0.29	< 3	-	-	-	-	**0.16 J**	< 2	< 0.19	< 0.19	< 2	< 0.19	**35** [A]
Biphenyl	0.83	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
bis(2-Chloroethoxy)methane	46	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
bis(2-Chloroethyl)ether	0.012	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
bis(2-Ethylhexyl)phthalate	4.8	< 5	-	-	-	-	< 1.9	< 5	< 1.9	< 1.9	< 5	< 1.9	< 10
Butyl benzylphthalate	14	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Caprolactam	7700	**0.7 J**	-	-	-	-	< 4.8	< 10	< 4.8	< 4.8	**0.6 J**	< 4.8	< 10
Carbazole	-	< 10	-	-	-	-	< 0.95	< 10	< 0.95	< 0.95	< 10	< 0.95	**9 J**
Chrysene	2.9	< 3	-	-	-	-	**0.27**	< 1	< 0.19	< 0.19	< 1	< 0.19	**45** [A]
Dibenz(a,h)anthracene	0.0029	< 3	-	-	-	-	< 0.19	< 2	< 0.19	< 0.19	< 2	< 0.19	< 10
Dibenzofuran	5.8	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	**4 J**
Diethyl phthalate	11000	**1 J**	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Dimethyl phthalate	-	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Dimethylformamide	1600	< 5	-	-	-	-	< 9.5	**779**	< 9.5	< 9.5	< 5	< 9.5	< 10
Di-n-butylphthalate	670	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	**0.66 J**	< 10
Di-n-octyl phthalate	190	< 5	-	-	-	-	**1.3**	**4 J**	< 0.95	< 0.95	**2 J**	< 0.95	< 10
Fluoranthene	630	< 3	-	-	-	-	**0.4**	< 2	< 0.19	< 0.19	< 2	< 0.19	**87**
Fluorene	220	< 3	-	-	-	-	< 0.19	< 2	< 0.19	< 0.19	< 2	< 0.19	**6 J**
Hexachlorobenzene	0.042	< 5	-	-	-	-	< 0.19	< 5	< 0.19	< 0.19	< 5	< 0.19	< 10
Hexachlorobutadiene	0.26	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Hexachlorocyclopentadiene	22	< 5	-	-	-	-	< 9.5	< 5	< 9.5	< 9.5	< 5	< 9.5	< 10
Hexachloroethane	0.79	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Indeno(1,2,3-cd)pyrene	0.029	< 3	-	-	-	-	**0.13 J** [A]	< 2	< 0.19	< 0.19	< 2	< 0.19	**19** [A]
Isophorone	67	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Naphthalene	0.14	< 3	-	-	-	-	< 0.19	< 2	< 0.19	< 0.19	< 2	< 0.19	**2 J** [A]
Nitrobenzene	0.12	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
N-Nitrosodi-n-propylamine	0.0093	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
N-Nitrosodiphenylamine	10	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Pentachlorophenol	0.035	< 10	-	-	-	-	< 4.8	< 10	< 4.8	< 4.8	< 10	< 4.8	< 10
Phenanthrene	-	< 3	-	-	-	-	**0.19**	< 2	< 0.19	< 0.19	< 2	< 0.19	**57**
Phenol	4500	< 5	-	-	-	-	< 0.95	< 5	< 0.95	< 0.95	< 5	< 0.95	< 10
Pyrene	87	< 3	-	-	-	-	**0.34**	< 2	< 0.19	< 0.19	< 2	< 0.19	**69**
Volatile Organic Compounds (ug/L)													
1,1,1-Trichloroethane	7500	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	0.066	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,1,2-Trichloroethane	0.24	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,1-Dichloroethane	2.4	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,1-Dichloroethene	260	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,2,4-Trichlorobenzene	0.99	< 2	-	-	-	-	< 1	< 400	< 250	< 250	< 2	< 1	< 2
1,2-Dibromo-3-chloropropane (DBCP)	0.00032	< 1	-	-	-	-	< 2	< 200	< 500	< 500	< 1	< 2	< 1
1,2-Dibromoethane (Ethylene Dibromide)	0.0065	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1

TABLE 6
SUMMARY OF STORM SEWER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name		ST-105	ST-105	ST-105	ST-105DG	ST-105DG	ST-105DG	ST-111	ST-111	ST-111	ST-121	ST-121	ST-122
Sample Name		2308-072010-1400	1318-110210-1200	1318-110210-1205	1318-110210-1050	1318-110210-1055	4125-052112-1730	2308-072010-1735	4125-052112-1630	4125-052112-0002	2308-072010-1445	4125-052112-1420	2308-072010-1505
Sample Date		7/20/2010	11/2/2010	11/2/2010	11/2/2010	11/2/2010	5/21/2012	7/20/2010	5/21/2012	5/21/2012	7/20/2010	5/21/2012	7/20/2010
Sample Type	Tapwater	N	N	N	N	N	N	N	N	FD	N	N	N
1,2-Dichlorobenzene	280	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,2-Dichloroethane	0.15	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,2-Dichloropropane	0.38	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,3-Dichlorobenzene	-	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
1,4-Dichlorobenzene	0.42	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
2-Butanone (Methyl Ethyl Ketone)	4900	< 10	-	-	-	-	< 10	< 2000	< 2500	< 2500	< 10	< 10	< 10
2-Hexanone	34	< 10	-	-	-	-	< 10	< 2000	< 2500	< 2500	< 10	< 10	< 10
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	1000	< 10	-	-	-	-	< 10	< 2000	< 2500	< 2500	< 10	< 10	< 10
Acetone	12000	< 10	-	-	-	-	< 10	< 2000	< 2500	< 2500	< 10	< 10	< 10
Benzene	0.39	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Bromodichloromethane	0.12	**2** [A]	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Bromoform	7.9	**0.2 J**	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Bromomethane (Methyl Bromide)	7	< 2	-	-	-	-	< 1	< 400	< 250 J	< 250 J	< 2	< 1	< 2
Carbon disulfide	720	< 5	-	-	-	-	< 1	< 1000	< 250 J	< 250 J	< 5	< 1	< 5
Carbon tetrachloride	0.39	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Chlorobenzene	72	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Chlorobromomethane	83	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Chloroethane	21000	< 1	-	-	-	-	< 1	< 200	< 250 J	< 250 J	< 1	< 1	< 1
Chloroform (Trichloromethane)	0.19	**6** [A]	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Chloromethane (Methyl Chloride)	190	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
cis-1,2-Dichloroethene	28	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
cis-1,3-Dichloropropene	-	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Cyclohexane	13000	< 1 J	-	-	-	-	< 1	< 200 J	< 250	< 250	< 1 J	< 1	< 1 J
Dibromochloromethane	0.15	**1** [A]	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Dichlorodifluoromethane (CFC-12)	190	< 1	-	-	-	-	< 1	< 200	< 250 J	< 250 J	< 1	< 1	< 1
Ethylbenzene	1.3	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Isopropylbenzene	390	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
m&p-Xylene	-	< 1	-	-	-	-	-	< 200	-	-	< 1	-	< 1
Methyl acetate	16000	< 10	-	-	-	-	< 10	< 2000	< 2500	< 2500	< 10	< 10	< 10
Methyl cyclohexane	-	< 10	-	-	-	-	< 1	< 2000	< 250	< 250	< 10	< 1	< 10
Methyl Tert Butyl Ether	12	< 5	-	-	-	-	< 5	< 1000	< 1300 J	< 1300 J	< 5	< 5	< 5
Methylene chloride	9.9	< 5	-	-	-	-	< 1	< 1000	< 250 J	< 250 J	< 5	< 1	< 5
n-Propylbenzene	530	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
o-Xylene	190	< 1	-	-	-	-	-	< 200	-	-	< 1	-	< 1
Styrene	1100	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Tetrachloroethene	9.7	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Tetrahydrofuran	3200	< 5 J	-	-	-	-	**0.51 J**	**33000 J** [A]	**6600** [A]	**6800** [A]	< 5 J	< 5	< 5 J
Toluene	860	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	**0.3 J**
trans-1,2-Dichloroethene	86	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
trans-1,3-Dichloropropene	-	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Trichloroethene	0.44	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Trichlorofluoromethane (CFC-11)	1100	< 1	-	-	-	-	< 1	< 200	< 250 J	< 250 J	< 1	< 1	< 1
Trifluorotrichloroethane (Freon 113)	53000	< 5	-	-	-	-	< 1	< 1000	< 250	< 250	< 5	< 1	< 5
Vinyl chloride	0.015	< 1	-	-	-	-	< 1	< 200	< 250	< 250	< 1	< 1	< 1
Xylene (total)	190	-	-	-	-	-	< 2	-	< 500	< 500	-	< 2	-

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than Tapwater (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N - Normal, FD - Field Duplicate

TABLE 7
SUMMARY OF SANITARY SEWER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name		SS-102	SS-105	SS-109
Sample Name		2308-072010-1615	2308-072010-1535	2308-072010-1320
Sample Date		7/20/2010	7/20/2010	7/20/2010
Sample Type	Tapwater	N	N	N
Inorganic Compounds (ug/L)				
Antimony, Total	6	**2 J**	**15** [A]	**22** [A]
Arsenic, Total	0.045	**2 J** [A]	**3** [A]	**5** [A]
Barium, Total	2900	**123**	**102**	**129**
Beryllium, Total	16	< 1	< 1	< 1
Cadmium, Total	6.9	< 0.5	**1.4**	**0.5**
Chromium, Total	-	**7**	**5**	**7**
Cobalt, Total	4.7	< 5	< 5	< 5
Copper, Total	620	**45**	**5**	**10**
Cyanide, Total	1.4	< 5	< 5	< 5
Lead, Total	-	**1 J**	**3**	**21**
Manganese, Total	320	**62**	**436** [A]	**151**
Mercury, Total	0.63	< 0.1	< 0.1	< 0.1
Nickel, Total	300	**8**	**6**	**7**
Selenium, Total	78	**6**	**2 J**	**3 J**
Silver, Total	71	< 0.5	< 0.5	< 0.5
Thallium, Total	0.16	< 1	< 1	< 1
Vanadium, Total	78	**3 J**	**2 J**	**2 J**
Zinc, Total	4700	**554**	**101**	**164**
PCBs (ug/L)				
Aroclor-1016 (PCB-1016)	0.96	< 0.2	< 1	< 0.5
Aroclor-1221 (PCB-1221)	0.004	< 0.2	< 1	< 0.5
Aroclor-1232 (PCB-1232)	0.004	< 0.2	< 1	< 0.5
Aroclor-1242 (PCB-1242)	0.034	< 0.2	**8** [A]	**1.5** [A]
Aroclor-1248 (PCB-1248)	0.034	< 0.2	< 1	< 0.5
Aroclor-1254 (PCB-1254)	0.034	< 0.2	< 1	< 0.5
Aroclor-1260 (PCB-1260)	0.034	< 0.2	< 1	< 0.5
Total PCBs	-	ND	**8**	**1.5**
Semi-Volatile Organic Compounds (ug/L)				
2,2'-oxybis(1-Chloropropane)	0.31	< 5	< 5	< 10
2,4,5-Trichlorophenol	890	< 5	< 5	< 10
2,4,6-Trichlorophenol	3.5	< 5	< 5	< 10
2,4-Dichlorophenol	35	< 10	< 10	< 10
2,4-Dimethylphenol	270	< 5	< 5	< 10
2,4-Dinitrophenol	30	< 20 J	< 20 J	< 20 J
2,4-Dinitrotoluene	0.2	< 5	< 5	< 10
2,6-Dinitrotoluene	15	< 5	< 5	< 10
2-Chloronaphthalene	550	< 5	< 5	< 10
2-Chlorophenol	71	< 5	< 5	< 10
2-Methylnaphthalene	27	< 2	< 2	< 10
2-Methylphenol	720	< 5	< 5	< 10
2-Nitroaniline	150	< 20	< 20	< 20
2-Nitrophenol	-	< 5	< 5	< 10
3&4-Methylphenol	-	< 5	< 5	< 10
3,3'-Dichlorobenzidine	0.11	< 10	< 10	< 10
3-Nitroaniline	-	< 20	< 20	< 20
4,6-Dinitro-2-methylphenol	1.2	< 20 J	< 20 J	< 20 J
4-Bromophenyl phenyl ether	-	< 5	< 5	< 10
4-Chloro-3-methylphenol	1100	< 5	< 5	< 10
4-Chloroaniline	0.32	< 10	< 10	< 10
4-Chlorophenyl phenyl ether	-	< 5	< 5	< 10
4-Nitroaniline	3.3	< 20	< 20	< 20
4-Nitrophenol	-	< 20	< 20	< 20
Acenaphthene	400	< 2	< 2	< 10
Acenaphthylene	-	< 2	< 2	< 10
Acetophenone	1500	< 5	< 5	< 10
Anthracene	1300	< 2	< 2	< 10
Atrazine	0.26	< 5	< 5	< 10
Benzaldehyde	1500	< 5	< 5	< 10
Benzo(a)anthracene	0.029	**0.3 J** [A]	**0.4 J** [A]	< 10
Benzo(a)pyrene	0.0029	**0.5 J** [A]	**0.5 J** [A]	< 10
Benzo(b)fluoranthene	0.029	**0.5 J** [A]	**0.8 J** [A]	< 10
Benzo(g,h,i)perylene	-	**0.6 J**	**0.6 J**	< 10
Benzo(k)fluoranthene	0.29	**0.5 J** [A]	**0.7 J** [A]	< 10
Biphenyl	0.83	< 5	< 5	< 10
bis(2-Chloroethoxy)methane	46	< 5	< 5	< 10
bis(2-Chloroethyl)ether	0.012	< 5	< 5	< 10
bis(2-Ethylhexyl)phthalate	4.8	< 5	< 5	< 10
Butyl benzylphthalate	14	< 5	< 5	< 10
Caprolactam	7700	**3 J**	**0.8 J**	< 10
Carbazole	-	< 10	< 10	< 10
Chrysene	2.9	**0.4 J**	**1**	< 10
Dibenz(a,h)anthracene	0.0029	< 2	< 2	< 10
Dibenzofuran	5.8	< 5	< 5	< 10
Diethyl phthalate	11000	**2 J**	< 5	< 10
Dimethyl phthalate	-	**0.7 J**	< 5	< 10
Dimethylformamide	1600	< 5	< 5	< 10
Di-n-butylphthalate	670	< 5	< 5	< 10
Di-n-octyl phthalate	190	**3 J**	< 5	< 10
Fluoranthene	630	**0.5 J**	**1 J**	< 10
Fluorene	220	< 2	< 2	< 10
Hexachlorobenzene	0.042	< 5	< 5	< 10
Hexachlorobutadiene	0.26	< 5	< 5	< 10
Hexachlorocyclopentadiene	22	< 5	< 5	< 10
Hexachloroethane	0.79	< 5	< 5	< 10
Indeno(1,2,3-cd)pyrene	0.029	**0.5 J** [A]	**0.5 J** [A]	< 10
Isophorone	67	< 5	< 5	< 10
Naphthalene	0.14	< 2	< 2	< 10
Nitrobenzene	0.12	< 5	< 5	< 10
N-Nitrosodi-n-propylamine	0.0093	< 5	< 5	< 10
N-Nitrosodiphenylamine	10	< 5	< 5	< 10
Pentachlorophenol	0.035	< 10	< 10	< 10
Phenanthrene	-	< 2	**0.8 J**	< 10
Phenol	4500	< 5	< 5	< 10
Pyrene	87	**0.4 J**	**1 J**	< 10
Volatile Organic Compounds (ug/L)				
1,1,1-Trichloroethane	7500	< 1	< 1	< 1

TABLE 7
SUMMARY OF SANITARY SEWER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name		SS-102	SS-105	SS-109
Sample Name		2308-072010-1615	2308-072010-1535	2308-072010-1320
Sample Date		7/20/2010	7/20/2010	7/20/2010
Sample Type	Tapwater	N	N	N
1,1,2,2-Tetrachloroethane	0.066	< 1	< 1	< 1
1,1,2-Trichloroethane	0.24	< 1	< 1	< 1
1,1-Dichloroethane	2.4	< 1	< 1	< 1
1,1-Dichloroethene	260	< 1	< 1	< 1
1,2,4-Trichlorobenzene	0.99	< 2	< 2	< 2
1,2-Dibromo-3-chloropropane (DBCP)	0.00032	< 1	< 1	< 1
1,2-Dibromoethane (Ethylene Dibromide)	0.0065	< 1	< 1	< 1
1,2-Dichlorobenzene	280	< 1	< 1	< 1
1,2-Dichloroethane	0.15	< 1	< 1	< 1
1,2-Dichloropropane	0.38	< 1	< 1	< 1
1,3-Dichlorobenzene	-	< 1	< 1	< 1
1,4-Dichlorobenzene	0.42	< 1	< 1	< 1
2-Butanone (Methyl Ethyl Ketone)	4900	< 10	< 10	< 10
2-Hexanone	34	< 10	< 10	< 10
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	1000	< 10	< 10	< 10
Acetone	12000	< 10	< 10	< 10
Benzene	0.39	< 1	< 1	< 1
Bromodichloromethane	0.12	< 1	< 1	**0.6 J** [A]
Bromoform	7.9	< 1	< 1	< 1
Bromomethane (Methyl Bromide)	7	< 2	< 2	< 2
Carbon disulfide	720	< 5	< 5	< 5
Carbon tetrachloride	0.39	< 1	< 1	< 1
Chlorobenzene	72	< 1	< 1	< 1
Chlorobromomethane	83	< 1	< 1	< 1
Chloroethane	21000	< 1	< 1	< 1
Chloroform (Trichloromethane)	0.19	< 1	**0.1 J**	**2** [A]
Chloromethane (Methyl Chloride)	190	< 1	< 1	< 1
cis-1,2-Dichloroethene	28	< 1	< 1	**0.3 J**
cis-1,3-Dichloropropene	-	< 1	< 1	< 1
Cyclohexane	13000	< 1 J	< 1 J	< 1 J
Dibromochloromethane	0.15	< 1	< 1	**0.4 J** [A]
Dichlorodifluoromethane (CFC-12)	190	< 1	< 1	< 1
Ethylbenzene	1.3	< 1	< 1	< 1
Isopropylbenzene	390	< 1	< 1	< 1
m&p-Xylene	-	< 1	< 1	< 1
Methyl acetate	16000	< 10	< 10	< 10
Methyl cyclohexane	-	< 10	< 10	< 10
Methyl Tert Butyl Ether	12	< 5	< 5	< 5
Methylene chloride	9.9	< 5	< 5	< 5
n-Propylbenzene	530	< 1	< 1	< 1
o-Xylene	190	< 1	< 1	< 1
Styrene	1100	< 1	< 1	< 1
Tetrachloroethene	9.7	< 1	< 1	< 1
Tetrahydrofuran	3200	< 5 J	< 5 J	< 5 J
Toluene	860	< 1	**0.1 J**	< 1
trans-1,2-Dichloroethene	86	< 1	< 1	< 1
trans-1,3-Dichloropropene	-	< 1	< 1	< 1
Trichloroethene	0.44	< 1	< 1	< 1
Trichlorofluoromethane (CFC-11)	1100	< 1	< 1	< 1
Trifluorotrichloroethane (Freon 113)	53000	< 5	< 5	< 5
Vinyl chloride	0.015	< 1	< 1	< 1

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than Tapwater (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N - Normal

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-10H	MW-10H	MW-10H	MW-1BBL	MW-1BBL	MW-1H	MW-1H	MW-1H	MW-1TL
Sample Name	Groundwater		0938-020310-1650	0938-071510-1035	4413-060111-1130	0938-020210-1030	0938-071310-1355	0938-020210-1450	0938-020210-0001	0938-071310-1715	0938-020210-1635
Sample Date	Target for		2/3/2010	7/15/2010	6/1/2011	2/2/2010	7/13/2010	2/2/2010	2/2/2010	7/13/2010	2/2/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	1.58	1.3	0.834	0.868	1	1.54	-	1.8	0.926
Dissolved Oxygen (mg/L)	-	-	6.68	7.2	0.39	1.95	7.3	1.1	-	6.9	4.15
ORP (mv)	-	-	-5	7	176	-5	57	-15	-	84	-75
pH (pH units)	-	-	9.85	6.93	6.81	10.38	6.94	10.35	-	6.58	9.95
Temperature (Deg C)	-	-	10.3	19	14.5	6.3	15.8	7	-	17.6	7
Turbidity (NTU)	-	-	226	69	5.5	227	47.3	203	-	27.1	271
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	< 0.005	< 0.005	-	**0.002 J**	< 0.005	**0.001 J**	**0.001 J**	< 0.005	**0.001 J**
Arsenic, Total	-	0.01	**0.001 J**	**0.001 J**	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	**0.008**
Barium, Total	-	2	**0.094**	**0.079**	-	**0.038**	**0.051**	**0.085**	**0.085**	**0.102**	**0.106**
Beryllium, Total	-	0.004	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium, Total	-	0.005	< 0.0005	**0.0089** [B]	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Chromium, Total	-	0.1	**0.01**	**0.007**	-	< 0.005	**0.003 J**	< 0.005	< 0.005	**0.004 J**	< 0.005
Cobalt, Total	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.001 J**
Copper, Total	-	1.3	**0.001 J**	**0.003 J**	-	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cyanide, Total	-	0.2	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Lead, Total	-	0.015	< 0.003	< 0.003	-	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	**0.001 J**
Manganese, Total	-	-	**0.019**	**0.496**	-	**0.011**	**0.014**	**0.001 J**	**0.001 J**	**0.011**	**0.564**
Mercury, Total	-	0.002	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel, Total	-	-	**0.003 J**	**0.004 J**	-	**0.001 J**	**0.004 J**	**0.001 J**	< 0.005	**0.007**	**0.005 J**
Selenium, Total	-	0.05	< 0.005	< 0.005	-	**0.002 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silver, Total	-	-	< 0.0005	< 0.0005	-	**0.0001 J**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Thallium, Total	-	0.002	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vanadium, Total	-	-	**0.004**	**0.003 J**	-	< 0.004	**0.001 J**	< 0.004	< 0.004	**0.002 J**	**0.001 J**
Zinc, Total	-	-	**0.007**	**0.02**	-	**0.004 J**	< 0.005	**0.003 J**	**0.008**	**0.006**	**0.015**
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	-	0.0005	-	-	-	-	-	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-10H	MW-10H	MW-10H	MW-1BBL	MW-1BBL	MW-1H	MW-1H	MW-1H	MW-1TL
Sample Name	Groundwater		0938-020310-1650	0938-071510-1035	4413-060111-1130	0938-020210-1030	0938-071310-1355	0938-020210-1450	0938-020210-0001	0938-071310-1715	0938-020210-1635
Sample Date	Target for		2/3/2010	7/15/2010	6/1/2011	2/2/2010	7/13/2010	2/2/2010	2/2/2010	7/13/2010	2/2/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Chloronaphthalene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Chlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Methylnaphthalene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
2-Methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Nitrophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
3&4-Methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
3-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4,6-Dinitro-2-methylphenol	-	-	< 0.02	< 0.02	-	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4-Chloroaniline	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02 J	< 0.02	< 0.02	< 0.02 J	< 0.02
4-Nitrophenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	< 0.02 J	< 0.02 J	< 0.02	< 0.02 J
Acenaphthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Acenaphthylene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Acetophenone	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Anthracene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Atrazine	-	0.003	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005
Benzaldehyde	-	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005
Benzo(a)anthracene	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002 J	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Biphenyl	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Butyl benzylphthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Caprolactam	-	-	< 0.01	**0.0009 J**	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Carbazole	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002 J	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Dibenzofuran	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Diethyl phthalate	-	-	< 0.005	**0.0003 J**	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dimethyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Di-n-butylphthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Fluorene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hexachlorobutadiene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-10H	MW-10H	MW-10H	MW-1BBL	MW-1BBL	MW-1H	MW-1H	MW-1H	MW-1TL
Sample Name	Groundwater		0938-020310-1650	0938-071510-1035	4413-060111-1130	0938-020210-1030	0938-071310-1355	0938-020210-1450	0938-020210-0001	0938-071310-1715	0938-020210-1635
Sample Date	Target for		2/3/2010	7/15/2010	6/1/2011	2/2/2010	7/13/2010	2/2/2010	2/2/2010	7/13/2010	2/2/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hexachloroethane	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Isophorone	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	0.043	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Nitrobenzene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
N-Nitrosodiphenylamine	-	-	R	< 0.005	-	R	< 0.005	R	R	< 0.005	R
Pentachlorophenol	-	0.001	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Phenol	-	-	< 0.005	R	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Pyrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	0.051	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.004**
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	2.2	0.6	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0005 J**
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	15000	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	0.011	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0003 J**
Bromodichloromethane	0.0063	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002 J	< 0.002 J	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Carbon disulfide	0.77	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.31	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0003 J**
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	14	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.001 J**
Chloroform (Trichloromethane)	0.0055	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.005**
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	0.68	-	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.028	0.7	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	0.78	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.27	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	3	0.005	**0.0006 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	2	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-10H	MW-10H	MW-10H	MW-1BBL	MW-1BBL	MW-1H	MW-1H	MW-1H	MW-1TL
Sample Name	Groundwater		0938-020310-1650	0938-071510-1035	4413-060111-1130	0938-020210-1030	0938-071310-1355	0938-020210-1450	0938-020210-0001	0938-071310-1715	0938-020210-1635
Sample Date	Target for		2/3/2010	7/15/2010	6/1/2011	2/2/2010	7/13/2010	2/2/2010	2/2/2010	7/13/2010	2/2/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.042	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001
Tetrahydrofuran	480	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005
Toluene	14	1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0003 J**
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0036	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.0005 J**	< 0.005	**0.0005 J**
Vinyl chloride	0.0033	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.005** [AB]

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-1TL	MW-2BBL	MW-2BBL	MW-3BBL	MW-3BBL	MW-8H	MW-8H	Production Well	Production Well
Sample Name	Groundwater		0938-071410-0925	0938-020210-1230	0938-071310-1605	0938-020310-0915	0938-071410-1240	0938-020310-1330	0938-071510-0920	1318-020410-1515	1318-020410-1645
Sample Date	Target for		7/14/2010	2/2/2010	7/13/2010	2/3/2010	7/14/2010	2/3/2010	7/15/2010	2/4/2010	2/4/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	108 (ft)	188 (ft)
Field Parameters											
Conductivity (mS/cm)	-	-	1	0.736	0.64	0.397	0.49	3.3	3.5	3.28	3.24
Dissolved Oxygen (mg/L)	-	-	8.2	0.93	7	6.93	9	1.33	6.9	3.17	2.96
ORP (mv)	-	-	-127	-193	-204	-9	11	-131	-153	-92	-93
pH (pH units)	-	-	6.65	11.63	8.92	10.44	8.03	11	6.9	6.97	7.01
Temperature (Deg C)	-	-	16.1	6.9	17.2	6.6	16.7	5.9	19.9	13.2	12.1
Turbidity (NTU)	-	-	32	212	41	242	34	325	146	15.8	3.8
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	< 0.005	**0.006**	**0.003 J**	**0.006**	**0.007** [B]	**0.041** [B]	**0.004 J**	< 0.005	< 0.005
Arsenic, Total	-	0.01	**0.056** [B]	**0.004**	**0.004**	**0.001 J**	**0.003**	**0.008**	**0.004**	< 0.002	< 0.002
Barium, Total	-	2	**0.116**	**0.055**	**0.03**	**0.051**	**0.055**	**0.124**	**0.11**	< 0.005	< 0.005
Beryllium, Total	-	0.004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium, Total	-	0.005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.0002 J**	< 0.0005	< 0.0005	< 0.0005
Chromium, Total	-	0.1	**0.007**	< 0.005	**0.003 J**	**0.003 J**	**0.006**	**0.014**	**0.009**	< 0.005	< 0.005
Cobalt, Total	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.002 J**	< 0.005	< 0.005	< 0.005
Copper, Total	-	1.3	< 0.004	**0.027**	**0.006**	**0.005**	**0.01**	**0.013**	**0.006**	**0.007**	**0.008**
Cyanide, Total	-	0.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Lead, Total	-	0.015	< 0.003	< 0.003	**0.002 J**	**0.001 J**	**0.001 J**	**0.002 J**	< 0.003	< 0.003	< 0.003
Manganese, Total	-	-	**0.87**	**0.064**	**0.024**	**0.034**	**0.048**	**0.652**	**0.695**	**0.055**	**0.058**
Mercury, Total	-	0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel, Total	-	-	**0.006**	**0.005 J**	**0.006**	**0.001 J**	**0.004 J**	**0.009**	**0.008**	**0.009**	**0.01**
Selenium, Total	-	0.05	< 0.005	**0.001 J**	< 0.005	< 0.005	**0.002 J**	< 0.005	< 0.005	< 0.005	< 0.005
Silver, Total	-	-	< 0.0005	< 0.0005	< 0.0005	**0.0001 J**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Thallium, Total	-	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vanadium, Total	-	-	**0.003 J**	**0.004 J**	**0.002 J**	**0.001 J**	**0.004 J**	**0.007**	**0.002 J**	< 0.004	< 0.004
Zinc, Total	-	-	**0.017**	**0.002 J**	**0.005**	**0.013**	**0.007**	**0.089**	**0.016**	< 0.005	< 0.005
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	-	0.0005	-	-	-	-	-	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-1TL	MW-2BBL	MW-2BBL	MW-3BBL	MW-3BBL	MW-8H	MW-8H	Production Well	Production Well
Sample Name	Groundwater		0938-071410-0925	0938-020210-1230	0938-071310-1605	0938-020310-0915	0938-071410-1240	0938-020310-1330	0938-071510-0920	1318-020410-1515	1318-020410-1645
Sample Date	Target for		7/14/2010	2/2/2010	7/13/2010	2/3/2010	7/14/2010	2/3/2010	7/15/2010	2/4/2010	2/4/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	108 (ft)	188 (ft)
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02	< 0.02 J	< 0.02	< 0.02 J	< 0.02 J
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Chloronaphthalene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Chlorophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Methylnaphthalene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
2-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
2-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Nitrophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
3&4-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
3-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4,6-Dinitro-2-methylphenol	-	-	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4-Chloroaniline	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4-Nitroaniline	-	-	< 0.02 J	< 0.02	< 0.02 J	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4-Nitrophenol	-	-	< 0.02	< 0.02 J	< 0.02	< 0.02 J	< 0.02	< 0.02 J	< 0.02	**0.0006 J**	< 0.02 J
Acenaphthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Acenaphthylene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Acetophenone	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Anthracene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Atrazine	-	0.003	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005
Benzaldehyde	-	-	**0.0003 J**	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005
Benzo(a)anthracene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Biphenyl	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	< 0.005	< 0.005	< 0.005	**0.009 [B]**	< 0.005	**0.009 [B]**	< 0.005	< 0.005
Butyl benzylphthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Caprolactam	-	-	< 0.01	< 0.01	< 0.01	< 0.01	**0.001 J**	< 0.01	**0.002 J**	< 0.01	< 0.01
Carbazole	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002
Dibenzofuran	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Diethyl phthalate	-	-	< 0.005	< 0.005	**0.0003 J**	< 0.005	< 0.005	< 0.005	**0.0003 J**	< 0.005	< 0.005
Dimethyl phthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dimethylformamide	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Di-n-butylphthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Fluoranthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Fluorene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hexachlorobutadiene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.0002 J**

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-1TL	MW-2BBL	MW-2BBL	MW-3BBL	MW-3BBL	MW-8H	MW-8H	Production Well	Production Well
Sample Name	Groundwater		0938-071410-0925	0938-020210-1230	0938-071310-1605	0938-020310-0915	0938-071410-1240	0938-020310-1330	0938-071510-0920	1318-020410-1515	1318-020410-1645
Sample Date	Target for		7/14/2010	2/2/2010	7/13/2010	2/3/2010	7/14/2010	2/3/2010	7/15/2010	2/4/2010	2/4/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	108 (ft)	188 (ft)
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Hexachloroethane	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.0003 J**
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Isophorone	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	0.043	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Nitrobenzene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
N-Nitrosodiphenylamine	-	-	< 0.005	R	< 0.005	R	< 0.005	R	< 0.005	R	R
Pentachlorophenol	-	0.001	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Phenol	-	-	< 0.005	< 0.005	**0.0219**	< 0.005	R	< 0.005	R	< 0.005	< 0.005
Pyrene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	0.051	-	**0.005**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	2.2	0.6	**0.0009 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	**0.002 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	15000	-	< 0.01	< 0.01	**0.007 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01 J
Benzene	0.011	0.005	**0.0005 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.0063	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001 J	< 0.001	< 0.001 J	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002
Carbon disulfide	0.77	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
Chlorobenzene	0.31	0.1	**0.0007 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	14	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0055	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.24	0.07	**0.006**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	0.68	-	< 0.001 J	< 0.001	< 0.001 J	< 0.001	< 0.001 J	< 0.001 J	< 0.001	< 0.001 J	< 0.001 J
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.028	0.7	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	0.78	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.27	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	3	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	< 0.005
n-Propylbenzene	2	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		MW-1TL	MW-2BBL	MW-2BBL	MW-3BBL	MW-3BBL	MW-8H	MW-8H	Production Well	Production Well
Sample Name	Groundwater		0938-071410-0925	0938-020210-1230	0938-071310-1605	0938-020310-0915	0938-071410-1240	0938-020310-1330	0938-071510-0920	1318-020410-1515	1318-020410-1645
Sample Date	Target for		7/14/2010	2/2/2010	7/13/2010	2/3/2010	7/14/2010	2/3/2010	7/15/2010	2/4/2010	2/4/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	108 (ft)	188 (ft)
o-Xylene	0.38	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.042	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	480	-	**0.003 J**	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	**0.001 J**	< 0.005	< 0.005
Toluene	14	1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0001 J**
trans-1,2-Dichloroethene	0.24	0.1	**0.0004 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0036	0.005	**0.0005 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.051 J**	**0.07**	< 0.001	< 0.001
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.0033	0.002	**0.017** [AB]	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		PZ-26	PZ-26	PZ-33	PZ-33	PZ-38	PZ-38	PZ-43	PZ-43	PZ-43
Sample Name	Groundwater		1318-020210-1520	2308-071510-0835	2308-071910-1130	4125-052312-1050	0938-020410-1330	2308-071510-1600	0938-020410-1115	0938-071510-1250	4413-060111-1930
Sample Date	Target for		2/2/2010	7/15/2010	7/19/2010	5/23/2012	2/4/2010	7/15/2010	2/4/2010	7/15/2010	6/1/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	3.35	4	1.6	2.16	1.65	2.7	4.94	4.1	3.8
Dissolved Oxygen (mg/L)	-	-	7.26	1.5	3.1	0.47	0.63	1.7	3.44	7.3	0.95
ORP (mv)	-	-	161	25	56	-77	-132	-127	-39	-6	94
pH (pH units)	-	-	6.85	6.56	6.99	7.22	10.49	7.19	9.15	6.48	6.61
Temperature (Deg C)	-	-	12	19.2	20.6	13.5	8.1	22.6	9.2	18.3	13.3
Turbidity (NTU)	-	-	349	-5	121	5.5	202	230	232	84	45.7
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	**0.001 J**	< 0.005	-	-	**0.021** [B]	**0.025** [B]	**0.002 J**	< 0.005	-
Arsenic, Total	-	0.01	**0.001 J**	**0.002**	-	-	**0.009**	**0.019** [B]	**0.004**	**0.002**	-
Barium, Total	-	2	**0.33**	**0.343**	-	-	**0.359**	**0.523**	**0.08**	**0.054**	-
Beryllium, Total	-	0.004	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	-
Cadmium, Total	-	0.005	< 0.0005	**0.0004 J**	-	-	< 0.0005	**0.0027**	< 0.0005	< 0.0005	-
Chromium, Total	-	0.1	< 0.005	**0.008**	-	-	**0.007**	**0.006**	**0.014**	**0.008**	-
Cobalt, Total	-	-	< 0.005	< 0.005	-	-	**0.053**	< 0.005	< 0.005	< 0.005	-
Copper, Total	-	1.3	**0.002 J**	**0.009**	-	-	**0.002 J**	**0.012**	**0.004**	**0.002 J**	-
Cyanide, Total	-	0.2	< 0.005	< 0.005	-	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Lead, Total	-	0.015	**0.001 J**	**0.01**	-	-	< 0.003	**0.01**	< 0.003	< 0.003	-
Manganese, Total	-	-	**0.043**	**0.228**	-	-	**1.47**	**0.361**	**0.115**	**0.184**	-
Mercury, Total	-	0.002	< 0.0001	< 0.0001	-	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-
Nickel, Total	-	-	**0.003 J**	**0.014**	-	-	**0.012**	**0.008**	**0.013**	**0.015**	-
Selenium, Total	-	0.05	< 0.005	< 0.005	-	-	**0.002 J**	**0.003 J**	**0.009**	**0.017**	-
Silver, Total	-	-	< 0.0005	< 0.0005	-	-	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-
Thallium, Total	-	0.002	< 0.001	< 0.001	-	-	< 0.001	< 0.001	< 0.001	< 0.001	-
Vanadium, Total	-	-	**0.001 J**	**0.004**	-	-	**0.004**	**0.002 J**	**0.007**	**0.002 J**	-
Zinc, Total	-	-	**0.031**	**0.035**	-	-	**0.025**	**0.2**	**0.046**	**0.047**	-
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	-	0.0005	-	-	-	-	-	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		PZ-26	PZ-26	PZ-33	PZ-33	PZ-38	PZ-38	PZ-43	PZ-43	PZ-43
Sample Name	Groundwater		1318-020210-1520	2308-071510-0835	2308-071910-1130	4125-052312-1050	0938-020410-1330	2308-071510-1600	0938-020410-1115	0938-071510-1250	4413-060111-1930
Sample Date	Target for		2/2/2010	7/15/2010	7/19/2010	5/23/2012	2/4/2010	7/15/2010	2/4/2010	7/15/2010	6/1/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02	< 0.02 J	-	< 0.02 J	< 0.02	< 0.02 J	< 0.02	-
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Chloronaphthalene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Chlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Methylnaphthalene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
2-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	-
2-Nitrophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
3&4-Methylphenol	-	-	< 0.005	< 0.005	R	-	< 0.005	< 0.005	< 0.005	< 0.005	-
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-
3-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	< 0.02	< 0.02	-
4,6-Dinitro-2-methylphenol	-	-	< 0.02 J	< 0.02	< 0.02 J	-	< 0.02	< 0.02	< 0.02	< 0.02	-
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
4-Chloroaniline	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
4-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02 J	-	< 0.02	< 0.02 J	< 0.02	< 0.02	-
4-Nitrophenol	-	-	< 0.02 J	< 0.02	< 0.02	-	< 0.02 J	< 0.02	< 0.02 J	< 0.02	-
Acenaphthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Acenaphthylene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Acetophenone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Anthracene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Atrazine	-	0.003	< 0.005	< 0.005 J	< 0.005 J	-	< 0.005	< 0.005 J	< 0.005	< 0.005 J	-
Benzaldehyde	-	-	< 0.005	< 0.005 J	< 0.005 J	-	< 0.005	< 0.005 J	< 0.005	< 0.005 J	-
Benzo(a)anthracene	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	-
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002 J	< 0.002	< 0.002 J	-
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Biphenyl	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	**0.007** [B]	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Butyl benzylphthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Caprolactam	-	-	< 0.01	**0.001 J**	< 0.01	-	< 0.01	< 0.01	< 0.01	**0.001 J**	-
Carbazole	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-
Chrysene	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	-
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002 J	< 0.002	< 0.002 J	-
Dibenzofuran	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Diethyl phthalate	-	-	< 0.005	**0.0003 J**	< 0.005	-	< 0.005	< 0.005	< 0.005	**0.001 J**	-
Dimethyl phthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Dimethylformamide	-	-	< 0.005	< 0.005	-	-	< 0.005	-	< 0.005	< 0.005	-
Di-n-butylphthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Di-n-octyl phthalate	-	-	< 0.005	**0.0003 J**	**0.003 J**	-	< 0.005	**0.001 J**	< 0.005	**0.0002 J**	-
Fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	**0.0002 J**	< 0.002	< 0.002	-
Fluorene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Hexachlorobutadiene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		PZ-26	PZ-26	PZ-33	PZ-33	PZ-38	PZ-38	PZ-43	PZ-43	PZ-43
Sample Name	Groundwater		1318-020210-1520	2308-071510-0835	2308-071910-1130	4125-052312-1050	0938-020410-1330	2308-071510-1600	0938-020410-1115	0938-071510-1250	4413-060111-1930
Sample Date	Target for		2/2/2010	7/15/2010	7/19/2010	5/23/2012	2/4/2010	7/15/2010	2/4/2010	7/15/2010	6/1/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Hexachloroethane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Isophorone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
Naphthalene	0.043	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Nitrobenzene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	< 0.005	< 0.005	-
N-Nitrosodiphenylamine	-	-	R	< 0.005	< 0.005	-	R	< 0.005	R	< 0.005	-
Pentachlorophenol	-	0.001	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	< 0.01	< 0.01	-
Phenanthrene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Phenol	-	-	< 0.005	R	R	-	< 0.005	R	< 0.005	R	-
Pyrene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	< 0.002	< 0.002	-
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	0.051	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.04	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	2.2	0.6	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	< 0.01	< 0.2	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.2	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	< 0.01	< 0.2	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	15000	-	< 0.01	< 0.01	< 0.2	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	0.011	0.005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.0063	0.08000001	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001 J	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002	< 0.04	-	< 0.002	< 0.002 J	< 0.002	< 0.002 J	< 0.002 J
Carbon disulfide	0.77	-	< 0.005	< 0.005	< 0.1	-	**0.0003 J**	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001 J	< 0.001	< 0.001 J	< 0.001
Chlorobenzene	0.31	0.1	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.05	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	14	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0055	0.08000001	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001 J	< 0.001	< 0.001 J	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	0.68	-	< 0.001	< 0.001 J	< 0.02 J	-	< 0.001 J	< 0.001	< 0.001 J	< 0.001	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J
Ethylbenzene	0.028	0.7	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	0.78	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.27	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	**0.0003 J**	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01	< 0.2	-	< 0.01	< 0.01 J	< 0.01	< 0.01 J	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.2	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	3	-	< 0.005	< 0.005	< 0.1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	3	0.005	< 0.005	< 0.005	< 0.1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	2	-	< 0.001	< 0.001	< 0.05	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	-	-	-	-	-	-	-	-
Location Name	Industrial		PZ-26	PZ-26	PZ-33	PZ-33	PZ-38	PZ-38	PZ-43	PZ-43	PZ-43
Sample Name	Groundwater		1318-020210-1520	2308-071510-0835	2308-071910-1130	4125-052312-1050	0938-020410-1330	2308-071510-1600	0938-020410-1115	0938-071510-1250	4413-060111-1930
Sample Date	Target for		2/2/2010	7/15/2010	7/19/2010	5/23/2012	2/4/2010	7/15/2010	2/4/2010	7/15/2010	6/1/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	**0.0001 J**	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.042	0.005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	480	-	< 0.005	< 0.005 J	**3.4 J**	**0.3**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Toluene	14	1	< 0.001	< 0.001	< 0.02	-	**0.0006 J**	< 0.001	**0.0005 J**	< 0.001	< 0.001
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0036	0.005	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	< 0.005	< 0.1	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.0033	0.002	< 0.001	< 0.001	< 0.02	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-02	AOI-02
Location Name	Industrial		PZ-43	MW-1015	MW-1015	MW-1015	MW-1017	MW-1017	MW-1017	MW-1018	MW-1018
Sample Name	Groundwater		4413-060111-0002	2308-072110-1615	4289-022311-1215	1318-052212-1615	2308-072110-1335	4289-022211-1800	4289-022211-0001	1318-072110-1050	4125-052312-1220
Sample Date	Target for		6/1/2011	7/21/2010	2/23/2011	5/22/2012	7/21/2010	2/22/2011	2/22/2011	7/21/2010	5/23/2012
Sample Type	Vapor Intrusion		FD	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	-	1.2	0.99	0.927	1.1	0.922	-	-	1.13
Dissolved Oxygen (mg/L)	-	-	-	9.6	3.4	0	7.1	2.8	-	-	0
ORP (mv)	-	-	-	191	10	-35	154	36	-	-	-93
pH (pH units)	-	-	-	5.97	7.06	6.77	6.47	7.2	-	-	8.64
Temperature (Deg C)	-	-	-	18.1	8.5	13	22.5	11.3	-	-	17.8
Turbidity (NTU)	-	-	-	2.4	0	1.7	379	0	-	-	0.4
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	-	-	-	-	-	-	-	-	-
Arsenic, Total	-	0.01	-	-	-	-	-	-	-	-	-
Barium, Total	-	2	-	-	-	-	-	-	-	-	-
Beryllium, Total	-	0.004	-	-	-	-	-	-	-	-	-
Cadmium, Total	-	0.005	-	-	-	-	-	-	-	-	-
Chromium, Total	-	0.1	-	-	-	-	-	-	-	-	-
Cobalt, Total	-	-	-	-	-	-	-	-	-	-	-
Copper, Total	-	1.3	-	-	-	-	-	-	-	-	-
Cyanide, Total	-	0.2	-	-	-	-	-	-	-	-	-
Lead, Total	-	0.015	-	-	-	-	-	-	-	-	-
Manganese, Total	-	-	-	-	-	-	-	-	-	-	-
Mercury, Total	-	0.002	-	-	-	-	-	-	-	-	-
Nickel, Total	-	-	-	-	-	-	-	-	-	-	-
Selenium, Total	-	0.05	-	-	-	-	-	-	-	-	-
Silver, Total	-	-	-	-	-	-	-	-	-	-	-
Thallium, Total	-	0.002	-	-	-	-	-	-	-	-	-
Vanadium, Total	-	-	-	-	-	-	-	-	-	-	-
Zinc, Total	-	-	-	-	-	-	-	-	-	-	-
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	< 0.0001	-	< 0.00048	< 0.0001	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	< 0.0001	-	< 0.00048	< 0.0001	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	< 0.0001	-	< 0.00048	< 0.0001	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	**0.0006**	-	**0.0029**	< 0.0001	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	< 0.0001	-	< 0.00048	< 0.0001	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	< 0.0001	-	< 0.00048	< 0.0001	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	< 0.0001	-	< 0.00048	< 0.0001	-	-	-	-
Total PCBs	-	0.0005	-	**0.0006** [A]	-	**0.0029** [A]	ND	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	**0.00038 J**	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	**0.0023**	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	**0.00079 J**	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	< 0.002	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	< 0.002	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	< 0.002	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	< 0.0029	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	< 0.0029	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	< 0.0049	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	< 0.0049	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-02	AOI-02
Location Name	Industrial		PZ-43	MW-1015	MW-1015	MW-1015	MW-1017	MW-1017	MW-1017	MW-1018	MW-1018
Sample Name	Groundwater		4413-060111-0002	2308-072110-1615	4289-022311-1215	1318-052212-1615	2308-072110-1335	4289-022211-1800	4289-022211-0001	1318-072110-1050	4125-052312-1220
Sample Date	Target for		6/1/2011	7/21/2010	2/23/2011	5/22/2012	7/21/2010	2/22/2011	2/22/2011	7/21/2010	5/23/2012
Sample Type	Vapor Intrusion		FD	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2,4,5-Trichlorophenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2,4,6-Trichlorophenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2,4-Dichlorophenol	-	-	-	< 0.01	-	-	< 0.01	-	-	< 0.077	-
2,4-Dimethylphenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2,4-Dinitrophenol	-	-	-	< 0.02 J	-	-	< 0.02 J	-	-	< 0.077 J	-
2,4-Dinitrotoluene	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2,6-Dinitrotoluene	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2-Chloronaphthalene	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2-Chlorophenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2-Methylnaphthalene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
2-Methylphenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
2-Nitroaniline	-	-	-	< 0.02	-	-	< 0.02	-	-	< 0.077	-
2-Nitrophenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
3&4-Methylphenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
3,3'-Dichlorobenzidine	-	-	-	< 0.01	-	-	< 0.01	-	-	< 0.077	-
3-Nitroaniline	-	-	-	< 0.02	-	-	< 0.02	-	-	< 0.077	-
4,6-Dinitro-2-methylphenol	-	-	-	< 0.02 J	-	-	< 0.02 J	-	-	< 0.077 J	-
4-Bromophenyl phenyl ether	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
4-Chloro-3-methylphenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
4-Chloroaniline	-	-	-	< 0.01	-	-	< 0.01	-	-	< 0.077	-
4-Chlorophenyl phenyl ether	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077 J	-
4-Nitroaniline	-	-	-	< 0.02	-	-	< 0.02	-	-	< 0.077	-
4-Nitrophenol	-	-	-	< 0.02	-	-	< 0.02	-	-	< 0.077	-
Acenaphthene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Acenaphthylene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Acetophenone	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Anthracene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Atrazine	-	0.003	-	< 0.005 J	-	-	< 0.005 J	-	-	< 0.077 J	-
Benzaldehyde	-	-	-	< 0.005 J	-	-	< 0.005 J	-	-	< 0.077 J	-
Benzo(a)anthracene	-	-	-	< 0.001	-	-	< 0.001	-	-	< 0.077	-
Benzo(a)pyrene	-	0.0002	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Benzo(b)fluoranthene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Benzo(g,h,i)perylene	-	-	-	< 0.002 J	-	-	< 0.002 J	-	-	< 0.077 J	-
Benzo(k)fluoranthene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Biphenyl	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
bis(2-Chloroethoxy)methane	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
bis(2-Chloroethyl)ether	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
bis(2-Ethylhexyl)phthalate	-	0.006	-	< 0.005	-	-	< 0.005	-	-	**1.41 [B]**	**0.05 [B]**
Butyl benzylphthalate	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	< 0.00095
Caprolactam	-	-	-	**0.0008 J**	-	-	**0.0009 J**	-	-	< 0.077	-
Carbazole	-	-	-	< 0.01	-	-	< 0.01	-	-	< 0.077	-
Chrysene	-	-	-	< 0.001	-	-	< 0.001	-	-	< 0.077	-
Dibenz(a,h)anthracene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Dibenzofuran	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Diethyl phthalate	-	-	-	**0.0002 J**	-	-	**0.0002 J**	-	-	< 0.077	< 0.00095
Dimethyl phthalate	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	< 0.00095
Dimethylformamide	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	< 0.00095
Di-n-octyl phthalate	-	-	-	**0.0008 J**	-	-	**0.0003 J**	-	-	**12.5**	**0.093**
Fluoranthene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Fluorene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Hexachlorobenzene	-	0.001	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Hexachlorobutadiene	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-02	AOI-02
Location Name	Industrial		PZ-43	MW-1015	MW-1015	MW-1015	MW-1017	MW-1017	MW-1017	MW-1018	MW-1018
Sample Name	Groundwater		4413-060111-0002	2308-072110-1615	4289-022311-1215	1318-052212-1615	2308-072110-1335	4289-022211-1800	4289-022211-0001	1318-072110-1050	4125-052312-1220
Sample Date	Target for		6/1/2011	7/21/2010	2/23/2011	5/22/2012	7/21/2010	2/22/2011	2/22/2011	7/21/2010	5/23/2012
Sample Type	Vapor Intrusion		FD	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Hexachloroethane	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Indeno(1,2,3-cd)pyrene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077 J	-
Isophorone	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Naphthalene	0.043	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Nitrobenzene	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
N-Nitrosodi-n-propylamine	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
N-Nitrosodiphenylamine	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Pentachlorophenol	-	0.001	-	< 0.01	-	-	< 0.01	-	-	< 0.077	-
Phenanthrene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Phenol	-	-	-	< 0.005	-	-	< 0.005	-	-	< 0.077	-
Pyrene	-	-	-	< 0.002	-	-	< 0.002	-	-	< 0.077	-
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,1,2,2-Tetrachloroethane	-	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,1,2-Trichloroethane	-	0.005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.008	-
1,1-Dichloroethane	0.051	-	< 0.001	-	**0.00292**	-	-	< 0.001	< 0.001	< 0.001	-
1,1-Dichloroethene	-	0.007	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,2,4-Trichlorobenzene	-	0.07	< 0.002	-	< 0.002	-	-	< 0.002	< 0.002	< 0.002	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,2-Dichlorobenzene	2.2	0.6	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,2-Dichloroethane	-	0.005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,2-Dichloropropane	-	0.005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,3-Dichlorobenzene	-	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
1,4-Dichlorobenzene	-	0.075	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	-	< 0.01	-	-	< 0.01	< 0.01	**0.008 J**	-
2-Hexanone	-	-	< 0.01	-	< 0.01 J	-	-	< 0.01 J	< 0.01 J	< 0.01	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	-	< 0.01	-	-	< 0.01	< 0.01	< 0.01	-
Acetone	15000	-	< 0.01	-	< 0.01	-	-	< 0.01	< 0.01	**0.05**	-
Benzene	0.011	0.005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	**0.0004 J**	-
Bromodichloromethane	0.0063	0.08000001	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Bromoform	-	0.08000001	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Bromomethane (Methyl Bromide)	-	-	< 0.002 J	-	< 0.002	-	-	< 0.002	< 0.002	< 0.002	-
Carbon disulfide	0.77	-	< 0.005	-	< 0.005	-	-	< 0.005	< 0.005	< 0.005	-
Carbon tetrachloride	-	0.005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Chlorobenzene	0.31	0.1	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Chlorobromomethane	-	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Chloroethane	14	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Chloroform (Trichloromethane)	0.0055	0.08000001	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Chloromethane (Methyl Chloride)	-	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
cis-1,3-Dichloropropene	-	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Cyclohexane	0.68	-	< 0.001	-	< 0.001 J	-	-	< 0.001 J	< 0.001 J	< 0.001 J	-
Dibromochloromethane	-	0.08000001	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001 J	-	< 0.001 J	-	-	< 0.001 J	< 0.001 J	< 0.001	-
Ethylbenzene	0.028	0.7	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Isopropylbenzene	0.78	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	**0.0004 J**	-
m&p-Xylene	0.27	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Methyl acetate	-	-	< 0.01	-	< 0.01	-	-	< 0.01	< 0.01	< 0.01	-
Methyl cyclohexane	-	-	< 0.01	-	< 0.01	-	-	< 0.01	< 0.01	< 0.01	-
Methyl Tert Butyl Ether	3	-	< 0.005	-	< 0.005	-	-	< 0.005	< 0.005	< 0.005	-
Methylene chloride	3	0.005	< 0.005	-	< 0.005	-	-	< 0.005	< 0.005	< 0.005	-
n-Propylbenzene	2	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	**0.0002 J**	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		-	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-01	AOI-02	AOI-02
Location Name	Industrial		PZ-43	MW-1015	MW-1015	MW-1015	MW-1017	MW-1017	MW-1017	MW-1018	MW-1018
Sample Name	Groundwater		4413-060111-0002	2308-072110-1615	4289-022311-1215	1318-052212-1615	2308-072110-1335	4289-022211-1800	4289-022211-0001	1318-072110-1050	4125-052312-1220
Sample Date	Target for		6/1/2011	7/21/2010	2/23/2011	5/22/2012	7/21/2010	2/22/2011	2/22/2011	7/21/2010	5/23/2012
Sample Type	Vapor Intrusion		FD	N	N	N	N	N	FD	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Styrene	-	0.1	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Tetrachloroethene	0.042	0.005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Tetrahydrofuran	480	-	< 0.005	-	< 0.005 J	-	-	< 0.005 J	< 0.005 J	**0.152 J**	**0.00052 J**
Toluene	14	1	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	**0.0001 J**	-
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
trans-1,3-Dichloropropene	-	-	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Trichloroethene	0.0036	0.005	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001 J	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	-	< 0.005	-	-	< 0.005	< 0.005	< 0.005	-
Vinyl chloride	0.0033	0.002	< 0.001	-	< 0.001	-	-	< 0.001	< 0.001	< 0.001	-

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-02	AOI-02	AOI-02	AOI-05	AOI-05	AOI-13	AOI-13	AOI-14	AOI-14
Location Name	Industrial		MW-19H	MW-19H	MW-23H	MW-1016	MW-1016	PZ-35	PZ-35	MW-14H	MW-14H
Sample Name	Groundwater		0938-020410-1510	1318-052212-1125	2308-071910-1345	2308-072110-1510	1318-052212-1415	2308-071910-1450	4125-052212-1205	2308-071510-1405	2308-071910-1630
Sample Date	Target for		2/4/2010	5/22/2012	7/19/2010	7/21/2010	5/22/2012	7/19/2010	5/22/2012	7/15/2010	7/19/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	4.55	1.57	1.4	2.5	2.5	2.3	1.09	5	-
Dissolved Oxygen (mg/L)	-	-	0.28	0.41	5.7	7.3	0	1	1.08	1.5	-
ORP (mv)	-	-	-211	-148	90	191	-27	-124	-80	-188	-
pH (pH units)	-	-	10.91	7.63	6.5	6.07	6.63	7.15	6.68	7.47	-
Temperature (Deg C)	-	-	6.7	16.3	21.6	20.6	13.5	20.1	15.2	24.2	-
Turbidity (NTU)	-	-	199	0.8	215	188	0	465	1.5	121	-
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	**0.001 J**	-	-	-	-	-	-	< 0.005	-
Arsenic, Total	-	0.01	**0.015** [B]	-	-	-	-	-	-	**0.031** [B]	-
Barium, Total	-	2	**0.444**	-	-	-	-	-	-	**0.376**	-
Beryllium, Total	-	0.004	< 0.001	-	-	-	-	-	-	< 0.001	-
Cadmium, Total	-	0.005	< 0.0005	-	-	-	-	-	-	**0.0008**	-
Chromium, Total	-	0.1	**0.009**	-	-	-	-	-	-	**0.009**	-
Cobalt, Total	-	-	**0.001 J**	-	-	-	-	-	-	< 0.005	-
Copper, Total	-	1.3	**0.004**	-	-	-	-	-	-	**0.025**	-
Cyanide, Total	-	0.2	< 0.005	-	-	-	-	-	-	< 0.005	-
Lead, Total	-	0.015	< 0.003	-	-	-	-	-	-	**0.003 J**	-
Manganese, Total	-	-	**0.034**	-	-	-	-	-	-	**0.057**	-
Mercury, Total	-	0.002	< 0.0001	-	-	-	-	-	-	< 0.0001	-
Nickel, Total	-	-	**0.009**	-	-	-	-	-	-	**0.009**	-
Selenium, Total	-	0.05	< 0.005	-	-	-	-	-	-	< 0.005	-
Silver, Total	-	-	< 0.0005	-	-	-	-	-	-	< 0.0005	-
Thallium, Total	-	0.002	< 0.001	-	-	-	-	-	-	< 0.001	-
Vanadium, Total	-	-	**0.007**	-	-	-	-	-	-	**0.002 J**	-
Zinc, Total	-	-	**0.01**	-	-	-	-	-	-	**0.021**	-
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	< 0.0001	< 0.0006	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	< 0.0001	< 0.0006	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	< 0.0001	< 0.0006	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	< 0.0001	< 0.0006	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	< 0.0001	< 0.0006	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	< 0.0001	< 0.0006	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	< 0.0001	< 0.0006	-	-	-	-
Total PCBs	-	0.0005	-	-	-	ND	ND	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	< 0.000095	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	**0.000024 J**	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	< 0.000095	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	< 0.00019	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	< 0.00019	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	< 0.00019	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	< 0.00028	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	< 0.00028	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	< 0.00047	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	< 0.00047	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-02	AOI-02	AOI-02	AOI-05	AOI-05	AOI-13	AOI-13	AOI-14	AOI-14
Location Name	Industrial		MW-19H	MW-19H	MW-23H	MW-1016	MW-1016	PZ-35	PZ-35	MW-14H	MW-14H
Sample Name	Groundwater		0938-020410-1510	1318-052212-1125	2308-071910-1345	2308-072110-1510	1318-052212-1415	2308-071910-1450	4125-052212-1205	2308-071510-1405	2308-071910-1630
Sample Date	Target for		2/4/2010	5/22/2012	7/19/2010	7/21/2010	5/22/2012	7/19/2010	5/22/2012	7/15/2010	7/19/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2,4,5-Trichlorophenol	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2,4,6-Trichlorophenol	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2,4-Dichlorophenol	-	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01
2,4-Dimethylphenol	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2,4-Dinitrophenol	-	-	< 0.02 J	-	< 0.02 J	< 0.02 J	-	< 0.02 J	-	< 0.02	< 0.02 J
2,4-Dinitrotoluene	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2,6-Dinitrotoluene	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2-Chloronaphthalene	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2-Chlorophenol	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2-Methylnaphthalene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	**0.0003 J**
2-Methylphenol	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
2-Nitroaniline	-	-	< 0.02	-	< 0.02	< 0.02	-	< 0.02	-	< 0.02	< 0.02
2-Nitrophenol	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
3&4-Methylphenol	-	-	< 0.005	-	R	< 0.005	-	R	-	< 0.005	R
3,3'-Dichlorobenzidine	-	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01
3-Nitroaniline	-	-	< 0.02	-	< 0.02	< 0.02	-	< 0.02	-	< 0.02	< 0.02
4,6-Dinitro-2-methylphenol	-	-	< 0.02	-	< 0.02 J	< 0.02 J	-	< 0.02 J	-	< 0.02	< 0.02 J
4-Bromophenyl phenyl ether	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
4-Chloro-3-methylphenol	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
4-Chloroaniline	-	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01
4-Chlorophenyl phenyl ether	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
4-Nitroaniline	-	-	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	-	< 0.02 J	< 0.02 J
4-Nitrophenol	-	-	< 0.02 J	-	< 0.02	< 0.02	-	< 0.02	-	< 0.02	< 0.02
Acenaphthene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Acenaphthylene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Acetophenone	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Anthracene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Atrazine	-	0.003	< 0.005	-	< 0.005 J	< 0.005 J	-	< 0.005 J	-	< 0.005 J	< 0.005 J
Benzaldehyde	-	-	< 0.005	-	< 0.005 J	< 0.005 J	-	< 0.005 J	-	< 0.005 J	< 0.005 J
Benzo(a)anthracene	-	-	< 0.001	-	< 0.001	< 0.001	-	< 0.001	-	< 0.001	< 0.001
Benzo(a)pyrene	-	0.0002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Benzo(b)fluoranthene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Benzo(g,h,i)perylene	-	-	< 0.002	-	< 0.002	< 0.002 J	-	< 0.002	-	< 0.002 J	< 0.002
Benzo(k)fluoranthene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Biphenyl	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
bis(2-Chloroethoxy)methane	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
bis(2-Chloroethyl)ether	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Butyl benzylphthalate	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Caprolactam	-	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01
Carbazole	-	-	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01
Chrysene	-	-	< 0.001	-	< 0.001	< 0.001	-	< 0.001	-	< 0.001	< 0.001
Dibenz(a,h)anthracene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002 J	< 0.002
Dibenzofuran	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	**0.0003 J**
Diethyl phthalate	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	**0.0004 J**
Dimethyl phthalate	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Dimethylformamide	-	-	< 0.005	-	-	-	-	-	-	-	-
Di-n-butylphthalate	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Di-n-octyl phthalate	-	-	< 0.005	-	< 0.005	**0.001 J**	-	**0.004 J**	-	**0.0003 J**	< 0.005
Fluoranthene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Fluorene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Hexachlorobenzene	-	0.001	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Hexachlorobutadiene	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-02	AOI-02	AOI-02	AOI-05	AOI-05	AOI-13	AOI-13	AOI-14	AOI-14
Location Name	Industrial		MW-19H	MW-19H	MW-23H	MW-1016	MW-1016	PZ-35	PZ-35	MW-14H	MW-14H
Sample Name	Groundwater		0938-020410-1510	1318-052212-1125	2308-071910-1345	2308-072110-1510	1318-052212-1415	2308-071910-1450	4125-052212-1205	2308-071510-1405	2308-071910-1630
Sample Date	Target for		2/4/2010	5/22/2012	7/19/2010	7/21/2010	5/22/2012	7/19/2010	5/22/2012	7/15/2010	7/19/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Hexachloroethane	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Isophorone	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Naphthalene	0.043	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	**0.0003 J**
Nitrobenzene	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
N-Nitrosodi-n-propylamine	-	-	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
N-Nitrosodiphenylamine	-	-	R	-	< 0.005	< 0.005	-	< 0.005	-	< 0.005	< 0.005
Pentachlorophenol	-	0.001	< 0.01	-	< 0.01	< 0.01	-	< 0.01	-	< 0.01	< 0.01
Phenanthrene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	**0.0005 J**
Phenol	-	-	< 0.005	-	R	< 0.005	-	R	-	R	R
Pyrene	-	-	< 0.002	-	< 0.002	< 0.002	-	< 0.002	-	< 0.002	< 0.002
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,1,2,2-Tetrachloroethane	-	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,1,2-Trichloroethane	-	0.005	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,1-Dichloroethane	0.051	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,1-Dichloroethene	-	0.007	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,2,4-Trichlorobenzene	-	0.07	< 0.002	-	< 0.002	-	-	< 1	-	< 0.002	< 0.02
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,2-Dichlorobenzene	2.2	0.6	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,2-Dichloroethane	-	0.005	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,2-Dichloropropane	-	0.005	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,3-Dichlorobenzene	-	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
1,4-Dichlorobenzene	-	0.075	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	-	< 0.01	-	-	< 5	-	< 0.01	< 0.1
2-Hexanone	-	-	< 0.01	-	< 0.01	-	-	< 5	-	< 0.01	< 0.1
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	-	< 0.01	-	-	< 5	-	< 0.01	< 0.1
Acetone	15000	-	< 0.01	-	< 0.01	-	-	< 5	-	< 0.01	< 0.1
Benzene	0.011	0.005	**0.0004 J**	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Bromodichloromethane	0.0063	0.08000001	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Bromoform	-	0.08000001	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Bromomethane (Methyl Bromide)	-	-	< 0.002	-	< 0.002	-	-	< 1	-	< 0.002 J	< 0.02
Carbon disulfide	0.77	-	< 0.005	-	< 0.005	-	-	< 3	-	< 0.005	< 0.05
Carbon tetrachloride	-	0.005	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001 J	< 0.01
Chlorobenzene	0.31	0.1	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Chlorobromomethane	-	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Chloroethane	14	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Chloroform (Trichloromethane)	0.0055	0.08000001	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Chloromethane (Methyl Chloride)	-	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001 J	< 0.01
cis-1,3-Dichloropropene	-	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Cyclohexane	0.68	-	< 0.001 J	-	< 0.001 J	-	-	< 0.5 J	-	< 0.001	< 0.01 J
Dibromochloromethane	-	0.08000001	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Ethylbenzene	0.028	0.7	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Isopropylbenzene	0.78	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
m&p-Xylene	0.27	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Methyl acetate	-	-	< 0.01	-	< 0.01	-	-	< 5	-	< 0.01 J	< 0.1
Methyl cyclohexane	-	-	< 0.01	-	< 0.01	-	-	< 5	-	< 0.01	< 0.1
Methyl Tert Butyl Ether	3	-	**0.002 J**	-	< 0.005	-	-	**0.2 J**	-	**0.002 J**	**0.21**
Methylene chloride	3	0.005	< 0.005	-	< 0.005	-	-	< 3	-	< 0.005	< 0.05
n-Propylbenzene	2	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-02	AOI-02	AOI-02	AOI-05	AOI-05	AOI-13	AOI-13	AOI-14	AOI-14
Location Name	Industrial		MW-19H	MW-19H	MW-23H	MW-1016	MW-1016	PZ-35	PZ-35	MW-14H	MW-14H
Sample Name	Groundwater		0938-020410-1510	1318-052212-1125	2308-071910-1345	2308-072110-1510	1318-052212-1415	2308-071910-1450	4125-052212-1205	2308-071510-1405	2308-071910-1630
Sample Date	Target for		2/4/2010	5/22/2012	7/19/2010	7/21/2010	5/22/2012	7/19/2010	5/22/2012	7/15/2010	7/19/2010
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Styrene	-	0.1	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Tetrachloroethene	0.042	0.005	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Tetrahydrofuran	480	-	**0.149**	**0.0023 J**	< 0.005 J	-	-	**90 J**	**0.068**	**0.065**	**0.96 J**
Toluene	14	1	**0.0001 J**	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
trans-1,3-Dichloropropene	-	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Trichloroethene	0.0036	0.005	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	-	< 0.005	-	-	< 3	-	< 0.005	< 0.05
Vinyl chloride	0.0033	0.002	< 0.001	-	< 0.001	-	-	< 0.5	-	< 0.001	< 0.01

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-14	AOI-20	AOI-20	AOI-20	AOI-21	AOI-21	AOI-21	AOI-21	AOI-22
Location Name	Industrial		MW-14H	MW-2TL	MW-2TL	MW-2TL	MW-1020	MW-3TL	MW-3TL	MW-3TL	MW-1021
Sample Name	Groundwater		4125-052212-1025	1318-020410-1320	0938-071410-1045	0938-071410-0001	2308-072110-1030	1318-020410-1100	2308-071610-0930	4125-052212-1625	2308-072110-1145
Sample Date	Target for		5/22/2012	2/4/2010	7/14/2010	7/14/2010	7/21/2010	2/4/2010	7/16/2010	5/22/2012	7/21/2010
Sample Type	Vapor Intrusion		N	N	N	FD	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	4.91	0.913	0.86	-	0	1.56	1.6	1.18	1.1
Dissolved Oxygen (mg/L)	-	-	1.27	4.37	7.3	-	6.1	2.84	2.3	0	6.3
ORP (mv)	-	-	-71	98	52	-	139	-113	-131	-82	141
pH (pH units)	-	-	6.49	6.97	6.77	-	6.97	6.72	7.1	6.63	6.48
Temperature (Deg C)	-	-	15.8	9.8	16.6	-	21.1	9.4	19.9	14	22.1
Turbidity (NTU)	-	-	58.7	103	0	-	241	230	-5	27.2	136
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Arsenic, Total	-	0.01	-	**0.001 J**	< 0.002	< 0.002	-	**0.006**	**0.001 J**	-	-
Barium, Total	-	2	-	**0.069**	**0.052**	**0.056**	-	**0.203**	**0.173**	-	-
Beryllium, Total	-	0.004	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Cadmium, Total	-	0.005	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	**0.0004 J**	-	-
Chromium, Total	-	0.1	-	< 0.005	**0.004 J**	**0.007**	-	< 0.005	**0.024**	-	-
Cobalt, Total	-	-	-	**0.001 J**	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Copper, Total	-	1.3	-	**0.002 J**	< 0.004	< 0.004	-	**0.002 J**	< 0.004	-	-
Cyanide, Total	-	0.2	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Lead, Total	-	0.015	-	< 0.003	< 0.003	< 0.003	-	< 0.003	< 0.003	-	-
Manganese, Total	-	-	-	**1.05**	**0.434**	**0.439**	-	**1.67**	**1.85**	-	-
Mercury, Total	-	0.002	-	< 0.0001	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-	-
Nickel, Total	-	-	-	**0.007**	**0.005 J**	**0.005 J**	-	**0.004 J**	**0.006**	-	-
Selenium, Total	-	0.05	-	< 0.005	< 0.005	< 0.005	-	< 0.005	**0.002 J**	-	-
Silver, Total	-	-	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	-	-
Thallium, Total	-	0.002	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Vanadium, Total	-	-	-	< 0.004	**0.001 J**	**0.002 J**	-	**0.012**	**0.008**	-	-
Zinc, Total	-	-	-	< 0.005	**0.004 J**	**0.001 J**	-	< 0.005	**0.005**	-	-
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	< 0.0001	-	-	-	< 0.0001
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	< 0.0001	-	-	-	< 0.0001
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	< 0.0001	-	-	-	< 0.0001
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	< 0.0001	-	-	-	< 0.0001
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	< 0.0001	-	-	-	< 0.0001
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	< 0.0001	-	-	-	< 0.0001
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	< 0.0001	-	-	-	< 0.0001
Total PCBs	-	0.0005	-	-	-	-	ND	-	-	-	ND
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-14	AOI-20	AOI-20	AOI-20	AOI-21	AOI-21	AOI-21	AOI-21	AOI-22
Location Name	Industrial		MW-14H	MW-2TL	MW-2TL	MW-2TL	MW-1020	MW-3TL	MW-3TL	MW-3TL	MW-1021
Sample Name	Groundwater		4125-052212-1025	1318-020410-1320	0938-071410-1045	0938-071410-0001	2308-072110-1030	1318-020410-1100	2308-071610-0930	4125-052212-1625	2308-072110-1145
Sample Date	Target for		5/22/2012	2/4/2010	7/14/2010	7/14/2010	7/21/2010	2/4/2010	7/16/2010	5/22/2012	7/21/2010
Sample Type	Vapor Intrusion		N	N	N	FD	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2,4,5-Trichlorophenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2,4,6-Trichlorophenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2,4-Dichlorophenol	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01
2,4-Dimethylphenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2,4-Dinitrophenol	-	-	-	< 0.02 J	< 0.02	< 0.02	< 0.02 J	< 0.02 J	< 0.02	-	< 0.02 J
2,4-Dinitrotoluene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2,6-Dinitrotoluene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2-Chloronaphthalene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2-Chlorophenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2-Methylnaphthalene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
2-Methylphenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
2-Nitroaniline	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02
2-Nitrophenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
3&4-Methylphenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
3,3'-Dichlorobenzidine	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01
3-Nitroaniline	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	-	< 0.02
4,6-Dinitro-2-methylphenol	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02 J	< 0.02	< 0.02	-	< 0.02 J
4-Bromophenyl phenyl ether	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
4-Chloro-3-methylphenol	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
4-Chloroaniline	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01
4-Chlorophenyl phenyl ether	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
4-Nitroaniline	-	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02 J	-	< 0.02
4-Nitrophenol	-	-	-	< 0.02 J	< 0.02	< 0.02	< 0.02	< 0.02 J	< 0.02	-	< 0.02
Acenaphthene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Acenaphthylene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Acetophenone	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Anthracene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Atrazine	-	0.003	-	< 0.005	< 0.005 J	< 0.005 J	< 0.005 J	< 0.005	< 0.005 J	-	< 0.005 J
Benzaldehyde	-	-	-	< 0.005	< 0.005 J	< 0.005 J	**0.0007 J**	< 0.005	< 0.005 J	-	**0.0005 J**
Benzo(a)anthracene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001
Benzo(a)pyrene	-	0.0002	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Benzo(b)fluoranthene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Benzo(g,h,i)perylene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002 J	-	< 0.002 J
Benzo(k)fluoranthene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Biphenyl	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
bis(2-Chloroethoxy)methane	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
bis(2-Chloroethyl)ether	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
bis(2-Ethylhexyl)phthalate	-	0.006	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Butyl benzylphthalate	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Caprolactam	-	-	-	< 0.01	**0.0008 J**	**0.0008 J**	< 0.01	< 0.01	< 0.07	-	< 0.01
Carbazole	-	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01
Chrysene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001
Dibenz(a,h)anthracene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 J	-	< 0.002
Dibenzofuran	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Diethyl phthalate	-	-	-	**0.0003 J**	< 0.005	< 0.005	< 0.005	**0.0003 J**	< 0.005	-	< 0.005
Dimethyl phthalate	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Dimethylformamide	-	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	-	-	-
Di-n-butylphthalate	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Di-n-octyl phthalate	-	-	-	< 0.005	< 0.005	**0.0003 J**	**0.002 J**	< 0.005	**0.002 J**	-	**0.002 J**
Fluoranthene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Fluorene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Hexachlorobenzene	-	0.001	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Hexachlorobutadiene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-14	AOI-20	AOI-20	AOI-20	AOI-21	AOI-21	AOI-21	AOI-21	AOI-22
Location Name	Industrial		MW-14H	MW-2TL	MW-2TL	MW-2TL	MW-1020	MW-3TL	MW-3TL	MW-3TL	MW-1021
Sample Name	Groundwater		4125-052212-1025	1318-020410-1320	0938-071410-1045	0938-071410-0001	2308-072110-1030	1318-020410-1100	2308-071610-0930	4125-052212-1625	2308-072110-1145
Sample Date	Target for		5/22/2012	2/4/2010	7/14/2010	7/14/2010	7/21/2010	2/4/2010	7/16/2010	5/22/2012	7/21/2010
Sample Type	Vapor Intrusion		N	N	N	FD	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Hexachloroethane	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Indeno(1,2,3-cd)pyrene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Isophorone	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
Naphthalene	0.043	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Nitrobenzene	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
N-Nitrosodi-n-propylamine	-	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005
N-Nitrosodiphenylamine	-	-	-	R	< 0.005	< 0.005	< 0.005	R	< 0.005	-	< 0.005
Pentachlorophenol	-	0.001	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-	< 0.01
Phenanthrene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Phenol	-	-	-	< 0.005	R	R	< 0.005	< 0.005	R	-	< 0.005
Pyrene	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-	< 0.002
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,1,2,2-Tetrachloroethane	-	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,1,2-Trichloroethane	-	0.005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,1-Dichloroethane	0.051	-	-	**0.0006 J**	**0.0006 J**	**0.0006 J**	-	< 0.001	< 0.001	-	-
1,1-Dichloroethene	-	0.007	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,2,4-Trichlorobenzene	-	0.07	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,2-Dichlorobenzene	2.2	0.6	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,2-Dichloroethane	-	0.005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,2-Dichloropropane	-	0.005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,3-Dichlorobenzene	-	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
1,4-Dichlorobenzene	-	0.075	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
2-Butanone (Methyl Ethyl Ketone)	1500	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
2-Hexanone	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
Acetone	15000	-	-	< 0.01 J	< 0.01	< 0.01	-	< 0.01 J	< 0.01 J	-	-
Benzene	0.011	0.005	-	< 0.001	< 0.001	< 0.001	-	**0.0003 J**	**0.0003 J**	-	-
Bromodichloromethane	0.0063	0.08000001	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Bromoform	-	0.08000001	-	< 0.001	< 0.001 J	< 0.001 J	-	< 0.001	< 0.001	-	-
Bromomethane (Methyl Bromide)	-	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002 J	-	-
Carbon disulfide	0.77	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Carbon tetrachloride	-	0.005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001 J	-	-
Chlorobenzene	0.31	0.1	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Chlorobromomethane	-	-	-	< 0.001	< 0.001	< 0.001	-	< 1	< 5	-	-
Chloroethane	14	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Chloroform (Trichloromethane)	0.0055	0.08000001	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Chloromethane (Methyl Chloride)	-	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
cis-1,2-Dichloroethene	0.24	0.07	-	**0.001**	**0.002**	**0.002**	-	< 0.001	< 0.001 J	-	-
cis-1,3-Dichloropropene	-	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Cyclohexane	0.68	-	-	< 0.001 J	< 0.001 J	< 0.001 J	-	**0.007 J**	< 0.008	-	-
Dibromochloromethane	-	0.08000001	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Dichlorodifluoromethane (CFC-12)	-	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Ethylbenzene	0.028	0.7	-	< 0.001	< 0.001	< 0.001	-	**0.0002 J**	**0.0003 J**	-	-
Isopropylbenzene	0.78	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
m&p-Xylene	0.27	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Methyl acetate	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01 J	-	-
Methyl cyclohexane	-	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
Methyl Tert Butyl Ether	3	-	-	< 0.005	< 0.005	< 0.005	-	**0.049**	**0.06**	-	-
Methylene chloride	3	0.005	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
n-Propylbenzene	2	-	-	< 0.001	< 0.001	< 0.001	-	< 1	< 5	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-14	AOI-20	AOI-20	AOI-20	AOI-21	AOI-21	AOI-21	AOI-21	AOI-22
Location Name	Industrial		MW-14H	MW-2TL	MW-2TL	MW-2TL	MW-1020	MW-3TL	MW-3TL	MW-3TL	MW-1021
Sample Name	Groundwater		4125-052212-1025	1318-020410-1320	0938-071410-1045	0938-071410-0001	2308-072110-1030	1318-020410-1100	2308-071610-0930	4125-052212-1625	2308-072110-1145
Sample Date	Target for		5/22/2012	2/4/2010	7/14/2010	7/14/2010	7/21/2010	2/4/2010	7/16/2010	5/22/2012	7/21/2010
Sample Type	Vapor Intrusion		N	N	N	FD	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Styrene	-	0.1	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Tetrachloroethene	0.042	0.005	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Tetrahydrofuran	480	-	**2.4**	< 0.005	< 0.005 J	< 0.005 J	-	< 5	**180**	**47**	-
Toluene	14	1	-	< 0.001	< 0.001	< 0.001	-	**0.0005 J**	< 0.001	-	-
trans-1,2-Dichloroethene	0.24	0.1	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
trans-1,3-Dichloropropene	-	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Trichloroethene	0.0036	0.005	-	**0.0002 J**	**0.0003 J**	**0.0003 J**	-	< 0.001	< 0.001	-	-
Trichlorofluoromethane (CFC-11)	0.11	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Trifluorotrichloroethane (Freon 113)	0.92	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Vinyl chloride	0.0033	0.002	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-22	AOI-22	AOI-22	AOI-22	AOI-23	AOI-23	AOI-24	AOI-24	AOI-24
Location Name	Industrial		MW-7H	MW-7H	MW-7H	MW-7H	MW-1019	MW-1019	MW-11H	MW-11H	MW-11H
Sample Name	Groundwater		0938-020310-1145	0938-020310-0001	0938-071410-1410	4125-052212-1440	1318-072110-1005	4125-052212-1750	1318-020310-1420	2308-071410-1000	4413-060211-0948
Sample Date	Target for		2/3/2010	2/3/2010	7/14/2010	5/22/2012	7/21/2010	5/22/2012	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	1.047	-	1.1	1.02	-	3.59	9.23	8.5	3.97
Dissolved Oxygen (mg/L)	-	-	231	-	6.9	0.18	-	0	3	1.6	0.29
ORP (mv)	-	-	-99	-	-88	-48	-	-89	-14	-78	-27
pH (pH units)	-	-	10.61	-	6.89	7.34	-	6.76	6.89	6.91	6.88
Temperature (Deg C)	-	-	8.6	-	15.1	20	-	17.5	10	20.3	14.3
Turbidity (NTU)	-	-	372	-	28.1	113	-	17.5	249	439	56.3
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	**0.002 J**	**0.002 J**	< 0.005	-	-	-	< 0.005	< 0.005	-
Arsenic, Total	-	0.01	**0.004**	**0.003**	**0.001 J**	-	-	-	**0.006**	**0.006**	-
Barium, Total	-	2	**0.11**	**0.103**	**0.089**	-	-	-	**0.224**	**0.235**	-
Beryllium, Total	-	0.004	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-
Cadmium, Total	-	0.005	**0.0004 J**	**0.0002 J**	< 0.0005	-	-	-	< 0.0005	< 0.0005	-
Chromium, Total	-	0.1	**0.019**	**0.018**	**0.004 J**	-	-	-	< 0.005	**0.011**	-
Cobalt, Total	-	-	**0.004 J**	**0.003 J**	< 0.005	-	-	-	**0.001 J**	< 0.005	-
Copper, Total	-	1.3	**0.012**	**0.01**	**0.002 J**	-	-	-	**0.002 J**	**0.004**	-
Cyanide, Total	-	0.2	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.005	-
Lead, Total	-	0.015	**0.01**	**0.008**	< 0.003	-	-	-	**0.001 J**	**0.001 J**	-
Manganese, Total	-	-	**0.288**	**0.229**	**0.126**	-	-	-	**0.355**	**0.382**	-
Mercury, Total	-	0.002	< 0.0001	< 0.0001	< 0.0001	-	-	-	< 0.0001	< 0.0001	-
Nickel, Total	-	-	**0.015**	**0.013**	**0.008**	-	-	-	**0.009**	**0.012**	-
Selenium, Total	-	0.05	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.005	-
Silver, Total	-	-	< 0.0005	< 0.0005	< 0.0005	-	-	-	< 0.0005	**0.0006**	-
Thallium, Total	-	0.002	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	-
Vanadium, Total	-	-	**0.008**	**0.007**	**0.002 J**	-	-	-	**0.016**	**0.009**	-
Zinc, Total	-	-	**0.055**	**0.047**	**0.011**	-	-	-	< 0.005	**0.018**	-
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	-	0.0005	-	-	-	-	-	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-22	AOI-22	AOI-22	AOI-22	AOI-23	AOI-23	AOI-24	AOI-24	AOI-24
Location Name	Industrial		MW-7H	MW-7H	MW-7H	MW-7H	MW-1019	MW-1019	MW-11H	MW-11H	MW-11H
Sample Name	Groundwater		0938-020310-1145	0938-020310-0001	0938-071410-1410	4125-052212-1440	1318-072110-1005	4125-052212-1750	1318-020310-1420	2308-071410-1000	4413-060211-0948
Sample Date	Target for		2/3/2010	2/3/2010	7/14/2010	5/22/2012	7/21/2010	5/22/2012	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	< 0.01	-	< 0.077	-	< 0.01	< 0.01	-
2,4-Dimethylphenol	-	-	< 0.005	**0.0003 J**	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02 J	< 0.02	-	< 0.077 J	-	< 0.02 J	< 0.02 J	-
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2-Chloronaphthalene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2-Chlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2-Methylnaphthalene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
2-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
2-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.077	-	< 0.02	< 0.02	-
2-Nitrophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
3&4-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	< 0.01	-	< 0.077	-	< 0.01	< 0.01	-
3-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.077	-	< 0.02	< 0.02	-
4,6-Dinitro-2-methylphenol	-	-	< 0.02	< 0.02	< 0.02	-	< 0.077 J	-	< 0.02	< 0.02 J	-
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
4-Chloroaniline	-	-	< 0.01	< 0.01	< 0.01	-	< 0.077	-	< 0.01	< 0.01	-
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077 J	-	< 0.005	< 0.005	-
4-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.077	-	< 0.02	< 0.02 J	-
4-Nitrophenol	-	-	**0.001 J**	< 0.02 J	< 0.02	-	< 0.077	-	< 0.02 J	< 0.02	-
Acenaphthene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Acenaphthylene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Acetophenone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
Anthracene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.077	-	< 0.002	< 0.002	-
Atrazine	-	0.003	< 0.005	< 0.005	< 0.005 J	-	< 0.077 J	-	< 0.005	< 0.005 J	-
Benzaldehyde	-	-	< 0.005	< 0.005	< 0.005 J	-	< 0.077 J	-	< 0.005	< 0.005 J	-
Benzo(a)anthracene	-	-	< 0.002	< 0.001	< 0.003	-	< 0.077	-	< 0.001	< 0.001	-
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077 J	-	< 0.002	< 0.002	-
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Biphenyl	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
bis(2-Ethylhexyl)phthalate	-	0.006	**0.208** [B]	< 0.005	**0.276** [B]	< 0.0019	< 0.077	< 0.0019	< 0.005	< 0.005	-
Butyl benzylphthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.00095	< 0.077	< 0.00095	< 0.005	< 0.005	-
Caprolactam	-	-	< 0.01	< 0.01	< 0.01 J	-	< 0.077	-	< 0.01	< 0.01	-
Carbazole	-	-	< 0.01	< 0.01	< 0.01	-	< 0.077	-	< 0.01	< 0.01	-
Chrysene	-	-	< 0.002	< 0.001	< 0.003	-	< 0.077	-	< 0.001	< 0.001	-
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Dibenzofuran	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
Diethyl phthalate	-	-	< 0.005	**0.0002 J**	< 0.005	< 0.00095	< 0.077	< 0.00095	< 0.005	< 0.005	-
Dimethyl phthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.00095	< 0.077	< 0.00095	< 0.005	< 0.005	-
Dimethylformamide	-	-	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.005	-
Di-n-butylphthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.00095	< 0.077	< 0.00095	< 0.005	< 0.005	-
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	**0.003 J**	< 0.00095	**12.5**	**0.02**	< 0.005	**0.002 J**	-
Fluoranthene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Fluorene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
Hexachlorobutadiene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-22	AOI-22	AOI-22	AOI-22	AOI-23	AOI-23	AOI-24	AOI-24	AOI-24
Location Name	Industrial		MW-7H	MW-7H	MW-7H	MW-7H	MW-1019	MW-1019	MW-11H	MW-11H	MW-11H
Sample Name	Groundwater		0938-020310-1145	0938-020310-0001	0938-071410-1410	4125-052212-1440	1318-072110-1005	4125-052212-1750	1318-020310-1420	2308-071410-1000	4413-060211-0948
Sample Date	Target for		2/3/2010	2/3/2010	7/14/2010	5/22/2012	7/21/2010	5/22/2012	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
Hexachloroethane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077 J	-	< 0.002	< 0.002	-
Isophorone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
Naphthalene	0.043	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Nitrobenzene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	< 0.005	-	< 0.077	-	< 0.005	< 0.005	-
N-Nitrosodiphenylamine	-	-	R	R	< 0.005	-	< 0.077	-	R	< 0.005	-
Pentachlorophenol	-	0.001	< 0.01	< 0.01	< 0.01	-	< 0.077	-	< 0.01	< 0.01	-
Phenanthrene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Phenol	-	-	< 0.005	< 0.005	R	-	< 0.077	-	< 0.005	< 0.005	-
Pyrene	-	-	< 0.002	< 0.002	< 0.003	-	< 0.077	-	< 0.002	< 0.002	-
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	0.051	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	-	-	-	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	2.2	0.6	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
Acetone	15000	-	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01 J	< 0.01	< 0.01
Benzene	0.011	0.005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.0063	0.08000001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001	< 0.001 J	-	-	-	< 0.001	< 0.001 J	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002	< 0.002	-	-	-	< 0.002	< 0.002	< 0.002 J
Carbon disulfide	0.77	-	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.31	0.1	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Chloroethane	14	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0055	0.08000001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Cyclohexane	0.68	-	< 0.001 J	< 0.001 J	< 0.001 J	-	-	-	< 0.001 J	< 0.001 J	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001 J
Ethylbenzene	0.028	0.7	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Isopropylbenzene	0.78	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.27	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	**0.0001 J**	**0.0002 J**	< 0.01	-	-	-	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	3	-	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.005	< 0.005
Methylene chloride	3	0.005	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.005	< 0.005
n-Propylbenzene	2	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-22	AOI-22	AOI-22	AOI-22	AOI-23	AOI-23	AOI-24	AOI-24	AOI-24
Location Name	Industrial		MW-7H	MW-7H	MW-7H	MW-7H	MW-1019	MW-1019	MW-11H	MW-11H	MW-11H
Sample Name	Groundwater		0938-020310-1145	0938-020310-0001	0938-071410-1410	4125-052212-1440	1318-072110-1005	4125-052212-1750	1318-020310-1420	2308-071410-1000	4413-060211-0948
Sample Date	Target for		2/3/2010	2/3/2010	7/14/2010	5/22/2012	7/21/2010	5/22/2012	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	FD	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.042	0.005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	480	-	< 0.005	< 0.005	< 0.005 J	-	-	-	< 0.005	< 0.005 J	< 0.005
Toluene	14	1	**0.0002 J**	**0.0002 J**	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0036	0.005	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001 J
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	< 0.005	< 0.005	-	-	-	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.0033	0.002	< 0.001	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1001	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003	MW-1003
Sample Name	Groundwater		1318-020210-0940	2308-071510-1210	4413-060211-1220	1318-020210-1145	2308-071410-1500	1318-060111-1905	1318-020310-1000	2308-071410-1755	4413-060211-1420
Sample Date	Target for		2/2/2010	7/15/2010	6/2/2011	2/2/2010	7/14/2010	6/1/2011	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	2.05	3.9	4.08	2.57	1.5	5.82	3.14	4.7	4.4
Dissolved Oxygen (mg/L)	-	-	5.42	1.5	0.7	6.41	3	2.74	5.56	1.6	0.45
ORP (mv)	-	-	191	-128	112	144	-140	-52	136	-131	-45
pH (pH units)	-	-	6.83	7.07	6.55	6.87	7.14	6.61	6.58	7.03	6.62
Temperature (Deg C)	-	-	11.7	20.5	13.2	10.5	19.6	10.1	10.8	23.7	13.8
Turbidity (NTU)	-	-	-	741	248	956	228	98.6	-	328	68.9
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	**0.001 J**	< 0.005	-	**0.001 J**	< 0.005	-	**0.001 J**	< 0.005	-
Arsenic, Total	-	0.01	**0.002 J**	**0.014** [B]	-	**0.001 J**	**0.013** [B]	-	**0.002**	**0.015** [B]	-
Barium, Total	-	2	**0.144**	**0.238**	-	**0.13**	**0.211**	-	**0.127**	**0.142**	-
Beryllium, Total	-	0.004	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Cadmium, Total	-	0.005	< 0.0005	**0.0009**	-	< 0.0005	< 0.0005	-	< 0.0005	**0.0018**	-
Chromium, Total	-	0.1	**0.003 J**	**0.011**	-	**0.003 J**	**0.012**	-	**0.004 J**	**0.012**	-
Cobalt, Total	-	-	**0.003 J**	**0.00537**	-	**0.002 J**	< 0.005	-	**0.005 J**	< 0.005	-
Copper, Total	-	1.3	**0.015**	**0.011**	-	**0.002 J**	**0.004**	-	**0.006**	**0.004**	-
Cyanide, Total	-	0.2	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Lead, Total	-	0.015	**0.003 J**	**0.003 J**	-	**0.002 J**	**0.002 J**	-	**0.003**	**0.002 J**	-
Manganese, Total	-	-	**1.15**	**1.65**	-	**1.2**	**1.95**	-	**0.956**	**1.76**	-
Mercury, Total	-	0.002	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-
Nickel, Total	-	-	**0.007**	**0.015**	-	**0.004 J**	**0.017**	-	**0.01**	**0.021**	-
Selenium, Total	-	0.05	**0.001 J**	**0.002 J**	-	**0.001 J**	**0.002 J**	-	**0.001 J**	< 0.005	-
Silver, Total	-	-	< 0.0005	< 0.0005	-	< 0.0005	**0.0009**	-	< 0.0005	< 0.0005	-
Thallium, Total	-	0.002	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Vanadium, Total	-	-	**0.003 J**	**0.005**	-	**0.002 J**	**0.008**	-	**0.004 J**	**0.01**	-
Zinc, Total	-	-	**0.011**	**0.016**	-	**0.007**	**0.015**	-	**0.011**	**0.019**	-
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	-	0.0005	-	-	-	-	-	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1001	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003	MW-1003
Sample Name	Groundwater		1318-020210-0940	2308-071510-1210	4413-060211-1220	1318-020210-1145	2308-071410-1500	1318-060111-1905	1318-020310-1000	2308-071410-1755	4413-060211-1420
Sample Date	Target for		2/2/2010	7/15/2010	6/2/2011	2/2/2010	7/14/2010	6/1/2011	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Chloronaphthalene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Chlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Methylnaphthalene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
2-Methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-
2-Nitrophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
3&4-Methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
3-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-
4,6-Dinitro-2-methylphenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
4-Chloroaniline	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
4-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-
4-Nitrophenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-
Acenaphthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Acenaphthylene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Acetophenone	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Anthracene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Atrazine	-	0.003	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-
Benzaldehyde	-	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-
Benzo(a)anthracene	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002 J	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Biphenyl	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	**0.009** [B]	-	< 0.005	**0.008** [B]	-	< 0.005	**0.008** [B]	-
Butyl benzylphthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Caprolactam	-	-	< 0.01	**0.002 J**	-	< 0.01	**0.002 J**	-	< 0.01	**0.002 J**	-
Carbazole	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
Chrysene	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002 J	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Dibenzofuran	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Diethyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	**0.0003 J**	-	< 0.005	**0.0007 J**	-
Dimethyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Dimethylformamide	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Di-n-butylphthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Fluorene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Hexachlorobutadiene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-

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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1001	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003	MW-1003
Sample Name	Groundwater		1318-020210-0940	2308-071510-1210	4413-060211-1220	1318-020210-1145	2308-071410-1500	1318-060111-1905	1318-020310-1000	2308-071410-1755	4413-060211-1420
Sample Date	Target for		2/2/2010	7/15/2010	6/2/2011	2/2/2010	7/14/2010	6/1/2011	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Hexachloroethane	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Isophorone	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Naphthalene	0.043	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Nitrobenzene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
N-Nitrosodiphenylamine	-	-	R	< 0.005	-	R	< 0.005	-	R	< 0.005	-
Pentachlorophenol	-	0.001	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
Phenanthrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Phenol	-	-	< 0.005	R	-	< 0.005	R	-	< 0.005	R	-
Pyrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	0.051	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	2.2	0.6	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	1500	-	**0.002 J**	< 0.01	< 0.01	**0.001 J**	< 0.01	< 0.01	**0.001 J**	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	**0.003 J**	< 0.01	< 0.01	**0.002 J**	< 0.01	< 0.01	**0.002 J**	< 0.01	< 0.01
Acetone	15000	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	0.011	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.0063	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002 J	< 0.002 J	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002	< 0.002 J
Carbon disulfide	0.77	-	**0.0004 J**	< 0.005	< 0.005	**0.0006 J**	< 0.005	< 0.005	**0.001 J**	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.31	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	14	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0055	0.08000001	**0.001**	< 0.001	< 0.001	**0.002**	< 0.001	< 0.001	**0.0008 J**	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	0.68	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J
Ethylbenzene	0.028	0.7	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	0.78	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.27	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	3	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	2	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1001	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003	MW-1003
Sample Name	Groundwater		1318-020210-0940	2308-071510-1210	4413-060211-1220	1318-020210-1145	2308-071410-1500	1318-060111-1905	1318-020310-1000	2308-071410-1755	4413-060211-1420
Sample Date	Target for		2/2/2010	7/15/2010	6/2/2011	2/2/2010	7/14/2010	6/1/2011	2/3/2010	7/14/2010	6/2/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.042	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	480	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005
Toluene	14	1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0036	0.005	**0.001 J**	**0.0003 J**	< 0.001	**0.001 J**	< 0.001	< 0.001	**0.0005 J**	< 0.001	< 0.001
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.0033	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1004	MW-1004	MW-1004	MW-1004	MW-1005	MW-1005	MW-1005	MW-1006	MW-1006
Sample Name	Groundwater		1318-020310-1200	2308-071310-1730	2308-071310-0001	4413-060111-1720	0938-020410-0920	2308-071310-1530	4413-060111-1505	0938-020310-1455	0938-071410-1630
Sample Date	Target for		2/3/2010	7/13/2010	7/13/2010	6/1/2011	2/4/2010	7/13/2010	6/1/2011	2/3/2010	7/14/2010
Sample Type	Vapor Intrusion		N	N	FD	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Field Parameters											
Conductivity (mS/cm)	-	-	3.47	4.9	-	5.07	1.023	1.2	0.982	1.256	1.6
Dissolved Oxygen (mg/L)	-	-	3	1.2	-	0.31	0.55	4.8	0.42	0.58	6.7
ORP (mv)	-	-	-68	-157	-	-90	-89	-111	-89	-91	-105
pH (pH units)	-	-	6.71	8.93	-	6.72	10.31	8.92	6.95	10.63	6.71
Temperature (Deg C)	-	-	11.5	20	-	13.2	10.6	20.2	14.2	9.6	19.8
Turbidity (NTU)	-	-	304	236	-	298	841	328	628	1011	468
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Arsenic, Total	-	0.01	**0.006**	**0.016** [B]	**0.018** [B]	-	**0.003**	**0.006**	-	**0.003**	**0.012** [B]
Barium, Total	-	2	**0.146**	**0.263**	**0.273**	-	**0.066**	**0.075**	-	**0.082**	**0.104**
Beryllium, Total	-	0.004	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Cadmium, Total	-	0.005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	-	**0.0004 J**	< 0.0005
Chromium, Total	-	0.1	< 0.005	**0.008**	**0.01**	-	**0.011**	**0.009**	-	**0.018**	**0.008**
Cobalt, Total	-	-	**0.004 J**	< 0.005	< 0.005	-	**0.003 J**	< 0.005	-	**0.005**	< 0.005
Copper, Total	-	1.3	**0.003 J**	**0.002 J**	**0.003 J**	-	**0.007**	**0.003 J**	-	**0.01**	**0.002 J**
Cyanide, Total	-	0.2	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Lead, Total	-	0.015	**0.004**	< 0.003	**0.003 J**	-	**0.002 J**	**0.001 J**	-	**0.004**	**0.001 J**
Manganese, Total	-	-	**1.94**	**2.25**	**2.38**	-	**0.235**	**0.146**	-	**1.1**	**1.07**
Mercury, Total	-	0.002	< 0.0001	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001
Nickel, Total	-	-	**0.011**	**0.008**	**0.011**	-	**0.009**	**0.006**	-	**0.013**	**0.009**
Selenium, Total	-	0.05	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Silver, Total	-	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005
Thallium, Total	-	0.002	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Vanadium, Total	-	-	< 0.004	**0.004**	**0.005**	-	**0.007**	**0.008**	-	**0.009**	**0.006**
Zinc, Total	-	-	< 0.005	**0.004 J**	**0.007**	-	**0.019**	**0.009**	-	**0.03**	**0.01**
PCBs (mg/L)											
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	-	-	-	-	-
Total PCBs	-	0.0005	-	-	-	-	-	-	-	-	-
PCB Homologs (mg/L)											
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1004	MW-1004	MW-1004	MW-1004	MW-1005	MW-1005	MW-1005	MW-1006	MW-1006
Sample Name	Groundwater		1318-020310-1200	2308-071310-1730	2308-071310-0001	4413-060111-1720	0938-020410-0920	2308-071310-1530	4413-060111-1505	0938-020310-1455	0938-071410-1630
Sample Date	Target for		2/3/2010	7/13/2010	7/13/2010	6/1/2011	2/4/2010	7/13/2010	6/1/2011	2/3/2010	7/14/2010
Sample Type	Vapor Intrusion		N	N	FD	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02 J	< 0.02 J	-	< 0.02 J	< 0.02 J	-	< 0.02 J	< 0.02
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Chloronaphthalene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Chlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Methylnaphthalene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
2-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02
2-Nitrophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
3&4-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
3-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02
4,6-Dinitro-2-methylphenol	-	-	< 0.02	< 0.02 J	< 0.02 J	-	< 0.02	< 0.02 J	-	< 0.02	< 0.02
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
4-Chloroaniline	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
4-Nitroaniline	-	-	< 0.02	< 0.02 J	< 0.02 J	-	< 0.02	< 0.02 J	-	< 0.02	< 0.02
4-Nitrophenol	-	-	< 0.02 J	< 0.02	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02
Acenaphthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Acenaphthylene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Acetophenone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	**0.0003 J**	< 0.005
Anthracene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Atrazine	-	0.003	< 0.005	< 0.005 J	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005
Benzaldehyde	-	-	< 0.005	< 0.005 J	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J
Benzo(a)anthracene	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Biphenyl	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	**0.007** [B]
Butyl benzylphthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Caprolactam	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	**0.001 J**
Carbazole	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
Chrysene	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Dibenzofuran	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Diethyl phthalate	-	-	**0.0005 J**	**0.0006 J**	**0.0003 J**	-	**0.0003 J**	< 0.005	-	**0.0004 J**	**0.0002 J**
Dimethyl phthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Dimethylformamide	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Di-n-butylphthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Fluorene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Hexachlorobutadiene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005

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SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1004	MW-1004	MW-1004	MW-1004	MW-1005	MW-1005	MW-1005	MW-1006	MW-1006
Sample Name	Groundwater		1318-020310-1200	2308-071310-1730	2308-071310-0001	4413-060111-1720	0938-020410-0920	2308-071310-1530	4413-060111-1505	0938-020310-1455	0938-071410-1630
Sample Date	Target for		2/3/2010	7/13/2010	7/13/2010	6/1/2011	2/4/2010	7/13/2010	6/1/2011	2/3/2010	7/14/2010
Sample Type	Vapor Intrusion		N	N	FD	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Hexachloroethane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Isophorone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Naphthalene	0.043	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Nitrobenzene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
N-Nitrosodiphenylamine	-	-	R	< 0.005	< 0.005	-	R	< 0.005	-	R	< 0.005
Pentachlorophenol	-	0.001	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
Phenanthrene	-	-	**0.0003 J**	< 0.002	< 0.002	-	< 0.002	< 0.002	-	**0.0002 J**	< 0.002
Phenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	R
Pyrene	-	-	**0.0002 J**	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	0.051	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	2.2	0.6	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.003 J**	< 0.01
Acetone	15000	-	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	0.011	0.005	**0.0002 J**	< 0.001	< 0.001	< 0.001	**0.0001 J**	< 0.001	< 0.001	**0.0002 J**	< 0.001
Bromodichloromethane	0.0063	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001	< 0.001	**0.0002 J**	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001 J	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002
Carbon disulfide	0.77	-	**0.0003 J**	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	**0.0003 J**	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.31	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	14	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0055	0.08000001	**0.001**	< 0.001	< 0.001	< 0.001	**0.002**	**0.0002 J**	< 0.001	**0.002**	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	0.68	-	< 0.001 J	< 0.001 J	< 0.001 J	< 0.001	< 0.001 J	< 0.001 J	< 0.001	< 0.001 J	< 0.001 J
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
Ethylbenzene	0.028	0.7	**0.0001 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0001 J**	< 0.001
Isopropylbenzene	0.78	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.27	-	**0.0004 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001
Methyl acetate	-	-	**0.003 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	3	0.005	**0.0009 J**	< 0.005	< 0.005	< 0.005	**0.0006 J**	< 0.005	< 0.005	**0.0009 J**	< 0.005
n-Propylbenzene	2	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27
Location Name	Industrial		MW-1004	MW-1004	MW-1004	MW-1004	MW-1005	MW-1005	MW-1005	MW-1006	MW-1006
Sample Name	Groundwater		1318-020310-1200	2308-071310-1730	2308-071310-0001	4413-060111-1720	0938-020410-0920	2308-071310-1530	4413-060111-1505	0938-020310-1455	0938-071410-1630
Sample Date	Target for		2/3/2010	7/13/2010	7/13/2010	6/1/2011	2/4/2010	7/13/2010	6/1/2011	2/3/2010	7/14/2010
Sample Type	Vapor Intrusion		N	N	FD	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-	-	-
o-Xylene	0.38	-	**0.0001 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.042	0.005	**0.0002 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0004 J**	< 0.001
Tetrahydrofuran	480	-	< 0.005	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005 J
Toluene	14	1	**0.0002 J**	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001	< 0.001	**0.0003 J**	< 0.001
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0036	0.005	**0.001**	< 0.001	< 0.001	< 0.001	**0.0004 J**	< 0.001	< 0.001	**0.0007 J**	< 0.001
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.0033	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-28
Location Name	Industrial		MW-1007	MW-1007	MW-1008	MW-1008	MW-1009	MW-1009	MW-1022
Sample Name	Groundwater		1318-020110-1410	0938-071310-1210	0938-020110-1535	2308-071410-1255	1318-020410-0830	2308-071510-1000	4289-080411-1240
Sample Date	Target for		2/1/2010	7/13/2010	2/1/2010	7/14/2010	2/4/2010	7/15/2010	8/4/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-
Field Parameters									
Conductivity (mS/cm)	-	-	1.02	1.2	1.08	1.4	-	6.6	-
Dissolved Oxygen (mg/L)	-	-	8.9	6.9	9.9	1.6	-	1.2	-
ORP (mv)	-	-	196	-105	33	-150	-	-137	-
pH (pH units)	-	-	7.16	6.9	9.58	7.28	-	6.73	-
Temperature (Deg C)	-	-	10.6	17.9	7.8	19.6	-	26	-
Turbidity (NTU)	-	-	479	88	649	241	-	0	-
Inorganic Compounds (mg/L)									
Antimony, Total	-	0.006	**0.001 J**	< 0.005	**0.003 J**	< 0.005	< 0.005	< 0.005	-
Arsenic, Total	-	0.01	**0.001 J**	**0.006**	**0.002**	**0.011** [B]	**0.005**	**0.019** [B]	-
Barium, Total	-	2	**0.059**	**0.063**	**0.088**	**0.083**	**0.175**	**0.383**	-
Beryllium, Total	-	0.004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
Cadmium, Total	-	0.005	< 0.0005	< 0.0005	< 0.0005	**0.0026**	< 0.0005	**0.0002 J**	-
Chromium, Total	-	0.1	**0.003 J**	**0.006**	**0.006**	**0.004 J**	< 0.005	**0.014**	-
Cobalt, Total	-	-	**0.001 J**	< 0.005	**0.002 J**	< 0.005	**0.016**	**0.0122**	-
Copper, Total	-	1.3	**0.002 J**	**0.003 J**	**0.005**	< 0.004	**0.057**	**0.011**	-
Cyanide, Total	-	0.2	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Lead, Total	-	0.015	**0.001 J**	**0.001 J**	**0.004**	< 0.003	**0.012**	**0.006**	-
Manganese, Total	-	-	**0.246**	**0.419**	**0.474**	**0.671**	**2.51**	**3.37**	-
Mercury, Total	-	0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-
Nickel, Total	-	-	**0.003 J**	**0.007**	**0.005 J**	**0.006**	**0.039**	**0.035**	-
Selenium, Total	-	0.05	**0.001 J**	< 0.005	**0.001 J**	**0.002 J**	< 0.005	**0.005 J**	-
Silver, Total	-	-	< 0.0005	< 0.0005	**0.0001 J**	< 0.0005	< 0.0005	**0.0009**	-
Thallium, Total	-	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
Vanadium, Total	-	-	**0.001 J**	**0.006**	**0.005**	**0.002 J**	**0.025**	**0.007**	-
Zinc, Total	-	-	**0.021**	**0.007**	**0.015**	**0.005**	**0.091**	**0.024**	-
PCBs (mg/L)									
Aroclor-1016 (PCB-1016)	-	-	-	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	-	-	-	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	-	-	-	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	-	-	-	-	-	-	-	-	-
Aroclor-1248 (PCB-1248)	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	-	-	-	-	-	-	-	-	-
Total PCBs	-	0.0005	-	-	-	-	-	-	-
PCB Homologs (mg/L)									
Monochlorobiphenyls C12 H9 Cl	-	-	-	-	-	-	-	-	-
Dichlorobiphenyls C12 H8 Cl2	-	-	-	-	-	-	-	-	-
Trichlorobiphenyl	-	-	-	-	-	-	-	-	-
Tetrachlorobiphenyl	-	-	-	-	-	-	-	-	-
Pentachlorobiphenyl	-	-	-	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	-	-	-	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	-	-	-	-	-	-	-	-	-
Octachlorobiphenyl	-	-	-	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	-	-	-	-	-	-	-	-	-
(PCB 209) Decachlorobiphenyl	-	-	-	-	-	-	-	-	-

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
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Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-28
Location Name	Industrial		MW-1007	MW-1007	MW-1008	MW-1008	MW-1009	MW-1009	MW-1022
Sample Name	Groundwater		1318-020110-1410	0938-071310-1210	0938-020110-1535	2308-071410-1255	1318-020410-0830	2308-071510-1000	4289-080411-1240
Sample Date	Target for		2/1/2010	7/13/2010	2/1/2010	7/14/2010	2/4/2010	7/15/2010	8/4/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-
Semi-Volatile Organic Compounds (mg/L)									
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02	< 0.02 J	< 0.02	-
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Chloronaphthalene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Chlorophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Methylnaphthalene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
2-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
2-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	-
2-Nitrophenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
3&4-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-
3-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	-
4,6-Dinitro-2-methylphenol	-	-	< 0.02 J	< 0.02 J	< 0.02 J	< 0.02	< 0.02	< 0.02	-
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
4-Chloroaniline	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
4-Nitroaniline	-	-	< 0.02	< 0.02 J	< 0.02	< 0.02	< 0.02	< 0.02	-
4-Nitrophenol	-	-	< 0.02 J	< 0.02	< 0.02 J	< 0.02	< 0.02 J	< 0.02	-
Acenaphthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Acenaphthylene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Acetophenone	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Anthracene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Atrazine	-	0.003	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005 J	-
Benzaldehyde	-	-	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005 J	-
Benzo(a)anthracene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 J	-
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Biphenyl	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	< 0.005	< 0.005	**0.008** [B]	< 0.005	< 0.005	-
Butyl benzylphthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Caprolactam	-	-	< 0.01	< 0.01	< 0.01	**0.001 J**	< 0.01	**0.002 J**	-
Carbazole	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-
Chrysene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 J	-
Dibenzofuran	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Diethyl phthalate	-	-	< 0.005	**0.0002 J**	< 0.005	< 0.005	**0.0007 J**	< 0.005	-
Dimethyl phthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Dimethylformamide	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Di-n-butylphthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Fluoranthene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Fluorene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Hexachlorobutadiene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-

TABLE 8
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TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-28
Location Name	Industrial		MW-1007	MW-1007	MW-1008	MW-1008	MW-1009	MW-1009	MW-1022
Sample Name	Groundwater		1318-020110-1410	0938-071310-1210	0938-020110-1535	2308-071410-1255	1318-020410-0830	2308-071510-1000	4289-080411-1240
Sample Date	Target for		2/1/2010	7/13/2010	2/1/2010	7/14/2010	2/4/2010	7/15/2010	8/4/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Hexachloroethane	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Isophorone	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
Naphthalene	0.043	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Nitrobenzene	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-
N-Nitrosodiphenylamine	-	-	R	< 0.005	R	< 0.005	R	< 0.005	-
Pentachlorophenol	-	0.001	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	-
Phenanthrene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Phenol	-	-	< 0.005	< 0.005	< 0.005	R	< 0.005	R	-
Pyrene	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	-
Volatile Organic Compounds (mg/L)									
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	0.051	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	2.2	0.6	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	1500	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	410	-	< 0.01	< 0.01	< 0.01	< 0.01	**0.003 J**	< 0.01	< 0.01
Acetone	15000	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01	< 0.01 J
Benzene	0.011	0.005	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001	< 0.001
Bromodichloromethane	0.0063	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001 J	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002 J	< 0.002
Carbon disulfide	0.77	-	**0.0004 J**	< 0.005	< 0.005	**0.0003 J**	**0.0003 J**	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001
Chlorobenzene	0.31	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	14	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J
Chloroform (Trichloromethane)	0.0055	0.08000001	**0.0003 J**	< 0.001	**0.0008 J**	**0.0004 J**	**0.0007 J**	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.24	0.07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	0.68	-	< 0.001	< 0.001 J	< 0.001	< 0.001 J	< 0.001 J	< 0.001	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.028	0.7	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	0.78	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.27	-	< 0.001	< 0.001	< 0.001	< 0.001	**0.0003 J**	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	3	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	3	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	2	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

TABLE 8
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	Calculated		AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-27	AOI-28
Location Name	Industrial		MW-1007	MW-1007	MW-1008	MW-1008	MW-1009	MW-1009	MW-1022
Sample Name	Groundwater		1318-020110-1410	0938-071310-1210	0938-020110-1535	2308-071410-1255	1318-020410-0830	2308-071510-1000	4289-080411-1240
Sample Date	Target for		2/1/2010	7/13/2010	2/1/2010	7/14/2010	2/4/2010	7/15/2010	8/4/2011
Sample Type	Vapor Intrusion		N	N	N	N	N	N	N
Sample Depth (bgs)	Screening	MCL	-	-	-	-	-	-	-
o-Xylene	0.38	-	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.042	0.005	< 0.001	**0.0002 J**	< 0.001	**0.0005 J**	< 0.001	< 0.001	**0.00164**
Tetrahydrofuran	480	-	< 0.005	< 0.005 J	< 0.005	< 0.005 J	< 0.005	< 0.005	R
Toluene	14	1	< 0.001	< 0.001	< 0.001	< 0.001	**0.0005 J**	< 0.001	< 0.001
trans-1,2-Dichloroethene	0.24	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0036	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.00593** [AB]
Trichlorofluoromethane (CFC-11)	0.11	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trifluorotrichloroethane (Freon 113)	0.92	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.0033	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Calculated Industrial Groundwater Target for Vapor Intrusion Screening (EPA)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate

TABLE 9
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	Residential VISLs	SV-1	SV-1A	SV-1	SV-1	SV-2	SV-2A	SV-2	SV-2
Sample Name	Target	1318-033110-1305	1318-022411-1322	1318-060211-1245	1318-060211-1245A	1318-033110-1255	1318-022411-1252	1318-060211-1400	1318-060211-1400A
Sample Date	Sub-Slab and	3/31/2010	2/24/2011	6/2/2011	6/2/2011	3/31/2010	2/24/2011	6/2/2011	6/2/2011
Sample Type	Exterior Soil Gas	N	N	N	FR	N	N	N	FR
Sample Depth (bgs)		1.5 - 2 (ft)	0.7 - 1.2 (ft)	1.5 - 2 (ft)	1.5 - 2 (ft)	1.5 - 2 (ft)	0.7 - 1.2 (ft)	1.5 - 2 (ft)	1.5 - 2 (ft)
Volatile Organic Compounds (ug/m3)									
1,1,1-Trichloroethane	52000	< 4.4	< 0.44	< 0.44	< 11	< 4.4	< 0.44	**0.23 J**	< 4.4
1,1,2,2-Tetrachloroethane	0.42	< 5.5	< 0.55	< 0.55	< 14	< 5.5	< 0.55	< 0.55	< 5.5
1,1,2-Trichloroethane	1.5	< 4.4	< 0.44	< 0.44	< 11	< 4.4	< 0.44	< 0.44	< 4.4
1,1-Dichloroethane	15	< 3.2	< 0.32	< 0.32	< 8	< 3.2	< 0.32	< 0.32	< 3.2
1,1-Dichloroethene	2100	< 3.2	< 0.32	< 0.32	< 7.9	< 3.2	< 0.32	< 0.32	< 3.2
1,2,4-Trichlorobenzene	21	< 30	< 3 J	< 3	< 47	< 30	< 3 J	< 3	< 19
1,2-Dibromoethane (Ethylene Dibromide)	0.041	< 6.1	< 0.61	< 0.61	< 15	< 6.1	< 0.61	< 0.61	< 6.2
1,2-Dichlorobenzene	2100	< 4.8	< 0.48	< 0.48	< 12	< 4.8	< 0.48	**0.46 J**	< 4.8
1,2-Dichloroethane	0.94	< 3.2	< 0.32	< 0.32	< 8.1	< 3.2	< 0.32	**0.49**	< 3.2
1,2-Dichloropropane	2.4	< 3.7	< 0.37	< 0.37	< 9.2	< 3.7	< 0.37	< 0.37	< 3.7
1,3-Dichlorobenzene	-	< 4.8	**1.1**	**23**	**18**	< 4.8	**0.54**	**13**	**9**
1,4-Dichlorobenzene	2.2	< 4.8	**0.24 J**	**0.16 J**	< 12	< 4.8	< 0.48	**0.43 J**	< 4.8
2-Butanone (Methyl Ethyl Ketone)	52000	**3.8 J**	**4.1**	**4.1**	< 37	**5.3 J**	**3.8**	**5**	< 15
2-Hexanone	310	< 8.2	**0.78 J**	**0.86**	< 51	< 8.2	**0.18 J**	**1.4**	< 20
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	31000	< 8.2	**2.3**	**0.94**	< 51	< 8.2	**1.4**	**1.6**	< 20
Acetone	320000	**110**	**26**	**31**	**38**	**100**	**18**	**36**	**36**
Benzene	31	**0.93 J**	**9.6**	**1.1**	< 6.4	**0.99 J**	**7.7**	**1.2**	< 2.6
Bromodichloromethane	0.66	< 5.4	< 0.54	< 0.54	< 13	< 5.4	**0.87** [A]	**5.6** [A]	< 5.4
Bromoform	-	< 8.3	< 0.83	< 0.83	< 62	< 8.3	< 0.83	< 0.83	< 25
Bromomethane (Methyl Bromide)	52	< 3.1	< 0.31	< 0.31	< 7.8	< 3.1	< 0.31	**0.85**	< 3.1
Carbon disulfide	7300	**1.1 J**	**6.2**	**0.4 J**	< 6.2	**2.4 J**	**5.3**	**3.4**	< 2.5
Carbon tetrachloride	4.1	< 5	**0.26 J**	**0.11 J**	< 12	< 5	**0.19 J**	**0.62**	< 5
Chlorobenzene	520	< 3.7	< 0.37	**0.37**	< 9.2	< 3.7	< 0.37	**1.3**	< 3.7
Chloroethane	100000	< 2.1	**0.17 J**	**0.29**	< 5.3	< 2.1	**0.058 J**	**3.7**	< 2.1
Chloroform (Trichloromethane)	1.1	< 3.9	**0.1 J**	**0.83**	< 9.7	< 3.9	**12** [A]	**49** [A]	**30** [A]
Chloromethane (Methyl Chloride)	940	< 4.1	**0.23 J**	**1.1**	< 4.1	< 4.1	**0.27 J**	**3.9**	< 1.6
cis-1,2-Dichloroethene	-	< 3.2	< 0.32	< 0.32	< 7.9	< 3.2	< 0.32	< 0.32	< 3.2
cis-1,3-Dichloropropene	6.1	< 3.6	< 0.36	< 0.36	< 9.1	< 3.6	< 0.36	< 0.36	< 3.6
Cyclohexane	63000	< 6.9	**14**	**0.69**	< 6.9	**1.4 J**	**24**	**0.96**	< 2.8
Dibromochloromethane	0.9	< 6.8	< 0.68	< 0.68	< 17	< 6.8	< 0.68	**0.29 J**	< 6.8
Dichlorodifluoromethane (CFC-12)	1000	< 4	**2.2**	**2.1**	< 9.9	**2.6 J**	**1.9**	**3.7**	< 4
Ethylbenzene	97	**2 J**	**2**	**4.8**	< 8.7	**2.6 J**	**1.8**	**6.1**	**3.6**
m&p-Xylene	10000	**4.3**	**6.5**	**19**	< 17	**6.5**	**5.6**	**22**	**13**
Methyl Tert Butyl Ether	94	< 14	< 1.4	< 1.4	< 7.2	< 14	< 1.4	< 1.4	< 2.9
Methylene chloride	960	< 6.9	**1.9**	< 0.69	< 6.9	< 6.9	**5.6**	< 0.69	< 2.8
o-Xylene	10000	**1.3 J**	**2.3**	**8.7**	< 8.7	**2.1 J**	**2**	**9.6**	**6.5**
Styrene	10000	**1.4 J**	**0.47**	**0.33 J**	< 8.5	**2.2 J**	**0.22 J**	**0.36**	< 3.4
Tetrachloroethene	94	< 5.4	**0.39 J**	**0.3 J**	< 14	< 5.4	**0.39 J**	**3.1**	< 5.4
Tetrahydrofuran	21000	**1.4 J**	< 1.2	**0.59 J**	< 5.9	**2.2 J**	< 1.2	**0.8 J**	< 2.4
Toluene	520000	**17**	**15**	**12**	**14**	**17**	**12**	**15**	**7.5**
trans-1,2-Dichloroethene	630	< 3.2	< 0.32	< 0.32	< 7.9	< 3.2	< 0.32	< 0.32	< 3.2
trans-1,3-Dichloropropene	6.1	< 3.6	< 0.36	< 0.36	< 9.1	< 3.6	< 0.36	< 0.36	< 3.6
Trichloroethene	4.3	< 2.1	< 0.21	< 0.21	< 11	< 2.1	< 0.21	**0.11 J**	< 4.3
Trichlorofluoromethane (CFC-11)	7300	**0.79 J**	**1.2**	**3.7**	< 11	**1.6 J**	**1.5**	**4.7**	< 4.5
Trifluorotrichloroethane (Freon 113)	310000	< 6.1	**0.48 J**	**1.1**	< 15	< 6.1	**0.46 J**	**1.5**	< 6.1
Vinyl chloride	1.6	< 2	**0.16 J**	**0.087 J**	< 5.1	< 2	< 0.2	**0.23**	< 2

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the calculated Residential VISLs for Target Sub-Slab and Exterior Soil Gas Concentrations (May 2012 RSLs), see Table 6 and Attachment A of Appendix E.
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N - Normal, FR - Field Replicate

TABLE 9
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	Residential VISLs	SV-3A	SV-3B	SV-3B	SV-4	SV-4	SV-4	SV-4
Sample Name	Target	1318-022211-1344	1318-060211-1515	1318-060211-1515A	1318-033110-1230	1318-022211-1500	1318-060211-1545	1318-060211-1545A
Sample Date	Sub-Slab and	2/22/2011	6/2/2011	6/2/2011	3/31/2010	2/22/2011	6/2/2011	6/2/2011
Sample Type	Exterior Soil Gas	N	N	FR	N	N	N	FR
Sample Depth (bgs)		0.7 - 1.2 (ft)	0.7 - 1.2 (ft)	0.7 - 1.2 (ft)	1.5 - 2 (ft)	1.5 - 2 (ft)	1.5 - 2 (ft)	1.5 - 2 (ft)
Volatile Organic Compounds (ug/m3)								
1,1,1-Trichloroethane	52000	**0.17 J**	**0.87**	< 1.1	< 4.4	< 0.44	**0.14 J**	< 1.1
1,1,2,2-Tetrachloroethane	0.42	< 0.55	< 0.55	< 1.4	< 5.5	< 0.55	< 0.55	< 1.4
1,1,2-Trichloroethane	1.5	< 0.44	< 0.44	< 1.1	< 4.4	< 0.44	< 0.44	< 1.1
1,1-Dichloroethane	15	< 0.32	**0.1 J**	< 0.8	< 3.2	< 0.32	< 0.32	< 0.8
1,1-Dichloroethene	2100	< 0.32	< 0.32	< 0.79	< 3.2	< 0.32	< 0.32	< 0.79
1,2,4-Trichlorobenzene	21	< 3 J	< 3	< 4.7	< 30	< 3 J	< 3	< 4.7
1,2-Dibromoethane (Ethylene Dibromide)	0.041	< 0.61	< 0.61	< 1.5	< 6.1	< 0.61	< 0.61	< 1.5
1,2-Dichlorobenzene	2100	< 0.48	< 0.48	< 1.2	< 4.8	< 0.48	< 0.48	< 1.2
1,2-Dichloroethane	0.94	< 0.32	< 0.32	< 0.81	< 3.2	< 0.32	< 0.32	< 0.81
1,2-Dichloropropane	2.4	< 0.37	< 0.37	< 0.92	< 3.7	< 0.37	< 0.37	< 0.92
1,3-Dichlorobenzene	-	**0.66**	**10**	**6.6**	< 4.8	**0.41 J**	**17**	**11**
1,4-Dichlorobenzene	2.2	**0.25 J**	< 0.48	< 1.2	< 4.8	< 0.48	**0.25 J**	< 1.2
2-Butanone (Methyl Ethyl Ketone)	52000	**2.7**	**21**	**16**	**6.5 J**	**1.1 J**	**4.1**	< 3.7
2-Hexanone	310	**0.24 J**	**1.1**	< 5.1	< 8.2	**0.2 J**	**1.3**	< 5.1
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	31000	**1**	**0.74 J**	< 5.1	< 8.2	**0.29 J**	**1.3**	< 5.1
Acetone	320000	**18**	**67**	**88**	**120**	**6.9**	**29**	**11**
Benzene	31	**4.8**	**3.5**	**1.9**	**0.86 J**	**1.9**	**1**	< 0.64
Bromodichloromethane	0.66	< 0.54	< 0.54	< 1.3	< 5.4	< 0.54	< 0.54	< 1.3
Bromoform	-	< 0.83	< 0.83	< 6.2	< 8.3	< 0.83	< 0.83	< 6.2
Bromomethane (Methyl Bromide)	52	< 0.31	**0.12 J**	< 0.78	< 3.1	< 0.31	**0.1 J**	< 0.78
Carbon disulfide	7300	**6.5**	**18**	**12**	**1.7 J**	**0.087 J**	**0.37 J**	< 0.62
Carbon tetrachloride	4.1	**0.2 J**	**0.27 J**	< 1.2	< 5	**0.29 J**	**0.31 J**	< 1.2
Chlorobenzene	520	< 0.37	< 0.37	< 0.92	< 3.7	< 0.37	**0.24 J**	< 0.92
Chloroethane	100000	**0.37**	**1.2**	< 0.53	< 2.1	**0.05 J**	**0.13 J**	< 0.53
Chloroform (Trichloromethane)	1.1	**0.088 J**	**1.7** [A]	**1.3** [A]	< 3.9	**0.12 J**	**0.19 J**	< 0.97
Chloromethane (Methyl Chloride)	940	**0.29 J**	**1.4**	< 0.41	< 4.1	**0.35 J**	**0.62**	**3.3**
cis-1,2-Dichloroethene	-	< 0.32	< 0.32	< 0.79	< 3.2	< 0.32	< 0.32	< 0.79
cis-1,3-Dichloropropene	6.1	< 0.36	< 0.36	< 0.91	< 3.6	< 0.36	< 0.36	< 0.91
Cyclohexane	63000	**6.9**	**3.8**	**3.2**	< 6.9	**0.41 J**	**0.55 J**	< 0.69
Dibromochloromethane	0.9	< 0.68	< 0.68	< 1.7	< 6.8	< 0.68	< 0.68	< 1.7
Dichlorodifluoromethane (CFC-12)	1000	**2.5**	**3.6**	**2.4**	**2.7 J**	**2.4**	**2.6**	**1.9**
Ethylbenzene	97	**1.7**	**4.8**	**2.8**	**3.1 J**	**1.2**	**4.3**	**2.6**
m&p-Xylene	10000	**4.8**	**12**	**6.9**	**6.1**	**4**	**16**	**10**
Methyl Tert Butyl Ether	94	< 1.4	< 1.4	< 0.72	< 14	< 1.4	< 1.4	< 0.72
Methylene chloride	960	< 0.69	< 0.69	< 0.69	< 6.9	< 0.69	< 0.69	< 0.69
o-Xylene	10000	**1.7**	**5.6**	**3.5**	**1.4 J**	**1.4**	**7.4**	**4.3**
Styrene	10000	**0.81**	**0.32 J**	< 0.85	< 3.4	**0.77**	**0.31 J**	< 0.85
Tetrachloroethene	94	< 0.54	**2.5**	**3**	< 5.4	< 0.54	**2.2**	**2**
Tetrahydrofuran	21000	< 1.2	**0.83 J**	< 0.59	**2.3 J**	< 1.2	**0.71 J**	< 0.59
Toluene	520000	**9.8**	**14**	**8.7**	**18**	**6.8**	**8.3**	**4.9**
trans-1,2-Dichloroethene	630	**0.71**	< 0.32	< 0.79	< 3.2	**2.1**	< 0.32	< 0.79
trans-1,3-Dichloropropene	6.1	< 0.36	< 0.36	< 0.91	< 3.6	< 0.36	< 0.36	< 0.91
Trichloroethene	4.3	< 0.21	**0.097 J**	< 1.1	< 2.1	< 0.21	**0.081 J**	< 1.1
Trichlorofluoromethane (CFC-11)	7300	**1.2**	**6.2**	**4.3**	**1.6 J**	**1.6**	**2.6**	**1.8**
Trifluorotrichloroethane (Freon 113)	310000	**0.48 J**	**2.1**	**1.5**	< 6.1	**0.53 J**	**0.92**	< 1.5
Vinyl chloride	1.6	< 0.2	< 0.2	< 0.51	< 2	< 0.2	**0.12 J**	< 0.51

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the calculated Residential VISLs for Target Sub-Slab and Exterior Soil Gas Concentrations (May 2012 RSLs), see Table 6 and Attachment A of Appendix E.
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N - Normal, FR - Field Replicate

TABLE 10
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS - AOI-28
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name		SV-5	SV-6	SV-7
Sample Name	Commercial VISLs	4413-060311-1330	4413-060311-1430	4413-060311-1440
Sample Date	Target	6/3/2011	6/3/2011	6/3/2011
Sample Type	Sub-Slab and Exterior	N	N	N
Sample Depth (bgs)	Soil Gas	0.4 - 0.5 (ft)	0.5 - 0.6 (ft)	0.4 - 0.6 (ft)
Volatile Organic Compounds (ug/m3)				
1,1,1-Trichloroethane	22000	< 2100	< 2000	**11**
1,1,2,2-Tetrachloroethane	2.1	< 2600	< 2500	< 1.4
1,1,2-Trichloroethane	0.88	< 2100	< 2000	< 1.1
1,1-Dichloroethane	77	< 1500	< 1500	< 0.81
1,1-Dichloroethene	880	< 1500	< 1500	< 0.79
1,2,4-Trichlorobenzene	8.8	< 14000	< 13000	< 7.4
1,2-Dibromoethane (Ethylene Dibromide)	0.2	< 2900	< 2800	< 1.5
1,2-Dichlorobenzene	880	< 2300	< 2200	< 1.2
1,2-Dichloroethane	4.7	< 1500	< 1500	< 0.81
1,2-Dichloropropane	12	< 1800	< 1700	< 0.92
1,3-Dichlorobenzene	-	< 2300	< 2200	< 1.2
1,4-Dichlorobenzene	11	< 2300	< 2200	< 1.2
2-Butanone (Methyl Ethyl Ketone)	22000	< 5600	< 5300	**16**
2-Hexanone	130	< 3900	< 3800	< 2
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	13000	< 3900	< 3800	**0.57 J**
Acetone	140000	< 23000	< 22000	**36**
Benzene	16	< 1200	< 1200	**1.9**
Bromodichloromethane	3.3	< 2500	< 2500	< 1.3
Bromoform	-	< 3900	< 3800	< 2.1
Bromomethane (Methyl Bromide)	22	< 1500	< 1400	< 0.78
Carbon disulfide	3100	< 3000	< 2900	**87**
Carbon tetrachloride	20	< 2400	< 2300	**0.46 J**
Chlorobenzene	220	< 1700	< 1700	< 0.92
Chloroethane	44000	< 1000	< 980	< 0.53
Chloroform (Trichloromethane)	5.3	< 1900	< 1800	**3.8**
Chloromethane (Methyl Chloride)	390	< 2000	< 1900	**0.35 J**
cis-1,2-Dichloroethene	-	< 1500	< 1500	< 0.79
cis-1,3-Dichloropropene	31	< 1700	< 1700	< 0.91
Cyclohexane	26000	< 3300	< 3200	**2.9**
Dibromochloromethane	4.5	< 3200	< 3200	< 1.7
Dichlorodifluoromethane (CFC-12)	440	< 1900	< 1800	**3.6**
Ethylbenzene	49	< 1700	< 1600	**1.5**
m&p-Xylene	440	< 1700	< 1600	**5.6**
Methyl Tert Butyl Ether	470	< 6900	< 6500	< 3.6
Methylene chloride	2600	< 3300	< 3200	< 1.7
o-Xylene	440	< 1700	< 1600	**2.6**
Styrene	4400	< 1600	< 1600	< 0.85
Tetrachloroethene	180	**240000** [A]	**310000** [A]	**250** [A]
Tetrahydrofuran	8800	< 5600	< 5300	**38**
Toluene	22000	< 1400	< 1400	**13**
trans-1,2-Dichloroethene	260	< 1500	< 1500	< 0.79
trans-1,3-Dichloropropene	31	< 1700	< 1700	< 0.91
Trichloroethene	8.8	**64000** [A]	**47000** [A]	**130** [A]
Trichlorofluoromethane (CFC-11)	3100	< 2100	< 2100	**16**
Trifluorotrichloroethane (Freon 113)	130000	< 2900	< 2800	**0.84 J**
Vinyl chloride	28	< 970	< 950	< 0.51

Notes and Abbreviations:

1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the calculated Commercial VISLs for Target Sub-Slab and Exterior Soil Gas Concentrations (May 2012 RSLs), see Attachment A of Appendix E.
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** are detected. Results in **red** exceed one or more criteria.
4. Sample type codes: N - Normal

TABLE 11
SUMMARY OF INDOOR AIR ANALYTICAL RESULTS - AOI-28
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name		IA-28-01	IA-28-02
Sample Name		1318-072511-1057	1318-072511-1059
Sample Date	Industrial	7/25/2011	7/25/2011
Sample Type	Air	N	N
Volatile Organic Compounds (ug/m3)			
1,1-Dichloroethene	880	< 0.32	**0.052 J**
cis-1,2-Dichloroethene	-	< 0.32	**0.19 J**
Tetrachloroethene	47	**0.61**	**0.75**
trans-1,2-Dichloroethene	260	< 0.32	< 0.32
Trichloroethene	3	**0.24**	**0.31**
Vinyl chloride	2.8	< 0.2	< 0.2

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Air (RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** are detected. Results in **red** exceed one or more criteria.
4. Sample type codes: N - Normal

TABLE 12
SUMMARY OF INDOOR AIR ANALYTICAL RESULTS - CALENDER BASEMENT
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name		CB-IA-01
Sample Name		1318-072511-1045
Sample Date	Industrial	7/25/2011
Sample Type	Air	N
Volatile Organic Compounds (ug/m3)		
1,1,1-Trichloroethane	22000	< 0.44
1,1,2,2-Tetrachloroethane	0.21	< 0.55
1,1,2-Trichloroethane	0.77	< 0.44
1,1-Dichloroethane	7.7	< 0.32
1,1-Dichloroethene	880	< 0.32
1,2,4-Trichlorobenzene	8.8	< 3
1,2-Dibromoethane (Ethylene Dibromide)	0.02	< 0.61
1,2-Dichlorobenzene	880	< 0.48
1,2-Dichloroethane	0.47	< 0.32
1,2-Dichloropropane	1.2	< 0.37
1,3-Dichlorobenzene	-	< 0.48
1,4-Dichlorobenzene	1.1	< 0.48
2-Butanone (Methyl Ethyl Ketone)	22000	**4.7**
2-Hexanone	130	**0.53 J**
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	13000	**1.1**
Acetone	140000	**18**
Benzene	1.6	**0.3**
Bromodichloromethane	0.33	< 0.54
Bromoform	11	< 0.83
Bromomethane (Methyl Bromide)	22	**0.054 J**
Carbon disulfide	3100	**0.19 J**
Carbon tetrachloride	2	**0.47 J**
Chlorobenzene	220	< 0.37
Chloroethane	44000	**0.077 J**
Chloroform (Trichloromethane)	0.53	**0.093 J**
Chloromethane (Methyl Chloride)	390	**1**
cis-1,2-Dichloroethene	-	< 0.32
cis-1,3-Dichloropropene	-	< 0.36
Cyclohexane	26000	**0.23 J**
Dibromochloromethane	0.45	< 0.68
Dichlorodifluoromethane (CFC-12)	440	**2**
Ethylbenzene	4.9	**1.2**
m&p-Xylene	-	**3**
Methyl Tert Butyl Ether	47	< 1.4
Methylene chloride	1200	**8**
o-Xylene	440	**1.2**
Styrene	4400	**0.98**
Tetrachloroethene	47	**0.32 J**
Tetrahydrofuran	8800	**1 J**
Toluene	22000	**2.3**
trans-1,2-Dichloroethene	260	< 0.32
trans-1,3-Dichloropropene	-	< 0.36
Trichloroethene	3	**0.16 J**
Trichlorofluoromethane (CFC-11)	3100	**1.5**
Trifluorotrichloroethane (Freon 113)	130000	**0.48 J**
Vinyl chloride	2.8	< 0.2

Notes and Abbreviations:
1. Criteria presented are available generic criteria.
   [A]: Indicates result is greater than Industrial Air (RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
3. Results in **bold** are detected. Results in **red** exceed one or more criteria.
4. Sample type codes: N - Normal

TABLE 13A
SUMMARY OF NAPL ANALYTICAL RESULTS - CALENDER SUMP
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	AOI-01	AOI-01	AOI-01
Location Name	Calender Sump	Calender Sump 2	Calender Sump 2
Sample Name	1318-072210-1125	4413-060911-1130	4413-060911-1130
Sample Date	7/22/2010	6/9/2011	6/9/2011
Sample Type	N	N	N
Sample Matrix	Sump Water	Floating/Free Product	Floating/Free Product
Specific Gravity	-	1[(5)]	1[(5)]
Result Unit (unless indicated otherwise)	mg/L	mg/kg	mg/L
Inorganic Compounds			
Antimony, Total	**0.017**	**0.15 J**	**0.15 J**
Arsenic, Total	< 0.002	< 0.2	< 0.2
Barium, Total	**0.057**	**0.89 J**	**0.89 J**
Beryllium, Total	< 0.001	< 0.2	< 0.2
Cadmium, Total	< 0.0005	**0.25**	**0.25**
Chromium Total, Total	< 0.005	**0.36 J**	**0.36 J**
Cobalt, Total	< 0.005	< 0.5	< 0.5
Copper, Total	**0.007**	**1.33**	**1.33**
Cyanide (total)	< 0.005	< 3	< 3
Lead, Total	< 0.003	**1.53**	**1.53**
Manganese, Total	**0.406**	**2.17**	**2.17**
Mercury, Total	< 0.0001	< 0.05	< 0.05
Nickel, Total	< 0.005	**0.24 J**	**0.24 J**
Selenium, Total	< 0.005	< 0.5	< 0.5
Silver, Total	< 0.0005	< 0.2	< 0.2
Thallium, Total	< 0.001	< 0.5	< 0.5
Vanadium, Total	< 0.004	< 0.5	< 0.5
Zinc, Total	**0.064**	**14.3**	**14.3**
PCBs			
Aroclor-1016 (PCB-1016)	< 0.1	< 33	< 33
Aroclor-1221 (PCB-1221)	< 0.1	< 33	< 33
Aroclor-1232 (PCB-1232)	< 0.1	< 33	< 33
Aroclor-1242 (PCB-1242)	**1.1**	**300**	**300**
Aroclor-1248 (PCB-1248)	< 0.1	< 33	< 33
Aroclor-1254 (PCB-1254)	< 0.1	< 33	< 33
Aroclor-1260 (PCB-1260)	< 0.1	< 33	< 33
Semi-Volatile Organic Compounds			
2,2'-oxybis(1-Chloropropane)	< 0.11	-	-
2,4,5-Trichlorophenol	< 0.11	-	-
2,4,6-Trichlorophenol	< 0.11	-	-
2,4-Dichlorophenol	< 0.11	-	-
2,4-Dimethylphenol	< 0.11	-	-
2,4-Dinitrophenol	< 0.11 J	-	-
2,4-Dinitrotoluene	< 0.11	-	-
2,6-Dinitrotoluene	< 0.11	-	-
2-Chloronaphthalene	< 0.11	-	-
2-Chlorophenol	< 0.11	-	-
2-Methylnaphthalene	< 0.11	-	-
2-Methylphenol	< 0.11	-	-
2-Nitroaniline	< 0.11	-	-
2-Nitrophenol	< 0.11	-	-
3&4-Methylphenol	< 0.11	-	-
3,3'-Dichlorobenzidine	< 0.11	-	-
3-Nitroaniline	< 0.11	-	-
4,6-Dinitro-2-methylphenol	< 0.11 J	-	-
4-Bromophenyl phenyl ether	< 0.11	-	-
4-Chloro-3-methylphenol	< 0.11	-	-
4-Chloroaniline	< 0.11	-	-
4-Chlorophenyl phenyl ether	< 0.11	-	-
4-Nitroaniline	< 0.11	-	-
4-Nitrophenol	< 0.11	-	-
Acenaphthene	< 0.11	-	-
Acenaphthylene	< 0.11	-	-
Acetophenone	< 0.11	-	-
Anthracene	< 0.11	-	-
Atrazine	< 0.11	-	-
Benzaldehyde	< 0.11	-	-
Benzo(a)anthracene	< 0.11	-	-
Benzo(a)pyrene	< 0.11	-	-
Benzo(b)fluoranthene	< 0.11	-	-
Benzo(g,h,i)perylene	< 0.11	-	-
Benzo(k)fluoranthene	< 0.11	-	-
Biphenyl	< 0.11	-	-
bis(2-Chloroethoxy)methane	< 0.11	-	-
bis(2-Chloroethyl)ether	< 0.11	-	-
bis(2-Ethylhexyl)phthalate	< 0.11	-	-
Butyl benzylphthalate	< 0.11	-	-
Caprolactam	< 0.11	-	-
Carbazole	< 0.11	-	-
Chrysene	< 0.11	-	-
Dibenz(a,h)anthracene	< 0.11	-	-
Dibenzofuran	< 0.11	-	-
Diethyl phthalate	< 0.11	-	-
Dimethyl phthalate	< 0.11	-	-
Di-n-butylphthalate	< 0.11	-	-
Di-n-octyl phthalate	< 0.11	-	-
Fluoranthene	< 0.11	-	-
Fluorene	< 0.11	-	-
Hexachlorobenzene	< 0.11	-	-
Hexachlorobutadiene	< 0.11	-	-
Hexachlorocyclopentadiene	< 0.11	-	-
Hexachloroethane	< 0.11	-	-
Indeno(1,2,3-cd)pyrene	< 0.11	-	-
Isophorone	< 0.11	-	-
Naphthalene	< 0.11	-	-
Nitrobenzene	< 0.11	-	-
N-Nitrosodi-n-propylamine	< 0.11	-	-
N-Nitrosodiphenylamine	< 0.11	-	-
Pentachlorophenol	< 0.11	-	-
Phenanthrene	< 0.11	-	-
Phenol	< 0.11	-	-
Pyrene	< 0.11	-	-

TABLE 13A
SUMMARY OF NAPL ANALYTICAL RESULTS - CALENDER SUMP
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	AOI-01	AOI-01	AOI-01
Location Name	Calender Sump	Calender Sump 2	Calender Sump 2
Sample Name	1318-072210-1125	4413-060911-1130	4413-060911-1130
Sample Date	7/22/2010	6/9/2011	6/9/2011
Sample Type	N	N	N
Sample Matrix	Sump Water	Floating/Free Product	Floating/Free Product
Specific Gravity	-	1[5]	1[5]
Result Unit (unless indicated otherwise)	mg/L	mg/kg	mg/L
Volatile Organic Compounds			
1,1,1-Trichloroethane	< 0.001	< 3	< 3
1,1,2,2-Tetrachloroethane	< 0.001	< 3	< 3
1,1,2-Trichloroethane	< 0.001	< 3	< 3
1,1-Dichloroethane	< 0.001	< 3	< 3
1,1-Dichloroethene	< 0.001	< 3	< 3
1,2,4-Trichlorobenzene	< 0.002	**0.13 J**	**0.13 J**
1,2-Dibromo-3-chloropropane (DBCP)	< 0.001	< 5	< 5
1,2-Dibromoethane (Ethylene Dibromide)	< 0.001	< 3	< 3
1,2-Dichlorobenzene	< 0.001	< 3	< 3
1,2-Dichloroethane	< 0.001	< 3	< 3
1,2-Dichloropropane	< 0.001	< 3	< 3
1,3-Dichlorobenzene	< 0.001	< 3	< 3
1,4-Dichlorobenzene	< 0.001	< 3	< 3
2-Butanone (Methyl Ethyl Ketone)	< 0.01	< 5	< 5
2-Hexanone	< 0.01	< 5	< 5
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 0.01	< 5	< 5
Acetone	< 0.01	< 5	< 5
Benzene	< 0.001	< 3	< 3
Bromodichloromethane	< 0.001	< 3	< 3
Bromoform	< 0.001	< 3	< 3
Bromomethane (Methyl Bromide)	< 0.002	< 3 J	< 3 J
Carbon disulfide	< 0.005	< 3	< 3
Carbon tetrachloride	< 0.001	< 3	< 3
Chlorobenzene	< 0.001	< 3	< 3
Chlorobromomethane	< 0.001	< 3	< 3
Chloroethane	< 0.001	< 3	< 3
Chloroform (Trichloromethane)	< 0.001	< 3	< 3
Chloromethane (Methyl Chloride)	< 0.001	< 3 J	< 3 J
cis-1,2-Dichloroethene	< 0.001	< 3	< 3
cis-1,3-Dichloropropene	< 0.001	< 3	< 3
Cyclohexane	< 0.001 J	< 5	< 5
Dibromochloromethane	< 0.001	< 3	< 3
Dichlorodifluoromethane (CFC-12)	< 0.001	< 3	< 3
Ethylbenzene	< 0.001	**0.695 J**	**0.695 J**
Isopropylbenzene	< 0.001	**0.34 J**	**0.34 J**
m&p-Xylene	< 0.001	**0.26 J**	**0.26 J**
Methyl acetate	< 0.01	**0.63 J**	**0.63 J**
Methyl cyclohexane	< 0.01	< 5	< 5
Methyl Tert Butyl Ether	< 0.005	< 3	< 3
Methylene chloride	< 0.005	< 3	< 3
n-Propylbenzene	< 0.001	**0.705 J**	**0.705 J**
o-Xylene	< 0.001	**0.34 J**	**0.34 J**
Styrene	< 0.001	**0.12 J**	**0.12 J**
Tetrachloroethene	< 0.001	< 3	< 3
Tetrahydrofuran	< 0.005 J	< 3	< 3
Toluene	< 0.001	**0.15 J**	**0.15 J**
trans-1,2-Dichloroethene	< 0.001	< 3	< 3
trans-1,3-Dichloropropene	< 0.001	< 3	< 3
Trichloroethene	< 0.001	< 3	< 3
Trichlorofluoromethane (CFC-11)	< 0.001	< 3	< 3
Vinyl acetate	-	-	-
Vinyl chloride	< 0.001	< 3	< 3

Notes and Abbreviations:
1. Results were converted from mg/kg to mg/l using the specific gravity.
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected
3. Results in **bold** are detected.
4. Sample type codes: N - Normal, FD - Field Duplicate
5. Specific gravity is assumed.

TABLE 13B
SUMMARY OF NAPL ANALYTICAL RESULTS - AOI-15
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	AOI-15	AOI-15	AOI-15	AOI-15
Location Name	PZ-31	PZ-31	PZ-31	PZ-31
Sample Name	PZ-31-100499-0001	PZ-31-100499-0002	1318-072110-1225	1318-072110-1225
Sample Date	10/4/1999	10/4/1999	7/21/2010	7/21/2010
Sample Type	N	N	N	N
Sample Matrix	NAPL	NAPL	NAPL	NAPL
Specific Gravity	-	-	0.97[5]	0.97[5]
Result Unit (unless indicated otherwise)	mg/L	mg/L	mg/kg	mg/L
Other				
Specific gravity (g/cm3)	-	-	**0.97**	**0.97**
Viscosity (cst)	-	-	**47.1**	**47.1**
PCBs				
Aroclor-1016 (PCB-1016)	-	-	< 1	< 0.97
Aroclor-1221 (PCB-1221)	-	-	< 1	< 0.97
Aroclor-1232 (PCB-1232)	-	-	< 1	< 0.97
Aroclor-1242 (PCB-1242)	-	-	**2.2**	**2.134**
Aroclor-1248 (PCB-1248)	-	-	< 1	< 0.97
Aroclor-1254 (PCB-1254)	-	-	< 1	< 0.97
Aroclor-1260 (PCB-1260)	-	-	< 1	< 0.97
Semi-Volatile Organic Compounds				
1,2,4-Trichlorobenzene	< 3800	-	-	-
1,2-Dichlorobenzene	< 1900	-	-	-
1,2-Diphenylhydrazine	< 1900	-	-	-
1,3-Dichlorobenzene	< 3800	-	-	-
1,4-Dichlorobenzene	< 3800	-	-	-
2,2'-oxybis(1-Chloropropane)	-	-	< 4000	< 3880
2,2'-oxybis(2-Chloropropane)	< 3800	-	-	-
2,3,4,6-Tetrachlorophenol	< 1900	-	-	-
2,4,5-Trichlorophenol	< 1900	-	< 4000	< 3880
2,4,6-Trichlorophenol	< 1900	-	< 4000	< 3880
2,4-Dichlorophenol	< 3800	-	< 4000	< 3880
2,4-Dimethylphenol	< 3800	-	< 4000	< 3880
2,4-Dinitrophenol	< 3800	-	< 19000	< 18430
2,4-Dinitrotoluene	< 1900	-	< 4000	< 3880
2,6-Dichlorophenol	< 3800	-	-	-
2,6-Dinitrotoluene	< 3800	-	< 4000	< 3880
2-Chloronaphthalene	< 3800	-	< 4000	< 3880
2-Chlorophenol	< 3800	-	< 4000	< 3880
2-Methylnaphthalene	-	-	< 4000	< 3880
2-Methylphenol	< 1900	-	< 4000	< 3880
2-Nitroaniline	-	-	< 19000	< 18430
2-Nitrophenol	< 1900	-	< 4000	< 3880
3,3'-Dichlorobenzidine	< 7600	-	< 19000	< 18430
3-Nitroaniline	-	-	< 19000	< 18430
4,6-Dinitro-2-methylphenol	< 3800	-	< 19000	< 18430
4-Bromophenyl phenyl ether	< 3800	-	< 4000	< 3880
4-Chloro-3-methylphenol	< 3800	-	< 4000	< 3880
4-Chloroaniline	-	-	< 4000	< 3880
4-Chlorophenyl phenyl ether	< 5700	-	< 4000	< 3880
4-Methylphenol	< 1900	-	< 4000	< 3880
4-Nitroaniline	-	-	< 19000	< 18430
4-Nitrophenol	< 1900	-	< 19000	< 18430
Acenaphthene	< 3800	-	< 4000	< 3880
Acenaphthylene	< 3800	-	< 4000	< 3880
Acetophenone	-	-	< 4000	< 3880
Anthracene	< 3800	-	< 4000	< 3880
Atrazine	-	-	< 4000	< 3880
Benzaldehyde	-	-	< 4000	< 3880
Benzidine	< 3800	-	-	-
Benzo(a)anthracene	< 7600	-	< 4000	< 3880
Benzo(a)pyrene	< 7600	-	< 4000	< 3880
Benzo(b)fluoranthene	< 9600	-	< 4000	< 3880
Benzo(g,h,i)perylene	< 3800	-	< 4000	< 3880
Benzo(k)fluoranthene	< 7600	-	< 4000	< 3880
Benzoic acid	< 3800	-	-	-
Biphenyl	-	-	< 4000	< 3880
bis(2-Chloroethoxy)methane	< 3800	-	< 4000	< 3880
bis(2-Chloroethyl)ether	< 1900	-	< 4000	< 3880
bis(2-Ethylhexyl)phthalate	**130000**	-	**34000**	**32980**
Butyl benzylphthalate	**5700**	-	< 4000	< 3880
Caprolactam	-	-	< 4000	< 3880
Carbazole	-	-	< 4000	< 3880
Chrysene	< 3800	-	< 4000	< 3880
Dibenz(a,h)anthracene	< 1900	-	< 4000	< 3880
Dibenzofuran	-	-	< 4000	< 3880
Diethyl phthalate	< 1900	-	< 4000	< 3880
Dimethyl phthalate	< 3800	-	< 4000	< 3880
Dimethylformamide	-	-	< 4000	< 3880
Di-n-butylphthalate	-	-	< 4000	< 3880
Di-n-octyl phthalate	**230000**	-	**110000**	**106700**
Fluoranthene	< 7600	-	< 4000	< 3880
Fluorene	< 3800	-	< 4000	< 3880
Hexachlorobenzene	< 1900	-	< 4000	< 3880
Hexachlorobutadiene	< 3800	-	< 4000	< 3880
Hexachlorocyclopentadiene	< 1900	-	< 19000	< 18430
Hexachloroethane	< 3800	-	< 4000	< 3880
Indeno(1,2,3-cd)pyrene	< 3800	-	< 4000	< 3880
Isophorone	< 3800	-	< 4000	< 3880
Methyl methanesulfonate	< 1900	-	-	-
Naphthalene	< 3800	-	< 4000	< 3880
Nitrobenzene	< 1900	-	< 4000	< 3880
N-Nitrosodimethylamine	< 5700	-	-	-
N-Nitrosodi-n-propylamine	< 3800	-	< 4000	< 3880
N-Nitrosodiphenylamine	< 1900	-	< 4000	< 3880
Pentachlorophenol	< 1900	-	< 4000	< 3880
Phenanthrene	< 1900	-	< 4000	< 3880
Phenol	< 3800	-	< 4000	< 3880
Pyrene	< 3800	-	< 4000	< 3880

TABLE 13B
SUMMARY OF NAPL ANALYTICAL RESULTS - AOI-15
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Area of Interest	AOI-15	AOI-15	AOI-15	AOI-15
Location Name	PZ-31	PZ-31	PZ-31	PZ-31
Sample Name	PZ-31-100499-0001	PZ-31-100499-0002	1318-072110-1225	1318-072110-1225
Sample Date	10/4/1999	10/4/1999	7/21/2010	7/21/2010
Sample Type	N	N	N	N
Sample Matrix	NAPL	NAPL	NAPL	NAPL
Specific Gravity	-	-	0.97[5]	0.97[5]
Result Unit (unless indicated otherwise)	mg/L	mg/L	mg/kg	mg/L
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane	< 10	< 10	-	-
1,1,1-Trichloroethane	< 10	< 10	< 1	< 0.97
1,1,2,2-Tetrachloroethane	< 10	< 10	< 1 J	< 0.97 J
1,1,2-Trichloroethane	< 10	< 10	< 1	< 0.97
1,1-Dichloroethane	< 10	< 10	< 1	< 0.97
1,1-Dichloroethene	< 10	< 10	< 1	< 0.97
1,1-Dichloropropene	< 10	< 10	-	-
1,2,3-Trichlorobenzene	< 10	< 10	-	-
1,2,3-Trichloropropane	< 10	< 10	-	-
1,2,4-Trichlorobenzene	< 10	< 10	**0.048 J**	**0.04656 J**
1,2,4-Trimethylbenzene	< 10	< 10	-	-
1,2-Dibromo-3-chloropropane (DBCP)	< 10	< 10	< 2 J	< 1.94 J
1,2-Dibromoethane (Ethylene Dibromide)	< 10	< 10	< 1	< 0.97
1,2-Dichlorobenzene	< 10	< 10	< 2 J	< 1.94 J
1,2-Dichloroethane	< 10	< 10	< 1	< 0.97
1,2-Dichloropropane	< 10	< 10	< 1	< 0.97
1,3,5-Trimethylbenzene	< 10	< 10	-	-
1,3-Dichlorobenzene	< 10	< 10	< 2 J	< 1.94 J
1,3-Dichloropropane	< 10	< 10	-	-
1,4-Dichlorobenzene	< 10	< 10	**0.039 J**	**0.03783 J**
2,2-Dichloropropane	< 10	< 10	-	-
2-Butanone (Methyl Ethyl Ketone)	< 98	< 96	**0.14 J**	**0.1358 J**
2-Chloroethyl vinyl ether	< 49	< 48	-	-
2-Chlorotoluene	< 10	< 10	-	-
2-Hexanone	< 49	< 48	< 4.1	< 3.977
2-Phenylbutane (sec-Butylbenzene)	< 10	< 10	-	-
4-Chlorotoluene	< 10	< 10	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 49	< 48	< 4.1	< 3.977
Acetone	< 98	< 96	< 4.1	< 3.977
Acrolein	< 98	< 96	-	-
Acrylonitrile	< 20	< 19	-	-
Benzene	< 10	< 10	< 1	< 0.97
Bromobenzene	< 10	< 10	-	-
Bromodichloromethane	< 10	< 10	R	R
Bromoform	< 10	< 10	< 1	< 0.97
Bromomethane (Methyl Bromide)	< 49	< 48	< 2	< 1.94
Carbon disulfide	< 10	< 10	< 1	< 0.97
Carbon tetrachloride	< 10	< 10	< 1	< 0.97
Chlorobenzene	< 10	< 10	< 1	< 0.97
Chlorobromomethane	< 10	< 10	< 1	< 0.97
Chloroethane	< 20	< 20	< 2	< 1.94
Chloroform (Trichloromethane)	< 10	< 10	< 1	< 0.97
Chloromethane (Methyl Chloride)	< 49	< 48	< 2	< 1.94
cis-1,2-Dichloroethene	< 10	< 10	< 0.51	< 0.4947
cis-1,3-Dichloropropene	< 10	< 10	R	R
Cyclohexane	-	-	**11**	**10.67**
Cymene (p-Isopropyltoluene)	< 10	< 10	-	-
Dibromochloromethane	< 10	< 10	< 1	< 0.97
Dibromomethane	< 10	< 10	-	-
Dichlorodifluoromethane (CFC-12)	< 49	< 48	**0.027 J**	**0.02619 J**
Di-n-butylphthalate	< 3800	-	-	-
Ethyl Ether	< 10	< 10	-	-
Ethyl methacrylate	< 10	< 10	-	-
Ethyl methanesulfonate	< 1900	-	-	-
Ethylbenzene	< 10	< 10	**0.052 J**	**0.05044 J**
Hexachlorobutadiene	< 10	< 10	-	-
Iodomethane	< 10	< 10	-	-
Isopropylbenzene	< 10	< 10	**1.4 J**	**1.358 J**
m&p-Xylene	< 10	< 10	-	-
Methyl acetate	-	-	< 2	< 1.94
Methyl cyclohexane	-	-	**26**	**25.22**
Methyl Tert Butyl Ether	-	-	**1 J**	**0.97 J**
Methylene chloride	< 20	< 20	< 1	< 0.97
Naphthalene	< 10	< 10	-	-
n-Butylbenzene	< 10	< 10	-	-
n-Propylbenzene	< 10	< 10	**1.6 J**	**1.552 J**
o-Xylene	< 10	< 10	-	-
Styrene	< 10	< 10	< 1	< 0.97
tert-Butylbenzene	< 10	< 10	-	-
Tetrachloroethene	< 10	< 10	< 1	< 0.97
Tetrahydrofuran	**60**	**32**	< 4.1	< 3.977
Toluene	< 10	< 10	< 1	< 0.97
trans-1,2-Dichloroethene	< 10	< 10	< 0.51	< 0.4947
trans-1,3-Dichloropropene	< 10	< 10	< 1	< 0.97
trans-1,4-Dichloro-2-butene	< 10	< 10	-	-
Trichloroethene	< 10	< 10	< 1	< 0.97
Trichlorofluoromethane (CFC-11)	< 49	< 48	< 2	< 1.94
Trifluorotrichloroethane (Freon 113)	< 20	< 20	< 4.1	< 3.977
Vinyl acetate	< 10	< 10	-	-
Vinyl chloride	< 10	< 10	< 2	< 1.94
Xylene (total)	-	-	**0.39 J**	**0.3783 J**

Notes and Abbreviations:
1. Results were converted from mg/kg to mg/l using the specific gravity.
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected
3. Results in **bold** are detected.
4. Sample type codes: N - Normal, FD - Field Duplicate
5. Specific gravity is reported as analyzed by the lab.

TABLE 13C
SUMMARY OF WIPE ANALYTICAL RESULTS - AOI-01
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

Report Order	AOI-01	AOI-01	AOI-01	AOI-01
Location Name	WIPE-01	WIPE-02	WIPE-03	WIPE-04
Sample Name	1318-060311-1040	1318-060311-1050	1318-060311-1100	1318-060311-1110
Sample Date	6/3/2011	6/3/2011	6/3/2011	6/3/2011
Sample Type	N	N	N	N
PCBs (ug/100cm2)				
Aroclor-1016 (PCB-1016)	< 100	< 100	< 2	< 3
Aroclor-1221 (PCB-1221)	< 100	< 100	< 2	< 3
Aroclor-1232 (PCB-1232)	< 100	< 100	< 2	< 3
Aroclor-1242 (PCB-1242)	< 100	< 100	**15**	**23**
Aroclor-1248 (PCB-1248)	**800**	**820**	< 2	< 3
Aroclor-1254 (PCB-1254)	< 100	< 100	< 2	< 3
Aroclor-1260 (PCB-1260)	< 100	< 100	< 2	< 3

Notes and Abbreviations:
1. <: Result is below indicated reporting limit.
2. Results in **bold** are detected.
3. Sample type code: N - Normal

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name			MW-1001	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003	MW-1003
Sample Name	Residential VISLs		1318-020210-0940	2308-071510-1210	4413-060211-1220	1318-020210-1145	2308-071410-1500	1318-060111-1905	1318-020310-1000	2308-071410-1755	4413-060211-1420
Sample Date	Target		2/2/2010	7/15/2010	6/2/2011	2/2/2010	7/14/2010	6/1/2011	2/3/2010	7/14/2010	6/2/2011
Sample Type	Groundwater	MCL	N	N	N	N	N	N	N	N	N
Field Parameters											
Conductivity (mS/cm)	-	-	2.05	3.9	4.08	2.57	1.5	5.82	3.14	4.7	4.4
Dissolved Oxygen (mg/L)	-	-	5.42	1.5	0.7	6.41	3	2.74	5.56	1.6	0.45
ORP (mv)	-	-	191	-128	112	144	-140	-52	136	-131	-45
pH	-	-	6.83	7.07	6.55	6.87	7.14	6.61	6.58	7.03	6.62
Temperature (Deg C)	-	-	11.7	20.5	13.2	10.5	19.6	10.1	10.8	23.7	13.8
Turbidity (NTU)	-	-	-	741	248	956	228	98.6	-	328	68.9
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	**0.001 J**	< 0.005	-	**0.001 J**	< 0.005	-	**0.001 J**	< 0.005	-
Arsenic, Total	-	0.01	**0.002 J**	**0.014** [B]	-	**0.001 J**	**0.013** [B]	-	**0.002**	**0.015** [B]	-
Barium, Total	-	2	**0.144**	**0.238**	-	**0.13**	**0.211**	-	**0.127**	**0.142**	-
Beryllium, Total	-	0.004	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Cadmium, Total	-	0.005	< 0.0005	**0.0009**	-	< 0.0005	< 0.0005	-	< 0.0005	**0.0018**	-
Chromium, Total	-	0.1	**0.003 J**	**0.011**	-	**0.003 J**	**0.012**	-	**0.004 J**	**0.012**	-
Cobalt, Total	-	-	**0.003 J**	**0.00537**	-	**0.002 J**	< 0.005	-	**0.005 J**	< 0.005	-
Copper, Total	-	1.3	**0.015**	**0.011**	-	**0.002 J**	**0.004**	-	**0.006**	**0.004**	-
Cyanide, Total	-	0.2	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Lead, Total	-	0.015	**0.003 J**	**0.003 J**	-	**0.002 J**	**0.002 J**	-	**0.003**	**0.002 J**	-
Manganese, Total	-	-	**1.15**	**1.65**	-	**1.2**	**1.95**	-	**0.956**	**1.76**	-
Mercury, Total	-	0.002	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-
Nickel, Total	-	-	**0.007**	**0.015**	-	**0.004 J**	**0.017**	-	**0.01**	**0.021**	-
Selenium, Total	-	0.05	**0.001 J**	**0.002 J**	-	**0.001 J**	**0.002 J**	-	**0.001 J**	< 0.005	-
Silver, Total	-	-	< 0.0005	< 0.0005	-	< 0.0005	**0.0009**	-	< 0.0005	< 0.0005	-
Thallium, Total	-	0.002	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Vanadium, Total	-	-	**0.003 J**	**0.005**	-	**0.002 J**	**0.008**	-	**0.004 J**	**0.01**	-
Zinc, Total	-	-	**0.011**	**0.016**	-	**0.007**	**0.015**	-	**0.011**	**0.019**	-
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Chloronaphthalene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Chlorophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Methylnaphthalene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
2-Methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
2-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-
2-Nitrophenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
3&4-Methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
3-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-
4,6-Dinitro-2-methylphenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
4-Chloroaniline	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
4-Nitroaniline	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-
4-Nitrophenol	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-
Acenaphthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Acenaphthylene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Acetophenone	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Anthracene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Atrazine	-	0.003	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-
Benzaldehyde	-	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name Sample Name Sample Date Sample Type	Residential VISLs Target Groundwater	MCL	MW-1001 1318-020210-0940 2/2/2010 N	MW-1001 2308-071510-1210 7/15/2010 N	MW-1001 4413-060211-1220 6/2/2011 N	MW-1002 1318-020210-1145 2/2/2010 N	MW-1002 2308-071410-1500 7/14/2010 N	MW-1002 1318-060111-1905 6/1/2011 N	MW-1003 1318-020310-1000 2/3/2010 N	MW-1003 2308-071410-1755 7/14/2010 N	MW-1003 4413-060211-1420 6/2/2011 N
Benzo(a)anthracene	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002 J	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Biphenyl	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	**0.009** [B]	-	< 0.005	**0.008** [B]	-	< 0.005	**0.008** [B]	-
Butyl benzylphthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Caprolactam	-	-	< 0.01	**0.002 J**	-	< 0.01	**0.002 J**	-	< 0.01	**0.002 J**	-
Carbazole	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
Chrysene	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002 J	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Dibenzofuran	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Diethyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	**0.0003 J**	-	< 0.005	**0.0007 J**	-
Dimethyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Dimethylformamide	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Di-n-butylphthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Fluoranthene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Fluorene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Hexachlorobutadiene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Hexachloroethane	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Isophorone	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
Naphthalene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Nitrobenzene	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-
N-Nitrosodiphenylamine	-	-	R	< 0.005	-	R	< 0.005	-	R	< 0.005	-
Pentachlorophenol	-	0.001	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-
Phenanthrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Phenol	-	-	< 0.005	R	-	< 0.005	R	-	< 0.005	R	-
Pyrene	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	-	0.6	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	3700	-	**0.002 J**	< 0.01	< 0.01	**0.001 J**	< 0.01	< 0.01	**0.001 J**	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	990	-	**0.003 J**	< 0.01	< 0.01	**0.002 J**	< 0.01	< 0.01	**0.002 J**	< 0.01	< 0.01
Acetone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	0.0022	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.0013	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002 J	< 0.002 J	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002	< 0.002 J

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name			MW-1001	MW-1001	MW-1001	MW-1002	MW-1002	MW-1002	MW-1003	MW-1003	MW-1003
Sample Name	Residential VISLs		1318-020210-0940	2308-071510-1210	4413-060211-1220	1318-020210-1145	2308-071410-1500	1318-060111-1905	1318-020310-1000	2308-071410-1755	4413-060211-1420
Sample Date	Target		2/2/2010	7/15/2010	6/2/2011	2/2/2010	7/14/2010	6/1/2011	2/3/2010	7/14/2010	6/2/2011
Sample Type	Groundwater	MCL	N	N	N	N	N	N	N	N	N
Carbon disulfide	1.8	-	**0.0004 J**	< 0.005	< 0.005	**0.0006 J**	< 0.005	< 0.005	**0.001 J**	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0011	0.08000001	**0.001**	< 0.001	< 0.001	**0.002** [A]	< 0.001	< 0.001	**0.0008 J**	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	-	0.07	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J
Ethylbenzene	0.0055	0.7	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.65	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	1.1	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
o-Xylene	0.9	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.023	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005
Toluene	33	1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0018	0.005	**0.001 J**	**0.0003 J**	< 0.001	**0.001 J**	< 0.001	< 0.001	**0.0005 J**	< 0.001	< 0.001
Trichlorofluoromethane (CFC-11)	-	-	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J
Trifluorotrichloroethane (Freon 113)	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	-	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Residential VISL for Target Groundwater Concentrations, May 2012 (Appendix E, Attachment A)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate
5. Applicable Residential VISLs are shown for detected compounds only.

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name			MW-1004	MW-1004	MW-1004	MW-1004	MW-1005	MW-1005	MW-1005	MW-10H	MW-10H
Sample Name	Residential VISLs		1318-020310-1200	2308-071310-1730	2308-071310-0001	4413-060111-1720	0938-020410-0920	2308-071310-1530	4413-060111-1505	0938-020310-1650	0938-071510-1035
Sample Date	Target		2/3/2010	7/13/2010	7/13/2010	6/1/2011	2/4/2010	7/13/2010	6/1/2011	2/3/2010	7/15/2010
Sample Type	Groundwater	MCL	N	N	FD	N	N	N	N	N	N
Field Parameters											
Conductivity (mS/cm)	-	-	3.47	4.9	-	5.07	1.023	1.2	0.982	1.58	1.3
Dissolved Oxygen (mg/L)	-	-	3	1.2	-	0.31	0.55	4.8	0.42	6.68	7.2
ORP (mv)	-	-	-68	-157	-	-90	-89	-111	-89	-5	7
pH	-	-	6.71	8.93	-	6.72	10.31	8.92	6.95	9.85	6.93
Temperature (Deg C)	-	-	11.5	20	-	13.2	10.6	20.2	14.2	10.3	19
Turbidity (NTU)	-	-	304	236	-	298	841	328	628	226	69
Inorganic Compounds (mg/L)											
Antimony, Total	-	0.006	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Arsenic, Total	-	0.01	**0.006**	**0.016** [B]	**0.018** [B]	-	**0.003**	**0.006**	-	**0.001 J**	**0.001 J**
Barium, Total	-	2	**0.146**	**0.263**	**0.273**	-	**0.066**	**0.075**	-	**0.094**	**0.079**
Beryllium, Total	-	0.004	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Cadmium, Total	-	0.005	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	-	< 0.0005	**0.0089** [B]
Chromium, Total	-	0.1	< 0.005	**0.008**	**0.01**	-	**0.011**	**0.009**	-	**0.01**	**0.007**
Cobalt, Total	-	-	**0.004 J**	< 0.005	< 0.005	-	**0.003 J**	< 0.005	-	< 0.005	< 0.005
Copper, Total	-	1.3	**0.003 J**	**0.002 J**	**0.003 J**	-	**0.007**	**0.003 J**	-	**0.001 J**	**0.003 J**
Cyanide, Total	-	0.2	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Lead, Total	-	0.015	**0.004**	< 0.003	**0.003 J**	-	**0.002 J**	**0.001 J**	-	< 0.003	< 0.003
Manganese, Total	-	-	**1.94**	**2.25**	**2.38**	-	**0.235**	**0.146**	-	**0.019**	**0.496**
Mercury, Total	-	0.002	< 0.0001	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001
Nickel, Total	-	-	**0.011**	**0.008**	**0.011**	-	**0.009**	**0.006**	-	**0.003 J**	**0.004 J**
Selenium, Total	-	0.05	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Silver, Total	-	-	< 0.0005	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005
Thallium, Total	-	0.002	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Vanadium, Total	-	-	< 0.004	**0.004**	**0.005**	-	**0.007**	**0.008**	-	**0.004**	**0.003 J**
Zinc, Total	-	-	< 0.005	**0.004 J**	**0.007**	-	**0.019**	**0.009**	-	**0.007**	**0.02**
Semi-Volatile Organic Compounds (mg/L)											
2,2'-oxybis(1-Chloropropane)	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4,5-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4,6-Trichlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4-Dichlorophenol	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
2,4-Dimethylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,4-Dinitrophenol	-	-	< 0.02 J	< 0.02 J	< 0.02 J	-	< 0.02 J	< 0.02 J	-	< 0.02 J	< 0.02
2,4-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2,6-Dinitrotoluene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Chloronaphthalene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Chlorophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Methylnaphthalene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
2-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
2-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02
2-Nitrophenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
3&4-Methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
3,3'-Dichlorobenzidine	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
3-Nitroaniline	-	-	< 0.02	< 0.02	< 0.02	-	< 0.02	< 0.02	-	< 0.02	< 0.02
4,6-Dinitro-2-methylphenol	-	-	< 0.02	< 0.02 J	< 0.02 J	-	< 0.02	< 0.02 J	-	< 0.02	< 0.02
4-Bromophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
4-Chloro-3-methylphenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
4-Chloroaniline	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
4-Chlorophenyl phenyl ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
4-Nitroaniline	-	-	< 0.02	< 0.02 J	< 0.02 J	-	< 0.02	< 0.02 J	-	< 0.02	< 0.02
4-Nitrophenol	-	-	< 0.02 J	< 0.02	< 0.02	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02
Acenaphthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Acenaphthylene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Acetophenone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Anthracene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Atrazine	-	0.003	< 0.005	< 0.005 J	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J
Benzaldehyde	-	-	< 0.005	< 0.005 J	< 0.005 J	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name Sample Name Sample Date Sample Type	Residential VISLs Target Groundwater	MCL	MW-1004 1318-020310-1200 2/3/2010 N	MW-1004 2308-071310-1730 7/13/2010 N	MW-1004 2308-071310-0001 7/13/2010 FD	MW-1004 4413-060111-1720 6/1/2011 N	MW-1005 0938-020410-0920 2/4/2010 N	MW-1005 2308-071310-1530 7/13/2010 N	MW-1005 4413-060111-1505 6/1/2011 N	MW-10H 0938-020310-1650 2/3/2010 N	MW-10H 0938-071510-1035 7/15/2010 N
Benzo(a)anthracene	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Benzo(a)pyrene	-	0.0002	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Benzo(b)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Benzo(g,h,i)perylene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002 J
Benzo(k)fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Biphenyl	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
bis(2-Chloroethoxy)methane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
bis(2-Chloroethyl)ether	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
bis(2-Ethylhexyl)phthalate	-	0.006	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Butyl benzylphthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Caprolactam	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	**0.0009 J**
Carbazole	-	-	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
Chrysene	-	-	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	-	< 0.001	< 0.001
Dibenz(a,h)anthracene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002 J
Dibenzofuran	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Diethyl phthalate	-	-	**0.0005 J**	**0.0006 J**	**0.0003 J**	-	**0.0003 J**	< 0.005	-	< 0.005	**0.0003 J**
Dimethyl phthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Dimethylformamide	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Di-n-butylphthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Di-n-octyl phthalate	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Fluoranthene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Fluorene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Hexachlorobenzene	-	0.001	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Hexachlorobutadiene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Hexachlorocyclopentadiene	-	0.05	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Hexachloroethane	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Indeno(1,2,3-cd)pyrene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Isophorone	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
Naphthalene	-	-	< 0.002	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Nitrobenzene	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
N-Nitrosodi-n-propylamine	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	< 0.005
N-Nitrosodiphenylamine	-	-	R	< 0.005	< 0.005	-	R	< 0.005	-	R	< 0.005
Pentachlorophenol	-	0.001	< 0.01	< 0.01	< 0.01	-	< 0.01	< 0.01	-	< 0.01	< 0.01
Phenanthrene	-	-	**0.0003 J**	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Phenol	-	-	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	R
Pyrene	-	-	**0.0002 J**	< 0.002	< 0.002	-	< 0.002	< 0.002	-	< 0.002	< 0.002
Volatile Organic Compounds (mg/L)											
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	-	0.6	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	3700	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	990	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	-	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	0.0022	0.005	**0.0002 J**	< 0.001	< 0.001	< 0.001	**0.0001 J**	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.0013	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001 J	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002 J

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name			MW-1004	MW-1004	MW-1004	MW-1004	MW-1005	MW-1005	MW-1005	MW-10H	MW-10H
Sample Name	Residential VISLs		1318-020310-1200	2308-071310-1730	2308-071310-0001	4413-060111-1720	0938-020410-0920	2308-071310-1530	4413-060111-1505	0938-020310-1650	0938-071510-1035
Sample Date	Target		2/3/2010	7/13/2010	7/13/2010	6/1/2011	2/4/2010	7/13/2010	6/1/2011	2/3/2010	7/15/2010
Sample Type	Groundwater	MCL	N	N	FD	N	N	N	N	N	N
Carbon disulfide	1.8	-	**0.0003 J**	< 0.005	< 0.005	< 0.005	**0.0004 J**	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J
Chlorobenzene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0011	0.08000001	**0.001**	< 0.001	< 0.001	< 0.001	**0.002** [A]	**0.0002 J**	< 0.001	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	-	0.07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	-	-	< 0.001 J	< 0.001 J	< 0.001 J	< 0.001	< 0.001 J	< 0.001 J	< 0.001	< 0.001 J	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
Ethylbenzene	0.0055	0.7	**0.0001 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.65	-	**0.0004 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Methyl acetate	-	-	**0.003 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	1.1	0.005	**0.0009 J**	< 0.005	< 0.005	< 0.005	**0.0006 J**	< 0.005	< 0.005	**0.0006 J**	< 0.005
n-Propylbenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
o-Xylene	0.9	-	**0.0001 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.023	0.005	**0.0002 J**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	-	-	< 0.005	< 0.005 J	< 0.005 J	< 0.005	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005
Toluene	33	1	**0.0002 J**	< 0.001	< 0.001	< 0.001	**0.0002 J**	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0018	0.005	**0.001**	< 0.001	< 0.001	< 0.001	**0.0004 J**	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane (CFC-11)	-	-	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
Trifluorotrichloroethane (Freon 113)	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	-	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Residential VISL for Target Groundwater Concentrations, May 2012 (Appendix E, Attachment A)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate
5. Applicable Residential VISLs are shown for detected compounds only.

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

Location Name			MW-10H	MW-11H	MW-11H	MW-11H	PZ-43	PZ-43	PZ-43	PZ-43
Sample Name	Residential VISLs		4413-060111-1130	1318-020310-1420	2308-071410-1000	4413-060211-0948	0938-020410-1115	0938-071510-1250	4413-060111-1930	4413-060111-0002
Sample Date	Target		6/1/2011	2/3/2010	7/14/2010	6/2/2011	2/4/2010	7/15/2010	6/1/2011	6/1/2011
Sample Type	Groundwater	MCL	N	N	N	N	N	N	N	FD
Field Parameters										
Conductivity (mS/cm)	-	-	0.834	9.23	8.5	3.97	4.94	4.1	3.8	-
Dissolved Oxygen (mg/L)	-	-	0.39	3	1.6	0.29	3.44	7.3	0.95	-
ORP (mv)	-	-	176	-14	-78	-27	-39	-6	94	-
pH	-	-	6.81	6.89	6.91	6.88	9.15	6.48	6.61	-
Temperature (Deg C)	-	-	14.5	10	20.3	14.3	9.2	18.3	13.3	-
Turbidity (NTU)	-	-	5.5	249	439	56.3	232	84	45.7	-
Inorganic Compounds (mg/L)										
Antimony, Total	-	0.006	-	< 0.005	< 0.005	-	**0.002 J**	< 0.005	-	-
Arsenic, Total	-	0.01	-	**0.006**	**0.006**	-	**0.004**	**0.002**	-	-
Barium, Total	-	2	-	**0.224**	**0.235**	-	**0.08**	**0.054**	-	-
Beryllium, Total	-	0.004	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Cadmium, Total	-	0.005	-	< 0.0005	< 0.0005	-	< 0.0005	< 0.0005	-	-
Chromium, Total	-	0.1	-	< 0.005	**0.011**	-	**0.014**	**0.008**	-	-
Cobalt, Total	-	-	-	**0.001 J**	< 0.005	-	< 0.005	< 0.005	-	-
Copper, Total	-	1.3	-	**0.002 J**	**0.004**	-	**0.004**	**0.002 J**	-	-
Cyanide, Total	-	0.2	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Lead, Total	-	0.015	-	**0.001 J**	**0.001 J**	-	< 0.003	< 0.003	-	-
Manganese, Total	-	-	-	**0.355**	**0.382**	-	**0.115**	**0.184**	-	-
Mercury, Total	-	0.002	-	< 0.0001	< 0.0001	-	< 0.0001	< 0.0001	-	-
Nickel, Total	-	-	-	**0.009**	**0.012**	-	**0.013**	**0.015**	-	-
Selenium, Total	-	0.05	-	< 0.005	< 0.005	-	**0.009**	**0.017**	-	-
Silver, Total	-	-	-	< 0.0005	**0.0006**	-	< 0.0005	< 0.0005	-	-
Thallium, Total	-	0.002	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Vanadium, Total	-	-	-	**0.016**	**0.009**	-	**0.007**	**0.002 J**	-	-
Zinc, Total	-	-	-	< 0.005	**0.018**	-	**0.046**	**0.047**	-	-
Semi-Volatile Organic Compounds (mg/L)										
2,2'-oxybis(1-Chloropropane)	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2,4,5-Trichlorophenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2,4,6-Trichlorophenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2,4-Dichlorophenol	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
2,4-Dimethylphenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2,4-Dinitrophenol	-	-	-	< 0.02 J	< 0.02 J	-	< 0.02 J	< 0.02	-	-
2,4-Dinitrotoluene	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2,6-Dinitrotoluene	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2-Chloronaphthalene	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2-Chlorophenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2-Methylnaphthalene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
2-Methylphenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
2-Nitroaniline	-	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	-
2-Nitrophenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
3&4-Methylphenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
3,3'-Dichlorobenzidine	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
3-Nitroaniline	-	-	-	< 0.02	< 0.02	-	< 0.02	< 0.02	-	-
4,6-Dinitro-2-methylphenol	-	-	-	< 0.02	< 0.02 J	-	< 0.02	< 0.02	-	-
4-Bromophenyl phenyl ether	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
4-Chloro-3-methylphenol	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
4-Chloroaniline	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
4-Chlorophenyl phenyl ether	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
4-Nitroaniline	-	-	-	< 0.02	< 0.02 J	-	< 0.02	< 0.02	-	-
4-Nitrophenol	-	-	-	< 0.02 J	< 0.02	-	< 0.02 J	< 0.02	-	-
Acenaphthene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Acenaphthylene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Acetophenone	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Anthracene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Atrazine	-	0.003	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-	-
Benzaldehyde	-	-	-	< 0.005	< 0.005 J	-	< 0.005	< 0.005 J	-	-

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

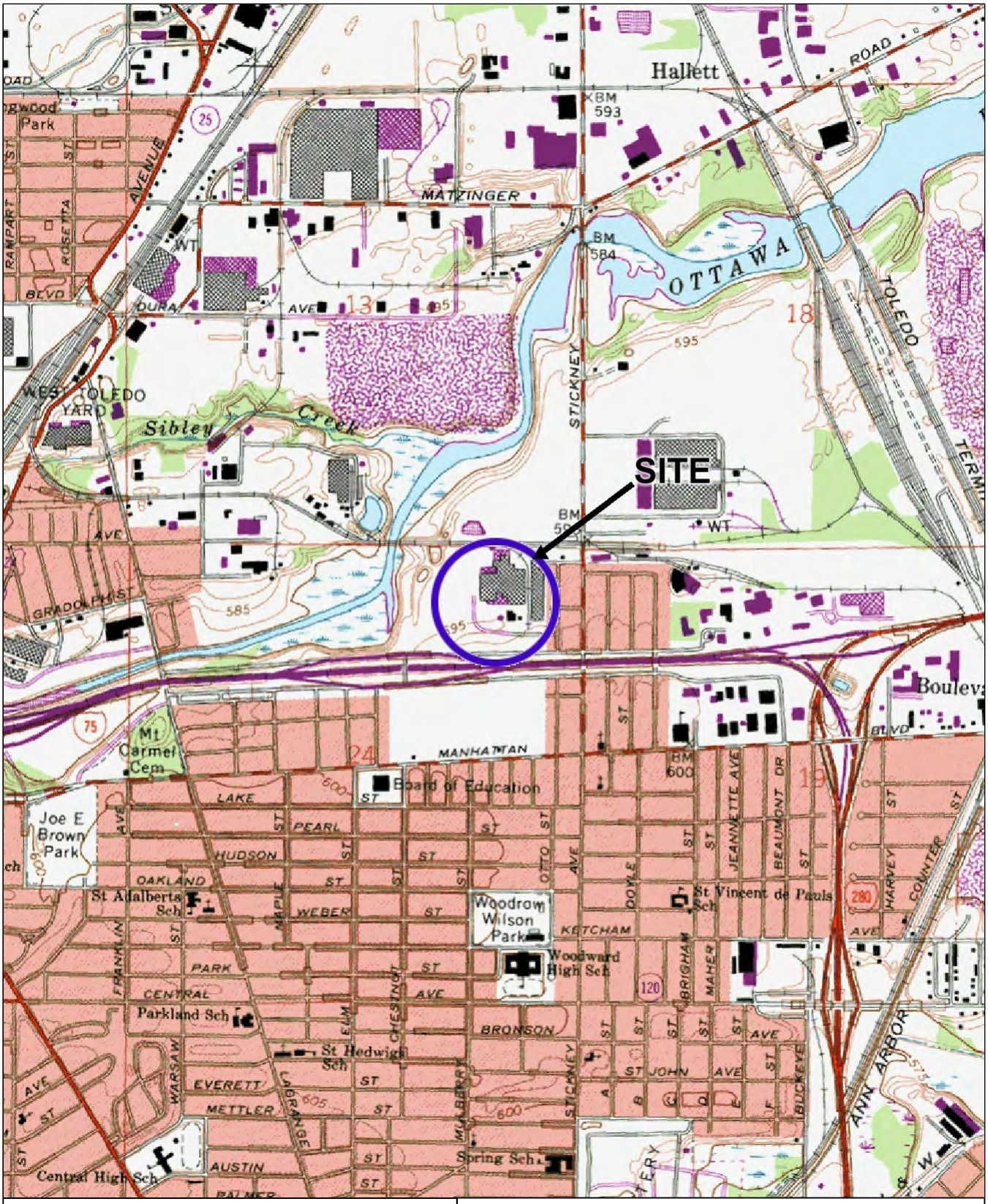
Location Name			MW-10H	MW-11H	MW-11H	MW-11H	PZ-43	PZ-43	PZ-43	PZ-43
Sample Name	Residential VISLs		4413-060111-1130	1318-020310-1420	2308-071410-1000	4413-060211-0948	0938-020410-1115	0938-071510-1250	4413-060111-1930	4413-060111-0002
Sample Date	Target		6/1/2011	2/3/2010	7/14/2010	6/2/2011	2/4/2010	7/15/2010	6/1/2011	6/1/2011
Sample Type	Groundwater	MCL	N	N	N	N	N	N	N	FD
Benzo(a)anthracene	-	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Benzo(a)pyrene	-	0.0002	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Benzo(b)fluoranthene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Benzo(g,h,i)perylene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002 J	-	-
Benzo(k)fluoranthene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Biphenyl	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
bis(2-Chloroethoxy)methane	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
bis(2-Chloroethyl)ether	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
bis(2-Ethylhexyl)phthalate	-	0.006	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Butyl benzylphthalate	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Caprolactam	-	-	-	< 0.01	< 0.01	-	< 0.01	**0.001 J**	-	-
Carbazole	-	-	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
Chrysene	-	-	-	< 0.001	< 0.001	-	< 0.001	< 0.001	-	-
Dibenz(a,h)anthracene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002 J	-	-
Dibenzofuran	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Diethyl phthalate	-	-	-	< 0.005	< 0.005	-	< 0.005	**0.001 J**	-	-
Dimethyl phthalate	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Dimethylformamide	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Di-n-butylphthalate	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Di-n-octyl phthalate	-	-	-	< 0.005	**0.002 J**	-	< 0.005	**0.0002 J**	-	-
Fluoranthene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Fluorene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Hexachlorobenzene	-	0.001	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Hexachlorobutadiene	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Hexachlorocyclopentadiene	-	0.05	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Hexachloroethane	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Indeno(1,2,3-cd)pyrene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Isophorone	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
Naphthalene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Nitrobenzene	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
N-Nitrosodi-n-propylamine	-	-	-	< 0.005	< 0.005	-	< 0.005	< 0.005	-	-
N-Nitrosodiphenylamine	-	-	-	R	< 0.005	-	R	< 0.005	-	-
Pentachlorophenol	-	0.001	-	< 0.01	< 0.01	-	< 0.01	< 0.01	-	-
Phenanthrene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Phenol	-	-	-	< 0.005	< 0.005	-	< 0.005	R	-	-
Pyrene	-	-	-	< 0.002	< 0.002	-	< 0.002	< 0.002	-	-
Volatile Organic Compounds (mg/L)										
1,1,1-Trichloroethane	-	0.2	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	-	0.007	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trichlorobenzene	-	0.07	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane (DBCP)	-	0.0002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane (Ethylene Dibromide)	-	0.00005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	-	0.6	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	-	0.075	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (Methyl Ethyl Ketone)	3700	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	990	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	-	-	< 0.01	< 0.01 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	0.0022	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.0013	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	-	0.08000001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane (Methyl Bromide)	-	-	< 0.002 J	< 0.002	< 0.002	< 0.002 J	< 0.002	< 0.002 J	< 0.002 J	< 0.002 J

TABLE 14
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - EASTERN PROPERTY BOUNDARY
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OHIO

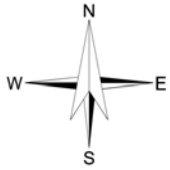
Location Name			MW-10H	MW-11H	MW-11H	MW-11H	PZ-43	PZ-43	PZ-43	PZ-43
Sample Name	Residential VISLs		4413-060111-1130	1318-020310-1420	2308-071410-1000	4413-060211-0948	0938-020410-1115	0938-071510-1250	4413-060111-1930	4413-060111-0002
Sample Date	Target		6/1/2011	2/3/2010	7/14/2010	6/2/2011	2/4/2010	7/15/2010	6/1/2011	6/1/2011
Sample Type	Groundwater	MCL	N	N	N	N	N	N	N	FD
Carbon disulfide	1.8	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Carbon tetrachloride	-	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
Chlorobenzene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobromomethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0011	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane (Methyl Chloride)	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	-	0.07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001
cis-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyclohexane	-	-	< 0.001	< 0.001 J	< 0.001 J	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001
Dibromochloromethane	-	0.08000001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane (CFC-12)	-	-	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001 J
Ethylbenzene	0.0055	0.7	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Isopropylbenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylene	0.65	-	< 0.001	< 0.001	< 0.001	< 0.001	**0.0003 J**	< 0.001	< 0.001	< 0.001
Methyl acetate	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 J	< 0.01	< 0.01
Methyl cyclohexane	-	-	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methyl Tert Butyl Ether	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methylene chloride	1.1	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
n-Propylbenzene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
o-Xylene	0.9	-	< 0.001	< 0.001	< 0.001	< 0.001	**0.0001 J**	< 0.001	< 0.001	< 0.001
Styrene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.023	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	-	-	< 0.005	< 0.005	< 0.005 J	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Toluene	33	1	< 0.001	< 0.001	< 0.001	< 0.001	**0.0005 J**	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	-	0.1	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0018	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane (CFC-11)	-	-	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001	< 0.001	< 0.001 J	< 0.001 J
Trifluorotrichloroethane (Freon 113)	-	-	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	-	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes and Abbreviations:
1. Results were compared to the following criteria:
   [A]: Indicates result is greater than the Residential VISL for Target Groundwater Concentrations, May 2012 (Appendix E, Attachment A)
   [B]: Indicates result is greater than the MCL (EPA RSL, November 2012)
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected during validation
3. Results in **bold** are detected. Results in **red** exceed criteria.
4. Sample type codes: N-Normal, FD-Field Duplicate
5. Applicable Residential VISLs are shown for detected compounds only.

FIGURES



SITE COORDINATES:41°41'30"N 83°31'51"W



U.S.G.S. QUADRANGLE: TOLEDO, OH

HALEY & ALDRICH

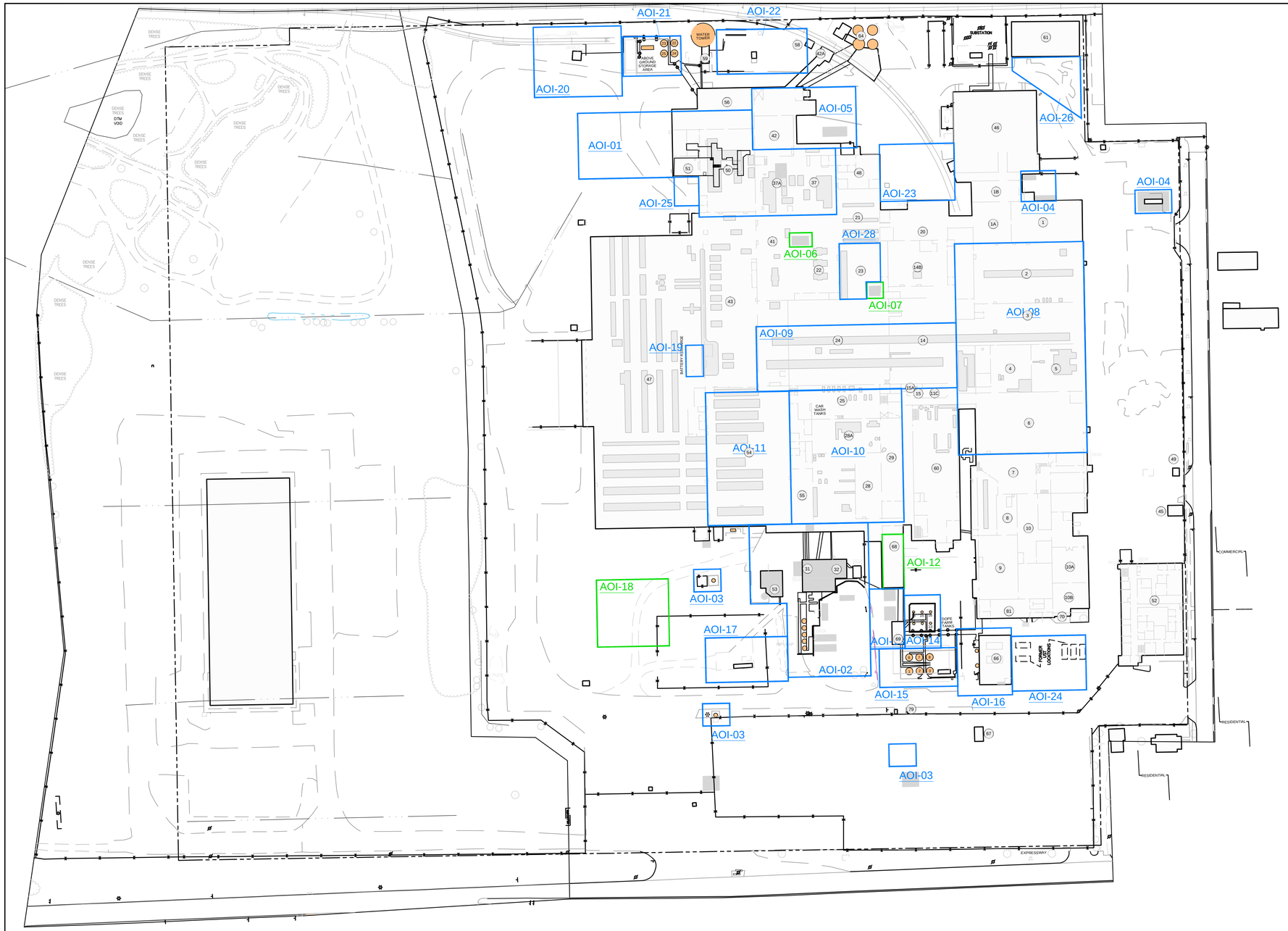
TEXTILE LEATHER CORPORATION
3729 TWINING STREET
TOLEDO, OHIO

PROJECT LOCUS

SCALE: 1:24,000
NOVEMBER 2009

FIGURE 1

36005 1.PDF



LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- AREA OF INTEREST (AOI) - FURTHER INVESTIGATION RECOMMENDED
- AREA OF INTEREST (AOI) - NO ADDITIONAL INVESTIGATION RECOMMENDED
- VEGETATION
- BUILDING NUMBER

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.

BLDG NO.	DEPARTMENT	TOTAL FLOOR AREA (SQ FT.)
1	WAREHOUSE	5,800
1A	WAREHOUSE	3,600
1B	WAREHOUSE	1,800
2	FRAME ROOM	13,900
3	COATING & DOPE STORAGE	9,500
4-5	DOPE MAKEUP & NAUTA MIXER	10,100
6	WAREHOUSE	14,100
7	SAMPLE ROOM	17,700
8	WAREHOUSE	3,300
9	WAREHOUSE	5,400
10	WAREHOUSE	7,900
10A & 10B	WAREHOUSE	4,800
11C	MAINT CRIB & STORAGE	750
14	WAREHOUSE & COATING	6,800
14A	WAREHOUSE & NO 3 STOCK	1,700
14B	REELING, WHSE & NO 3 STOCK	3,800
15	COATING	5,100
15A	FIRST AID	200
20	RECEIVING	5,000
21	EMBOSSING & ROLL STORAGE	3,000
22	EMBOSSING	7,800
23	ANNEALING	4,800
24	COATING & STORAGE	24,250
25	DOPE ROOM	13,100
28	DOPE ROOM	10,300
28A	CAN WASH & WAREHOUSE	4,800
29	BULK DOPE, WHSE & FK. TRK. REP.	3,100
31	SOLVENT RECOVERY	5,500
32	SOLVENT RECOVERY	300
37	CALENDER ROOM (NO 1 CAL)	4,800
37A	CALENDER ROOM (NO 2 CAL)	7,300
41	EMBOSSING & STORAGE	21,200
42	TOLEX WAREHOUSE	18,700
42A	RECEIVING DOCK	600
43	FINAL INSPECTION	18,000
45	FIRE PUMP NO 1	330
46	WAREHOUSE	14,400
47	WAREHOUSE	68,700
48	QUALITY CONTROL	3,000
49	STORAGE SHED	230
50	CALENDER ROOM (NO 3 CAL)	9,800
51	CONTROL ROOM (NO 3 CAL)	2,600
52	MAIN OFFICE BUILDING	24,000
53	SCRAP STORAGE (SOLVENT)	1,080
54	PRINT & FINISH	25,100
55	WAREHOUSE (DOPE ROOM)	3,100
56	TEXTILE WAREHOUSE	4,800
58	PLASTICIZER UNLOADING	140
59	FIRE PUMP NO 2	240
60	MAINTENANCE & RESEARCH	26,600
61	OUTPOST WAREHOUSE	4,800
62	STORAGE & BREAK ROOM	510
63	CONTROL ROOM (SOLVENT RECOVERY)	160
64	SILOS	1,030
66	POWER HOUSE	3,800
67	GAS METER HOUSE	240
68	RED LABEL ROOM	2,560
69	PUMP HOUSE	530
70	PURCHASING STORAGE	320
72	SHED BUILDING 9	300
73	SHED PILOT LINE	1,000
74	SHED BUILDING 6	400
79	GUARD HOUSE	40
81	DEVELOPMENT CENTER	3,170
	TOTAL AREA	462,060

AREAS OF INTEREST:

AOI-01 - PCB AREA
AOI-02 - SOLVENT RECOVERY AREA
AOI-03 - OIL INTERCEPTOR BASINS
AOI-04 - EASTERN REFUSE HANDLING AREA
AOI-05 - NORTHERN REFUSE AND OIL HANDLING AREA
AOI-06 - GENERAL REFUSE HOPPERS
AOI-07 - CONTAINER STORAGE AREA
AOI-08 - BUILDINGS 2 THROUGH 6
AOI-09 - COATER LINES
AOI-10 - DOPE ROOM AND CAN WASH
AOI-11 - PRINT FINISH DEPARTMENT
AOI-12 - HAZARDOUS WASTE STORAGE ROOM
AOI-13 - BUILDING 69
AOI-14 - SOUTH UST FARM
AOI-15 - SOUTH AST FARM
AOI-16 - POWERHOUSE
AOI-17 - FORMER FUEL OIL AST AND FORMER HAZARDOUS WASTE STORAGE AREA
AOI-18 - FORMER FIRE RESPONSE TRAINING AREA
AOI-19 - BATTERY CHARGING AREA
AOI-20 - RAIL CAR UNLOADING AREA
AOI-21 - NORTH FORMER AST FARM AND CURRENT AST FARM
AOI-22 - FORMER NORTH FUEL OIL AST FARM
AOI-23 - NORTHERN PHTHALATE LEAK REMEDIATION AREA
AOI-24 - SOUTH EAST USTS
AOI-25 - TOLEX COURTYARD CHILLER
AOI-26 - OUTPOST OUTSIDE STORAGE AREA
AOI-27 - SITE-WIDE GROUNDWATER
AOI-28 - FORMER SAMPLE PRINT MACHINE

N
W E
S

0 80 160 240 320
SCALE IN FEET

HALEY & ALDRICH

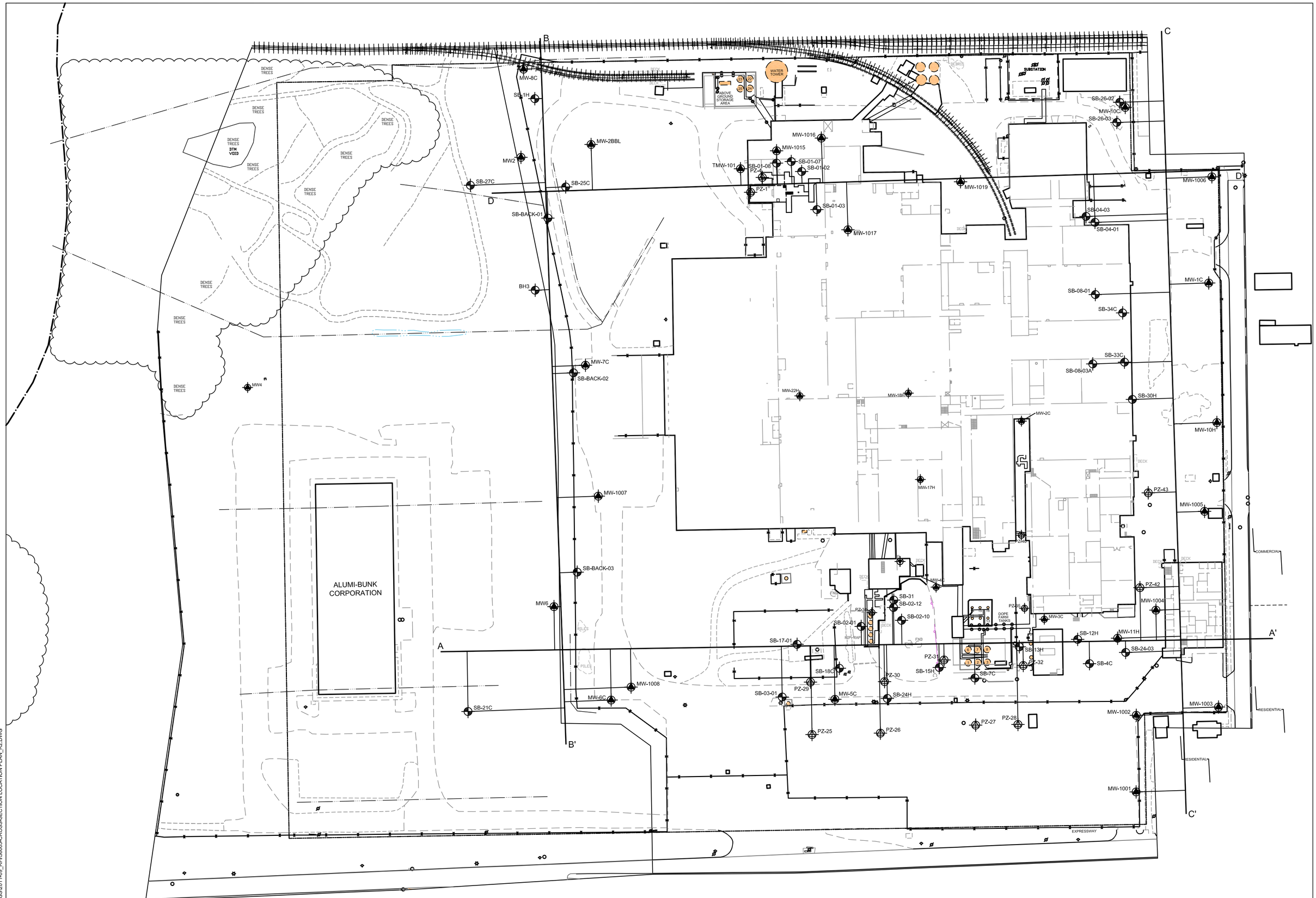
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SITE PLAN SHOWING AOI LOCATIONS

SCALE: AS SHOWN
NOVEMBER 2010

FIGURE 2

G:\36005 TEXTILEATHER\005 - FIELD EVENT 2\CAD\DRAWINGS\36005-SITE-PLAN_WITH_AOIS-NOV2010.DWG



LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- SEWERS
- ELECTRIC LINES
- WATER LINES
- VEGETATION

N
W E
S

0 50 100 150 200
SCALE IN FEET

HALEY & ALDRICH

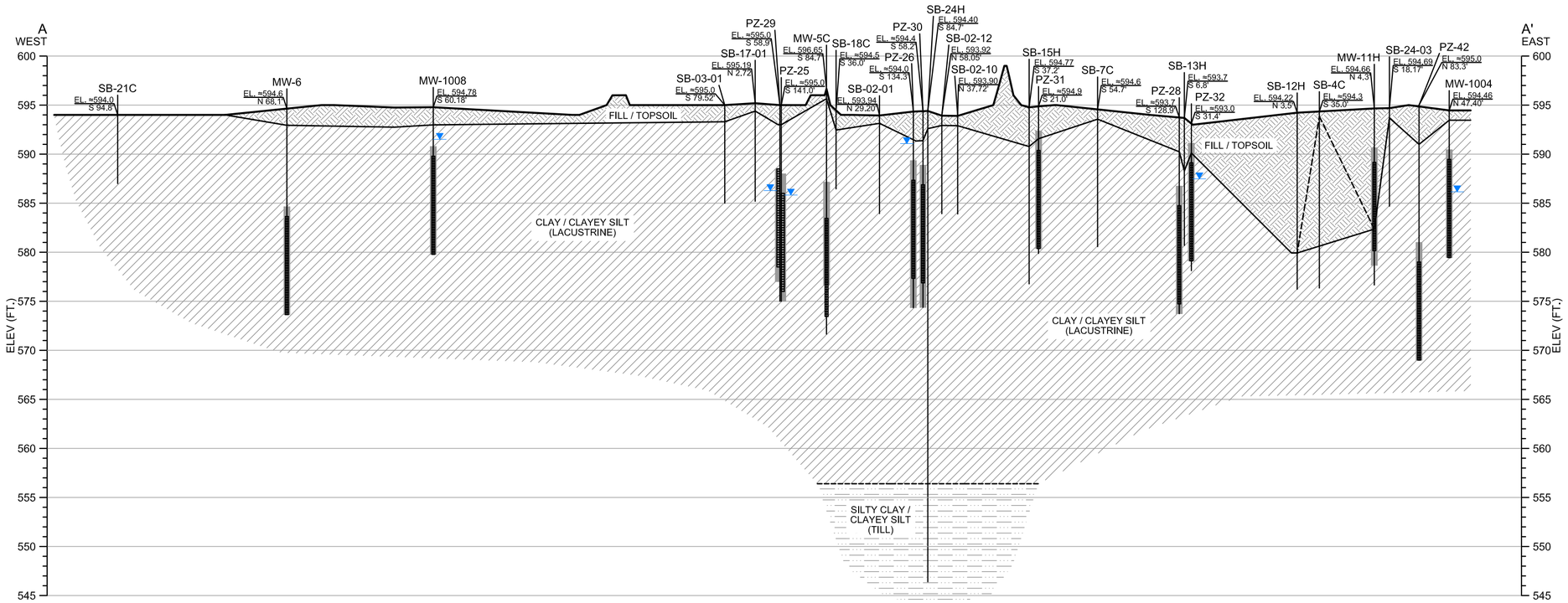
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

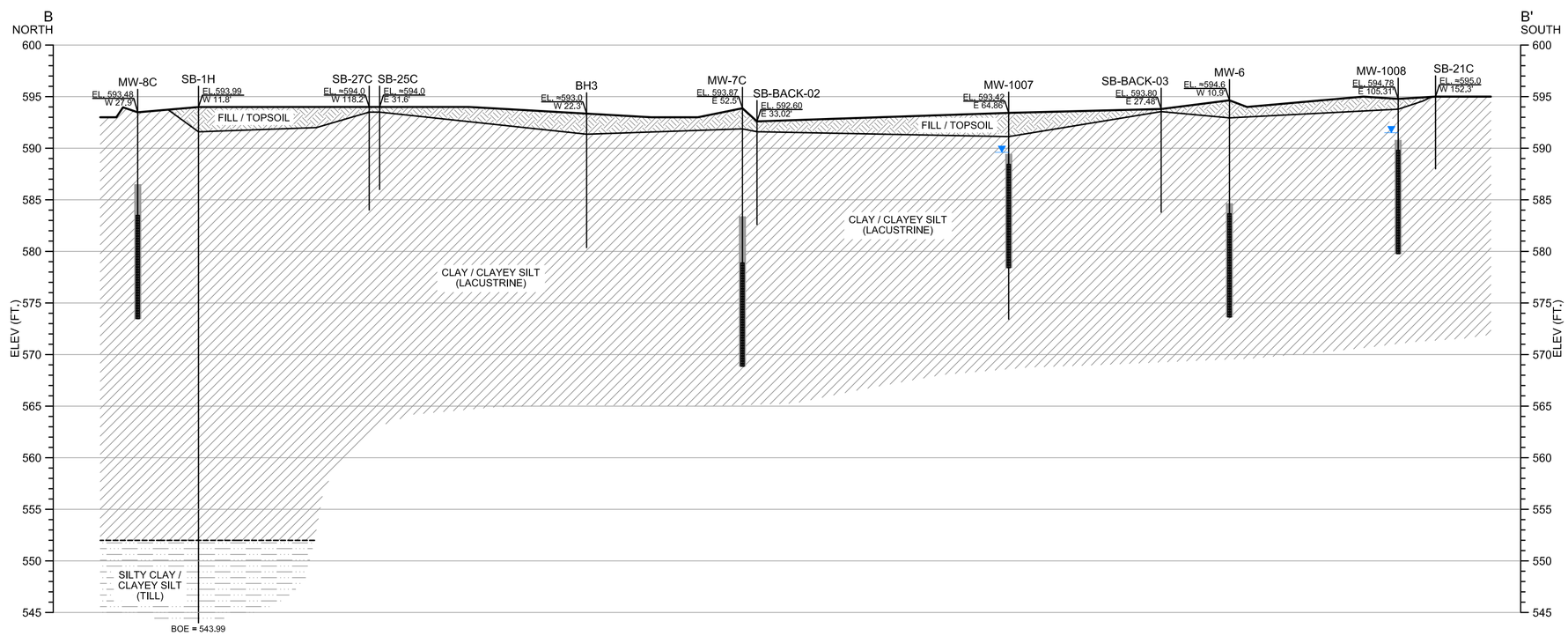
CROSS-SECTION LOCATION PLAN

SCALE: AS SHOWN
SEPTEMBER 2011

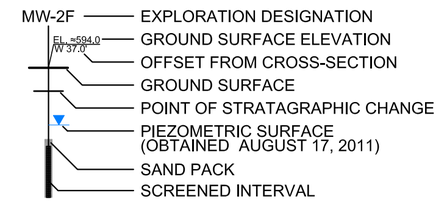
FIGURE 3

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-CROSS-SECTION LOCATION PLAN_R2.DWG





EXPLORATION LEGEND:



LITHOLOGY LEGEND:

- FILL / TOPSOIL
- CLAY / CLAYEY SILT (LACUSTRINE)
- SILTY CLAY / CLAYEY SILT (TILL)

HORIZ. 0 40 80 120 240
VERT. 0 5 10 15 20
SCALE IN FEET

HALEY & ALDRICH

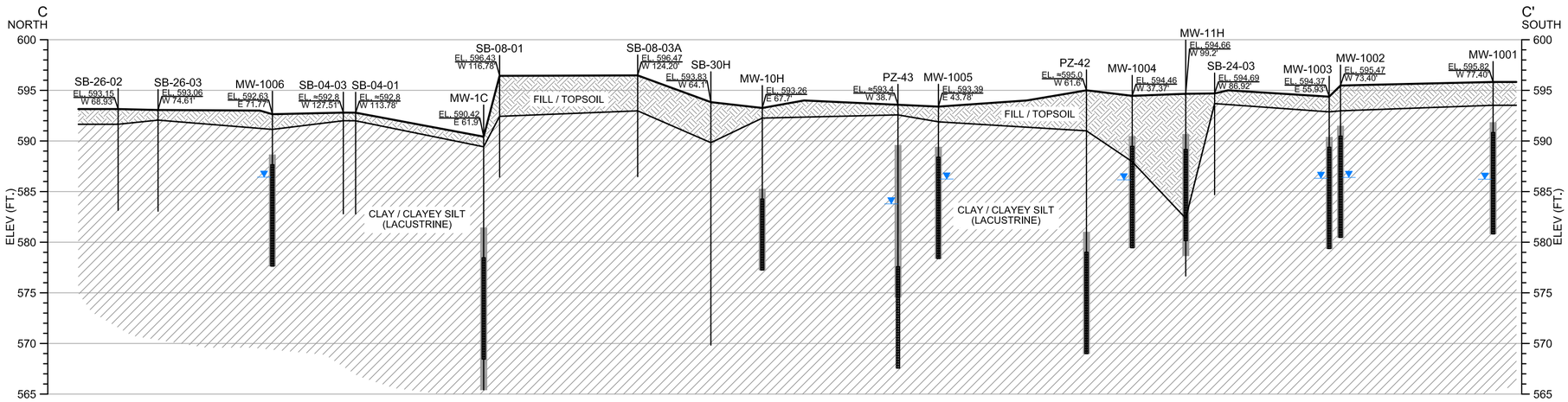
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

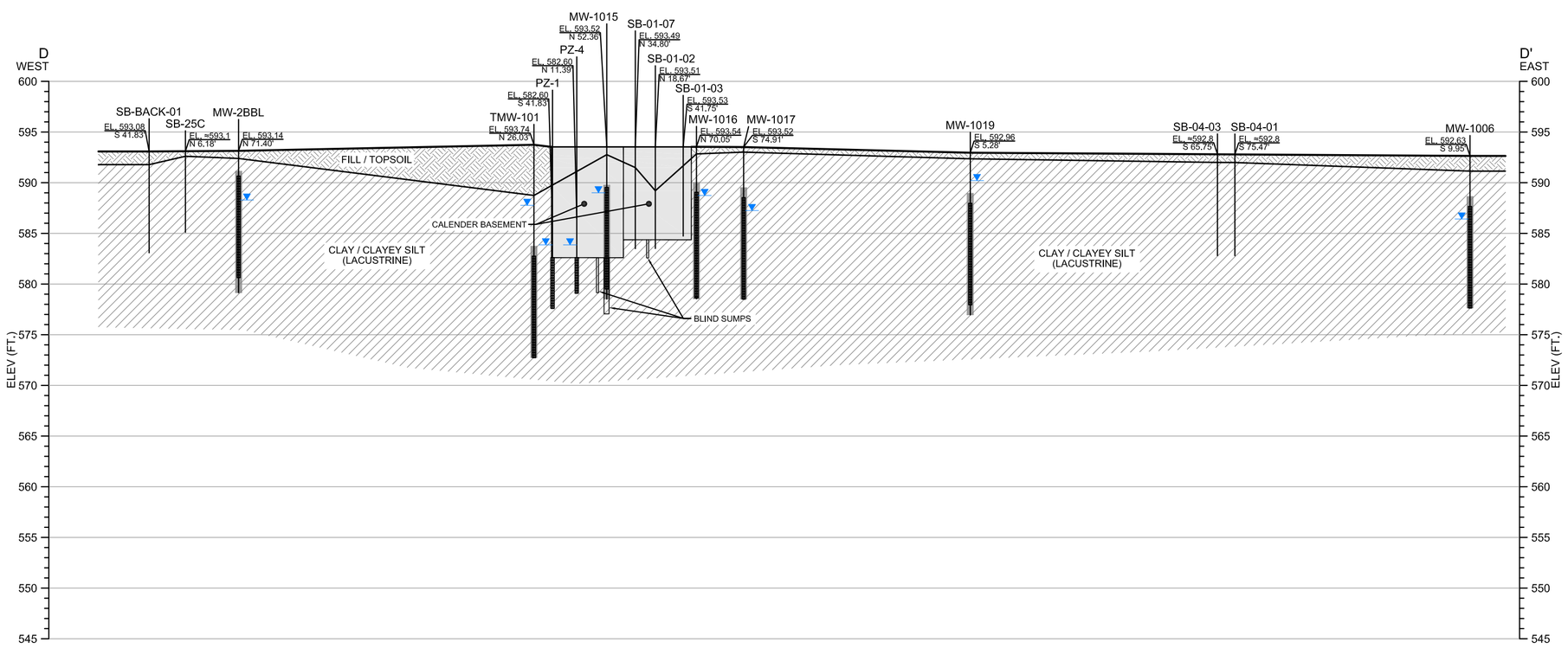
CROSS-SECTIONS A-A' & B-B'

SCALE: AS SHOWN
SEPTEMBER 2011

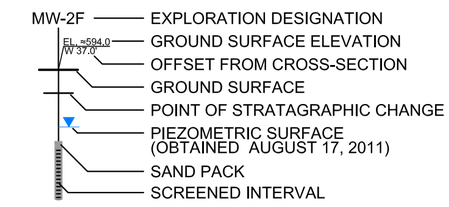
FIGURE 4A

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-CROSS-SECTIONS_R3.DWG





EXPLORATION LEGEND:



LITHOLOGY LEGEND:

- FILL / TOPSOIL
- CLAY / CLAYEY SILT (LACUSTRINE)
- SILTY CLAY / CLAYEY SILT (TILL)

HORIZ. 0 40 80 120 240
VERT. 0 5 10 15 20
SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

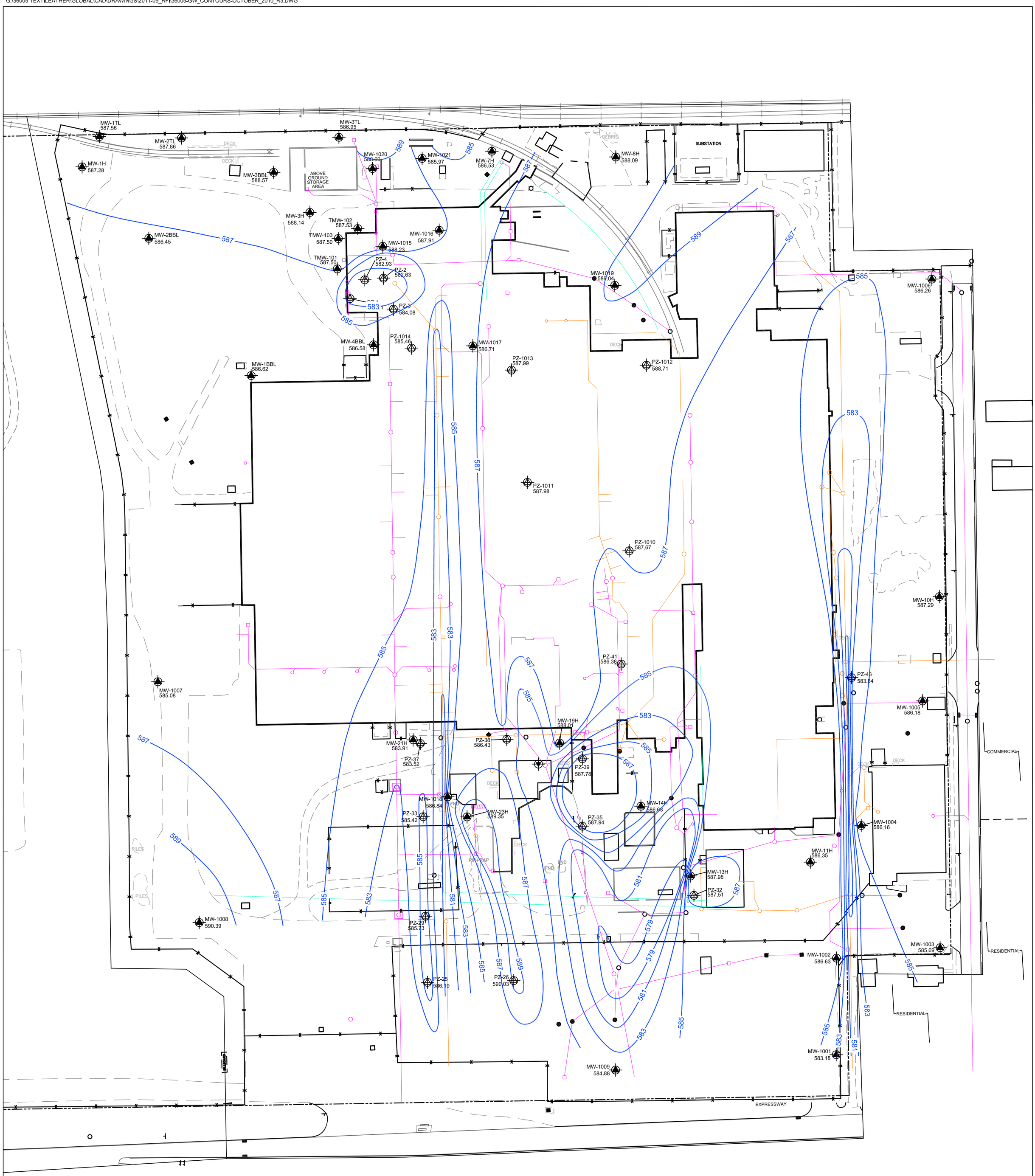
CROSS-SECTIONS C-C' & D-D'

SCALE: AS SHOWN
SEPTEMBER 2011

FIGURE 4B

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-CROSS-SECTIONS_R3.DWG

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-GW_CONTOURS-OCTOBER_2010_R3.DWG



LEGEND:

- MONITORING WELL LOCATION
- PIZOMETER LOCATION
- 593.53 STORM SEWER MANHOLE LOCATION
- PROPERTY LINE
- FENCE
- STORM SEWER
- SANITARY SEWERS
- UTILITIES 3
- RAILROAD

NOTES:

1. BASEPLAN PROVIDED BY JC ANDRUS & ASSOCIATES, NOVEMBER 2009.
2. GROUNDWATER ELEVATIONS IN BLACK MEASURED ON 12 OCTOBER 2010.

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SCALE IN FEET

HALEY & ALDRICH

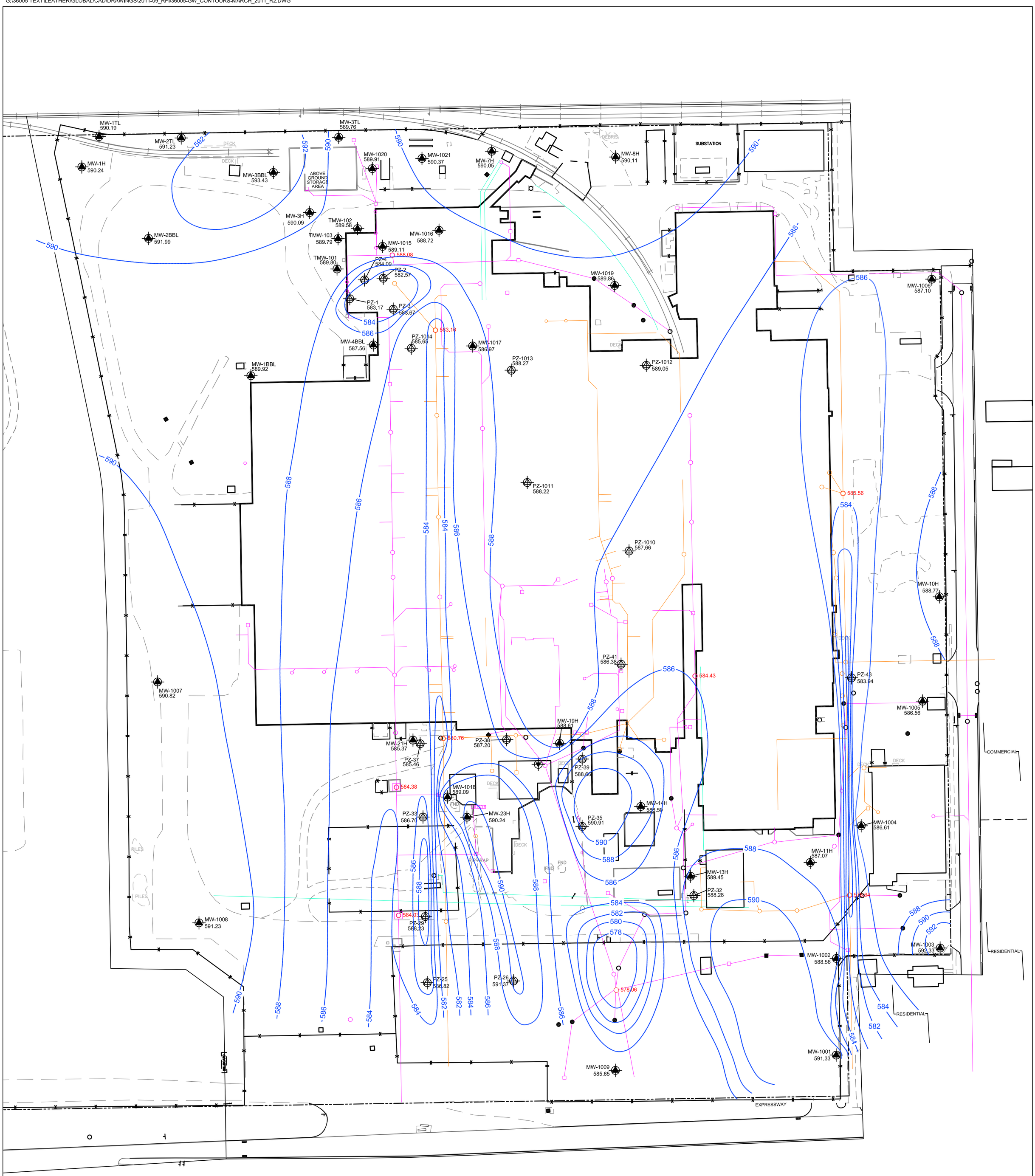
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

GROUNDWATER ELEVATIONS
12 OCTOBER 2010

SCALE: AS SHOWN
OCTOBER 2010

FIGURE 5A

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-GW_CONTOURS-MARCH_2011_R2.DWG



LEGEND:

- MONITORING WELL LOCATION
- PIZOMETER LOCATION
- 593.53 STORM SEWER MANHOLE LOCATION
- PROPERTY LINE
- FENCE
- STORM SEWER
- SANITARY SEWERS
- UTILITIES 3
- RAILROAD

NOTES:

1. BASEPLAN PROVIDED BY JC ANDRUS & ASSOCIATES, NOVEMBER 2009.
2. GROUNDWATER ELEVATIONS IN BLACK MEASURED ON 24 MARCH 2011.
3. SEWER WATER ELEVATIONS IN RED MEASURED ON 24 MARCH 2011.

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SCALE IN FEET

HALEY & ALDRICH

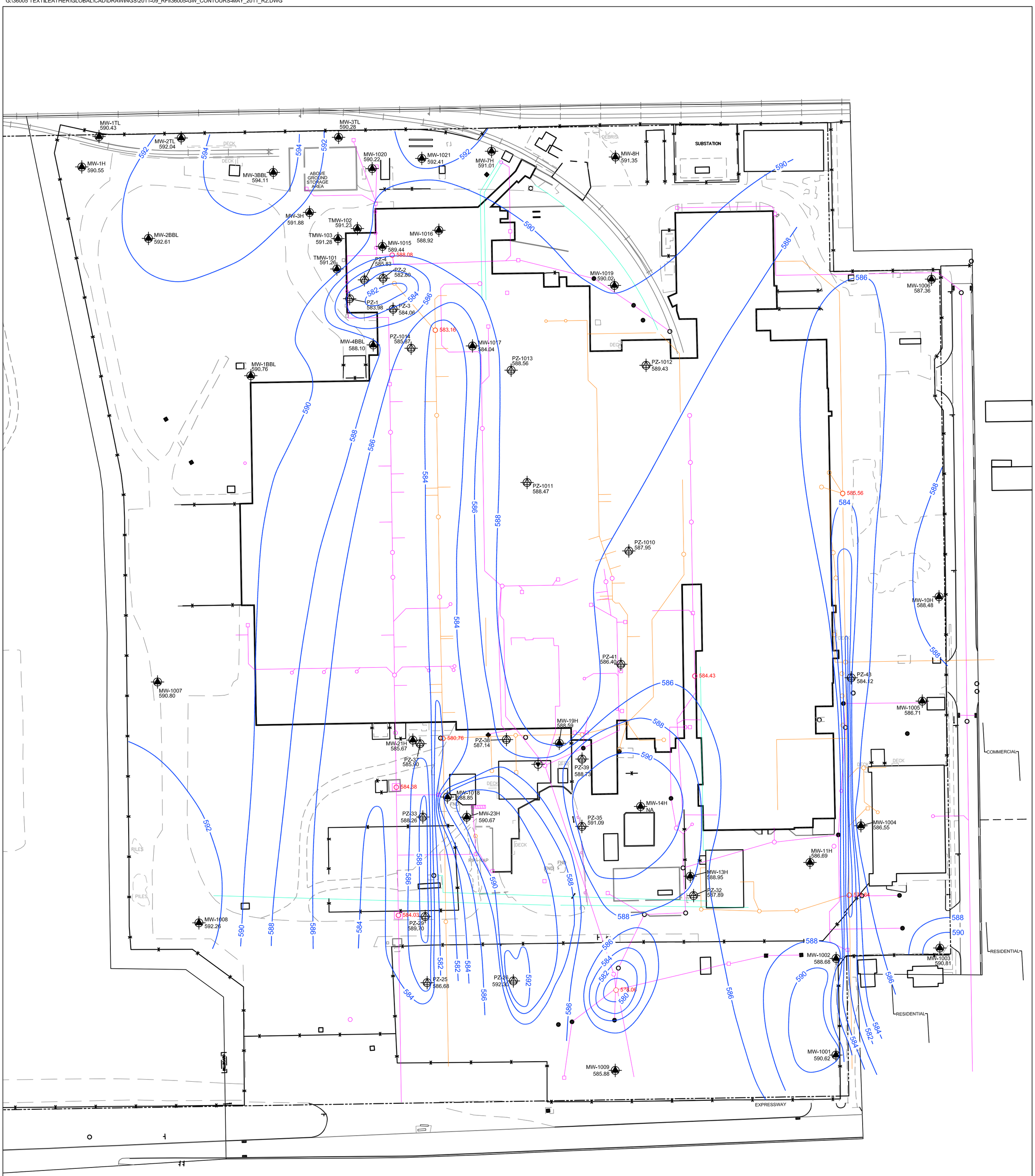
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

GROUNDWATER ELEVATIONS
24 MARCH 2011

SCALE: AS SHOWN
JUNE 2011

FIGURE 5B

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-GW_CONTOURS-MAY_2011_R2.DWG



LEGEND:

- MONITORING WELL LOCATION
- PIZOMETER LOCATION
- 593.53 STORM SEWER MANHOLE LOCATION
- PROPERTY LINE
- FENCE
- STORM SEWER
- SANITARY SEWERS
- UTILITIES 3
- RAILROAD

NOTES:

1. BASEPLAN PROVIDED BY JC ANDRUS & ASSOCIATES, NOVEMBER 2009.
2. GROUNDWATER ELEVATIONS IN BLACK MEASURED ON 31 MAY 2011.
3. SEWER WATER ELEVATIONS IN RED MEASURED ON 24 MARCH 2011.

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SCALE IN FEET

HALEY & ALDRICH

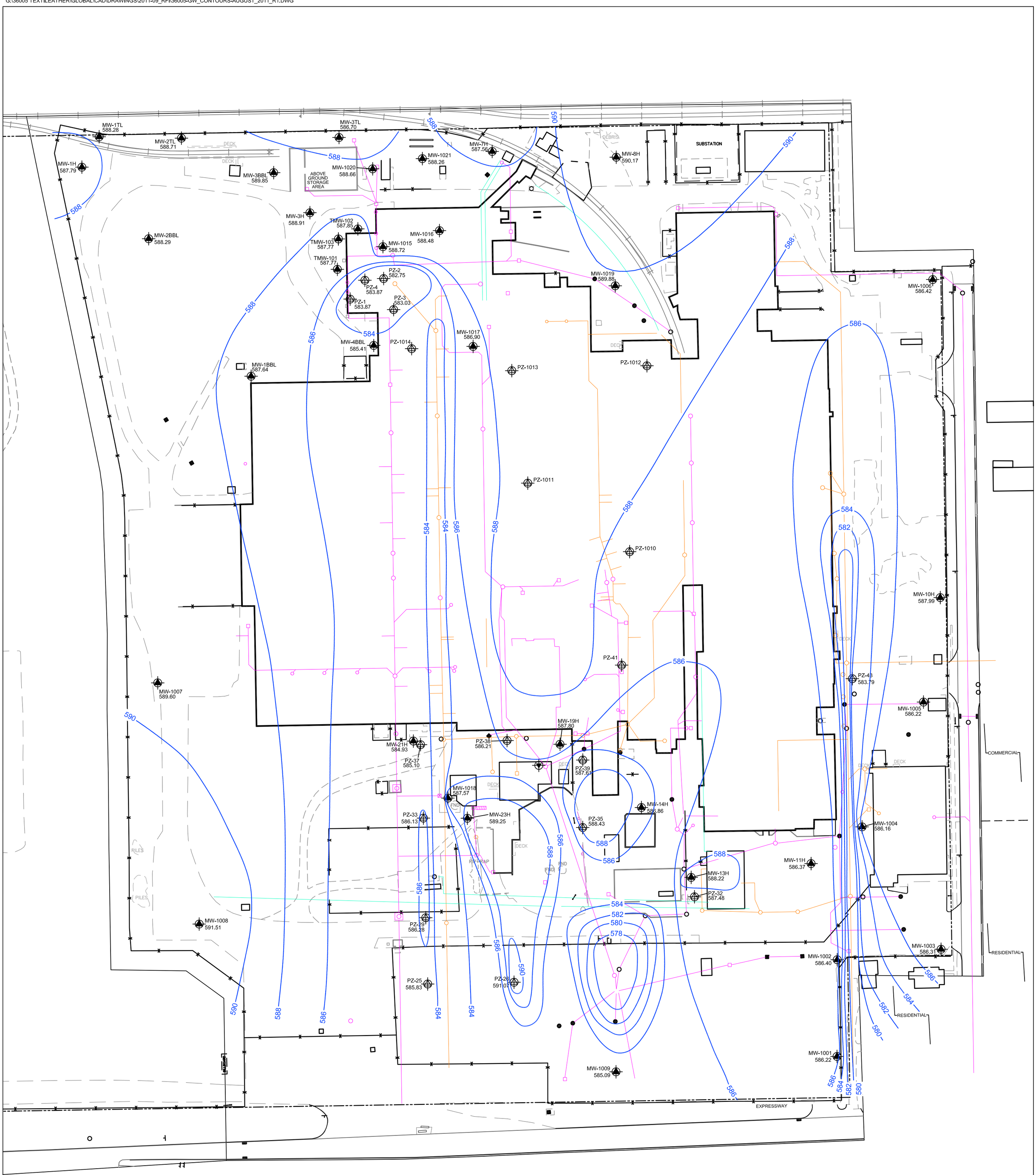
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

GROUNDWATER ELEVATIONS
31 MAY 2011

SCALE: AS SHOWN
JUNE 2011

FIGURE 5C

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-GW_CONTOURS-AUGUST_2011_R1.DWG



LEGEND:

- MONITORING WELL LOCATION
- PIZOMETER LOCATION
- PROPERTY LINE
- FENCE
- STORM SEWER
- SANITARY SEWERS
- UTILITIES 3
- RAILROAD

NOTES:

1. BASEPLAN PROVIDED BY JC ANDRUS & ASSOCIATES, NOVEMBER 2009.
2. GROUNDWATER ELEVATIONS IN BLACK MEASURED ON 17 AUGUST 2011.

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SCALE IN FEET

HALEY & ALDRICH

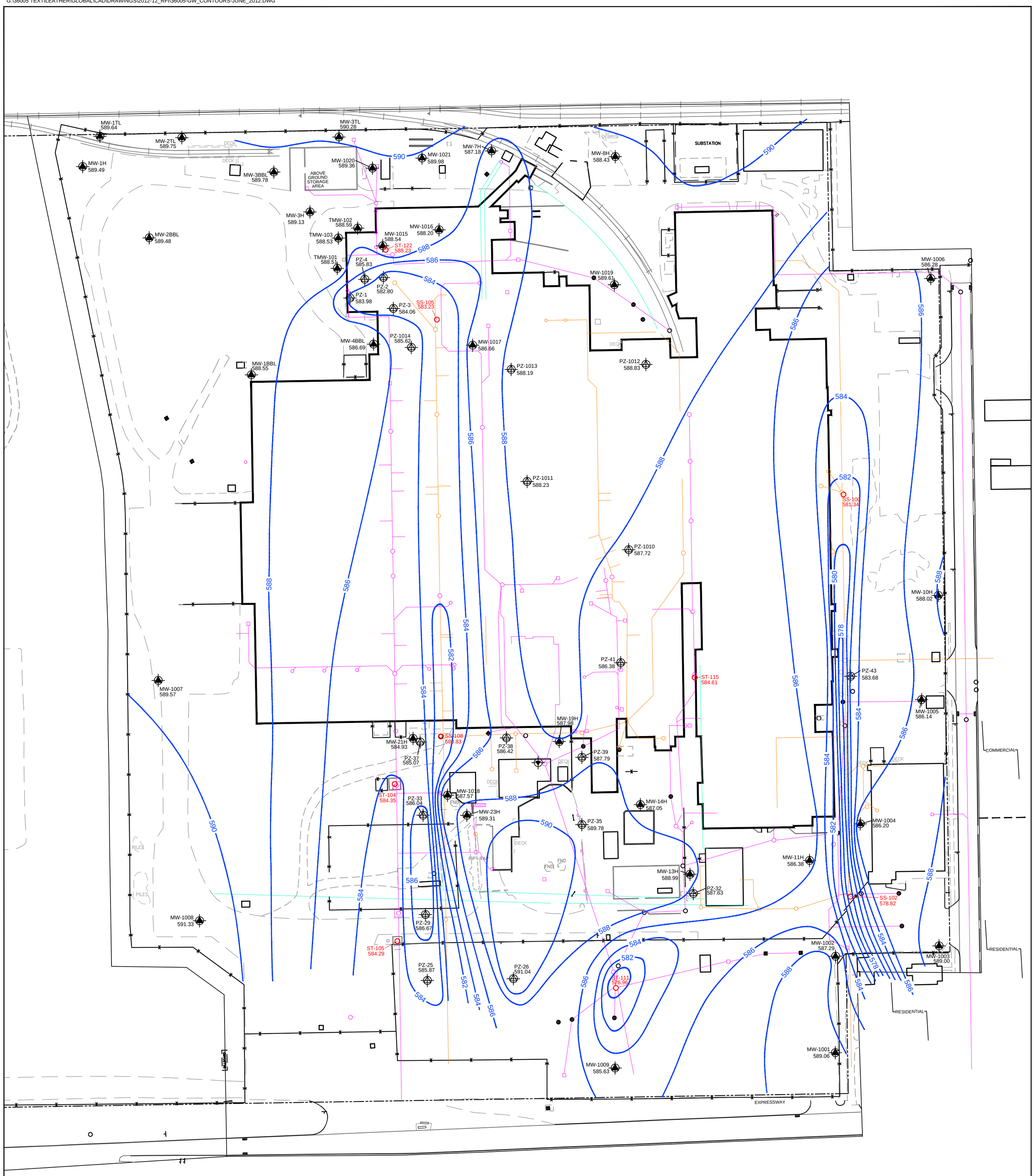
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

GROUNDWATER ELEVATIONS
17 AUGUST 2011

SCALE: AS SHOWN
SEPTEMBER 2011

FIGURE 5D

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-GW_CONTOURS-JUNE_2012.DWG



LEGEND:

- MONITORING WELL LOCATION
- PIZOMETER LOCATION
- 593.53 STORM SEWER MANHOLE LOCATION
- PROPERTY LINE
- FENCE
- STORM SEWER
- SANITARY SEWERS
- UTILITIES 3
- RAILROAD

NOTES:

1. BASEPLAN PROVIDED BY JC ANDRUS & ASSOCIATES, NOVEMBER 2009.
2. GROUNDWATER ELEVATIONS IN BLACK MEASURED ON 21 MAY 2012.
3. SEWER WATER ELEVATIONS IN RED MEASURED ON 21 MAY 2012.

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SCALE IN FEET

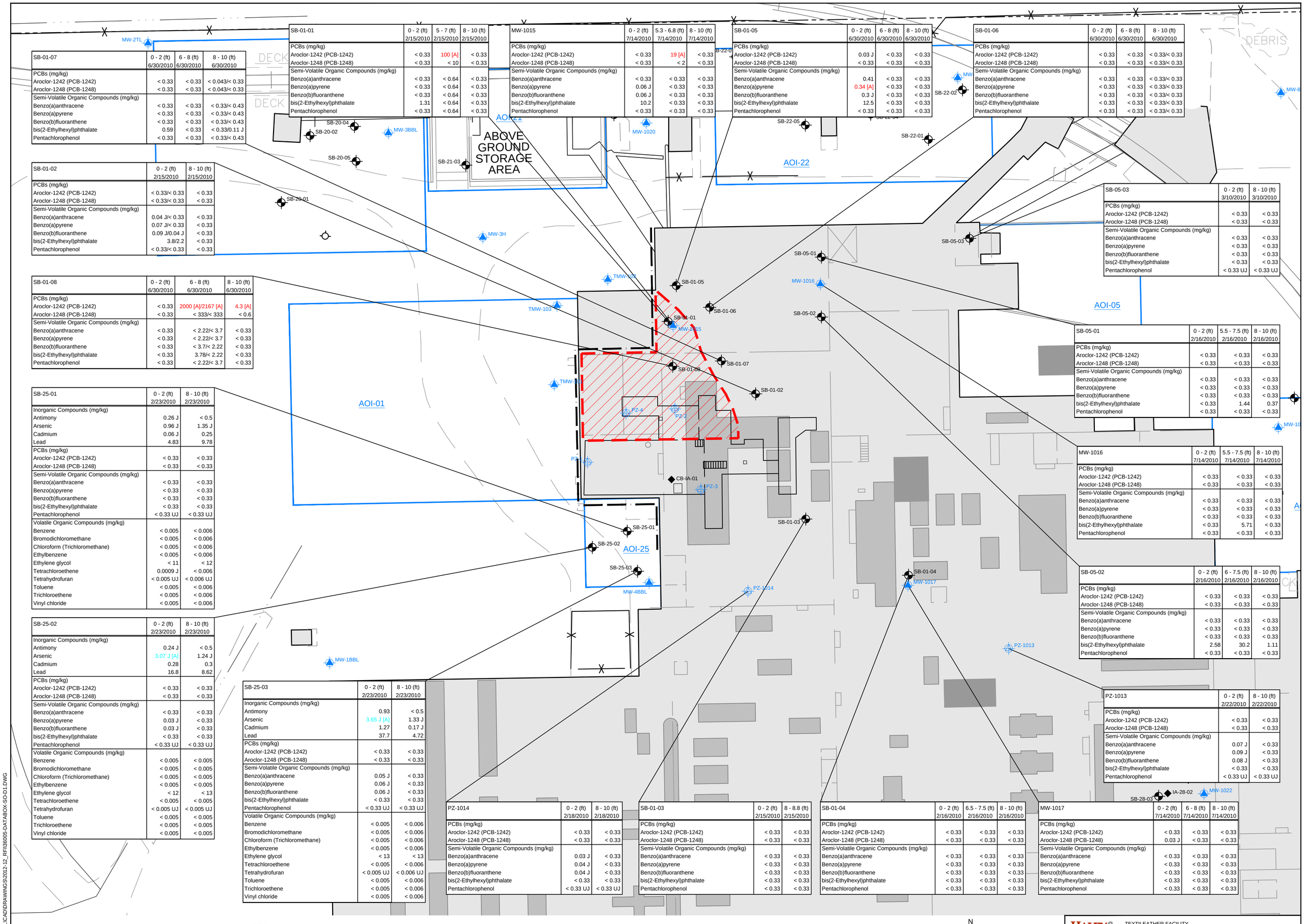
HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

GROUNDWATER ELEVATIONS
21 MAY 2012

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 5E



SB-01-07	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.043/< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	< 0.043/< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33/< 0.43
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33/< 0.43
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33/< 0.43
bis(2-Ethylhexyl)phthalate	0.59	< 0.33	< 0.33/0.11 J
Pentachlorophenol	< 0.33	< 0.33	< 0.33/< 0.43

SB-01-01	0 - 2 (ft) 2/15/2010	5 - 7 (ft) 2/15/2010	8 - 10 (ft) 2/15/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	100 [A]	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 10	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.64	< 0.33
Benzo(a)pyrene	< 0.33	< 0.64	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.64	< 0.33
bis(2-Ethylhexyl)phthalate	1.31	< 0.64	< 0.33
Pentachlorophenol	< 0.33	< 0.64	< 0.33

MW-1015	0 - 2 (ft) 7/14/2010	5.3 - 6.8 (ft) 7/14/2010	8 - 10 (ft) 7/14/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	19 [A]	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 2	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	0.06 J	< 0.33	< 0.33
Benzo(b)fluoranthene	0.06 J	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	10.2	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33

SB-01-05	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	0.03 J	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	0.41	< 0.33	< 0.33
Benzo(a)pyrene	0.34 [A]	< 0.33	< 0.33
Benzo(b)fluoranthene	0.3 J	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	12.5	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33

SB-01-06	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33/< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	< 0.33/< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33/< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33/< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33/< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33/< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33/< 0.33

SB-01-02	0 - 2 (ft) 2/15/2010	8 - 10 (ft) 2/15/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33/< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33/< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.04 J/< 0.33	< 0.33
Benzo(a)pyrene	0.07 J/< 0.33	< 0.33
Benzo(b)fluoranthene	0.09 J/0.04 J	< 0.33
bis(2-Ethylhexyl)phthalate	3.8/2.2	< 0.33
Pentachlorophenol	< 0.33/< 0.33	< 0.33

SB-05-03	0 - 2 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ

SB-01-08	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	2000 [A]/2167 [A]	4.3 [A]
Aroclor-1248 (PCB-1248)	< 0.33	< 333/< 333	< 0.6
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 2.22/< 3.7	< 0.33
Benzo(a)pyrene	< 0.33	< 2.22/< 3.7	< 0.33
Benzo(b)fluoranthene	< 0.33	< 3.7/< 2.22	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	3.78/< 2.22	< 0.33
Pentachlorophenol	< 0.33	< 2.22/< 3.7	< 0.33

SB-05-01	0 - 2 (ft) 2/16/2010	5.5 - 7.5 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	1.44	0.37
Pentachlorophenol	< 0.33	< 0.33	< 0.33

SB-25-01	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	0.26 J	< 0.5
Arsenic	0.96 J	1.35 J
Cadmium	0.06 J	0.25
Lead	4.83	9.78
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.006
Ethylene glycol	< 11	< 12
Tetrachloroethene	0.0009 J	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

MW-1016	0 - 2 (ft) 7/14/2010	5.5 - 7.5 (ft) 7/14/2010	8 - 10 (ft) 7/14/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	5.71	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33

SB-05-02	0 - 2 (ft) 2/16/2010	6 - 7.5 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	2.58	30.2	1.11
Pentachlorophenol	< 0.33	< 0.33	< 0.33

SB-25-02	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	0.24 J	< 0.5
Arsenic	3.07 J [A]	1.24 J
Cadmium	0.28	0.3
Lead	16.8	8.62
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	0.03 J	< 0.33
Benzo(b)fluoranthene	0.03 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Ethylene glycol	< 12	< 13
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-25-03	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	0.93	< 0.5
Arsenic	3.65 J [A]	1.33 J
Cadmium	1.27	0.17 J
Lead	37.7	4.72
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.05 J	< 0.33
Benzo(a)pyrene	0.06 J	< 0.33
Benzo(b)fluoranthene	0.06 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.006
Ethylene glycol	< 13	< 13
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

PZ-1013	0 - 2 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.07 J	< 0.33
Benzo(a)pyrene	0.09 J	< 0.33
Benzo(b)fluoranthene	0.08 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ

PZ-1014	0 - 2 (ft) 2/18/2010	8 - 10 (ft) 2/18/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.03 J	< 0.33
Benzo(a)pyrene	0.04 J	< 0.33
Benzo(b)fluoranthene	0.04 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ

SB-01-03	0 - 2 (ft) 2/15/2010	8 - 8.8 (ft) 2/15/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-01-04	0 - 2 (ft) 2/16/2010	6.5 - 7.5 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33

MW-1017	0 - 2 (ft) 7/14/2010	6 - 8 (ft) 7/14/2010	8 - 10 (ft) 7/14/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	0.03 J	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL
- SUSPECTED PCB IMPACT AREA
- APPROXIMATE BENTONITE WALL LIMITS

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/KG.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SOIL VAPOR SAMPLES.
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.
8. SOIL DATABOXES IN AOI-25 INCLUDE RESULTS OF ETHYLENE GLYCOL.

N
W E
S

0 30 60
SCALE IN FEET

HALEY & ALDRICH

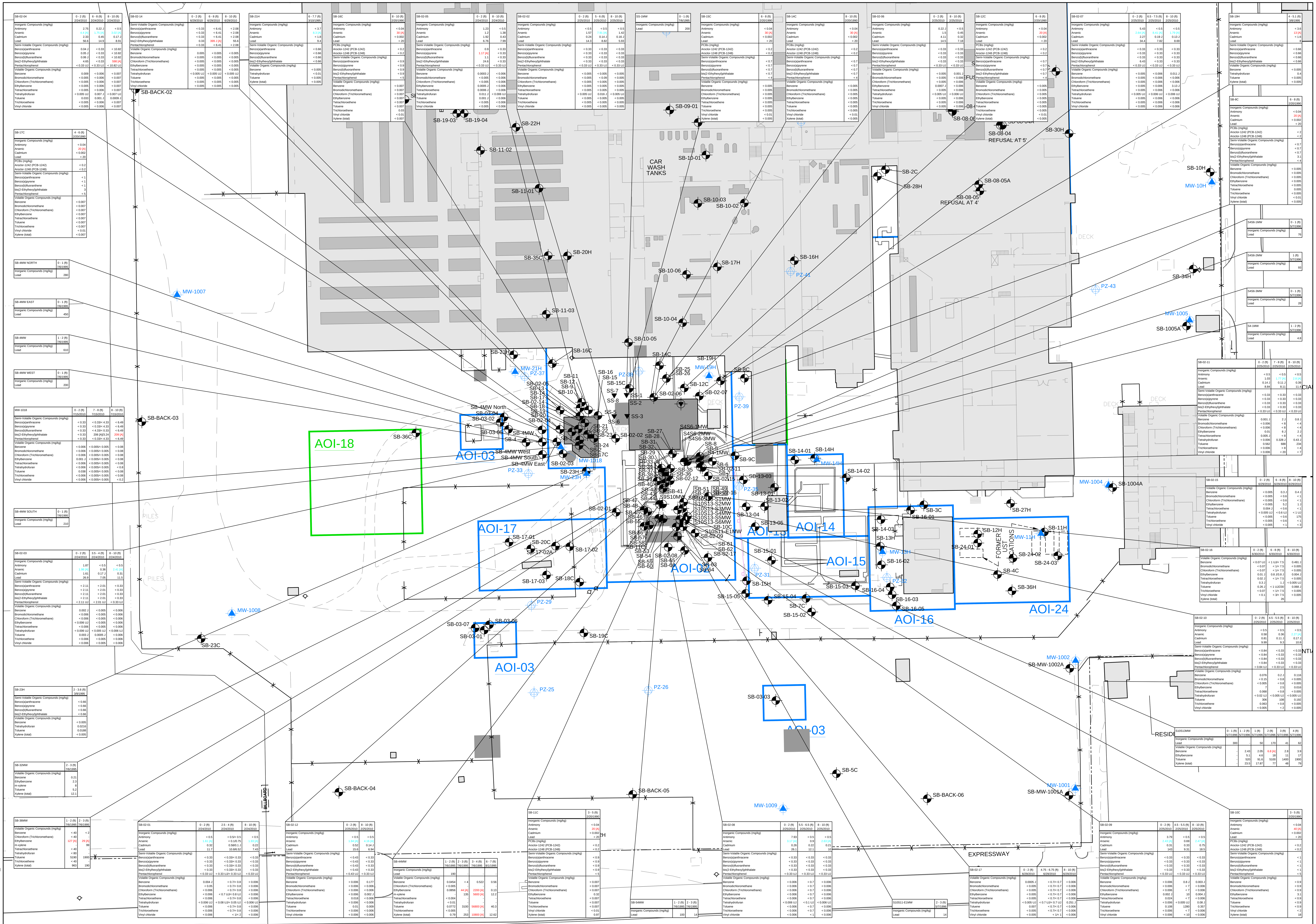
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOIs 01, 05, AND 25

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 6

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SOD1.DWG



SB-02-04	0 - 2 (ft) 2/24/2010	6 - 8 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)			
Antimony	2.75	0.22 J	< 0.5
Arsenic	4.4 [A]	1.75 [A]	3.02 [A]
Cadmium	2.33	0.45	0.17 J
Lead	56.6	14.9	8.91
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	0.04 J	< 0.33	< 10.82
Benzo(a)pyrene	0.05 J	< 0.33	< 10.82
Benzo(b)fluoranthene	0.06 J	< 0.33	< 10.82
bis(2-Ethylhexyl)phthalate	4.65	< 0.33	598 [A]
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 10.82 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	0.009	< 0.006	< 0.007
Bromodichloromethane	< 0.005	< 0.006	< 0.007
Chloroform (Trichloromethane)	< 0.005	< 0.006	< 0.007
Ethylbenzene	< 0.005	< 0.006	< 0.007
Tetrachloroethene	< 0.005	< 0.006	< 0.007
Tetrahydrofuran	< 0.005 UJ	0.007 J	< 0.007 UJ
Toluene	0.033	0.001 J	0.0009 J
Trichloroethene	< 0.005	< 0.006	< 0.007
Vinyl chloride	< 0.005	< 0.006	< 0.007

SB-02-14	0 - 2 (ft) 6/29/2010	6 - 8 (ft) 6/29/2010	8 - 10 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 6.41	< 2.08
Benzo(a)pyrene	< 0.33	< 6.41	< 2.08
Benzo(b)fluoranthene	< 0.33	< 6.41	< 2.08
bis(2-Ethylhexyl)phthalate	0.33	399 J [A]	55.6
Pentachlorophenol	< 0.33	< 6.41	< 2.08
Volatile Organic Compounds (mg/kg)			
Benzene	0.005	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005	< 0.005

SB-21H	6 - 7.7 (ft) 3/10/1995
Inorganic Compounds (mg/kg)	
Antimony	< 3.7
Arsenic	8.3 [A]
Cadmium	< 1.8
Lead	9.4
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.66
Benzo(a)pyrene	< 0.66
Benzo(b)fluoranthene	< 0.66
bis(2-Ethylhexyl)phthalate	< 0.66
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Tetrahydrofuran	< 0.01
Toluene	< 0.005
Xylene (total)	< 0.005

SB-16C	8 - 10 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	30 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.9
Benzo(a)pyrene	< 0.9
Benzo(b)fluoranthene	< 0.9
bis(2-Ethylhexyl)phthalate	< 0.9
Pentachlorophenol	< 5
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.007
Bromodichloromethane	< 0.007
Chloroform (Trichloromethane)	< 0.007
Ethylbenzene	< 0.007
Tetrachloroethene	< 0.007
Toluene	< 0.007
Trichloroethene	0.03
Vinyl chloride	< 0.01
Xylene (total)	< 0.007

SB-02-05	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)		
Antimony	1.23	< 0.5
Arsenic	1.2	1.38
Cadmium	1.92	0.43
Lead	6.76	7.99
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.9	< 0.33
Benzo(a)pyrene	1.17 [A]	< 0.33
Benzo(b)fluoranthene	1.1	< 0.33
bis(2-Ethylhexyl)phthalate	24.6	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	0.0003 J	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	0.0005 J	< 0.006
Tetrachloroethene	0.0006 J	< 0.006
Tetrahydrofuran	0.011 J	< 0.006 UJ
Toluene	0.001 J	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

SB-02-02	0 - 2 (ft) 2/25/2010	5 - 6 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)			
Antimony	< 0.5	< 0.5	< 0.5
Arsenic	1.57	7.91 [A]	1.42
Cadmium	0.24	0.14 J	0.16 J
Lead	14.3	8.82	5.93
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.09	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	0.016 J	< 0.005 UJ
Toluene	< 0.005	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005	< 0.005

SS-1MW	0 - 1 (ft) 7/6/1995
Inorganic Compounds (mg/kg)	
Lead	200

SB-15C	6 - 8 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	30 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.7
Benzo(a)pyrene	< 0.7
Benzo(b)fluoranthene	< 0.7
bis(2-Ethylhexyl)phthalate	< 0.7
Pentachlorophenol	< 4
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.01
Xylene (total)	< 0.005

SB-14C	8 - 10 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	30 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.7
Benzo(a)pyrene	< 0.7
Benzo(b)fluoranthene	< 0.7
bis(2-Ethylhexyl)phthalate	< 0.7
Pentachlorophenol	< 4
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.01
Xylene (total)	< 0.005

SB-02-06	0 - 2 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)		
Antimony	0.22 J	< 0.5
Arsenic	1.5	0.45
Cadmium	4.11	0.32
Lead	14.5	7.18
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	0.001 J
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	0.0007 J	< 0.006
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

SB-12C	6 - 8 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	20 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.7
Benzo(a)pyrene	< 0.7
Benzo(b)fluoranthene	< 0.7
bis(2-Ethylhexyl)phthalate	< 0.7
Pentachlorophenol	< 4
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.01
Xylene (total)	< 0.005

SB-02-07	0 - 2 (ft) 2/25/2010	6.5 - 7.5 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)			
Antimony	5.43	< 0.5	< 0.5
Arsenic	2.64 [A]	8.41 [A]	1.79 [A]
Cadmium	2.27	0.19 J	0.13 J
Lead	34.4	7.82	8.69
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.006	0.011 J
Bromodichloromethane	< 0.005	< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006	< 0.006
Ethylbenzene	< 0.005	< 0.006	3.13 J
Tetrachloroethene	< 0.005	< 0.006	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.006	< 0.006
Trichloroethene	< 0.005	< 0.006	< 0.006
Vinyl chloride	< 0.005	< 0.006	< 0.006

SB-19H	4 - 5.1 (ft) 3/8/1995
Inorganic Compounds (mg/kg)	
Antimony	< 3.6
Arsenic	13 [A]
Cadmium	< 1.6
Lead	8
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.66
Benzo(a)pyrene	< 0.66
Benzo(b)fluoranthene	< 0.66
bis(2-Ethylhexyl)phthalate	< 0.66
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Tetrahydrofuran	0.4
Toluene	< 0.005
Xylene (total)	< 0.005

SB-8C	6 - 8 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	20 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 2
Aroclor-1248 (PCB-1248)	< 2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.7
Benzo(a)pyrene	< 0.7
Benzo(b)fluoranthene	< 0.7
bis(2-Ethylhexyl)phthalate	3.1
Pentachlorophenol	< 4
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Toluene	0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.01
Xylene (total)	< 0.005

S4S6-1MW	0 - 1 (ft) 5/7/1996
Inorganic Compounds (mg/kg)	
Lead	76

S4S6-2MW	1 (ft) 5/7/1996
Inorganic Compounds (mg/kg)	
Lead	93

S4S6-3MW	0 - 1 (ft) 5/7/1996
Inorganic Compounds (mg/kg)	
Lead	28

S4-1MW	1 - 2 (ft) 5/7/1996
Inorganic Compounds (mg/kg)	
Lead	4.8

SB-02-11	0 - 2 (ft) 2/25/2010	7 - 8 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)			
Antimony	< 0.5	< 0.5	< 0.5
Arsenic	1.03	1.77 [A]	2.8 [A]
Cadmium	0.14 J	0.11 J	0.39
Lead	8.84	8.11	11.4
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	0.001 J	2 J	0.8 J
Bromodichloromethane	< 0.006	< 8	< 4
Chloroform (Trichloromethane)	< 0.006	< 8	< 4
Ethylbenzene	0.01	6 J	2 J
Tetrachloroethene	0.005 J	< 8	< 4
Tetrahydrofuran	< 0.006	0.328 J	0.43 J
Toluene	0.562	688	234
Trichloroethene	< 0.006	< 8	< 4
Vinyl chloride	< 0.006	< 20	< 7

SB-02-15	0 - 2 (ft) 6/29/2010	6 - 8 (ft) 6/29/2010	8 - 10 (ft) 6/29/2010
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	0.3 J	0.4 J
Bromodichloromethane	< 0.005	< 0.6	< 1
Chloroform (Trichloromethane)	< 0.005	< 0.6	< 1
Ethylbenzene	< 0.005	5.2	1 J
Tetrachloroethene	0.004 J	< 0.6	< 1
Tetrahydrofuran	< 0.005 UJ	< 0.6 UJ	< 1 UJ
Toluene	< 0.005	< 0.6	175
Trichloroethene	< 0.005	< 0.6	< 1
Vinyl chloride	< 0.005	< 1	< 3

SB-02-16	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.07 UJ	< 1 UJ/< 7.5	0.491 J
Bromodichloromethane	< 0.07	< 1/< 7.5	< 0.005
Chloroform (Trichloromethane)	< 0.07	< 1/< 7.5	< 0.005
Ethylbenzene	0.01 J	0.8 J/3.8 J	0.004 J
Tetrachloroethene	0.02 J	< 1/< 7.5	< 0.005
Tetrahydrofuran	0.3 J	1 J	< 0.005 UJ
Toluene	0.26 J	< 1 UJ/230	0.068 J
Trichloroethene	< 0.07	< 1/< 7.5	< 0.005
Vinyl chloride	< 0.1	< 3/< 7.5	< 0.005
Xylene (total)	-	26	-

SB-02-10	0 - 2 (ft) 2/25/2010	4.5 - 5.5 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)			
Antimony	< 0.5	< 0.5	< 0.5
Arsenic	0.58	0.36	2.27 [A]
Cadmium	0.81	0.11 J	0.17 J
Lead	9.99	9.3	10.8
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.84	< 0.33	< 0.33
Benzo(a)pyrene	< 0.84	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.84	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.84	< 0.33	< 0.33
Pentachlorophenol	< 0.84 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	0.076	0.2 J	0.116
Bromodichloromethane	< 0.15	< 0.8	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.8	< 0.005
Ethylbenzene	7	2.5	0.016
Tetrachloroethene	0.068	< 0.8	< 0.005
Tetrahydrofuran	< 0.02 UJ	< 0.005 UJ	< 0.005 UJ
Toluene	306	108	0.192
Trichloroethene	0.063	< 0.8	< 0.005
Vinyl chloride	< 0.005	< 2	< 0.005

S10S13MW	0 - 1 (ft) 5/7/1996	1 - 2 (ft) 5/7/1996	1 (ft) 5/7/1996	2 (ft) 5/7/1996	3 (ft) 5/7/1996	4 (ft) 5/7/1996
Inorganic Compounds (mg/kg)						
Lead	300	-	50	170	41	62
Volatile Organic Compounds (mg/kg)						
Benzene	-	2.43	2.05	6.8 [A]	2.8	3.9
Ethylbenzene	-	5.1	4.6	18	11	17
Toluene	-	520	91.6	5100	1400	1900
Xylene (total)	-	23.5	17.87	77	48	79

SB-10C	3 - 5 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	40 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 1
Benzo(a)pyrene	< 1
Benzo(b)fluoranthene	< 1
bis(2-Ethylhexyl)phthalate	< 1
Pentachlorophenol	< 5
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.9
Bromodichloromethane	< 0.9
Chloroform (Trichloromethane)	< 0.9
Ethylbenzene	3.1
Tetrachloroethene	< 0.9
Toluene	< 0.9
Trichloroethene	< 0.9
Vinyl chloride	< 2
Xylene (total)	18

SB-02-09	0 - 2 (ft) 2/25/2010	4.5 - 5.5 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)			
Antimony	3.79	< 0.5	< 0.5
Arsenic	2.43 [A]	0.69	2.47 [A]
Cadmium	0.31	0.33	0.75
Lead	143	9.31	18.5
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.006	0.8 J	0.003 J
Bromodichloromethane	< 0.006	< 7	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 7	< 0.006
Ethylbenzene	0.002 J	10	0.004 J
Tetrachloroethene	0.024	< 7	< 0.006
Tetrahydrofuran	< 0.006	< 0.005 UJ	0.08 J
Toluene	0.108	1280	0.357
Trichloroethene	< 0.006	< 7	< 0.006
Vinyl chloride	< 0.006	< 10	< 0.006

SB-02-17	0 - 2 (ft) 6/29/2010	4.75 - 6.75 (ft) 6/29/2010	8 - 10 (ft) 6/29/2010
Volatile Organic Compounds (mg/kg)			
Benzene	0.0005 J	< 0.7/< 0.7	< 0.006
Bromodichloromethane	< 0.005	< 0.7/< 0.7	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.7/< 0.7	< 0.006
Ethylbenzene	< 0.005	< 0.7/< 0.7	< 0.006
Tetrachloroethene	< 0.005	< 0.7/< 0.7	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.7 UJ/< 0.7 UJ	0.251 J
Toluene	0.007	< 0.7/< 0.7	< 0.006
Trichloroethene	< 0.005	< 0.7/< 0.7	< 0.006
Vinyl chloride	< 0.005	< 1/< 1	< 0.006

S10S11-E1MW	2 - 3 (ft) 5/7/1996
Inorganic Compounds (mg/kg)	
Lead	14

SB-02-08	0 - 2 (ft) 2/25/2010	5.5 - 6.5 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)			
Antimony	7.93	< 0.5	< 0.5
Arsenic	3.17 [A]	0.9	2.63 [A]
Cadmium	0.26	0.22	0.21
Lead	26.1	12.1	10
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.006	< 0.7	< 0.006
Bromodichloromethane	< 0.006	< 0.7	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.7	< 0.006
Ethylbenzene	< 0.006	< 0.7	< 0.006
Tetrachloroethene	< 0.006	< 0.7	< 0.006
Tetrahydrofuran	< 0.006 UJ	< 0.1 UJ	< 0.006 UJ
Toluene	< 0.006	< 0.7	< 0.006
Trichloroethene	< 0.006	< 0.7	< 0.006
Vinyl chloride	< 0.006	< 1	< 0.006

SB-54MW	1 - 2 (ft) 7/6/1995	2 - 3 (ft) 7/6/1995
Inorganic Compounds (mg/kg)		
Lead	100	14

SB-11C	3 - 5 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	20 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.9
Benzo(a)pyrene	< 0.9
Benzo(b)fluoranthene	< 0.9
bis(2-Ethylhexyl)phthalate	< 0.9
Pentachlorophenol	< 5
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.007
Bromodichloromethane	< 0.007
Chloroform (Trichloromethane)	< 0.007
Ethylbenzene	0.32
Tetrachloroethene	< 0.007
Toluene	< 0.007
Trichloroethene	< 0.007
Vinyl chloride	< 0.01
Xylene (total)	0.97

SB-44MW	1 - 2 (ft) 7/6/1995	2 - 3 (ft) 7/6/1995	3 - 4 (ft) 7/6/1995	6 - 7 (ft) 8/1/1995
Inorganic Compounds (mg/kg)				
Lead	190	-	-	-
Volatile Organic Compounds (mg/kg)				
Benzene	0.0454	< 4	0.522	0.56
Chloroform (Trichloromethane)	< 0.005	-	-	-
Ethylbenzene	0.0856	44 [A]	2200 [A]	0.13
m-xylene	-	135	5600 [A]	12.2
Tetrachloroethene	< 0.004	-	-	-
Tetrahydrofuran	< 0.01	-	-	-
Toluene	0.0772	3100	56800 [A]	40.3
Trichloroethene	< 0.005	-	-	-
Xylene (total)	0.79	253	10800 [A]	12.62

SB-02-12	0 - 2 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.94 [A]	4.16 [A]
Cadmium	0.52	0.14 J
Lead	15.6	6.94
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.43	< 0.33
Benzo(a)pyrene	< 0.43	< 0.33
Benzo(b)fluoranthene	< 0.43	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.43	< 0.33
Pentachlorophenol	< 0.43 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	0.177
Bromodichloromethane	< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.006
Ethylbenzene	< 0.006	0.002 J
Tetrachloroethene	0.018	< 0.006
Tetrahydrofuran	< 0.006	< 0.006
Toluene	0.01	0.009
Trichloroethene	< 0.006	< 0.006
Vinyl chloride	< 0.006	< 0.006

SB-02-01	0 - 2 (ft) 2/24/2010	2.5 - 4 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)			
Antimony	< 0.5	< 0.5/< 0.5	< 0.5
Arsenic	1.61 [A]	< 0.1/0.75	1.93 [A]
Cadmium	0.32	0.58/0.1 J	0.22
Lead	11.7	10.8/6.52	7.43
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33/< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33/< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33/< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33/< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ/< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	0.004 J	< 0.7/< 0.8	< 0.006
Bromodichloromethane	< 0.05	< 0.7/< 0.8	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.7/< 0.8	< 0.006
Ethylbenzene	< 0.006	< 0.7 UJ/< 0.8 UJ	< 0.006
Tetrachloroethene	< 0.006	< 0.7/< 0.8	< 0.006
Tetrahydrofuran	< 0.006 UJ	< 0.08 UJ/< 0.05 UJ	< 0.006 UJ
Toluene	< 0.006	< 0.7/< 0.8	< 0.006
Trichloroethene	< 0.006	< 0.7/< 0.8	< 0.006
Vinyl chloride	< 0.006	< 1/< 2	< 0.006

SB-36MW	1 - 2 (ft) 7/6/1995	2 - 3 (ft) 7/6/1995
Volatile Organic Compounds (mg/kg)		
Benzene	< 40	< 2
Chloroform (Trichloromethane)	< 40	-
Ethylbenzene	127 [A]	29 [A]
m-xylene	-	99
Tetrachloroethene	< 40	-
Tetrahydrofuran	< 80	-
Toluene	5190	1900
Trichloroethene	< 40	-
Xylene (total)	963	190

SB-32MW	2 - 3 (ft) 7/6/1995
Volatile Organic Compounds (mg/kg)	
Benzene	0.21
Ethylbenzene	2.3
m-xylene	8
Toluene	5.2
Xylene (total)	12.1

SB-23H	2 - 3.6 (ft) 3/9/1995
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.66
Benzo(a)pyrene	< 0.66
Benzo(b)fluoranthene	< 0.66
bis(2-Ethylhexyl)phthalate	< 0.66
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Tetrahydrofuran	0.0216
Toluene	0.0188
Xylene (total)	< 0.005

SB-02-03	0 - 2 (ft) 2/24/2010	3.5 - 4 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)			
Antimony	1.87	< 0.5	< 0.5
Arsenic	1.98 [A]	0.36	2.41 [A]
Cadmium	1.61	0.17 J	0.31
Lead	26.9	7.05	11.5
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 2.11	< 2.01	< 0.33
Benzo(a)pyrene	< 2.11	< 2.01	< 0.33
Benzo(b)fluoranthene	< 2.11	< 2.01	< 0.33
bis(2-Ethylhexyl)phthalate	< 2.11	< 2.01	< 0.33
Pentachlorophenol	< 2.11 UJ	< 2.01 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	0.002 J	< 0.005	< 0.006
Bromodichloromethane	< 0.006	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.005	< 0.006
Ethylbenzene	< 0.006 UJ	< 0.005	< 0.006
Tetrachloroethene	< 0.006	< 0.005	< 0.006
Tetrahydrofuran	< 0.006 UJ	< 0.005 UJ	< 0.006 UJ
Toluene	0.003 J	0.0005 J	< 0.006
Trichloroethene	< 0.006	< 0.005	< 0.006
Vinyl chloride	< 0.006	< 0.005	< 0.006

MW-1018	0 - 2 (ft) 7/15/2010	7 - 8 (ft) 7/15/2010	8 - 10 (ft) 7/15/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33/< 4.33	< 6.49
Benzo(a)pyrene	< 0.33	< 0.33/< 4.33	< 6.49
Benzo(b)fluoranthene	< 0.33	< 4.33/< 0.33	< 6.49
bis(2-Ethylhexyl)phthalate	< 0.33	206 [A]/3.24	209 [A]
Pentachlorophenol	< 0.33	< 0.33/< 4.33	< 6.49
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.006	< 0.005/< 0.005	< 0.08
Bromodichloromethane	< 0.006	< 0.005/< 0.005	< 0.08
Chloroform (Trichloromethane)	< 0.006	< 0.005/< 0.005	< 0.08
Ethylbenzene	0.001 J	< 0.005/< 0.005	< 0.08
Tetrachloroethene	< 0.006	< 0.005/< 0.005	< 0.08
Tetrahydrofuran	< 0.006	< 0.005/< 0.005	< 0.8
Toluene	0.038	< 0.005/< 0.005	< 0.08
Trichloroethene	< 0.006	< 0.005/< 0.005	< 0.08
Vinyl chloride	< 0.006	< 0.005/< 0.005	< 0.2

SB-17C	4 - 6 (ft) 2/20/1990
Inorganic Compounds (mg/kg)	
Antimony	< 0.04
Arsenic	20 [A]
Cadmium	< 0.002
Lead	< 20
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 1
Benzo(a)pyrene	< 1
Benzo(b)fluoranthene	< 1
bis(2-Ethylhexyl)phthalate	3
Pentachlorophenol	< 5
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.007
Bromodichloromethane	< 0.007
Chloroform (Trichloromethane)	< 0.007
Ethylbenzene	< 0.007
Tetrachloroethene	< 0.007
Toluene	< 0.007
Trichloroethene	< 0.007
Vinyl chloride	< 0.01
Xylene (total)	< 0.007

SB-4MW NORTH	0 - 1 (ft) 7/6/1995
Inorganic Compounds (mg/kg)	
Lead	280

SB-4MW EAST	0 - 1 (ft) 7/6/1995
Inorganic Compounds (mg/kg)	
Lead	450

SB-4MW	1 - 2 (ft) 7/6/1995
Inorganic Compounds (mg/kg)	
Lead	610

SB-4MW WEST	0 - 1 (ft) 7/6/1995
Inorganic Compounds (mg/kg)	
Lead	200

SB-4MW SOUTH	0 - 1 (ft) 7/6/1995
Inorganic Compounds (mg/kg)	
Lead	210

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/KG.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
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5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

N S E W

0 60 120 180 240
SCALE IN FEET

HALEY & ALDRICH

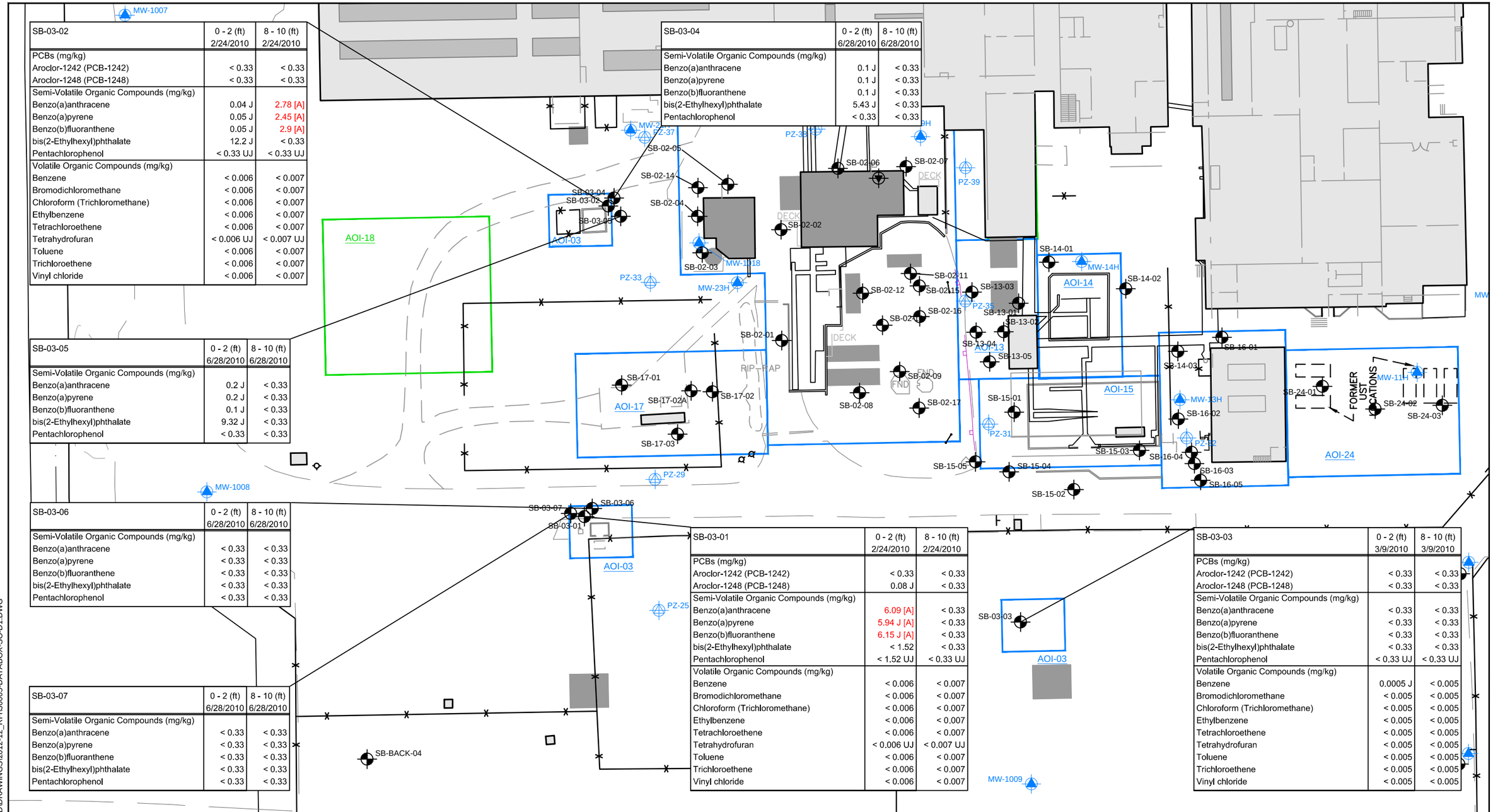
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOI-02

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 7

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG



SB-03-02	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.04 J	2.78 [A]
Benzo(a)pyrene	0.05 J	2.45 [A]
Benzo(b)fluoranthene	0.05 J	2.9 [A]
bis(2-Ethylhexyl)phthalate	12.2 J	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.007
Bromodichloromethane	< 0.006	< 0.007
Chloroform (Trichloromethane)	< 0.006	< 0.007
Ethylbenzene	< 0.006	< 0.007
Tetrachloroethene	< 0.006	< 0.007
Tetrahydrofuran	< 0.006 UJ	< 0.007 UJ
Toluene	< 0.006	< 0.007
Trichloroethene	< 0.006	< 0.007
Vinyl chloride	< 0.006	< 0.007

SB-03-04	0 - 2 (ft) 6/28/2010	8 - 10 (ft) 6/28/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.1 J	< 0.33
Benzo(a)pyrene	0.1 J	< 0.33
Benzo(b)fluoranthene	0.1 J	< 0.33
bis(2-Ethylhexyl)phthalate	5.43 J	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-03-05	0 - 2 (ft) 6/28/2010	8 - 10 (ft) 6/28/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.2 J	< 0.33
Benzo(a)pyrene	0.2 J	< 0.33
Benzo(b)fluoranthene	0.1 J	< 0.33
bis(2-Ethylhexyl)phthalate	9.32 J	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-03-06	0 - 2 (ft) 6/28/2010	8 - 10 (ft) 6/28/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-03-07	0 - 2 (ft) 6/28/2010	8 - 10 (ft) 6/28/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-03-01	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	0.08 J	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	6.09 [A]	< 0.33
Benzo(a)pyrene	5.94 J [A]	< 0.33
Benzo(b)fluoranthene	6.15 J [A]	< 0.33
bis(2-Ethylhexyl)phthalate	< 1.52	< 0.33
Pentachlorophenol	< 1.52 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.007
Bromodichloromethane	< 0.006	< 0.007
Chloroform (Trichloromethane)	< 0.006	< 0.007
Ethylbenzene	< 0.006	< 0.007
Tetrachloroethene	< 0.006	< 0.007
Tetrahydrofuran	< 0.006 UJ	< 0.007 UJ
Toluene	< 0.006	< 0.007
Trichloroethene	< 0.006	< 0.007
Vinyl chloride	< 0.006	< 0.007

SB-03-03	0 - 2 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	0.0005 J	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005	< 0.005
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

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N W E S

0 60 120
SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

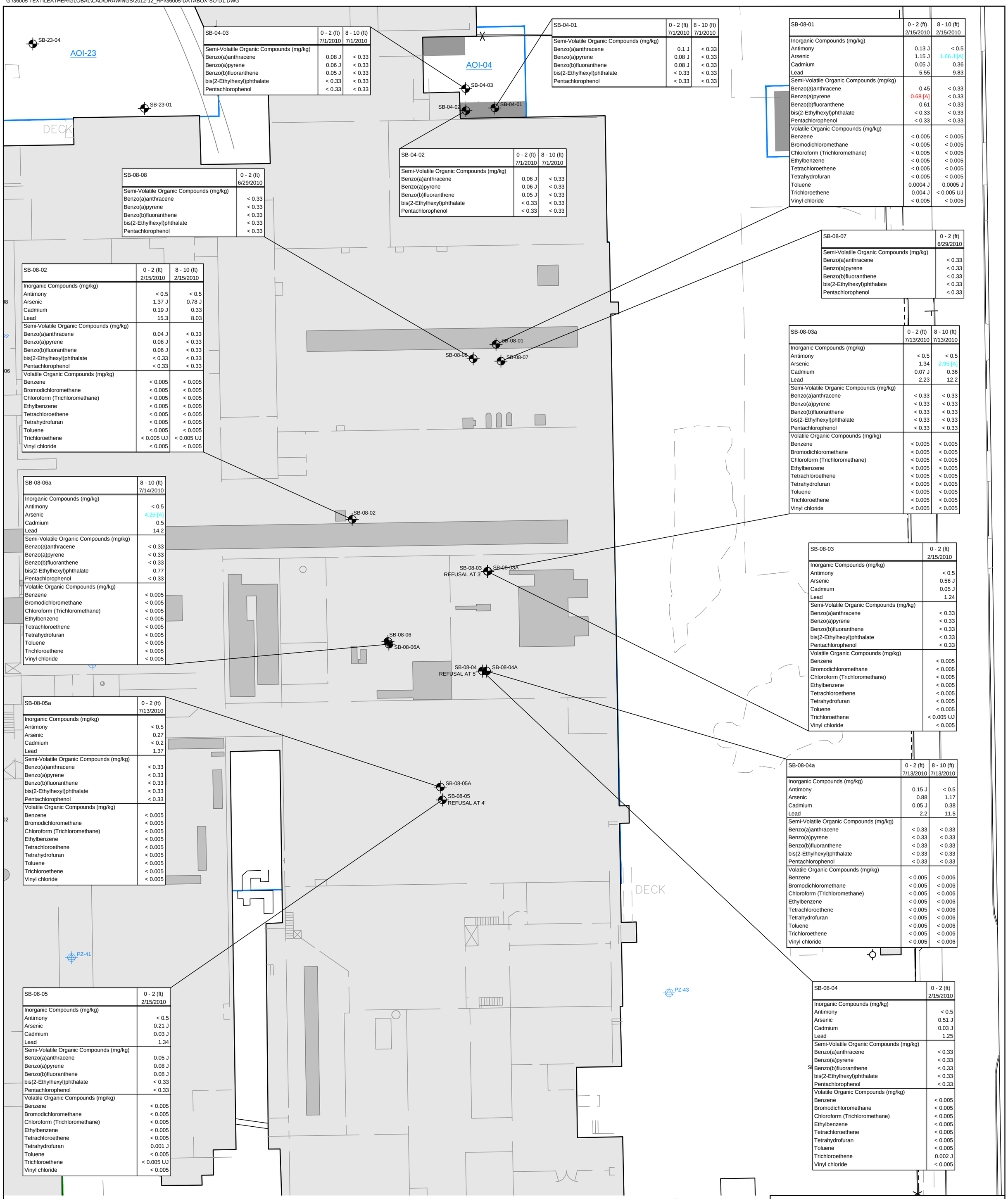
SOIL ANALYTICAL RESULTS
AOI-03

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 8

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG



SB-04-03	0 - 2 (ft) 7/1/2010	8 - 10 (ft) 7/1/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.08 J	< 0.33
Benzo(a)pyrene	0.06 J	< 0.33
Benzo(b)fluoranthene	0.05 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-04-01	0 - 2 (ft) 7/1/2010	8 - 10 (ft) 7/1/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.1 J	< 0.33
Benzo(a)pyrene	0.08 J	< 0.33
Benzo(b)fluoranthene	0.08 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-08-01	0 - 2 (ft) 2/15/2010	8 - 10 (ft) 2/15/2010
Inorganic Compounds (mg/kg)		
Antimony	0.13 J	< 0.5
Arsenic	1.15 J	1.66 J [A]
Cadmium	0.05 J	0.36
Lead	5.55	9.83
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.45	< 0.33
Benzo(a)pyrene	0.68 [A]	< 0.33
Benzo(b)fluoranthene	0.61	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005	< 0.005
Toluene	0.0004 J	0.0005 J
Trichloroethene	0.004 J	< 0.005 UJ
Vinyl chloride	< 0.005	< 0.005

SB-04-02	0 - 2 (ft) 7/1/2010	8 - 10 (ft) 7/1/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.06 J	< 0.33
Benzo(a)pyrene	0.06 J	< 0.33
Benzo(b)fluoranthene	0.05 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-08-08	0 - 2 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33

SB-08-07	0 - 2 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33

SB-08-02	0 - 2 (ft) 2/15/2010	8 - 10 (ft) 2/15/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.37 J	0.78 J
Cadmium	0.19 J	0.33
Lead	15.3	8.03
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.04 J	< 0.33
Benzo(a)pyrene	0.06 J	< 0.33
Benzo(b)fluoranthene	0.06 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005	< 0.005
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005 UJ	< 0.005 UJ
Vinyl chloride	< 0.005	< 0.005

SB-08-03a	0 - 2 (ft) 7/13/2010	8 - 10 (ft) 7/13/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.34	2.95 [A]
Cadmium	0.07 J	0.36
Lead	2.23	12.2
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005	< 0.005
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-08-06a	8 - 10 (ft) 7/14/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	4.26 [A]
Cadmium	0.5
Lead	14.2
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	0.77
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.005

SB-08-03	0 - 2 (ft) 2/15/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	0.56 J
Cadmium	0.05 J
Lead	1.24
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005
Toluene	< 0.005
Trichloroethene	< 0.005 UJ
Vinyl chloride	< 0.005

SB-08-05a	0 - 2 (ft) 7/13/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	0.27
Cadmium	< 0.2
Lead	1.37
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.005

SB-08-04a	0 - 2 (ft) 7/13/2010	8 - 10 (ft) 7/13/2010
Inorganic Compounds (mg/kg)		
Antimony	0.15 J	< 0.5
Arsenic	0.88	1.17
Cadmium	0.05 J	0.38
Lead	2.2	11.5
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.006
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005	< 0.006
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

SB-08-05	0 - 2 (ft) 2/15/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	0.21 J
Cadmium	0.03 J
Lead	1.34
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	0.05 J
Benzo(a)pyrene	0.08 J
Benzo(b)fluoranthene	0.08 J
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	0.001 J
Toluene	< 0.005
Trichloroethene	< 0.005 UJ
Vinyl chloride	< 0.005

SB-08-04	0 - 2 (ft) 2/15/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	0.51 J
Cadmium	0.03 J
Lead	1.25
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005
Toluene	< 0.005
Trichloroethene	0.002 J
Vinyl chloride	< 0.005

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/KG.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SOIL VAPOR SAMPLES.
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

N W E S

0 30 60
SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOIs 04 AND 08

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 9

SB-19-01	0 - 2 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
Inorganic Compounds (mg/kg)		
Antimony	0.29 J	< 0.5
Arsenic	1.73 J [A]	1.38 J
Cadmium	0.1 J	0.42
Lead	4.99	10.4

SB-19-02	0 - 2 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
Inorganic Compounds (mg/kg)		
Antimony	92.5	< 0.5
Arsenic	3.69 J [A]	2.66 J [A]
Cadmium	21.5	0.32
Lead	3140 [A]	6.75

SB-19-04	0 - 2 (ft) 6/29/2010
Inorganic Compounds (mg/kg)	
Antimony	1.29
Arsenic	3.47 [A]
Cadmium	2.51
Lead	171

SB-19-03	0 - 2 (ft) 6/29/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	1.38
Cadmium	0.17 J
Lead	11.5

SB-11-02	0 - 2 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
Inorganic Compounds (mg/kg)		
Antimony	0.38 J	< 0.5
Arsenic	0.92 J	2.13 J [A]
Cadmium	0.14 J	0.22
Lead	4.89	8.02
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.08 J	< 0.33
Benzo(a)pyrene	0.08 J	< 0.33
Benzo(b)fluoranthene	0.08 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	0.0004 J
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-11-01	0 - 2 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
Inorganic Compounds (mg/kg)		
Antimony	0.1 J	< 0.5
Arsenic	1.32 J	1.74 J [A]
Cadmium	0.27	0.24
Lead	4.56	5.74
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.02 J	< 0.33
Benzo(a)pyrene	0.03 J	< 0.33
Benzo(b)fluoranthene	0.03 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	0.009 J	< 0.005 UJ
Toluene	0.002 J	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-11-03	0 - 2 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	0.89 J	1.09 J
Cadmium	0.28	0.17 J
Lead	1.82	8.17
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	0.0004 J	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	0.0008 J	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-09-01	0 - 2 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.25	0.4
Cadmium	0.27	0.24
Lead	9.95	8.04
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

PZ-1011	0 - 2 (ft) 2/18/2010	8 - 10 (ft) 2/18/2010
Inorganic Compounds (mg/kg)		
Antimony	0.15 J	< 0.5
Arsenic	8.91 [A]	1.4
Cadmium	1.27	0.31
Lead	197	9.87
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.8	< 0.33
Benzo(a)pyrene	< 0.8	< 0.33
Benzo(b)fluoranthene	< 0.8	< 0.33
bis(2-Ethylhexyl)phthalate	145 [A]	< 0.33
Pentachlorophenol	< 0.8 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.006
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005	< 0.006
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

SB-10-01	0 - 2 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	3.23 [A]	2.6 [A]
Cadmium	0.26	0.46
Lead	10.9	12.2
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	0.002 J	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	0.017 J	< 0.005 UJ
Toluene	0.003 J	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-09-02	0 - 2 (ft) 2/18/2010	8 - 10 (ft) 2/18/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	0.19	3.45 [A]
Cadmium	0.03 J	0.15 J
Lead	1.01	13.8
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	0.0003 J
Tetrachloroethene	< 0.005	0.0006 J
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

PZ-1010	0 - 2 (ft) 2/18/2010	8 - 10 (ft) 2/18/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	0.33	1.01
Cadmium	0.04 J	0.24
Lead	1.33	9.29
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	0.004 J	< 0.006
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

SB-10-03	0 - 2 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
Inorganic Compounds (mg/kg)		
Antimony	0.51	< 0.5
Arsenic	10.8 J [A]	0.66 J
Cadmium	0.24	0.14 J
Lead	38.5	9.68
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.35	< 0.33
Benzo(a)pyrene	0.44 [A]	< 0.33
Benzo(b)fluoranthene	0.41	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	0.0005 J	< 0.005
Tetrachloroethene	0.003 J	0.005
Tetrahydrofuran	0.101 J	< 0.005 UJ
Toluene	0.014	0.0007 J
Trichloroethene	< 0.005	0.001 J
Vinyl chloride	< 0.005	< 0.005

SB-10-02	0 - 2 (ft) 2/16/2010	8 - 10 (ft) 2/16/2010
Inorganic Compounds (mg/kg)		
Antimony	0.17 J	< 0.5
Arsenic	9.9 J [A]	2.58 J [A]
Cadmium	0.66	0.17 J
Lead	57.6	7.61
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.2 J	< 0.33
Benzo(a)pyrene	0.2 J	< 0.33
Benzo(b)fluoranthene	0.2 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	0.008 J	< 0.005 UJ
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-10-06	0 - 2 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	15.9 J [A]	1.54 J
Cadmium	0.79	0.17 J
Lead	42.6	6.04
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	0.003 J	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	0.0004 J	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-10-04	0 - 2 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	12.8 J [A]	1.61 J [A]
Cadmium	0.39	0.16 J
Lead	15.2	6.16
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	0.027	< 0.005
Tetrahydrofuran	0.009 J	< 0.005 UJ
Toluene	0.0005 J	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-10-05	0 - 2 (ft) 2/17/2010	5 - 6 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)			
Antimony	< 0.5	< 0.5	< 0.5
Arsenic	1.36	2.41 [A]	2.27 [A]
Cadmium	0.32	0.33	0.38
Lead	10.6	8.87	8.86
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	0.03 J	0.014 J	13.9
Toluene	< 0.005	0.0004 J	0.017
Trichloroethene	< 0.005	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005	< 0.005

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/KG.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SOIL VAPOR SAMPLES.
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

N
W E
S

0 30 60 80 120
SCALE IN FEET

HALEY & ALDRICH

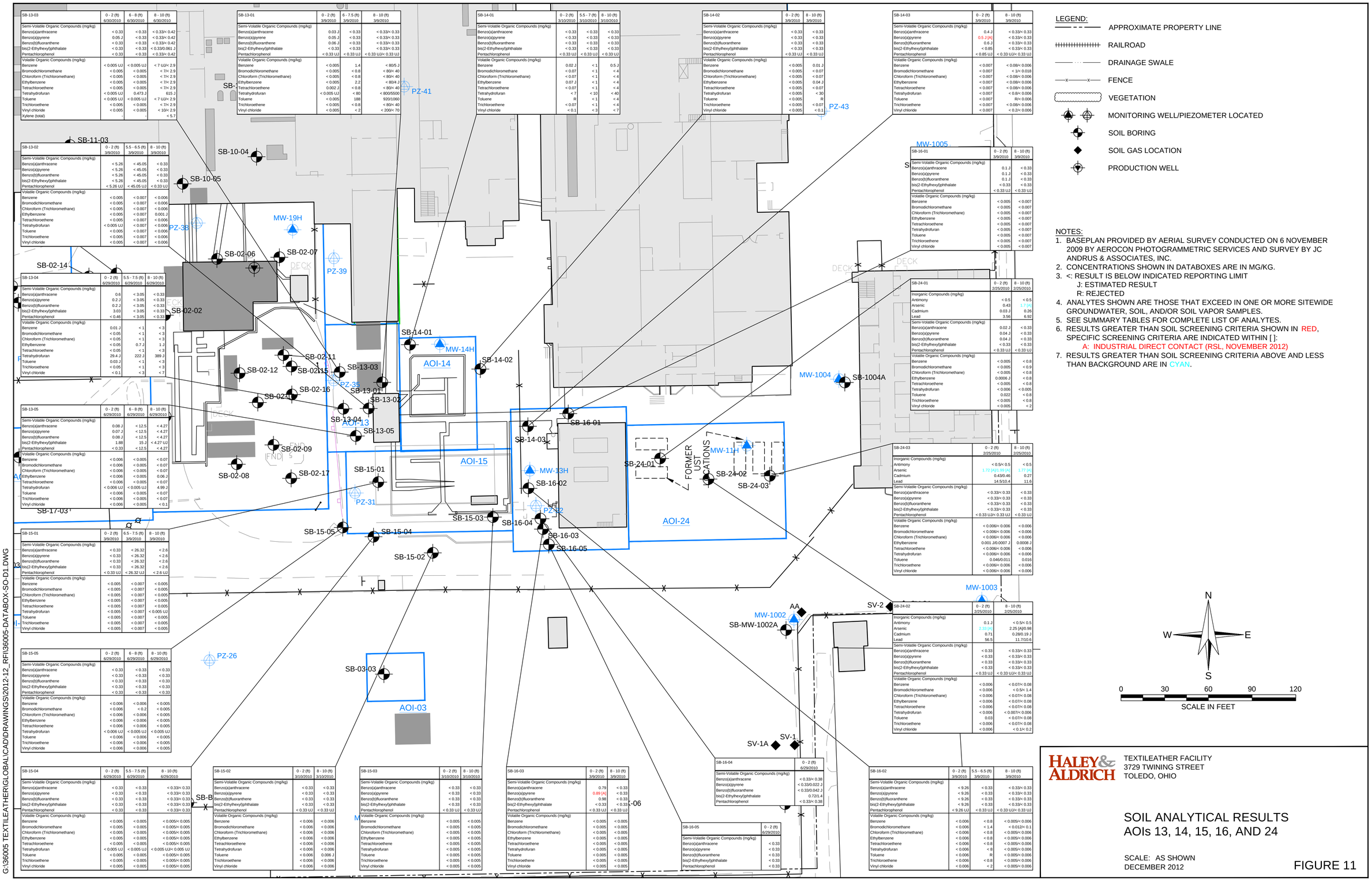
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOIs 09, 10, 11, AND 19

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 10

G:\36005 TEXTILEATHER\GLOBALICAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG



SB-13-03	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33/< 0.42
Benzo(a)pyrene	0.05 J	< 0.33	< 0.33/< 0.42
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33/< 0.42
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33/0.061 J
Pentachlorophenol	< 0.33	< 0.33	< 0.33/< 0.42
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005 UJ	< 0.005 UJ	< 7 UJ/< 2.9
Bromodichloromethane	< 0.005	< 0.005	< 7/< 2.9
Chloroform (Trichloromethane)	< 0.005	< 0.005	< 7/< 2.9
Ethylbenzene	< 0.005	< 0.005	< 7/< 2.9
Tetrachloroethene	< 0.005	< 0.005	< 7/< 2.9
Tetrahydrofuran	< 0.005 UJ	0.473 J	615 J
Toluene	< 0.005 UJ	< 0.005 UJ	< 7 UJ/< 2.9
Trichloroethene	< 0.005	< 0.005	< 7/< 2.9
Vinyl chloride	< 0.005	< 0.005	< 10/< 2.9
Xylene (total)			< 5.7

SB-13-01	0 - 2 (ft) 3/9/2010	6 - 7.5 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	0.03 J	< 0.33	< 0.33/< 0.33
Benzo(a)pyrene	0.05 J	< 0.33	< 0.33/< 0.33
Benzo(b)fluoranthene	0.06 J	< 0.33	< 0.33/< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33/< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ/< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	1.4	< 80/5 J
Bromodichloromethane	< 0.005	< 0.8	< 80/< 40
Chloroform (Trichloromethane)	< 0.005	< 0.8	< 80/< 40
Ethylbenzene	< 0.005	2.2	< 80/4 J
Tetrachloroethene	0.002 J	< 0.8	< 80/< 40
Tetrahydrofuran	< 0.005 UJ	< 80	< 800/5500
Toluene	< 0.005	188	920/1060
Trichloroethene	< 0.005	< 0.8	< 80/< 40
Vinyl chloride	< 0.005	< 2	< 200/< 70

SB-14-01	0 - 2 (ft) 3/10/2010	5.5 - 7 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	0.02 J	< 1	0.5 J
Bromodichloromethane	< 0.07	< 1	< 4
Chloroform (Trichloromethane)	< 0.07	< 1	< 4
Ethylbenzene	0.07 J	< 1	< 4
Tetrachloroethene	< 0.07	< 1	< 4
Tetrahydrofuran	< 7	< 10	< 40
Toluene	R	< 1	< 4
Trichloroethene	< 0.07	< 1	< 4
Vinyl chloride	< 0.1	< 3	< 7

SB-14-02	0 - 2 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	0.01 J
Bromodichloromethane	< 0.005	< 0.07
Chloroform (Trichloromethane)	< 0.005	< 0.07
Ethylbenzene	< 0.005	0.04 J
Tetrachloroethene	< 0.005	< 0.07
Tetrahydrofuran	< 0.005	< 30
Toluene	< 0.005	R
Trichloroethene	< 0.005	< 0.07
Vinyl chloride	< 0.005	< 0.1

SB-14-03	0 - 2 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.4 J	< 0.33/< 0.33
Benzo(a)pyrene	0.5 J [A]	< 0.33/< 0.33
Benzo(b)fluoranthene	0.6 J	< 0.33/< 0.33
bis(2-Ethylhexyl)phthalate	< 0.85	< 0.33/< 0.33
Pentachlorophenol	< 0.85 UJ	< 0.33 UJ/< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.007	< 0.008/< 0.006
Bromodichloromethane	< 0.007	< 1/< 0.018
Chloroform (Trichloromethane)	< 0.007	< 0.008/< 0.006
Ethylbenzene	< 0.007	< 0.008/< 0.006
Tetrachloroethene	< 0.007	< 0.008/< 0.006
Tetrahydrofuran	< 0.007	< 0.8/< 0.006
Toluene	< 0.007	R/< 0.006
Trichloroethene	< 0.007	< 0.08/< 0.006
Vinyl chloride	< 0.007	< 0.2/< 0.006

SB-11-02	0 - 2 (ft) 3/9/2010	5.5 - 6.5 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 5.26	< 45.05	< 0.33
Benzo(a)pyrene	< 5.26	< 45.05	< 0.33
Benzo(b)fluoranthene	< 5.26	< 45.05	< 0.33
bis(2-Ethylhexyl)phthalate	< 5.26	< 45.05	< 0.33
Pentachlorophenol	< 5.26 UJ	< 45.05 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.007	< 0.006
Bromodichloromethane	< 0.005	< 0.007	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.007	< 0.006
Ethylbenzene	< 0.005	< 0.007	0.001 J
Tetrachloroethene	< 0.005	< 0.007	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.007	< 0.006
Toluene	< 0.005	< 0.007	< 0.006
Trichloroethene	< 0.005	< 0.007	< 0.006
Vinyl chloride	< 0.005	< 0.007	< 0.006

SB-16-01	0 - 2 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.1 J	< 0.33
Benzo(a)pyrene	0.1 J	< 0.33
Benzo(b)fluoranthene	0.1 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.007
Bromodichloromethane	< 0.005	< 0.007
Chloroform (Trichloromethane)	< 0.005	< 0.007
Ethylbenzene	< 0.005	< 0.007
Tetrachloroethene	< 0.005	< 0.007
Tetrahydrofuran	< 0.005	< 0.007
Toluene	< 0.005	< 0.007
Trichloroethene	< 0.005	< 0.007
Vinyl chloride	< 0.005	< 0.007

SB-13-04	0 - 2 (ft) 6/29/2010	5.5 - 7.5 (ft) 6/29/2010	8 - 10 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	0.6	< 3.05	< 0.33
Benzo(a)pyrene	0.2 J	< 3.05	< 0.33
Benzo(b)fluoranthene	0.2 J	< 3.05	< 0.33
bis(2-Ethylhexyl)phthalate	3.03	< 3.05	< 0.33
Pentachlorophenol	< 0.46	< 3.05	< 0.33
Volatile Organic Compounds (mg/kg)			
Benzene	0.01 J	< 1	< 3
Bromodichloromethane	< 0.05	< 1	< 3
Chloroform (Trichloromethane)	< 0.05	< 1	< 3
Ethylbenzene	< 0.05	0.7 J	1 J
Tetrachloroethene	< 0.05	< 1	< 3
Tetrahydrofuran	28.4 J	222 J	389 J
Toluene	0.03 J	< 1	< 3
Trichloroethene	< 0.05	< 1	< 3
Vinyl chloride	< 0.1	< 3	< 7

SB-24-01	0 - 2 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	0.43	1.7 [A]
Cadmium	0.03 J	0.26
Lead	3.56	6.92
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.02 J	< 0.33
Benzo(a)pyrene	0.04 J	< 0.33
Benzo(b)fluoranthene	0.04 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.8
Bromodichloromethane	< 0.005	< 0.9
Chloroform (Trichloromethane)	< 0.005	< 0.8
Ethylbenzene	0.0006 J	< 0.8
Tetrachloroethene	< 0.005	< 0.8
Tetrahydrofuran	< 0.006	< 0.005
Toluene	0.022	< 0.8
Trichloroethene	< 0.005	< 0.8
Vinyl chloride	< 0.005	< 2

SB-24-03	0 - 2 (ft) 2/25/2010	8 - 10 (ft) 2/25/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5/< 0.5	< 0.5
Arsenic	1.72 [A]/1.99 [A]	1.77 [A]
Cadmium	0.43/0.46	0.27
Lead	14.5/10.4	11.6
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33/< 0.33	< 0.33
Benzo(a)pyrene	< 0.33/< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33/< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33/< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ/< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006/< 0.006	< 0.006
Bromodichloromethane	< 0.006/< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006/< 0.006	< 0.006
Ethylbenzene	0.001 J/0.0007 J	0.0008 J
Tetrachloroethene	< 0.006/< 0.006	< 0.006
Tetrahydrofuran	< 0.006/< 0.006	< 0.006
Toluene	0.046/0.011	0.016
Trichloroethene	< 0.006/< 0.006	< 0.006
Vinyl chloride	< 0.006/< 0.006	< 0.006

SB-13-05	0 - 2 (ft) 6/29/2010	6 - 8 (ft) 6/29/2010	8 - 10 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	0.08 J	< 12.5	< 4.27
Benzo(a)pyrene	0.07 J	< 12.5	< 4.27
Benzo(b)fluoranthene	0.08 J	< 12.5	< 4.27
bis(2-Ethylhexyl)phthalate	1.88	15 J	< 4.27 UJ
Pentachlorophenol	< 0.33	< 12.5	< 4.27
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.006	< 0.005	< 0.07
Bromodichloromethane	< 0.006	< 0.005	< 0.07
Chloroform (Trichloromethane)	< 0.006	< 0.005	< 0.07
Ethylbenzene	< 0.006	< 0.005	0.06 J
Tetrachloroethene	< 0.006	< 0.005	< 0.07
Tetrahydrofuran	< 0.006 UJ	< 0.005 UJ	4.99 J
Toluene	< 0.006	< 0.005	< 0.07
Trichloroethene	< 0.006	< 0.005	< 0.07
Vinyl chloride	< 0.006	< 0.005	< 0.1

SB-15-01	0 - 2 (ft) 3/9/2010	6.5 - 7.5 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 26.32	< 2.6
Benzo(a)pyrene	< 0.33	< 26.32	< 2.6
Benzo(b)fluoranthene	< 0.33	< 26.32	< 2.6
bis(2-Ethylhexyl)phthalate	< 0.33	< 26.32	< 2.6
Pentachlorophenol	< 0.33 UJ	< 26.32 UJ	< 2.6 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.007	< 0.005
Bromodichloromethane	< 0.005	< 0.007	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.007	< 0.005
Ethylbenzene	< 0.005	< 0.007	< 0.005
Tetrachloroethene	< 0.005	< 0.007	< 0.005
Tetrahydrofuran	< 0.005	< 0.007	< 0.005 UJ
Toluene	< 0.005	< 0.007	< 0.005
Trichloroethene	< 0.005	< 0.007	< 0.005
Vinyl chloride	< 0.005	< 0.007	< 0.005

SB-15-05	0 - 2 (ft) 6/29/2010	6 - 8 (ft) 6/29/2010	8 - 10 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.006	< 0.006	< 0.005
Bromodichloromethane	< 0.006	< 0.2	< 0.005
Chloroform (Trichloromethane)	< 0.006	< 0.006	< 0.005
Ethylbenzene	< 0.006	< 0.006	< 0.005
Tetrachloroethene	< 0.006	< 0.006	< 0.005
Tetrahydrofuran	< 0.006 UJ	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.006	< 0.006	< 0.005
Trichloroethene	< 0.006	< 0.006	< 0.005
Vinyl chloride	< 0.006	< 0.006	< 0.005

SB-15-04	0 - 2 (ft) 6/29/2010	5.5 - 7.5 (ft) 6/29/2010	8 - 10 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33/< 0.33
Benzo(a)pyrene	< 0.33	< 0.33	< 0.33/< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33	< 0.33/< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33/< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33/< 0.33
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.005	< 0.005/< 0.005
Bromodichloromethane	< 0.005	< 0.005	< 0.005/< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005	< 0.005/< 0.005
Ethylbenzene	< 0.005	< 0.005	< 0.005/< 0.005
Tetrachloroethene	< 0.005	< 0.005	< 0.005/< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ/< 0.005 UJ
Toluene	< 0.005	< 0.005	< 0.005/< 0.005
Trichloroethene	< 0.005	< 0.005	< 0.005/< 0.005
Vinyl chloride	< 0.005	< 0.005	< 0.005/< 0.005

SB-15-02	0 - 2 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.006
Bromodichloromethane	< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.006
Ethylbenzene	< 0.006	< 0.006
Tetrachloroethene	< 0.006	< 0.006
Tetrahydrofuran	< 0.006	< 0.006
Toluene	< 0.006	0.006 J
Trichloroethene	< 0.006	< 0.006
Vinyl chloride	< 0.006	< 0.006

SB-15-03	0 - 2 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005	< 0.005
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-16-03	0 - 2 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.79	< 0.33
Benzo(a)pyrene	0.89 [A]	< 0.33
Benzo(b)fluoranthene	0.98	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005	< 0.005
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-16-04	0 - 2 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33/< 0.38
Benzo(a)pyrene	< 0.33/0.022 J
Benzo(b)fluoranthene	< 0.33/0.042 J
bis(2-Ethylhexyl)phthalate	0.721.4
Pentachlorophenol	< 0.33/< 0.38

SB-16-05	0 - 2 (ft) 6/29/2010
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33

SB-16-02	0 - 2 (ft) 3/9/2010	5.5 - 6.5 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 9.26	< 0.33	< 0.33/< 0.33
Benzo(a)pyrene	< 9.26	< 0.33	< 0.33/< 0.33
Benzo(b)fluoranthene	< 9.26	< 0.33	< 0.33/< 0.33
bis(2-Ethylhexyl)phthalate	< 9.26	< 0.33	< 0.33/< 0.33
Pentachlorophenol	< 9.26 UJ	< 0.33 UJ	< 0.33 UJ/< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.006	< 0.8	< 0.005/< 0.006
Bromodichloromethane	< 0.006	< 1.4	< 0.012/< 0.1
Chloroform (Trichloromethane)	< 0.006	< 0.8	< 0.005/< 0.006
Ethylbenzene	< 0.006	< 0.8	< 0.005/< 0.006
Tetrachloroethene	< 0.006	< 0.8	< 0.005/< 0.006
Tetrahydrofuran	< 0.006	< 8	< 0.005/< 0.006
Toluene	< 0.006	R	< 0.005/< 0.006
Trichloroethene	< 0.006	< 0.8	< 0.005/< 0.006
Vinyl chloride	< 0.006	< 2	< 0.005/< 0.006

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER LOCATED
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

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   J: ESTIMATED RESULT
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5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

HALEY & ALDRICH

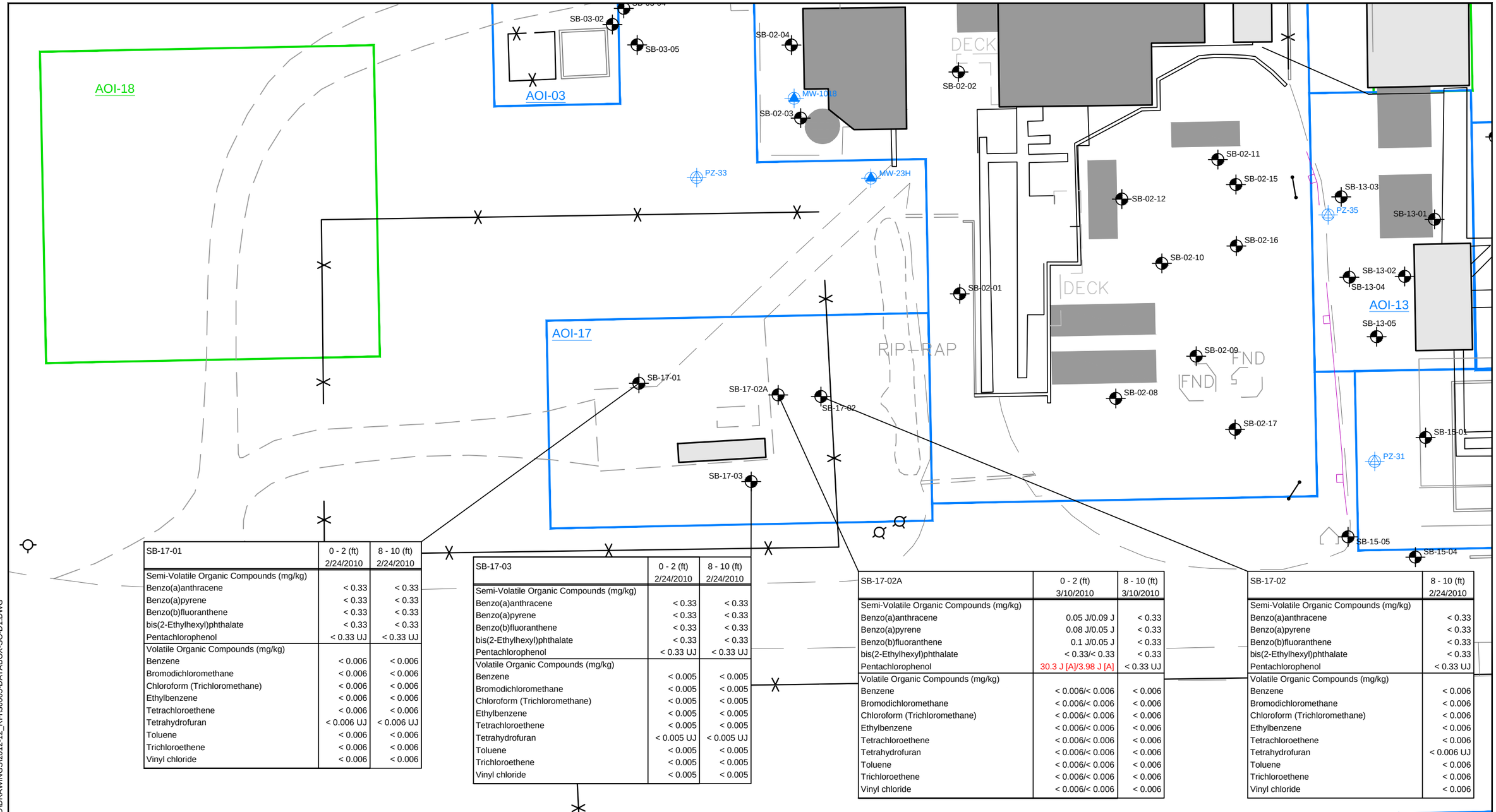
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS AOIs 13, 14, 15, 16, AND 24

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 11

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG



SB-17-01	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.006
Bromodichloromethane	< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.006
Ethylbenzene	< 0.006	< 0.006
Tetrachloroethene	< 0.006	< 0.006
Tetrahydrofuran	< 0.006 UJ	< 0.006 UJ
Toluene	< 0.006	< 0.006
Trichloroethene	< 0.006	< 0.006
Vinyl chloride	< 0.006	< 0.006

SB-17-03	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-17-02A	0 - 2 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.05 J/0.09 J	< 0.33
Benzo(a)pyrene	0.08 J/0.05 J	< 0.33
Benzo(b)fluoranthene	0.1 J/0.05 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33/< 0.33	< 0.33
Pentachlorophenol	30.3 J [A]/3.98 J [A]	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006/< 0.006	< 0.006
Bromodichloromethane	< 0.006/< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006/< 0.006	< 0.006
Ethylbenzene	< 0.006/< 0.006	< 0.006
Tetrachloroethene	< 0.006/< 0.006	< 0.006
Tetrahydrofuran	< 0.006/< 0.006	< 0.006
Toluene	< 0.006/< 0.006	< 0.006
Trichloroethene	< 0.006/< 0.006	< 0.006
Vinyl chloride	< 0.006/< 0.006	< 0.006

SB-17-02	8 - 10 (ft) 2/24/2010
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33 UJ
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.006
Bromodichloromethane	< 0.006
Chloroform (Trichloromethane)	< 0.006
Ethylbenzene	< 0.006
Tetrachloroethene	< 0.006
Tetrahydrofuran	< 0.006 UJ
Toluene	< 0.006
Trichloroethene	< 0.006
Vinyl chloride	< 0.006

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

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7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

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HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOI-17

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 12

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG

SB-20-02	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	1.62	< 0.5
Arsenic	5.46 J [A]	2.75 J [A]
Cadmium	1.52	0.23
Lead	45.3	7.57
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	0.02 J	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	1.03	< 0.33
Benzo(a)pyrene	1.17 [A]	< 0.33
Benzo(b)fluoranthene	1.22	< 0.33
bis(2-Ethylhexyl)phthalate	6.96	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.007
Bromodichloromethane	< 0.005	< 0.007
Chloroform (Trichloromethane)	< 0.005	< 0.007
Ethylbenzene	< 0.005	< 0.007
Tetrachloroethene	< 0.005	< 0.007
Tetrahydrofuran	< 0.005 UJ	< 0.007 UJ
Toluene	< 0.005	< 0.007
Trichloroethene	< 0.005	< 0.007
Vinyl chloride	< 0.005	< 0.007

SB-20-05	0 - 2 (ft) 6/28/2010
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	0.35
Benzo(a)pyrene	0.41 [A]
Benzo(b)fluoranthene	0.43
bis(2-Ethylhexyl)phthalate	1.9 J
Pentachlorophenol	< 0.33

SB-20-04	0 - 2 (ft) 6/28/2010
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	0.2 J
Benzo(a)pyrene	0.2 J
Benzo(b)fluoranthene	0.2 J
bis(2-Ethylhexyl)phthalate	2.27 J
Pentachlorophenol	< 0.33

SB-21-02	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	1.11	< 0.5
Arsenic	2.03 J [A]	0.88 J
Cadmium	0.6	0.05 J
Lead	15.6	1.99
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	0.1 J	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 1.96	< 5.62
Benzo(a)pyrene	< 1.96	< 5.62
Benzo(b)fluoranthene	< 1.96	< 5.62
bis(2-Ethylhexyl)phthalate	< 1.96	< 5.62
Pentachlorophenol	< 1.96 UJ	< 5.62 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.005
Bromodichloromethane	< 0.006	< 0.005
Chloroform (Trichloromethane)	< 0.006	< 0.005
Ethylbenzene	< 0.006	0.01 J
Tetrachloroethene	< 0.006	< 0.005
Tetrahydrofuran	< 0.006 UJ	0.011 J
Toluene	< 0.006	< 0.005
Trichloroethene	< 0.006	< 0.005
Vinyl chloride	< 0.006	< 0.005

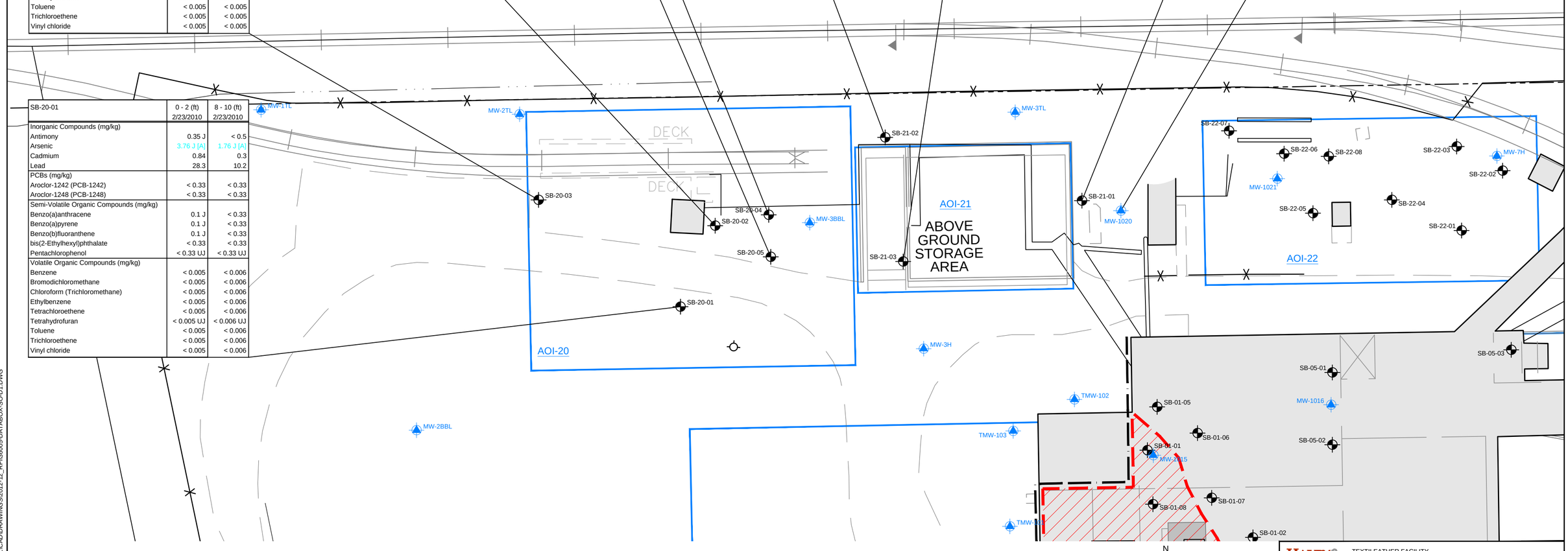
SB-21-03	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	0.59 J	0.95 J
Cadmium	0.05 J	0.05 J
Lead	1.68	1.69
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.08 J	< 0.33
Benzo(a)pyrene	0.1 J	0.03 J
Benzo(b)fluoranthene	0.1 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-21-01	0 - 2 (ft) 2/23/2010	5.8 - 6.8 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)			
Antimony	0.44 J	< 0.5	< 0.5
Arsenic	2.3 J [A]	3.28 J [A]	6.52 J [A]
Cadmium	0.64	0.14 J	0.47
Lead	25.9	15.2	10.5
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	0.03 J	0.02 J	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 10.29	< 0.33
Benzo(a)pyrene	0.04 J	< 10.29	< 0.33
Benzo(b)fluoranthene	0.03 J	< 10.29	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 10.29	< 0.33
Pentachlorophenol	< 0.33 UJ	< 10.29 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.006	< 0.005
Bromodichloromethane	< 0.005	< 0.006	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.006	< 0.005
Ethylbenzene	< 0.005	< 0.006	< 0.005
Tetrachloroethene	< 0.005	< 0.006	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ	0.49 J
Toluene	< 0.005	< 0.006	< 0.005
Trichloroethene	< 0.005	< 0.006	< 0.005
Vinyl chloride	< 0.005	< 0.006	< 0.005

MW-1020	0 - 2 (ft) 7/15/2010	8 - 10 (ft) 7/15/2010
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33

SB-20-03	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	0.2 J	< 0.5
Arsenic	2.81 J [A]	1.13 J
Cadmium	0.4	0.24
Lead	34.2	10.6
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	0.19 J	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.42	< 0.33
Benzo(a)pyrene	0.51 [A]	< 0.33
Benzo(b)fluoranthene	0.56	< 0.33
bis(2-Ethylhexyl)phthalate	5.09	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	0.0008 J	0.001 J
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-20-01	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	0.35 J	< 0.5
Arsenic	3.76 J [A]	1.76 J [A]
Cadmium	0.84	0.3
Lead	28.3	10.2
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.1 J	< 0.33
Benzo(a)pyrene	0.1 J	< 0.33
Benzo(b)fluoranthene	0.1 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.006
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006



LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
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- SOIL GAS LOCATION
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NOTES:

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7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOIs 20 AND 21

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 13

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG

SB-22-06	0 - 2 (ft) 2/23/2010	6 - 8 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)			
Antimony	2.04	< 0.5/< 0.5	< 0.5
Arsenic	4.33 J [A]	1.53 J/1.82 J [A]	2.64 J [A]
Cadmium	6	0.45/0.51	0.17 J
Lead	157	8.62/10.7	8.57
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.5	0.01 J/0.03 J	< 0.33
Aroclor-1248 (PCB-1248)	4.4 [A]	< 0.33/< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	0.07 J	< 3.21/< 3.21	< 0.63
Benzo(a)pyrene	0.09 J	< 3.21/< 3.21	< 0.63
Benzo(b)fluoranthene	0.1 J	< 3.21/< 3.21	< 0.63
bis(2-Ethylhexyl)phthalate	< 0.33	< 3.21/< 3.21	< 0.63
Pentachlorophenol	< 0.33 UJ	< 3.21 UJ/< 3.21 UJ	< 0.63 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.005/< 0.006	< 0.007
Bromodichloromethane	< 0.005	< 0.005/< 0.006	< 0.007
Chloroform (Trichloromethane)	< 0.005	< 0.006/< 0.005	< 0.007
Ethylbenzene	< 0.005	0.0005 J/< 0.006	< 0.007
Tetrachloroethene	< 0.005	< 0.005/< 0.006	< 0.007
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ/< 0.006 UJ	< 0.007 UJ
Toluene	< 0.005	< 0.006/< 0.005	< 0.007
Trichloroethene	< 0.005	< 0.005/< 0.006	< 0.007
Vinyl chloride	< 0.005	< 0.006/< 0.005	< 0.007

MW-1021	0 - 2 (ft) 7/13/2010	4.5 - 5.5 (ft) 7/13/2010	8 - 10 (ft) 7/13/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 1	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	4.7 [A]	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	0.03 J	< 0.33	< 0.33
Benzo(a)pyrene	0.04 J	< 0.33	< 0.33
Benzo(b)fluoranthene	0.05 J	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	2.38	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33	< 0.33

SB-22-08	0 - 2 (ft) 6/28/2010
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.33/< 0.33
Aroclor-1248 (PCB-1248)	0.1 J/0.08 J
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 1.96/< 1.15
Benzo(a)pyrene	< 1.96/< 1.15
Benzo(b)fluoranthene	< 1.96/< 1.15
bis(2-Ethylhexyl)phthalate	160 J [A]/80.2 J
Pentachlorophenol	< 1.96/< 1.15

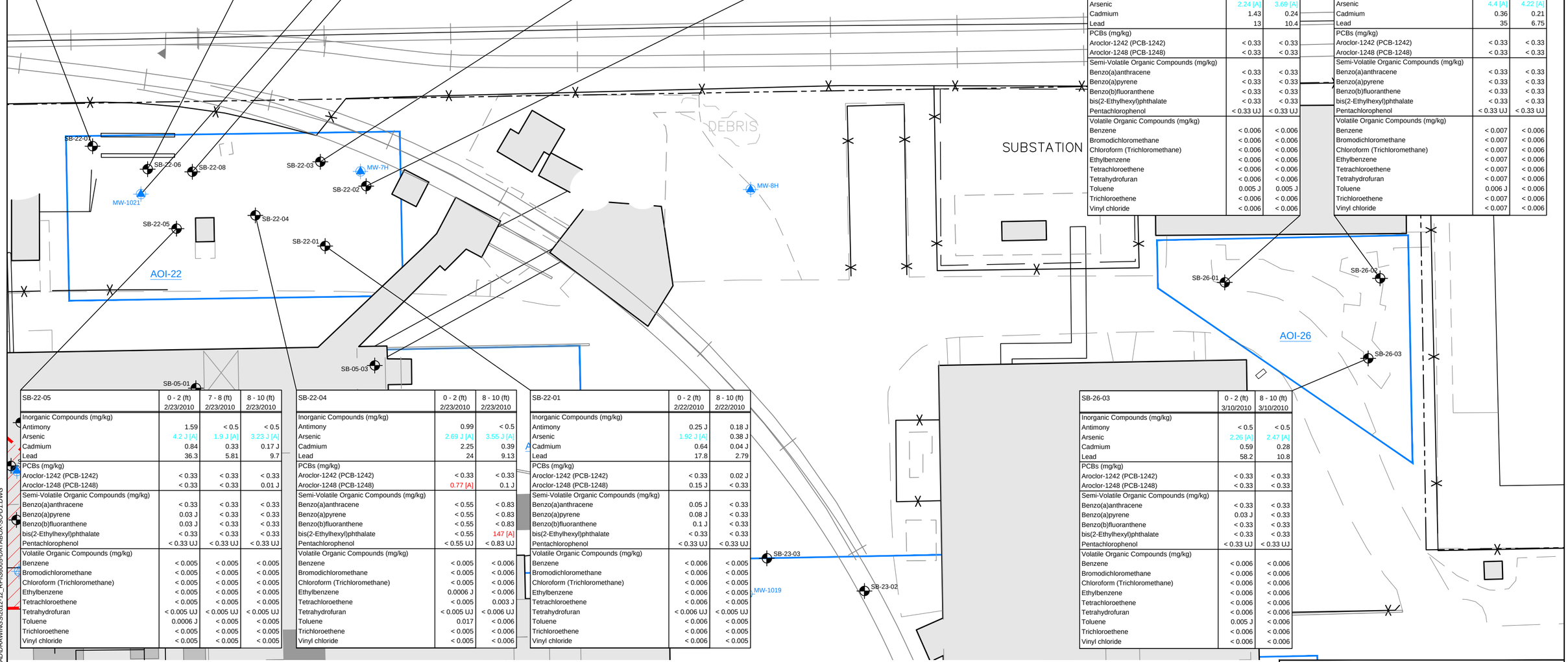
SB-22-03	0 - 2 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	0.37 J
Arsenic	2.44 J [A]	0.54 J
Cadmium	0.24	0.11 J
Lead	9.93	2.45
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.005	0.0003 J
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-22-02	0 - 2 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
Inorganic Compounds (mg/kg)		
Antimony	0.21 J	0.13 J
Arsenic	1.06 J	0.52 J
Cadmium	0.1 J	0.05 J
Lead	4.22	1.9
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	0.03 J
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.005
Bromodichloromethane	< 0.006	< 0.005
Chloroform (Trichloromethane)	< 0.006	< 0.005
Ethylbenzene	< 0.006	< 0.005
Tetrachloroethene	< 0.006	< 0.005
Tetrahydrofuran	< 0.006 UJ	< 0.005 UJ
Toluene	0.001 J	0.0004 J
Trichloroethene	< 0.006	< 0.005
Vinyl chloride	< 0.006	< 0.005

SB-22-07	0 - 2 (ft) 6/28/2010
PCBs (mg/kg)	
Aroclor-1242 (PCB-1242)	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	0.54 J
Pentachlorophenol	< 0.33

SB-26-01	0 - 2 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	2.24 [A]	3.69 [A]
Cadmium	1.43	0.24
Lead	13	10.4
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.006
Bromodichloromethane	< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.006
Ethylbenzene	< 0.006	< 0.006
Tetrachloroethene	< 0.006	< 0.006
Tetrahydrofuran	< 0.006	< 0.006
Toluene	0.005 J	0.005 J
Trichloroethene	< 0.006	< 0.006
Vinyl chloride	< 0.006	< 0.006

SB-26-02	0 - 2 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	4.4 [A]	4.22 [A]
Cadmium	0.36	0.21
Lead	35	6.75
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.007	< 0.006
Bromodichloromethane	< 0.007	< 0.006
Chloroform (Trichloromethane)	< 0.007	< 0.006
Ethylbenzene	< 0.007	< 0.006
Tetrachloroethene	< 0.007	< 0.006
Tetrahydrofuran	< 0.007	< 0.006
Toluene	0.006 J	< 0.006
Trichloroethene	< 0.007	< 0.006
Vinyl chloride	< 0.007	< 0.006



SB-22-05	0 - 2 (ft) 2/23/2010	7 - 8 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)			
Antimony	1.59	< 0.5	< 0.5
Arsenic	4.2 J [A]	1.9 J [A]	3.23 J [A]
Cadmium	0.84	0.33	0.17 J
Lead	36.3	5.81	9.7
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33	0.01 J
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.33	< 0.33
Benzo(a)pyrene	0.03 J	< 0.33	< 0.33
Benzo(b)fluoranthene	0.03 J	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005	< 0.005
Tetrachloroethene	< 0.005	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ
Toluene	0.0006 J	< 0.005	< 0.005
Trichloroethene	< 0.005	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005	< 0.005

SB-22-04	0 - 2 (ft) 2/23/2010	8 - 10 (ft) 2/23/2010
Inorganic Compounds (mg/kg)		
Antimony	0.99	< 0.5
Arsenic	2.69 J [A]	3.55 J [A]
Cadmium	2.25	0.39
Lead	24	9.13
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	0.77 [A]	0.1 J
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.55	< 0.83
Benzo(a)pyrene	< 0.55	< 0.83
Benzo(b)fluoranthene	< 0.55	< 0.83
bis(2-Ethylhexyl)phthalate	< 0.55	147 [A]
Pentachlorophenol	< 0.55 UJ	< 0.83 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	0.0006 J	< 0.006
Tetrachloroethene	< 0.005	0.003 J
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ
Toluene	0.017	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

SB-22-01	0 - 2 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
Inorganic Compounds (mg/kg)		
Antimony	0.25 J	0.18 J
Arsenic	1.92 J [A]	0.38 J
Cadmium	0.64	0.04 J
Lead	17.8	2.79
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	0.02 J
Aroclor-1248 (PCB-1248)	0.15 J	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.05 J	< 0.33
Benzo(a)pyrene	0.08 J	< 0.33
Benzo(b)fluoranthene	0.1 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.005
Bromodichloromethane	< 0.006	< 0.005
Chloroform (Trichloromethane)	< 0.006	< 0.005
Ethylbenzene	< 0.006	< 0.005
Tetrachloroethene	< 0.006	< 0.005
Tetrahydrofuran	< 0.006 UJ	< 0.005 UJ
Toluene	< 0.006	< 0.005
Trichloroethene	< 0.006	< 0.005
Vinyl chloride	< 0.006	< 0.005

SB-26-03	0 - 2 (ft) 3/10/2010	8 - 10 (ft) 3/10/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	2.26 [A]	2.47 [A]
Cadmium	0.59	0.28
Lead	58.2	10.8
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	0.03 J	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.006
Bromodichloromethane	< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006	< 0.006
Ethylbenzene	< 0.006	< 0.006
Tetrachloroethene	< 0.006	< 0.006
Tetrahydrofuran	< 0.006	< 0.006
Toluene	0.005 J	< 0.006
Trichloroethene	< 0.006	< 0.006
Vinyl chloride	< 0.006	< 0.006

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/KG.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SOIL VAPOR SAMPLES.
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]: A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

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SCALE IN FEET

HALEY & ALDRICH

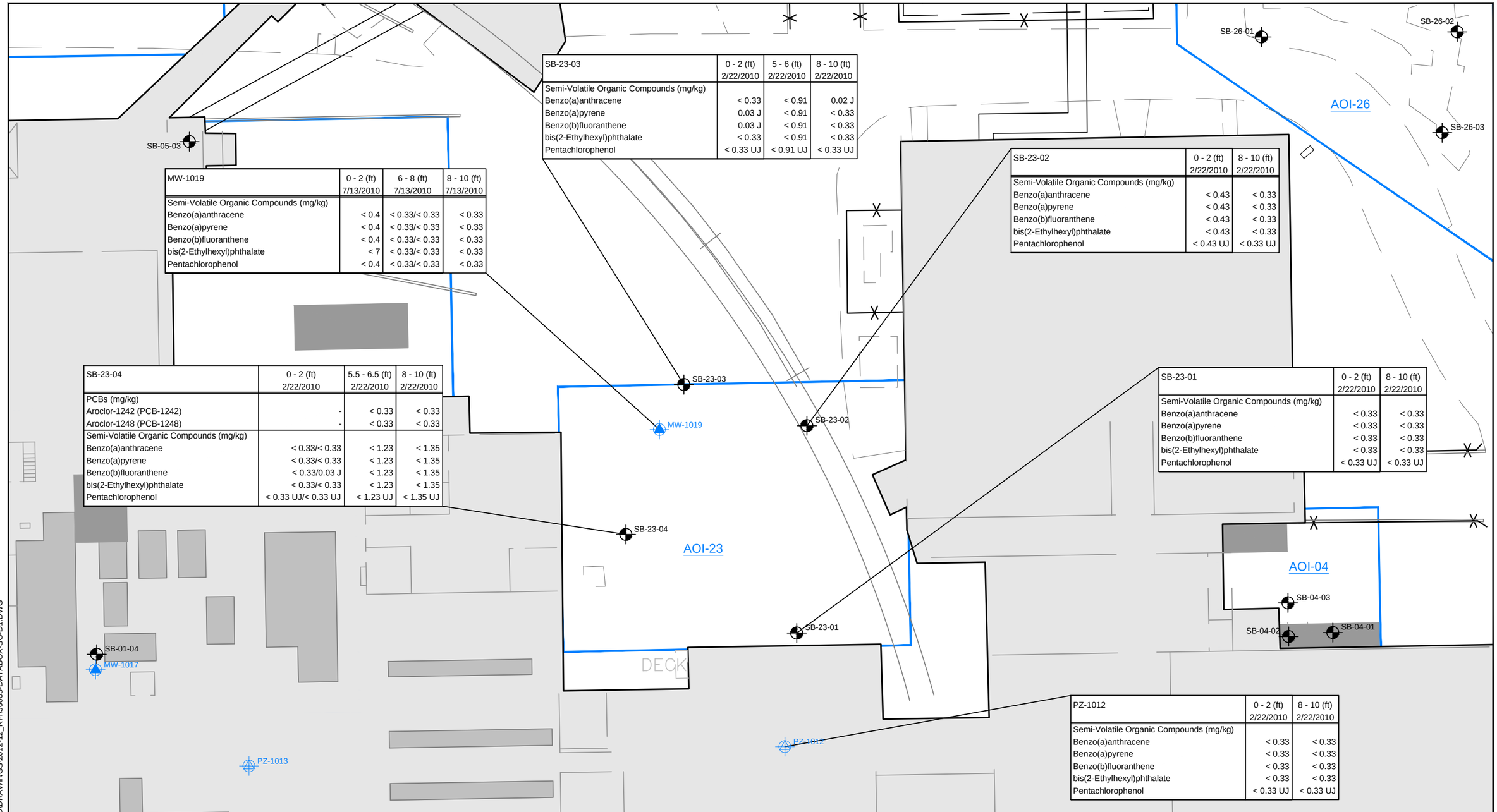
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOIs 22 AND 26

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 14

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG



SB-23-03	0 - 2 (ft) 2/22/2010	5 - 6 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33	< 0.91	0.02 J
Benzo(a)pyrene	0.03 J	< 0.91	< 0.33
Benzo(b)fluoranthene	0.03 J	< 0.91	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.91	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.91 UJ	< 0.33 UJ

MW-1019	0 - 2 (ft) 7/13/2010	6 - 8 (ft) 7/13/2010	8 - 10 (ft) 7/13/2010
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.4	< 0.33/< 0.33	< 0.33
Benzo(a)pyrene	< 0.4	< 0.33/< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.4	< 0.33/< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 7	< 0.33/< 0.33	< 0.33
Pentachlorophenol	< 0.4	< 0.33/< 0.33	< 0.33

SB-23-02	0 - 2 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.43	< 0.33
Benzo(a)pyrene	< 0.43	< 0.33
Benzo(b)fluoranthene	< 0.43	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.43	< 0.33
Pentachlorophenol	< 0.43 UJ	< 0.33 UJ

SB-23-04	0 - 2 (ft) 2/22/2010	5.5 - 6.5 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
PCBs (mg/kg)			
Aroclor-1242 (PCB-1242)	-	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	-	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)			
Benzo(a)anthracene	< 0.33/< 0.33	< 1.23	< 1.35
Benzo(a)pyrene	< 0.33/< 0.33	< 1.23	< 1.35
Benzo(b)fluoranthene	< 0.33/0.03 J	< 1.23	< 1.35
bis(2-Ethylhexyl)phthalate	< 0.33/< 0.33	< 1.23	< 1.35
Pentachlorophenol	< 0.33 UJ/< 0.33 UJ	< 1.23 UJ	< 1.35 UJ

SB-23-01	0 - 2 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ

PZ-1012	0 - 2 (ft) 2/22/2010	8 - 10 (ft) 2/22/2010
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

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7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

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SCALE IN FEET

HALEY & ALDRICH

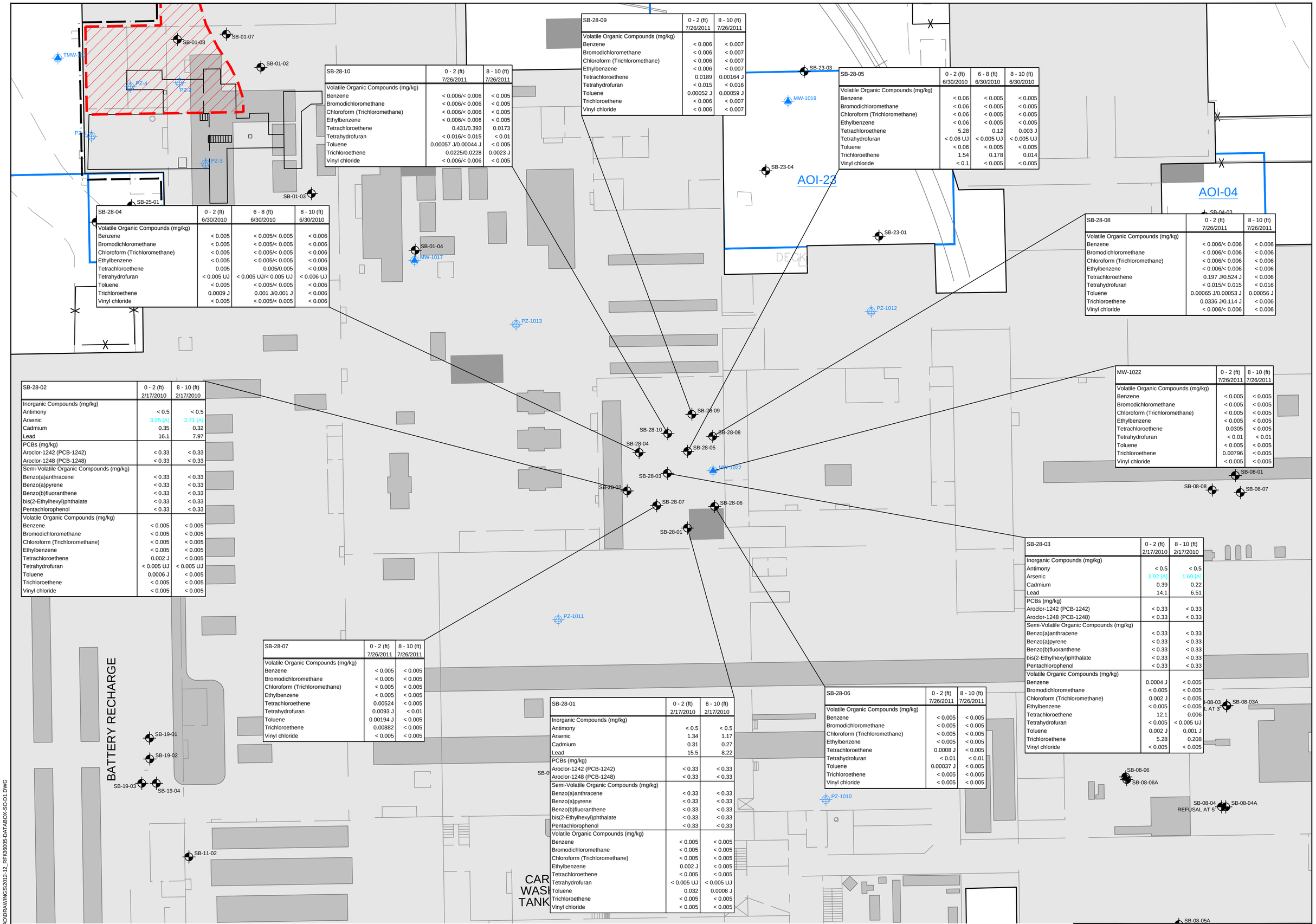
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOI-23

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 15

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG



SB-28-09	0 - 2 (ft) 7/26/2011	8 - 10 (ft) 7/26/2011
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006	< 0.007
Bromodichloromethane	< 0.006	< 0.007
Chloroform (Trichloromethane)	< 0.006	< 0.007
Ethylbenzene	< 0.006	< 0.007
Tetrachloroethene	0.0189	0.00164 J
Tetrahydrofuran	< 0.015	< 0.016
Toluene	0.00052 J	0.00059 J
Trichloroethene	< 0.006	< 0.007
Vinyl chloride	< 0.006	< 0.007

SB-28-10	0 - 2 (ft) 7/26/2011	8 - 10 (ft) 7/26/2011
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006/< 0.006	< 0.005
Bromodichloromethane	< 0.006/< 0.006	< 0.005
Chloroform (Trichloromethane)	< 0.006/< 0.006	< 0.005
Ethylbenzene	< 0.006/< 0.006	< 0.005
Tetrachloroethene	0.431/0.393	0.0173
Tetrahydrofuran	< 0.016/< 0.015	< 0.01
Toluene	0.00057 J/0.00044 J	< 0.005
Trichloroethene	0.0225/0.0228	0.0023 J
Vinyl chloride	< 0.006/< 0.006	< 0.005

SB-28-05	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.06	< 0.005	< 0.005
Bromodichloromethane	< 0.06	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.06	< 0.005	< 0.005
Ethylbenzene	< 0.06	< 0.005	< 0.005
Tetrachloroethene	5.28	0.12	0.003 J
Tetrahydrofuran	< 0.06 UJ	< 0.005 UJ	< 0.005 UJ
Toluene	< 0.06	< 0.005	< 0.005
Trichloroethene	1.54	0.178	0.014
Vinyl chloride	< 0.1	< 0.005	< 0.005

SB-28-04	0 - 2 (ft) 6/30/2010	6 - 8 (ft) 6/30/2010	8 - 10 (ft) 6/30/2010
Volatile Organic Compounds (mg/kg)			
Benzene	< 0.005	< 0.005/< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.005/< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.005/< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.005/< 0.005	< 0.006
Tetrachloroethene	0.005	0.005/0.005	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ/< 0.005 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.005/< 0.005	< 0.006
Trichloroethene	0.0009 J	0.001 J/0.001 J	< 0.006
Vinyl chloride	< 0.005	< 0.005/< 0.005	< 0.006

SB-28-08	0 - 2 (ft) 7/26/2011	8 - 10 (ft) 7/26/2011
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.006/< 0.006	< 0.006
Bromodichloromethane	< 0.006/< 0.006	< 0.006
Chloroform (Trichloromethane)	< 0.006/< 0.006	< 0.006
Ethylbenzene	< 0.006/< 0.006	< 0.006
Tetrachloroethene	0.197 J/0.524 J	< 0.006
Tetrahydrofuran	< 0.015/< 0.015	< 0.016
Toluene	0.00065 J/0.00053 J	0.00056 J
Trichloroethene	0.0336 J/0.114 J	< 0.006
Vinyl chloride	< 0.006/< 0.006	< 0.006

SB-28-02	0 - 2 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	3.25 [A]	2.71 [A]
Cadmium	0.35	0.32
Lead	16.1	7.97
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	0.002 J	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	0.0006 J	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

MW-1022	0 - 2 (ft) 7/26/2011	8 - 10 (ft) 7/26/2011
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	0.0305	< 0.005
Tetrahydrofuran	< 0.01	< 0.01
Toluene	< 0.005	< 0.005
Trichloroethene	0.00796	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-28-03	0 - 2 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	3.92 [A]	1.69 [A]
Cadmium	0.39	0.22
Lead	14.1	6.51
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	0.0004 J	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	0.002 J	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	12.1	0.006
Tetrahydrofuran	< 0.005	< 0.005 UJ
Toluene	0.002 J	0.001 J
Trichloroethene	5.28	0.208
Vinyl chloride	< 0.005	< 0.005

SB-28-07	0 - 2 (ft) 7/26/2011	8 - 10 (ft) 7/26/2011
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	0.00524	< 0.005
Tetrahydrofuran	0.0093 J	< 0.01
Toluene	0.00194 J	< 0.005
Trichloroethene	0.00882	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-28-01	0 - 2 (ft) 2/17/2010	8 - 10 (ft) 2/17/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.34	1.17
Cadmium	0.31	0.27
Lead	15.5	8.22
PCBs (mg/kg)		
Aroclor-1242 (PCB-1242)	< 0.33	< 0.33
Aroclor-1248 (PCB-1248)	< 0.33	< 0.33
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	0.002 J	< 0.005
Tetrachloroethene	< 0.005	< 0.005
Tetrahydrofuran	< 0.005 UJ	< 0.005 UJ
Toluene	0.032	0.0008 J
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

SB-28-06	0 - 2 (ft) 7/26/2011	8 - 10 (ft) 7/26/2011
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.005
Bromodichloromethane	< 0.005	< 0.005
Chloroform (Trichloromethane)	< 0.005	< 0.005
Ethylbenzene	< 0.005	< 0.005
Tetrachloroethene	0.0008 J	< 0.005
Tetrahydrofuran	< 0.01	< 0.01
Toluene	0.00037 J	< 0.005
Trichloroethene	< 0.005	< 0.005
Vinyl chloride	< 0.005	< 0.005

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/KG.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SOIL VAPOR SAMPLES.
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

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0 30 60
SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS
AOI-28

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 16

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG

SB-BACK-01	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)		
Antimony	0.37 J	< 0.5
Arsenic	2.11 J [A]	0.75 J
Cadmium	0.67	0.27
Lead	21.3	10.3
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.2 J	< 0.33
Benzo(a)pyrene	0.35 J [A]	< 0.33
Benzo(b)fluoranthene	0.45 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.007	< 0.007
Bromodichloromethane	< 0.007	< 0.007
Chloroform (Trichloromethane)	< 0.007	< 0.007
Ethylbenzene	< 0.007	< 0.007
Tetrachloroethene	< 0.007	< 0.007
Tetrahydrofuran	< 0.007 UJ	< 0.006 UJ
Toluene	< 0.007	< 0.007
Trichloroethene	< 0.007	< 0.007
Vinyl chloride	< 0.007	< 0.007

SB-BACK-02	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)		
Antimony	1.04	< 0.5
Arsenic	1.23 J	0.92 J
Cadmium	1.44	0.17 J
Lead	39.5	7.42
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.5 J	< 0.33
Benzo(a)pyrene	0.81 [A]	< 0.33
Benzo(b)fluoranthene	1.04	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.64	< 0.33
Pentachlorophenol	< 0.64 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.007	< 0.006
Bromodichloromethane	< 0.007	< 0.006
Chloroform (Trichloromethane)	< 0.007	< 0.006
Ethylbenzene	< 0.007	< 0.006
Tetrachloroethene	< 0.007	< 0.006
Tetrahydrofuran	< 0.007 UJ	< 0.006 UJ
Toluene	< 0.007	< 0.006
Trichloroethene	< 0.007	< 0.006
Vinyl chloride	< 0.007	< 0.006

MW-1007	0 - 2 (ft) 1/11/2010	8 - 10 (ft) 1/11/2010
Inorganic Compounds (mg/kg)		
Antimony	0.21 J	0.05 J
Arsenic	2.01 J [A]	1.99 J [A]
Cadmium	0.87	0.26
Lead	53.9	10.4
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.79 J	< 0.33
Benzo(a)pyrene	1.05 J [A]	< 0.33
Benzo(b)fluoranthene	1.24 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.49	< 0.33
Pentachlorophenol	< 0.49 UJ	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.06	< 0.07
Bromodichloromethane	< 0.06	< 0.07
Chloroform (Trichloromethane)	< 0.06	< 0.07
Ethylbenzene	< 0.06	< 0.07
Tetrachloroethene	< 0.06	< 0.07
Tetrahydrofuran	< 0.6	< 0.7
Toluene	0.009 J	< 0.07
Trichloroethene	< 0.06	< 0.07
Vinyl chloride	< 0.1	< 0.1

SB-BACK-03	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)		
Antimony	0.16 J	< 0.5
Arsenic	2.44 J [A]	1.45 J
Cadmium	0.49	0.21
Lead	24.8	6.07
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.007	< 0.006
Bromodichloromethane	< 0.007	< 0.006
Chloroform (Trichloromethane)	< 0.007	< 0.006
Ethylbenzene	< 0.007	< 0.006
Tetrachloroethene	< 0.007	< 0.006
Tetrahydrofuran	< 0.007 UJ	< 0.006 UJ
Toluene	< 0.007	< 0.006
Trichloroethene	< 0.007	< 0.006
Vinyl chloride	< 0.007	< 0.006

MW-1008	0 - 2 (ft) 1/12/2010	8 - 10 (ft) 1/12/2010
Inorganic Compounds (mg/kg)		
Antimony	0.03 J	0.03 J
Arsenic	0.88 J	1.47 J
Cadmium	0.06 J	0.19 J
Lead	4.09	5.57
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.06	< 0.07
Bromodichloromethane	< 0.06	< 0.07
Chloroform (Trichloromethane)	< 0.06	< 0.07
Ethylbenzene	< 0.06	< 0.07
Tetrachloroethene	< 0.06	< 0.07
Tetrahydrofuran	< 0.6	< 0.7
Toluene	< 0.06	< 0.07
Trichloroethene	< 0.06	< 0.07
Vinyl chloride	< 0.1	< 0.1

SB-BACK-04	0 - 2 (ft) 2/24/2010	8 - 10 (ft) 2/24/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.13	1.67 [A]
Cadmium	0.34	0.28
Lead	16.4	5.82
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.006
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006 UJ
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

SB-BACK-05	0 - 2 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.37	2.59 [A]
Cadmium	0.33	0.18 J
Lead	11.7	8.43
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.007	< 0.005
Bromodichloromethane	< 0.007	< 0.005
Chloroform (Trichloromethane)	< 0.007	< 0.005
Ethylbenzene	< 0.007	< 0.005
Tetrachloroethene	< 0.007	< 0.005
Tetrahydrofuran	< 0.007	< 0.005
Toluene	< 0.007	< 0.005
Trichloroethene	< 0.007	< 0.005
Vinyl chloride	< 0.007	< 0.005

MW-1009	0 - 2 (ft) 1/12/2010	8 - 10 (ft) 1/12/2010
Inorganic Compounds (mg/kg)		
Antimony	0.05 J	< 0.5
Arsenic	1.35 J	1.37 J
Cadmium	0.23	0.19 J
Lead	33.7	7.71
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.04 J	< 0.33
Benzo(a)pyrene	0.07 J	< 0.33
Benzo(b)fluoranthene	0.06 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.07	< 0.07
Bromodichloromethane	< 0.07	< 0.07
Chloroform (Trichloromethane)	< 0.07	< 0.07
Ethylbenzene	< 0.07	< 0.07
Tetrachloroethene	< 0.07	< 0.07
Tetrahydrofuran	< 0.5	< 0.5
Toluene	< 0.07	< 0.07
Trichloroethene	< 0.07	< 0.07
Vinyl chloride	< 0.1	< 0.1

SB-BACK-06	0 - 2 (ft) 3/9/2010	8 - 10 (ft) 3/9/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	1.22	5.32 [A]
Cadmium	0.56	0.22
Lead	261	9.38
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33 UJ	< 0.33 UJ
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.005	< 0.006
Bromodichloromethane	< 0.005	< 0.006
Chloroform (Trichloromethane)	< 0.005	< 0.006
Ethylbenzene	< 0.005	< 0.006
Tetrachloroethene	< 0.005	< 0.006
Tetrahydrofuran	< 0.005 UJ	< 0.006
Toluene	< 0.005	< 0.006
Trichloroethene	< 0.005	< 0.006
Vinyl chloride	< 0.005	< 0.006

MW-1001	0 - 2 (ft) 1/12/2010	8 - 10 (ft) 1/12/2010
Inorganic Compounds (mg/kg)		
Antimony	0.11 J	0.03 J
Arsenic	2.33 J [A]	2.06 J [A]
Cadmium	0.27	0.39
Lead	18.6	8.37
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.2 J	< 0.33
Benzo(a)pyrene	0.3 J [A]	< 0.33
Benzo(b)fluoranthene	0.3 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.08	< 0.08
Bromodichloromethane	< 0.08	< 0.08
Chloroform (Trichloromethane)	< 0.08	< 0.08
Ethylbenzene	0.01 J	< 0.08
Tetrachloroethene	< 0.08	< 0.08
Tetrahydrofuran	< 0.5	< 0.5
Toluene	0.06 J	< 0.08
Trichloroethene	< 0.08	< 0.08
Vinyl chloride	< 0.2	< 0.2

SB-MW-1001A	4 - 6 (ft) 6/28/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	2.04 [A]
Cadmium	0.2
Lead	9.75
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005 UJ
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.005

SB-MW-1002A	4 - 6 (ft) 6/28/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	1.79 [A]
Cadmium	0.2
Lead	9.6
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005 UJ
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.005

MW-1002	0 - 2 (ft) 1/13/2010	8 - 10 (ft) 1/13/2010
Inorganic Compounds (mg/kg)		
Antimony	0.08 J	0.04 J/< 0.5
Arsenic	2.73 [A]	1.25/1.43
Cadmium	0.2	0.23/0.25
Lead	9.14	7.23/8.63
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33/< 0.33
Benzo(a)pyrene	< 0.33	< 0.33/< 0.33
Benzo(b)fluoranthene	0.04 J	< 0.33/< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33/< 0.33
Pentachlorophenol	< 0.33	< 0.33/< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.07	< 0.07/< 0.07
Bromodichloromethane	< 0.07	< 0.07/< 0.07
Chloroform (Trichloromethane)	< 0.07	< 0.07/< 0.07
Ethylbenzene	< 0.07	< 0.07/< 0.07
Tetrachloroethene	< 0.07	< 0.07/< 0.07
Tetrahydrofuran	< 0.7 UJ	< 0.7 UJ/< 0.7 UJ
Toluene	0.009 J	< 0.07/< 0.07
Trichloroethene	< 0.07	< 0.07/< 0.07
Vinyl chloride	< 0.1	< 0.1/< 0.1

MW-1003	0 - 2 (ft) 1/13/2010	8 - 10 (ft) 1/13/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	0.96	2.04 [A]
Cadmium	0.23	0.22
Lead	11.4	7.57
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.07	< 0.07
Bromodichloromethane	< 0.07	< 0.07
Chloroform (Trichloromethane)	< 0.07	< 0.07
Ethylbenzene	< 0.07	< 0.07
Tetrachloroethene	< 0.07	< 0.07
Tetrahydrofuran	< 0.7 UJ	< 0.7 UJ
Toluene	< 0.07	< 0.07
Trichloroethene	< 0.07	< 0.07
Vinyl chloride	< 0.1	< 0.1

SB-MW-1004A	4 - 6 (ft) 6/28/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	1.01
Cadmium	0.15 J
Lead	9.42
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	0.04 J
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005 UJ
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.005

MW-1004	0 - 2 (ft) 1/13/2010	8 - 10 (ft) 1/13/2010
Inorganic Compounds (mg/kg)		
Antimony	< 0.5	< 0.5
Arsenic	0.79	1.82 [A]
Cadmium	0.16 J	0.21
Lead	8.49	8.92
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.07	< 0.07
Bromodichloromethane	< 0.07	< 0.07
Chloroform (Trichloromethane)	< 0.07	< 0.07
Ethylbenzene	< 0.07	< 0.07
Tetrachloroethene	< 0.07	< 0.07
Tetrahydrofuran	< 0.7 UJ	< 0.7 UJ
Toluene	< 0.07	< 0.07
Trichloroethene	< 0.07	< 0.07
Vinyl chloride	< 0.1	< 0.1

SB-MW-1005A	4 - 6 (ft) 6/28/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	2.04 [A]
Cadmium	0.18 J
Lead	13.1
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005 UJ
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.005

MW-1005	0 - 2 (ft) 1/14/2010	8 - 10 (ft) 1/14/2010
Inorganic Compounds (mg/kg)		
Antimony	0.22 J	< 0.5
Arsenic	5.98 [A]	2.05 [A]
Cadmium	0.69	0.23
Lead	42.8	6.14
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	0.3 J	< 0.33
Benzo(a)pyrene	0.3 J [A]	< 0.33
Benzo(b)fluoranthene	0.3 J	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.06	< 0.07
Bromodichloromethane	< 0.06	< 0.07
Chloroform (Trichloromethane)	< 0.06	< 0.07
Ethylbenzene	< 0.06	< 0.07
Tetrachloroethene	< 0.06	< 0.07
Tetrahydrofuran	< 0.6 UJ	< 0.7 UJ
Toluene	< 0.06	< 0.07
Trichloroethene	< 0.06	< 0.07
Vinyl chloride	< 0.1	< 0.1

MW-1006	0 - 2 (ft) 1/14/2010	8 - 10 (ft) 1/14/2010
Inorganic Compounds (mg/kg)		
Antimony	0.46 J	< 0.5
Arsenic	6.85 [A]	1.14
Cadmium	0.38	0.32
Lead	57.1	7.08
Semi-Volatile Organic Compounds (mg/kg)		
Benzo(a)anthracene	< 0.33	< 0.33
Benzo(a)pyrene	< 0.33	< 0.33
Benzo(b)fluoranthene	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33	< 0.33
Pentachlorophenol	< 0.33	< 0.33
Volatile Organic Compounds (mg/kg)		
Benzene	< 0.07	< 0.07
Bromodichloromethane	< 0.07	< 0.07
Chloroform (Trichloromethane)	< 0.07	< 0.07
Ethylbenzene	< 0.07	< 0.07
Tetrachloroethene	< 0.07	< 0.07
Tetrahydrofuran	< 0.7 UJ	< 0.7 UJ
Toluene	0.01 J	< 0.07
Trichloroethene	< 0.07	< 0.07
Vinyl chloride	< 0.1	< 0.1

SB-MW-1006A	4 - 6 (ft) 6/28/2010
Inorganic Compounds (mg/kg)	
Antimony	< 0.5
Arsenic	1.83 [A]
Cadmium	0.16 J
Lead	7.17
Semi-Volatile Organic Compounds (mg/kg)	
Benzo(a)anthracene	< 0.33
Benzo(a)pyrene	< 0.33
Benzo(b)fluoranthene	< 0.33
bis(2-Ethylhexyl)phthalate	< 0.33
Pentachlorophenol	< 0.33
Volatile Organic Compounds (mg/kg)	
Benzene	< 0.005
Bromodichloromethane	< 0.005
Chloroform (Trichloromethane)	< 0.005
Ethylbenzene	< 0.005
Tetrachloroethene	< 0.005
Tetrahydrofuran	< 0.005 UJ
Toluene	< 0.005
Trichloroethene	< 0.005
Vinyl chloride	< 0.005

LEGEND:
- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:
1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/KG.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SOIL VAPOR SAMPLES.
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN SOIL SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL DIRECT CONTACT (RSL, NOVEMBER 2012)
7. RESULTS GREATER THAN SOIL SCREENING CRITERIA ABOVE AND LESS THAN BACKGROUND ARE IN CYAN.

N / S / E / W

0 60 120 180 240
SCALE IN FEET

HALEY & ALDRICH

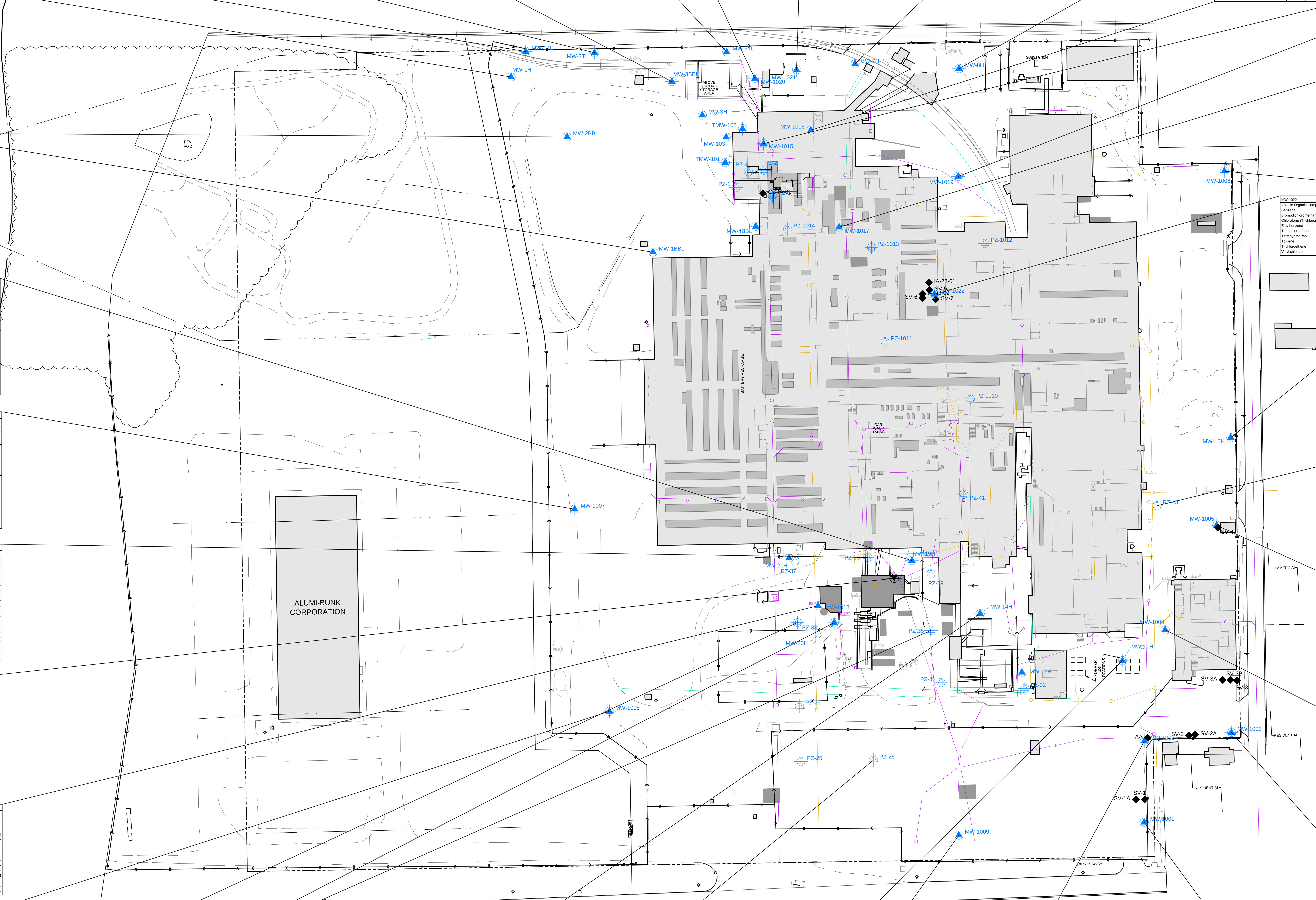
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL ANALYTICAL RESULTS PERIMETER LOCATIONS

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 17

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SO-D1.DWG



MW-1H	2/2/2010	7/13/2010
Inorganic Compounds (mg/L)		
Antimony	0.001 J/0.001 J	< 0.005
Arsenic	< 0.002/< 0.002	< 0.002
Cadmium	< 0.0005/< 0.0005	< 0.0005
Lead	< 0.003/< 0.003	< 0.003
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001/< 0.001	< 0.001
Benzo(a)pyrene	< 0.002/< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002/< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005/< 0.005	< 0.005
Pentachlorophenol	< 0.01/< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001/< 0.001	< 0.001
Bromodichloromethane	< 0.001/< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001/< 0.001	< 0.001
Ethylbenzene	< 0.001/< 0.001	< 0.001
Tetrachloroethene	< 0.001/< 0.001	0.0002 J
Tetrahydrofuran	< 0.005/< 0.005	< 0.005 J
Toluene	< 0.001/< 0.001	< 0.001
Trichloroethene	< 0.001/< 0.001	< 0.001
Vinyl chloride	< 0.001/< 0.001	< 0.001

MW-1TL	2/2/2010	7/14/2010
Inorganic Compounds (mg/L)		
Antimony	0.001 J	< 0.005
Arsenic	0.008	0.056 [B]
Cadmium	< 0.0005	< 0.0005
Lead	0.001 J	< 0.003
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	0.0003 J	0.0005 J
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	0.003 J
Toluene	< 0.001	< 0.001
Trichloroethene	0.0002 J	0.0005 J
Vinyl chloride	0.005 [AB]	0.017 [AB]

MW-2TL	2/4/2010	7/14/2010
Inorganic Compounds (mg/L)		
Antimony	< 0.005	< 0.005/< 0.005
Arsenic	0.001 J	< 0.002/< 0.002
Cadmium	< 0.0005	< 0.0005/< 0.0005
Lead	< 0.003	< 0.003/< 0.003
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001/< 0.001
Benzo(a)pyrene	< 0.002	< 0.002/< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002/< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005/< 0.005
Pentachlorophenol	< 0.01	< 0.01/< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001/< 0.001
Bromodichloromethane	< 0.001	< 0.001/< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001/< 0.001
Ethylbenzene	< 0.001	< 0.001/< 0.001
Tetrachloroethene	< 0.001	< 0.001/< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J/< 0.005 J
Toluene	< 0.001	< 0.001/< 0.001
Trichloroethene	0.0002 J	0.0003 J/0.0003 J
Vinyl chloride	< 0.001	< 0.001/< 0.001

MW-3BBL	2/3/2010	7/14/2010
Inorganic Compounds (mg/L)		
Antimony	0.006	0.007 [B]
Arsenic	0.001 J	0.003
Cadmium	< 0.0005	< 0.0005
Lead	0.001 J	0.001 J
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	0.009 [B]
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J
Toluene	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-3TL	2/4/2010	7/16/2010	5/22/2012
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005	-
Arsenic	0.006	0.001 J	-
Cadmium	< 0.0005	0.0004 J	-
Lead	< 0.003	< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	0.0003 J	0.0003 J	-
Bromodichloromethane	< 0.001	< 0.001	-
Chloroform (Trichloromethane)	< 0.001	< 0.001	-
Ethylbenzene	0.0002 J	0.0003 J	-
Tetrachloroethene	< 0.001	< 0.001	-
Tetrahydrofuran	< 5	180	47
Toluene	0.0005 J	< 0.001	-
Trichloroethene	< 0.001	< 0.001	-
Vinyl chloride	< 0.001	< 0.001	-

MW-1020	7/21/2010
PCBs (mg/L)	
Aroclor-1242 (PCB-1242)	< 0.0001
Aroclor-1248 (PCB-1248)	< 0.0001
Sum of PCBs	ND
Semi-Volatile Organic Compounds (mg/L)	
Benzo(a)anthracene	< 0.001
Benzo(a)pyrene	< 0.002
Benzo(b)fluoranthene	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005
Pentachlorophenol	< 0.01

MW-1021	7/21/2010
PCBs (mg/L)	
Aroclor-1242 (PCB-1242)	< 0.0001
Aroclor-1248 (PCB-1248)	< 0.0001
Sum of PCBs	ND
Semi-Volatile Organic Compounds (mg/L)	
Benzo(a)anthracene	< 0.001
Benzo(a)pyrene	< 0.002
Benzo(b)fluoranthene	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005
Pentachlorophenol	< 0.01

MW-7H	2/3/2010	7/14/2010	5/22/2012
Inorganic Compounds (mg/L)			
Antimony	0.002 J/0.002 J	< 0.005	-
Arsenic	0.004/0.003	0.001 J	-
Cadmium	0.0002 J/0.0004 J	< 0.0005	-
Lead	0.008/0.01	< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001/< 0.002	< 0.003	-
Benzo(a)pyrene	< 0.002/< 0.002	< 0.003	-
Benzo(b)fluoranthene	< 0.002/< 0.002	< 0.003	-
bis(2-Ethylhexyl)phthalate	< 0.005/0.208 [B]	0.276 [B]	< 0.0019
Pentachlorophenol	< 0.01/< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001/< 0.001	< 0.001	-
Bromodichloromethane	< 0.001/< 0.001	< 0.001	-
Chloroform (Trichloromethane)	< 0.001/< 0.001	< 0.001	-
Ethylbenzene	< 0.001/< 0.001	< 0.001	-
Tetrachloroethene	< 0.001/< 0.001	< 0.001	-
Tetrahydrofuran	< 0.005/< 0.005	< 0.005 J	-
Toluene	0.0002 J/0.0002 J	< 0.001	-
Trichloroethene	< 0.001/< 0.001	< 0.001	-
Vinyl chloride	< 0.001/< 0.001	< 0.001	-

MW-8H	2/3/2010	7/15/2010
Inorganic Compounds (mg/L)		
Antimony	0.041 [B]	0.004 J
Arsenic	0.008	0.004
Cadmium	0.0002 J	< 0.0005
Lead	0.002 J	< 0.003
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	0.009 [B]
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	0.001 J
Toluene	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-1016	7/21/2010	5/22/2012
PCBs (mg/L)		
Aroclor-1242 (PCB-1242)	< 0.0001	< 0.0006
Aroclor-1248 (PCB-1248)	< 0.0001	< 0.0006
Sum of PCBs	ND	ND
Sum of PCB Homologs	-	0.000024
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	-
Benzo(a)pyrene	< 0.002	-
Benzo(b)fluoranthene	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	-
Pentachlorophenol	< 0.01	-

MW-1015	7/21/2010	2/23/2011	5/22/2012
PCBs (mg/L)			
Aroclor-1242 (PCB-1242)	0.0006	-	0.0029
Aroclor-1248 (PCB-1248)	< 0.0001	-	< 0.00048
Sum of PCBs	0.0006 [B]	-	0.0029 [B]
Sum of PCB Homologs	-	-	0.00347
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	-	-
Benzo(a)pyrene	< 0.002	-	-
Benzo(b)fluoranthene	< 0.002	-	-
bis(2-Ethylhexyl)phthalate	< 0.005	-	-
Pentachlorophenol	< 0.01	-	-
Volatile Organic Compounds (mg/L)			
Benzene	-	< 0.001	-
Bromodichloromethane	-	< 0.001	-
Chloroform (Trichloromethane)	-	< 0.001	-
Ethylbenzene	-	< 0.001	-
Tetrachloroethene	-	< 0.001	-
Tetrahydrofuran	-	< 0.005 J	-
Toluene	-	< 0.001	-
Trichloroethene	-	< 0.001	-
Vinyl chloride	-	< 0.001	-

MW-1019	7/21/2010	5/22/2012
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.077	-
Benzo(a)pyrene	< 0.077	-
Benzo(b)fluoranthene	< 0.077	-
bis(2-Ethylhexyl)phthalate	< 0.077	< 0.0019
Pentachlorophenol	< 0.077	-

MW-1017	7/21/2010	2/22/2011
PCBs (mg/L)		
Aroclor-1242 (PCB-1242)	< 0.0001	-
Aroclor-1248 (PCB-1248)	< 0.0001	-
Sum of PCBs	ND	-
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	-
Benzo(a)pyrene	< 0.002	-
Benzo(b)fluoranthene	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	-
Pentachlorophenol	< 0.01	-
Volatile Organic Compounds (mg/L)		
Benzene	-	< 0.001/< 0.001
Bromodichloromethane	-	< 0.001/< 0.001
Chloroform (Trichloromethane)	-	< 0.001/< 0.001
Ethylbenzene	-	< 0.001/< 0.001
Tetrachloroethene	-	< 0.001/< 0.001
Tetrahydrofuran	-	< 0.005 J/< 0.005 J
Toluene	-	< 0.001/< 0.001
Trichloroethene	-	< 0.001/< 0.001
Vinyl chloride	-	< 0.001/< 0.001

MW-1006	2/3/2010	7/14/2010
Inorganic Compounds (mg/L)		
Antimony	< 0.005	< 0.005
Arsenic	0.003	0.012 [B]
Cadmium	0.0004 J	< 0.0005
Lead	0.004	0.001 J
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	0.007 [B]
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	0.0002 J	< 0.001
Bromodichloromethane	0.0002 J	< 0.001
Chloroform (Trichloromethane)	0.002	< 0.001
Ethylbenzene	0.0001 J	< 0.001
Tetrachloroethene	0.0004 J	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J
Toluene	0.0003 J	< 0.001
Trichloroethene	0.0007 J	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-1022	8/4/2011
Volatile Organic Compounds (mg/L)	
Benzene	< 0.001
Bromodichloromethane	< 0.001
Chloroform (Trichloromethane)	< 0.001
Ethylbenzene	< 0.001
Tetrachloroethene	0.00164
Tetrahydrofuran	R
Toluene	< 0.001
Trichloroethene	0.00593 [AB]
Vinyl chloride	< 0.001

MW-10H	2/3/2010	7/15/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005	-
Arsenic	0.001 J	0.001 J	-
Cadmium	< 0.0005	0.0089 [B]	-
Lead	< 0.003	< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

PZ-43	2/4/2010	7/15/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	0.002 J	< 0.005	-
Arsenic	0.004	0.002	-
Cadmium	< 0.0005	< 0.0005	-
Lead	< 0.003	< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001/< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001/< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001	< 0.001/< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001/< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001/< 0.001
Tetrahydrofuran	< 0.005	< 0.005	< 0.005/< 0.005
Toluene	0.0005 J	< 0.001	< 0.001/< 0.001
Trichloroethene	< 0.001	< 0.001	< 0.001/< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001/< 0.001

MW-1005	2/4/2010	7/13/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005	-
Arsenic	0.003	0.006	-
Cadmium	< 0.0005	< 0.0005	-
Lead	0.002 J	0.001 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	0.0001 J	< 0.001	< 0.001
Bromodichloromethane	0.0002 J	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.002	0.0002 J	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	0.0002 J	< 0.001	< 0.001
Trichloroethene	0.0004 J	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-1004	2/3/2010	7/13/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005/< 0.005	-
Arsenic	0.006	0.018 [B]/0.016 [B]	-
Cadmium	< 0.0005	< 0.0005/< 0.0005	-
Lead	0.004	0.003 J/< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001/< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002/< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002/< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005/< 0.005	-
Pentachlorophenol	< 0.01	< 0.01/< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	0.0002 J	< 0.001/< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001/< 0.001	< 0.001
Chloroform (Trichloromethane)	0.001	< 0.001/< 0.001	< 0.001
Ethylbenzene	0.0001 J	< 0.001/< 0.001	< 0.001
Tetrachloroethene	0.0002 J	< 0.001/< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J/< 0.005 J	< 0.005
Toluene	0.0002 J	< 0.001/< 0.001	< 0.001
Trichloroethene	0.001	< 0.001/< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001/< 0.001	< 0.001

MW-1003	2/3/2010	7/14/2010	6/2/2011
Inorganic Compounds (mg/L)			
Antimony	0.001 J	< 0.005	-
Arsenic	0.002	0.015 [B]	-
Cadmium	< 0.0005	0.0018	-
Lead	0.003	0.002 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	0.008 [B]	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0008 J	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0005 J	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-1001	2/2/2010	7/15/2010	6/2/2011
Inorganic Compounds (mg/L)			
Antimony	0.001 J	< 0.005	-
Arsenic	0.002 J	0.014 [B]	-
Cadmium	< 0.0005	0.0009	-
Lead	0.003 J	0.003 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	0.009 [B]	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001 J	0.0003 J	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-1002	2/2/2010	7/14/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	0.001 J	< 0.005	-
Arsenic	0.001 J	0.013 [B]	-
Cadmium	< 0.0005	< 0.0005	-
Lead	0.002 J	0.002 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	0.008 [B]	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.002	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001 J	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-1009	2/4/2010	7/15/2010
Inorganic Compounds (mg/L)		
Antimony	< 0.005	< 0.005
Arsenic	0.005	0.019 [B]
Cadmium	< 0.0005	0.0002 J
Lead	0.012	0.006
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	0.0002 J	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0007 J	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005
Toluene	0.0005 J	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-11H	2/3/2010	7/14/2010	6/2/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005	-
Arsenic	0.006	0.006	-
Cadmium	< 0.0005	< 0.0005	-
Lead	0.001 J	0.001 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

PZ-26	2/2/2010	7/15/2010
Inorganic Compounds (mg/L)		
Antimony	0.001 J	< 0.005
Arsenic	0.001 J	0.002
Cadmium	< 0.0005	0.0004 J
Lead	0.001 J	0.01
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	0.007 [B]
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J
Toluene	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-14H	7/15/2010	7/19/2010	5/22/2012
Inorganic Compounds (mg/L)			
Antimony	< 0.005	-	-
Arsenic	0.031 [B]	-	-
Cadmium	0.0008	-	-
Lead	0.003 J	-	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.01	-
Bromodichloromethane	< 0.001	< 0.01	-
Chloroform (Trichloromethane)	< 0.001	< 0.01	-
Ethylbenzene	< 0.001	< 0.01	-
Tetrachloroethene	< 0.001	< 0.01	-
Tetrahydrofuran	0.065	0.96 J	2.4
Toluene	< 0.001	< 0.01	-
Trichloroethene	< 0.001	< 0.01	-
Vinyl chloride	< 0.001	< 0.01	-

PZ-35	7/19/2010	5/22/2012
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	-
Benzo(a)pyrene	< 0.002	-
Benzo(b)fluoranthene	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	-
Pentachlorophenol	< 0.01	-
Volatile Organic Compounds (mg/L)		
Benzene	< 0.5	-
Bromodichloromethane	< 0.5	-
Chloroform (Trichloromethane)	< 0.5	-
Ethylbenzene	< 0.5	-
Tetrachloroethene	< 0.5	-
Tetrahydrofuran	90 J	0.068
Toluene	< 0.5	-
Trichloroethene	< 0.5	-
Vinyl chloride	< 0.5	-

MW-23H	7/19/2010
Semi-Volatile Organic Compounds (mg/L)	
Benzo(a)anthracene	< 0.001
Benzo(a)pyrene	< 0.002
Benzo(b)fluoranthene	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005
Pentachlorophenol	< 0.01
Volatile Organic Compounds (mg/L)	
Benzene	< 0.001
Bromodichloromethane	< 0.001
Chloroform (Trichloromethane)	< 0.001
Ethylbenzene	< 0.001
Tetrachloroethene	< 0.001
Tetrahydrofuran	< 0.005 J
Toluene	< 0.001
Trichloroethene	< 0.001
Vinyl chloride	< 0.001

PZ-33	7/19/2010	5/23/2012
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	-
Benzo(a)pyrene	< 0.002	-
Benzo(b)fluoranthene	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	-
Pentachlorophenol	< 0.01	-
Volatile Organic Compounds (mg/L)		
Benzene	< 0.02	-
Bromodichloromethane	< 0.02	-
Chloroform (Trichloromethane)	< 0.02	-
Ethylbenzene	< 0.02	-
Tetrachloroethene	< 0.02	-
Tetrahydrofuran	3.4 J	0.3
Toluene	< 0.02	-
Trichloroethene	< 0.02	-
Vinyl chloride	< 0.02	-

MW-1008	2/1/2010	7/14/2010
Inorganic Compounds (mg/L)		
Antimony	0.003 J	< 0.005
Arsenic	0.002	0.011 [B]
Cadmium	< 0.0005	0.0026
Lead	0.004	< 0.003
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	0.008 [B]
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0008 J	0.0004 J
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	0.0005 J
Tetrahydrofuran	< 0.005	< 0.005 J
Toluene	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-1018	7/21/2010	5/23/2012
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.077	-
Benzo(a)pyrene	< 0.077	-
Benzo(b)fluoranthene	< 0.077	-
bis(2-Ethylhexyl)phthalate	1.41 [B]	0.05 [B]
Pentachlorophenol	< 0.077	-
Volatile Organic Compounds (mg/L)		
Benzene	0.0004 J	-
Bromodichloromethane	< 0.001	-
Chloroform (Trichloromethane)	< 0.001	-
Ethylbenzene	< 0.001	-
Tetrachloroethene	< 0.001	-
Tetrahydrofuran	0.152 J	0.00052 J
Toluene	0.0001 J	-
Trichloroethene	< 0.001	-
Vinyl chloride	< 0.001	-

Production Well	2/4/2010
Inorganic Compounds (mg/L)	
Antimony	< 0.005/< 0.005
Arsenic	< 0.002/< 0.002
Cadmium	< 0.0005/< 0.0005
Lead	< 0.003/< 0.003
Semi-Volatile Organic Compounds (mg/L)	
Benzo(a)anthracene	< 0.001/< 0.001
Benzo(a)pyrene	< 0.002/< 0.002
Benzo(b)fluoranthene	< 0.002/< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005/< 0.005
Pentachlorophenol	< 0.01/< 0.01
Volatile Organic Compounds (mg/L)	
Benzene	< 0.001/< 0.001
Bromodichloromethane	< 0.001/< 0.001
Chloroform (Trichloromethane)	< 0.001/< 0.001
Ethylbenzene	< 0.001/< 0.001
Tetrachloroethene	< 0.001/< 0.001
Tetrahydrofuran	< 0.005/< 0.005
Toluene	< 0.001/0.0001 J
Trichloroethene	< 0.001/< 0.001
Vinyl chloride	< 0.001/< 0.001

PZ-38	2/4/2010	7/15/2010
Inorganic Compounds (mg/L)		
Antimony	0.021 [B]	0.025 [B]
Arsenic	0.009	0.019 [B]
Cadmium	< 0.0005	0.0027
Lead	< 0.003	0.01
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005
Toluene	0.0006 J	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-1007	2/1/2010	7/13/2010
Inorganic Compounds (mg/L)		
Antimony	0.001 J	< 0.005
Arsenic	0.001 J	0.006
Cadmium	< 0.0005	< 0.0005
Lead	0.001 J	0.001 J
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0003 J	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	0.0002 J
Tetrahydrofuran	< 0.005	< 0.005 J
Toluene	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-19H	2/4/2010	5/22/2012
Inorganic Compounds (mg/L)		
Antimony	0.001 J	-
Arsenic	0.015 [B]	-
Cadmium	< 0.0005	-
Lead	< 0.003	-
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	-
Benzo(a)pyrene	< 0.002	-
Benzo(b)fluoranthene	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	-
Pentachlorophenol	< 0.01	-
Volatile Organic Compounds (mg/L)		
Benzene	0.0004 J	-
Bromodichloromethane	< 0.001	-
Chloroform (Trichloromethane)	< 0.001	-
Ethylbenzene	< 0.001	-
Tetrachloroethene	< 0.001	-
Tetrahydrofuran	0.149	0.0023 J
Toluene	0.0001 J	-
Trichloroethene	< 0.001	-
Vinyl chloride	< 0.001	-

MW-1BBL	2/2/2010	7/13/2010
Inorganic Compounds (mg/L)		
Antimony	0.002 J	< 0.005
Arsenic	< 0.002	< 0.002
Cadmium	< 0.0005	< 0.0005
Lead	< 0.003	< 0.003
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J
Toluene	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

MW-2BBL	2/2/2010	7/13/2010
Inorganic Compounds (mg/L)		
Antimony	0.006	0.003 J
Arsenic	0.004	0.004
Cadmium	< 0.0005	< 0.0005
Lead	< 0.003	0.002 J
Semi-Volatile Organic Compounds (mg/L)		
Benzo(a)anthracene	< 0.001	< 0.001
Benzo(a)pyrene	< 0.002	< 0.002
Benzo(b)fluoranthene	< 0.002	< 0.002
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005
Pentachlorophenol	< 0.01	< 0.01
Volatile Organic Compounds (mg/L)		
Benzene	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J
Toluene	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL GAS LOCATION

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/L.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SOIL VAPOR SAMPLES.
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.
6. RESULTS GREATER THAN GROUNDWATER SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A - INDUSTRIAL GROUNDWATER TARGET (CALCULATED USING THE INDUSTRIAL RSL VALUE)
   B - MCL (EPA REGIONAL SCREENING LEVEL MCL, NOVEMBER 2012)

N
W E
S

0 60 120 180 240
SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 18

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-GW-SITEWIDE-D3.DWG

AA	AA 6/2/2011 - N	AA 6/2/2011 - FR
Volatile Organic Compounds		
1,1,1-Trichloroethane	< 0.44	< 1.1
1,1,2,2-Tetrachloroethane	< 0.55	< 1.4
1,1,2-Trichloroethane	< 0.44	< 1.1
1,1-Dichloroethane	< 0.32	< 0.8
1,1-Dichloroethene	< 0.32	< 0.79
1,2,4-Trichlorobenzene	< 3	< 4.7
1,2-Dibromoethane (Ethylene Dibromide)	< 0.61	< 1.5
1,2-Dichlorobenzene	< 0.48	< 1.2
1,2-Dichloroethane	0.081 J	< 0.81
1,2-Dichloropropane	< 0.37	< 0.92
1,3-Dichlorobenzene	< 0.48	< 1.2
1,4-Dichlorobenzene	< 0.48	< 1.2
2-Butanone (Methyl Ethyl Ketone)	3.2	< 3.7
2-Hexanone	0.66 J	< 5.1
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	2.6	< 5.1
Acetone	20	7.1
Benzene	0.48	< 0.64
Bromodichloromethane	< 0.54	< 1.3
Bromoform	< 0.83	< 6.2
Bromomethane (Methyl Bromide)	0.066 J	< 0.78
Carbon disulfide	0.05 J	< 0.62
Carbon tetrachloride	0.62	< 1.2
Chlorobenzene	< 0.37	< 0.92
Chloroethane	< 0.21	< 0.53
Chloroform (Trichloromethane)	0.11 J	< 0.97
Chloromethane (Methyl Chloride)	1.4	< 0.41
cis-1,2-Dichloroethene	< 0.32	< 0.79
cis-1,3-Dichloropropene	< 0.36	< 0.91
Cyclohexane	0.2 J	< 0.69
Dibromochloromethane	< 0.68	< 1.7
Dichlorodifluoromethane (CFC-12)	3.1	2.1
Ethylbenzene	0.56	< 0.87
m&p-Xylene	1.7	< 1.7
Methyl Tert Butyl Ether	< 1.4	< 0.72
Methylene chloride	< 0.69	< 0.69
o-Xylene	0.56	< 0.87
Styrene	< 0.34	< 0.85
Tetrachloroethene	1.5	< 1.4
Tetrahydrofuran	0.091 J	< 0.59
Toluene	2.5	0.83
trans-1,2-Dichloroethene	< 0.32	< 0.79
trans-1,3-Dichloropropene	< 0.36	< 0.91
Trichloroethene	0.49	< 1.1
Trichlorofluoromethane (CFC-11)	1.9	1.3
Trifluorotrichloroethane (Freon 113)	0.66	< 1.5
Vinyl chloride	< 0.2	< 0.51

SV-2	SV-2 3/31/2010 1.5 - 2 (ft) N	SV-2A 2/24/2011 0.7 - 1.2 (ft) N	SV-2 6/2/2011 1.5 - 2 (ft) N	SV-2 6/2/2011 1.5 - 2 (ft) FR
Volatile Organic Compounds				
1,1,1-Trichloroethane	< 4.4	< 0.44	0.23 J	< 4.4
1,1,2,2-Tetrachloroethane	< 5.5	< 0.55	< 0.55	< 5.5
1,1,2-Trichloroethane	< 4.4	< 0.44	< 0.44	< 4.4
1,1-Dichloroethane	< 3.2	< 0.32	< 0.32	< 3.2
1,1-Dichloroethene	< 3.2	< 0.32	< 0.32	< 3.2
1,2,4-Trichlorobenzene	< 30	< 3 J	< 3	< 19
1,2-Dibromoethane (Ethylene Dibromide)	< 6.1	< 0.61	< 0.61	< 6.2
1,2-Dichlorobenzene	< 4.8	< 0.48	0.46 J	< 4.8
1,2-Dichloroethane	< 3.2	< 0.32	0.49	< 3.2
1,2-Dichloropropane	< 3.7	< 0.37	< 0.37	< 3.7
1,3-Dichlorobenzene	< 4.8	0.54	13	9
1,4-Dichlorobenzene	< 4.8	< 0.48	0.43 J	< 4.8
2-Butanone (Methyl Ethyl Ketone)	5.3 J	3.8	5	< 15
2-Hexanone	< 8.2	0.18 J	1.4	< 20
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 8.2	1.4	1.6	< 20
Acetone	100	18	36	36
Benzene	0.99 J	7.7	1.2	< 2.6
Bromodichloromethane	< 5.4	0.87 [A]	5.6 [A]	< 5.4
Bromoform	< 8.3	< 0.83	< 0.83	< 25
Bromomethane (Methyl Bromide)	< 3.1	< 0.31	0.85	< 3.1
Carbon disulfide	2.4 J	5.3	3.4	< 2.5
Carbon tetrachloride	< 5	0.19 J	0.62	< 5
Chlorobenzene	< 3.7	< 0.37	1.3	< 3.7
Chloroethane	< 2.1	0.058 J	3.7	< 2.1
Chloroform (Trichloromethane)	< 3.9	12 [A]	49 [A]	30 [A]
Chloromethane (Methyl Chloride)	< 4.1	0.27 J	3.9	< 1.6
cis-1,2-Dichloroethene	< 3.2	< 0.32	< 0.32	< 3.2
cis-1,3-Dichloropropene	< 3.6	< 0.36	< 0.36	< 3.6
Cyclohexane	1.4 J	24	0.96	< 2.8
Dibromochloromethane	< 6.8	< 0.68	0.29 J	< 6.8
Dichlorodifluoromethane (CFC-12)	2.6 J	1.9	3.7	< 4
Ethylbenzene	2.6 J	1.8	6.1	3.6
m&p-Xylene	6.5	5.6	22	13
Methyl Tert Butyl Ether	< 14	< 1.4	< 1.4	< 2.9
Methylene chloride	< 6.9	5.6	< 0.69	< 2.8
o-Xylene	2.1 J	2	9.6	6.5
Styrene	2.2 J	0.22 J	0.36	< 3.4
Tetrachloroethene	< 5.4	0.39 J	3.1	< 5.4
Tetrahydrofuran	2.2 J	< 1.2	0.8 J	< 2.4
Toluene	17	12	15	7.5
trans-1,2-Dichloroethene	< 3.2	< 0.32	< 0.32	< 3.2
trans-1,3-Dichloropropene	< 3.6	< 0.36	< 0.36	< 3.6
Trichloroethene	< 2.1	< 0.21	0.11 J	< 4.3
Trichlorofluoromethane (CFC-11)	1.6 J	1.5	4.7	< 4.5
Trifluorotrichloroethane (Freon 113)	< 6.1	0.46 J	1.5	< 6.1
Vinyl chloride	< 2	< 0.2	0.23	< 2

SV-4	SV-4 3/31/2010 1.5 - 2 (ft) N	SV-4 2/22/2011 1.5 - 2 (ft) N	SV-4 6/2/2011 1.5 - 2 (ft) N	SV-4 6/2/2011 1.5 - 2 (ft) FR
Volatile Organic Compounds				
1,1,1-Trichloroethane	< 4.4	< 0.44	0.14 J	< 1.1
1,1,2,2-Tetrachloroethane	< 5.5	< 0.55	< 0.55	< 1.4
1,1,2-Trichloroethane	< 4.4	< 0.44	< 0.44	< 1.1
1,1-Dichloroethane	< 3.2	< 0.32	< 0.32	< 0.8
1,1-Dichloroethene	< 3.2	< 0.32	< 0.32	< 0.79
1,2,4-Trichlorobenzene	< 30	< 3 J	< 3	< 4.7
1,2-Dibromoethane (Ethylene Dibromide)	< 6.1	< 0.61	< 0.61	< 1.5
1,2-Dichlorobenzene	< 4.8	< 0.48	< 0.48	< 1.2
1,2-Dichloroethane	< 3.2	< 0.32	< 0.32	< 0.81
1,2-Dichloropropane	< 3.7	< 0.37	< 0.37	< 0.92
1,3-Dichlorobenzene	< 4.8	0.41 J	17	11
1,4-Dichlorobenzene	< 4.8	< 0.48	0.25 J	< 1.2
2-Butanone (Methyl Ethyl Ketone)	6.5 J	1.1 J	4.1	< 3.7
2-Hexanone	< 8.2	0.2 J	1.3	< 5.1
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 8.2	0.29 J	1.3	< 5.1
Acetone	120	6.9	29	11
Benzene	0.86 J	1.9	1	< 0.64
Bromodichloromethane	< 5.4	< 0.54	< 0.54	< 1.3
Bromoform	< 8.3	< 0.83	< 0.83	< 6.2
Bromomethane (Methyl Bromide)	< 3.1	< 0.31	0.1 J	< 0.78
Carbon disulfide	1.7 J	0.087 J	0.37 J	< 0.62
Carbon tetrachloride	< 5	0.29 J	0.31 J	< 1.2
Chlorobenzene	< 3.7	< 0.37	0.24 J	< 0.92
Chloroethane	< 2.1	0.05 J	0.13 J	< 0.53
Chloroform (Trichloromethane)	< 3.9	0.12 J	0.19 J	< 0.97
Chloromethane (Methyl Chloride)	< 4.1	0.35 J	0.62	3.3
cis-1,2-Dichloroethene	< 3.2	< 0.32	< 0.32	< 0.79
cis-1,3-Dichloropropene	< 3.6	< 0.36	< 0.36	< 0.91
Cyclohexane	< 6.9	0.41 J	0.55 J	< 0.69
Dibromochloromethane	< 6.8	< 0.68	< 0.68	< 1.7
Dichlorodifluoromethane (CFC-12)	2.7 J	2.4	2.6	1.9
Ethylbenzene	3.1 J	1.2	4.3	2.6
m&p-Xylene	8.1	4	16	10
Methyl Tert Butyl Ether	< 14	< 1.4	< 1.4	< 0.72
Methylene chloride	< 6.9	< 0.69	< 0.69	< 0.69
o-Xylene	1.4 J	1.4	7.4	4.3
Styrene	< 3.4	0.77	0.31 J	< 0.85
Tetrachloroethene	< 5.4	< 0.54	2.2	2
Tetrahydrofuran	2.3 J	< 1.2	0.71 J	< 0.59
Toluene	18	6.8	8.3	4.9
trans-1,2-Dichloroethene	< 3.2	2.1	< 0.32	< 0.79
trans-1,3-Dichloropropene	< 3.6	< 0.36	< 0.36	< 0.91
Trichloroethene	< 2.1	< 0.21	0.081 J	< 1.1
Trichlorofluoromethane (CFC-11)	1.6 J	1.6	2.6	1.8
Trifluorotrichloroethane (Freon 113)	< 6.1	0.53 J	0.92	< 1.5
Vinyl chloride	< 2	< 0.2	0.12 J	< 0.51

SV-1	SV-1 3/31/2010 1.5 - 2 (ft) N	SV-1A 2/24/2011 0.7 - 1.2 (ft) N	SV-1 6/2/2011 1.5 - 2 (ft) N	SV-1 6/2/2011 1.5 - 2 (ft) FR
Volatile Organic Compounds				
1,1,1-Trichloroethane	< 4.4	< 0.44	< 0.44	< 11
1,1,2,2-Tetrachloroethane	< 5.5	< 0.55	< 0.55	< 14
1,1,2-Trichloroethane	< 4.4	< 0.44	< 0.44	< 11
1,1-Dichloroethane	< 3.2	< 0.32	< 0.32	< 8
1,1-Dichloroethene	< 3.2	< 0.32	< 0.32	< 7.9
1,2,4-Trichlorobenzene	< 30	< 3 J	< 3	< 47
1,2-Dibromoethane (Ethylene Dibromide)	< 6.1	< 0.61	< 0.61	< 15
1,2-Dichlorobenzene	< 4.8	< 0.48	< 0.48	< 12
1,2-Dichloroethane	< 3.2	< 0.32	< 0.32	< 8.1
1,2-Dichloropropane	< 3.7	< 0.37	< 0.37	< 9.2
1,3-Dichlorobenzene	< 4.8	1.1	23	18
1,4-Dichlorobenzene	< 4.8	0.24 J	0.16 J	< 12
2-Butanone (Methyl Ethyl Ketone)	3.8 J	4.1	4.1	< 37
2-Hexanone	< 8.2	0.78 J	0.86	< 51
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 8.2	2.3	0.94	< 51
Acetone	110	26	31	38
Benzene	0.93 J	9.6	1.1	< 6.4
Bromodichloromethane	< 5.4	< 0.54	< 0.54	< 13
Bromoform	< 8.3	< 0.83	< 0.83	< 62
Bromomethane (Methyl Bromide)	< 3.1	< 0.31	< 0.31	< 7.8
Carbon disulfide	1.1 J	6.2	0.4 J	< 6.2
Carbon tetrachloride	< 5	0.26 J	0.11 J	< 12
Chlorobenzene	< 3.7	< 0.37	0.37	< 9.2
Chloroethane	< 2.1	0.17 J	0.29	< 5.3
Chloroform (Trichloromethane)	< 3.9	0.1 J	0.83	< 9.7
Chloromethane (Methyl Chloride)	< 4.1	0.23 J	1.1	< 4.1
cis-1,2-Dichloroethene	< 3.2	< 0.32	< 0.32	< 7.9
cis-1,3-Dichloropropene	< 3.6	< 0.36	< 0.36	< 9.1
Cyclohexane	< 6.9	14	0.69	< 6.9
Dibromochloromethane	< 6.8	< 0.68	< 0.68	< 17
Dichlorodifluoromethane (CFC-12)	< 4	2.2	2.1	< 9.9
Ethylbenzene	2 J	2	4.8	< 8.7
m&p-Xylene	4.3	6.5	19	< 17
Methyl Tert Butyl Ether	< 14	< 1.4	< 1.4	< 7.2
Methylene chloride	< 6.9	1.9	< 0.69	< 6.9
o-Xylene	1.3 J	2.3	8.7	< 8.7
Styrene	1.4 J	0.47	0.33 J	< 8.5
Tetrachloroethene	< 5.4	0.39 J	0.3 J	< 14
Tetrahydrofuran	1.4 J	< 1.2	0.59 J	< 5.9
Toluene	17	15	12	14
trans-1,2-Dichloroethene	< 3.2	< 0.32	< 0.32	< 7.9
trans-1,3-Dichloropropene	< 3.6	< 0.36	< 0.36	< 9.1
Trichloroethene	< 2.1	< 0.21	< 0.21	< 11
Trichlorofluoromethane (CFC-11)	0.79 J	1.2	3.7	< 11
Trifluorotrichloroethane (Freon 113)	< 6.1	0.48 J	1.1	< 15
Vinyl chloride	< 2	0.16 J	0.087 J	< 5.1

SV-3	SV-3A 2/22/2011 0.7 - 1.2 (ft) N	SV-3B 6/2/2011 0.7 - 1.2 (ft) N	SV-3B 6/2/2011 0.7 - 1.2 (ft) FR
Volatile Organic Compounds			
1,1,1-Trichloroethane	0.17 J	0.87	< 1.1
1,1,2,2-Tetrachloroethane	< 0.55	< 0.55	< 1.4
1,1,2-Trichloroethane	< 0.44	< 0.44	< 1.1
1,1-Dichloroethane	< 0.32	0.1 J	< 0.8
1,1-Dichloroethene	< 0.32	< 0.32	< 0.79
1,2,4-Trichlorobenzene	< 3 J	< 3	< 4.7
1,2-Dibromoethane (Ethylene Dibromide)	< 0.61	< 0.61	< 1.5
1,2-Dichlorobenzene	< 0.48	< 0.48	< 1.2
1,2-Dichloroethane	< 0.32	< 0.32	< 0.81
1,2-Dichloropropane	< 0.37	< 0.37	< 0.92
1,3-Dichlorobenzene	0.66	10	6.6
1,4-Dichlorobenzene	0.25 J	< 0.48	< 1.2
2-Butanone (Methyl Ethyl Ketone)	2.7	21	16
2-Hexanone	0.24 J	1.1	< 5.1
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	1	0.74 J	< 5.1
Acetone	18	67	88
Benzene	4.8	3.5	1.9
Bromodichloromethane	< 0.54	< 0.54	< 1.3
Bromoform	< 0.83	< 0.83	< 6.2
Bromomethane (Methyl Bromide)	< 0.31	0.12 J	< 0.78
Carbon disulfide	6.5	18	12
Carbon tetrachloride	0.2 J	0.27 J	< 1.2
Chlorobenzene	< 0.37	< 0.37	< 0.92
Chloroethane	0.37	1.2	< 0.53
Chloroform (Trichloromethane)	0.088 J	1.7 [A]	1.3 [A]
Chloromethane (Methyl Chloride)	0.29 J	1.4	< 0.41
cis-1,2-Dichloroethene	< 0.32	< 0.32	< 0.79
cis-1,3-Dichloropropene	< 0.36	< 0.36	< 0.91
Cyclohexane	6.9	3.8	3.2
Dibromochloromethane	< 0.68	< 0.68	< 1.7
Dichlorodifluoromethane (CFC-12)	2.5	3.6	2.4
Ethylbenzene	1.7	4.8	2.8
m&p-Xylene	4.8	12	6.9
Methyl Tert Butyl Ether	< 1.4	< 1.4	< 0.72
Methylene chloride	< 0.69	< 0.69	< 0.69
o-Xylene	1.7	5.6	3.5
Styrene	0.81	0.32 J	< 0.85
Tetrachloroethene	< 0.54	2.5	3
Tetrahydrofuran	< 1.2	0.83 J	< 0.59
Toluene	9.9	14	8.7
trans-1,2-Dichloroethene	0.71	< 0.32	< 0.79
trans-1,3-Dichloropropene	< 0.36	< 0.36	< 0.91
Trichloroethene	< 0.21	0.097 J	< 1.1
Trichlorofluoromethane (CFC-11)	1.2	6.2	4.3
Trifluorotrichloroethane (Freon 113)	0.48 J	2.1	1.5
Vinyl chloride	< 0.2	< 0.2	< 0.51

LEGEND:

- PROPERTY LINE
- FENCE
- STORM SEWER
- SANITARY SEWERS
- UTILITIES 3
- FIRE PROTECTION
- GAS LINE
- WATER LINE
- RAILROAD
- SOIL VAPOR LOCATION
- MONITORING WELL
- PIEZOMETER

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. DATABOX RESULT UNITS ARE UG/M3.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. SAMPLE TYPE CODES ARE INCLUDED IN THE COLUMN HEADERS OF THE DATABOXES BELOW THE SAMPLE DEPTH ARE ARE DESCRIBED AS FOLLOWS:
   N: NORMAL SAMPLE
   FR: FIELD REPLICATE
5. LOCATION AA IS AMBIENT AIR.
6. RESULTS GREATER THAN SHALLOW GAS SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: RESIDENTIAL VISLs FOR TARGET SUB-SLAB AND EXTERIOR SOIL GAS CONCENTRATIONS (MAY 2012 RSLs)

N
W E
S

0 60 120 180 240
SCALE IN FEET

HALEY & ALDRICH

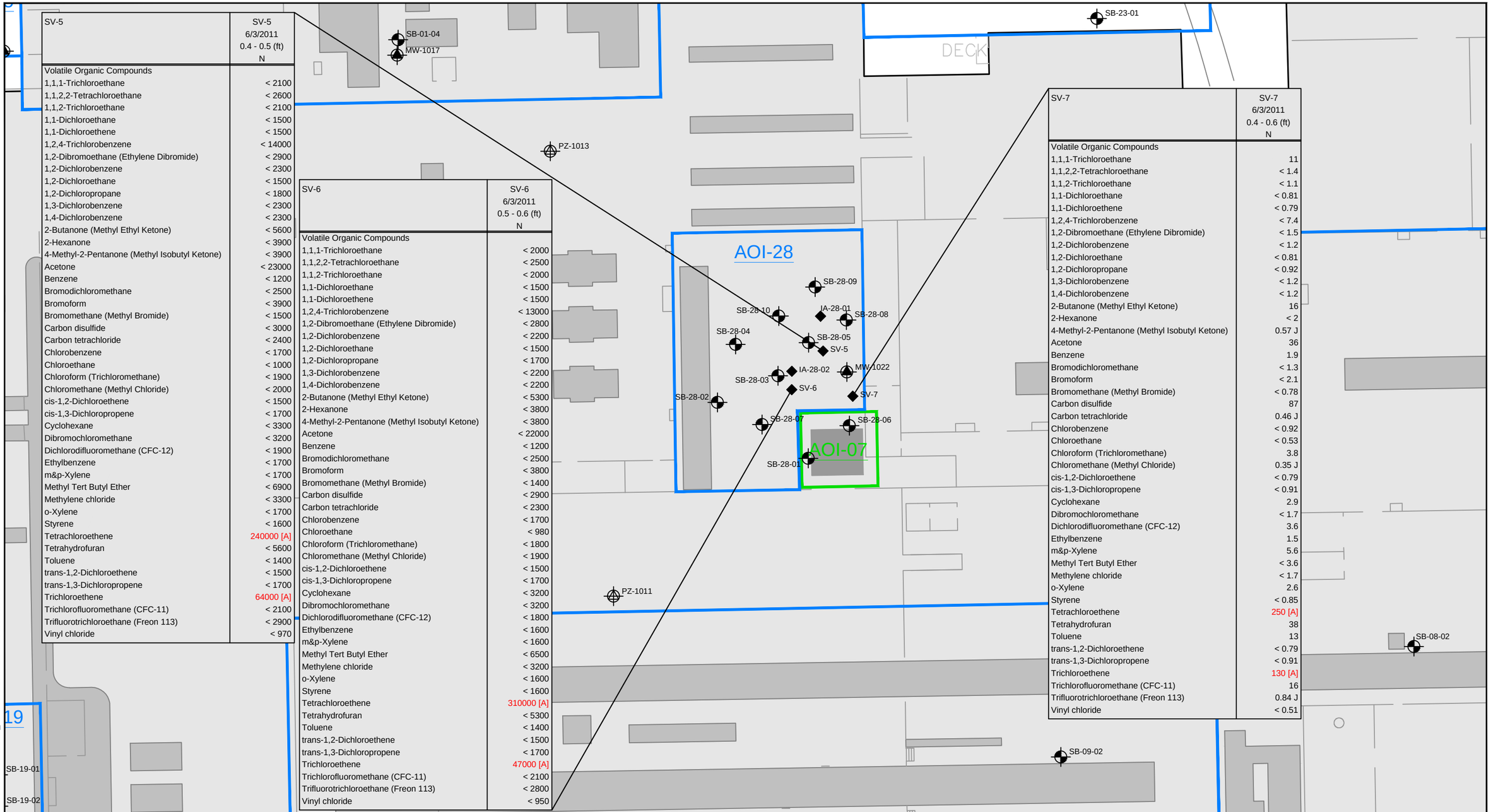
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL GAS SAMPLE LOCATIONS AND ANALYTICAL RESULTS EASTERN PROPERTY BOUNDARY

AS SHOWN
DECEMBER 2012

FIGURE 19

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-GS-EPB-D1.DWG



SV-5	SV-5 6/3/2011 0.4 - 0.5 (ft) N
Volatile Organic Compounds	
1,1,1-Trichloroethane	< 2100
1,1,2,2-Tetrachloroethane	< 2600
1,1,2-Trichloroethane	< 2100
1,1-Dichloroethane	< 1500
1,1-Dichloroethene	< 1500
1,2,4-Trichlorobenzene	< 14000
1,2-Dibromoethane (Ethylene Dibromide)	< 2900
1,2-Dichlorobenzene	< 2300
1,2-Dichloroethane	< 1500
1,2-Dichloropropane	< 1800
1,3-Dichlorobenzene	< 2300
1,4-Dichlorobenzene	< 2300
2-Butanone (Methyl Ethyl Ketone)	< 5600
2-Hexanone	< 3900
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 3900
Acetone	< 23000
Benzene	< 1200
Bromodichloromethane	< 2500
Bromoform	< 3900
Bromomethane (Methyl Bromide)	< 1500
Carbon disulfide	< 3000
Carbon tetrachloride	< 2400
Chlorobenzene	< 1700
Chloroethane	< 1000
Chloroform (Trichloromethane)	< 1900
Chloromethane (Methyl Chloride)	< 2000
cis-1,2-Dichloroethene	< 1500
cis-1,3-Dichloropropene	< 1700
Cyclohexane	< 3300
Dibromochloromethane	< 3200
Dichlorodifluoromethane (CFC-12)	< 1900
Ethylbenzene	< 1700
m&p-Xylene	< 1700
Methyl Tert Butyl Ether	< 6900
Methylene chloride	< 3300
o-Xylene	< 1700
Styrene	< 1600
Tetrachloroethene	240000 [A]
Tetrahydrofuran	< 5600
Toluene	< 1400
trans-1,2-Dichloroethene	< 1500
trans-1,3-Dichloropropene	< 1700
Trichloroethene	64000 [A]
Trichlorofluoromethane (CFC-11)	< 2100
Trifluorotrichloroethane (Freon 113)	< 2900
Vinyl chloride	< 970

SV-6	SV-6 6/3/2011 0.5 - 0.6 (ft) N
Volatile Organic Compounds	
1,1,1-Trichloroethane	< 2000
1,1,2,2-Tetrachloroethane	< 2500
1,1,2-Trichloroethane	< 2000
1,1-Dichloroethane	< 1500
1,1-Dichloroethene	< 1500
1,2,4-Trichlorobenzene	< 13000
1,2-Dibromoethane (Ethylene Dibromide)	< 2800
1,2-Dichlorobenzene	< 2200
1,2-Dichloroethane	< 1500
1,2-Dichloropropane	< 1700
1,3-Dichlorobenzene	< 2200
1,4-Dichlorobenzene	< 2200
2-Butanone (Methyl Ethyl Ketone)	< 5300
2-Hexanone	< 3800
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 3800
Acetone	< 22000
Benzene	< 1200
Bromodichloromethane	< 2500
Bromoform	< 3800
Bromomethane (Methyl Bromide)	< 1400
Carbon disulfide	< 2900
Carbon tetrachloride	< 2300
Chlorobenzene	< 1700
Chloroethane	< 980
Chloroform (Trichloromethane)	< 1800
Chloromethane (Methyl Chloride)	< 1900
cis-1,2-Dichloroethene	< 1500
cis-1,3-Dichloropropene	< 1700
Cyclohexane	< 3200
Dibromochloromethane	< 3200
Dichlorodifluoromethane (CFC-12)	< 1800
Ethylbenzene	< 1600
m&p-Xylene	< 1600
Methyl Tert Butyl Ether	< 6500
Methylene chloride	< 3200
o-Xylene	< 1600
Styrene	< 1600
Tetrachloroethene	310000 [A]
Tetrahydrofuran	< 5300
Toluene	< 1400
trans-1,2-Dichloroethene	< 1500
trans-1,3-Dichloropropene	< 1700
Trichloroethene	47000 [A]
Trichlorofluoromethane (CFC-11)	< 2100
Trifluorotrichloroethane (Freon 113)	< 2800
Vinyl chloride	< 950

SV-7	SV-7 6/3/2011 0.4 - 0.6 (ft) N
Volatile Organic Compounds	
1,1,1-Trichloroethane	11
1,1,2,2-Tetrachloroethane	< 1.4
1,1,2-Trichloroethane	< 1.1
1,1-Dichloroethane	< 0.81
1,1-Dichloroethene	< 0.79
1,2,4-Trichlorobenzene	< 7.4
1,2-Dibromoethane (Ethylene Dibromide)	< 1.5
1,2-Dichlorobenzene	< 1.2
1,2-Dichloroethane	< 0.81
1,2-Dichloropropane	< 0.92
1,3-Dichlorobenzene	< 1.2
1,4-Dichlorobenzene	< 1.2
2-Butanone (Methyl Ethyl Ketone)	16
2-Hexanone	< 2
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	0.57 J
Acetone	36
Benzene	1.9
Bromodichloromethane	< 1.3
Bromoform	< 2.1
Bromomethane (Methyl Bromide)	< 0.78
Carbon disulfide	87
Carbon tetrachloride	0.46 J
Chlorobenzene	< 0.92
Chloroethane	< 0.53
Chloroform (Trichloromethane)	3.8
Chloromethane (Methyl Chloride)	0.35 J
cis-1,2-Dichloroethene	< 0.79
cis-1,3-Dichloropropene	< 0.91
Cyclohexane	2.9
Dibromochloromethane	< 1.7
Dichlorodifluoromethane (CFC-12)	3.6
Ethylbenzene	1.5
m&p-Xylene	5.6
Methyl Tert Butyl Ether	< 3.6
Methylene chloride	< 1.7
o-Xylene	2.6
Styrene	< 0.85
Tetrachloroethene	250 [A]
Tetrahydrofuran	38
Toluene	13
trans-1,2-Dichloroethene	< 0.79
trans-1,3-Dichloropropene	< 0.91
Trichloroethene	130 [A]
Trichlorofluoromethane (CFC-11)	16
Trifluorotrichloroethane (Freon 113)	0.84 J
Vinyl chloride	< 0.51

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. DATABOX RESULT UNITS ARE UG/M3.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. SAMPLE TYPE CODES ARE INCLUDED IN THE COLUMN HEADERS OF THE DATABOXES BELOW THE SAMPLE DEPTH AND ARE ARE DESCRIBED AS FOLLOWS:
   N: NORMAL SAMPLE
   FR: FIELD REPLICATE
5. RESULTS GREATER THAN SHALLOW GAS SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: COMMERCIAL VISLs FOR TARGET SUB-SLAB AND EXTERIOR SOIL GAS CONCENTRATIONS (MAY 2012 RSLs)

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SCALE IN FEET

HALEY & ALDRICH

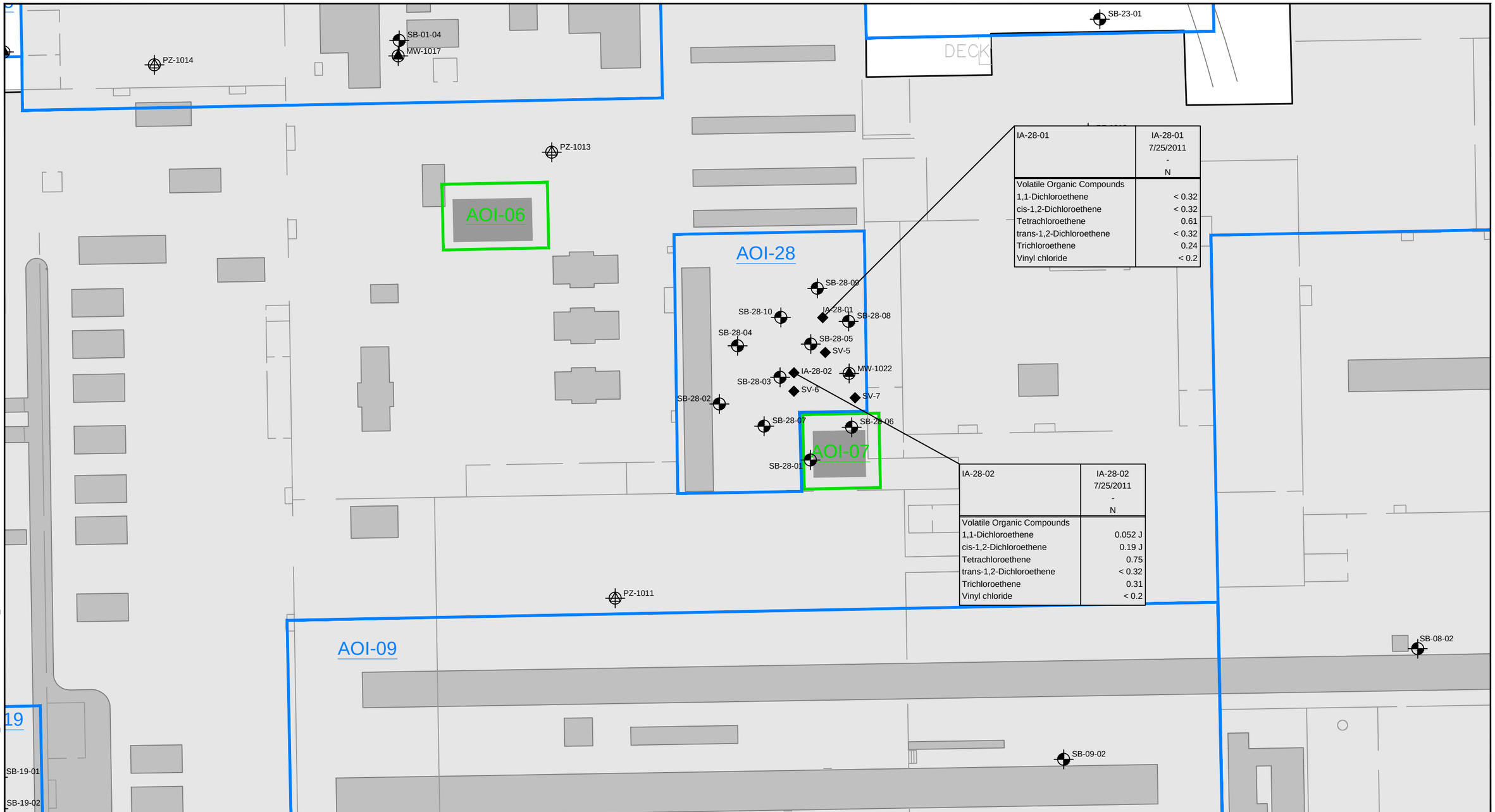
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SOIL GAS SAMPLE LOCATIONS AND ANALYTICAL RESULTS - AOI-28

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 20

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-GS-AOI28.DWG



IA-28-01	IA-28-01 7/25/2011 - N
Volatile Organic Compounds	
1,1-Dichloroethene	< 0.32
cis-1,2-Dichloroethene	< 0.32
Tetrachloroethene	0.61
trans-1,2-Dichloroethene	< 0.32
Trichloroethene	0.24
Vinyl chloride	< 0.2

IA-28-02	IA-28-02 7/25/2011 - N
Volatile Organic Compounds	
1,1-Dichloroethene	0.052 J
cis-1,2-Dichloroethene	0.19 J
Tetrachloroethene	0.75
trans-1,2-Dichloroethene	< 0.32
Trichloroethene	0.31
Vinyl chloride	< 0.2

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. DATABOX RESULT UNITS ARE UG/M3.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
4. SAMPLE TYPE CODES ARE INCLUDED IN THE COLUMN HEADERS OF THE DATABOXES AND ARE ARE DESCRIBED AS FOLLOWS:
   N: NORMAL SAMPLE
5. RESULTS GREATER THAN RSL INDUSTRIAL AIR SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL AIR (RSL, NOVEMBER 2012)

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SCALE IN FEET

HALEY & ALDRICH

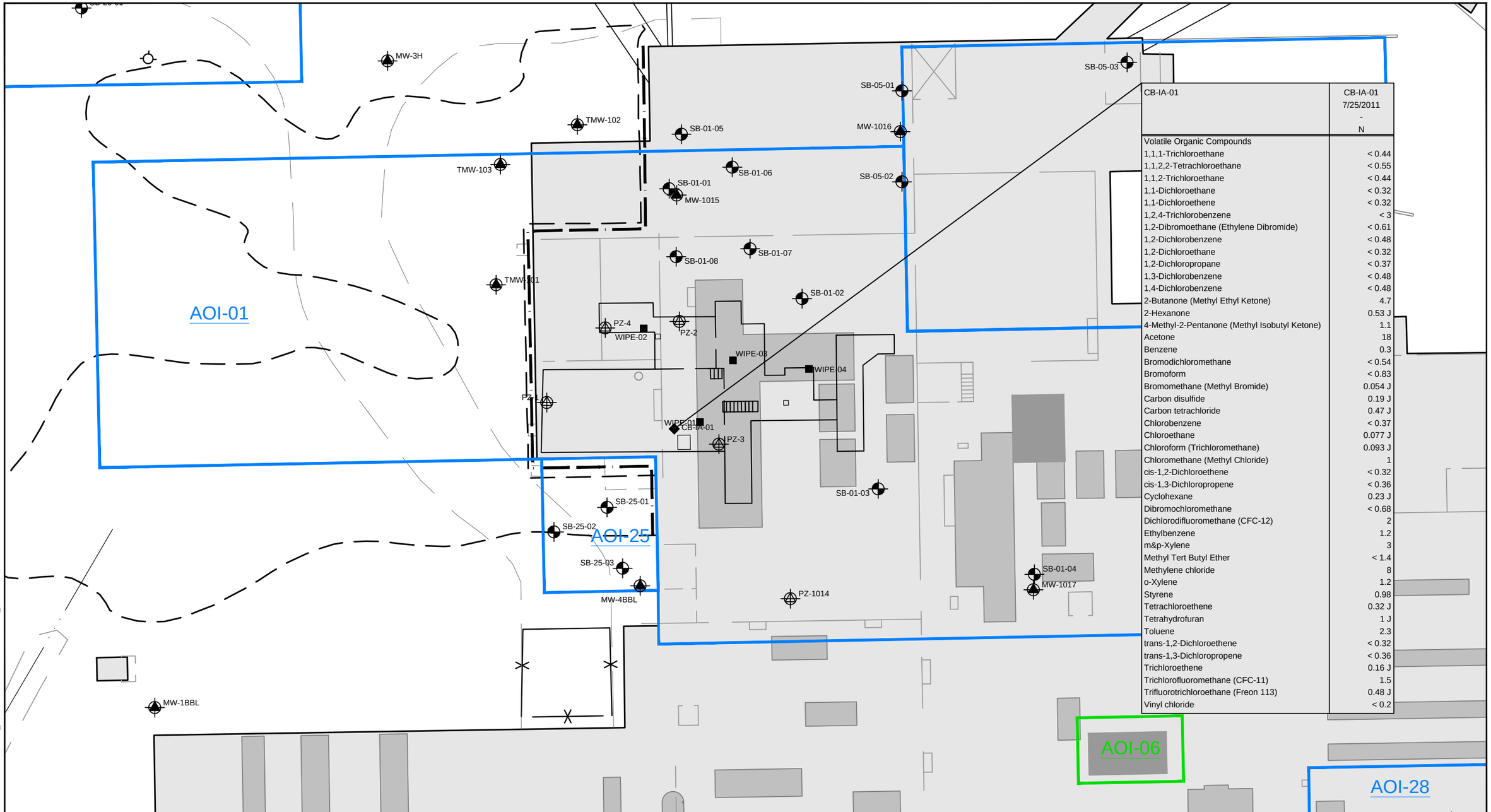
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

INDOOR AIR ANALYTICAL RESULTS
AOI-28

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 21

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-1A-AOI28_CALENDER-D1.DWG



CB-IA-01	CB-IA-01 7/25/2011 - N
Volatile Organic Compounds	
1,1,1-Trichloroethane	< 0.44
1,1,2,2-Tetrachloroethane	< 0.55
1,1,2-Trichloroethane	< 0.44
1,1-Dichloroethane	< 0.32
1,1-Dichloroethene	< 0.32
1,2,4-Trichlorobenzene	< 3
1,2-Dibromoethane (Ethylene Dibromide)	< 0.61
1,2-Dichlorobenzene	< 0.48
1,2-Dichloroethane	< 0.32
1,2-Dichloropropane	< 0.37
1,3-Dichlorobenzene	< 0.48
1,4-Dichlorobenzene	< 0.48
2-Butanone (Methyl Ethyl Ketone)	4.7
2-Hexanone	0.53 J
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	1.1
Acetone	18
Benzene	0.3
Bromodichloromethane	< 0.54
Bromoform	< 0.83
Bromomethane (Methyl Bromide)	0.054 J
Carbon disulfide	0.19 J
Carbon tetrachloride	0.47 J
Chlorobenzene	< 0.37
Chloroethane	0.077 J
Chloroform (Trichloromethane)	0.093 J
Chloromethane (Methyl Chloride)	1
cis-1,2-Dichloroethene	< 0.32
cis-1,3-Dichloropropene	< 0.36
Cyclohexane	0.23 J
Dibromochloromethane	< 0.68
Dichlorodifluoromethane (CFC-12)	2
Ethylbenzene	1.2
m&p-Xylene	3
Methyl Tert Butyl Ether	< 1.4
Methylene chloride	8
o-Xylene	1.2
Styrene	0.98
Tetrachloroethene	0.32 J
Tetrahydrofuran	1 J
Toluene	2.3
trans-1,2-Dichloroethene	< 0.32
trans-1,3-Dichloropropene	< 0.36
Trichloroethene	0.16 J
Trichlorofluoromethane (CFC-11)	1.5
Trifluorotrichloroethane (Freon 113)	0.48 J
Vinyl chloride	< 0.2

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. DATABOX RESULT UNITS ARE UG/M3.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
4. SAMPLE TYPE CODES ARE INCLUDED IN THE COLUMN HEADERS OF THE DATABOXES AND ARE ARE DESCRIBED AS FOLLOWS:
   N: NORMAL SAMPLE
5. RESULTS GREATER THAN RSL INDUSTRIAL AIR SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: INDUSTRIAL AIR (RSL, NOVEMBER 2012)

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SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

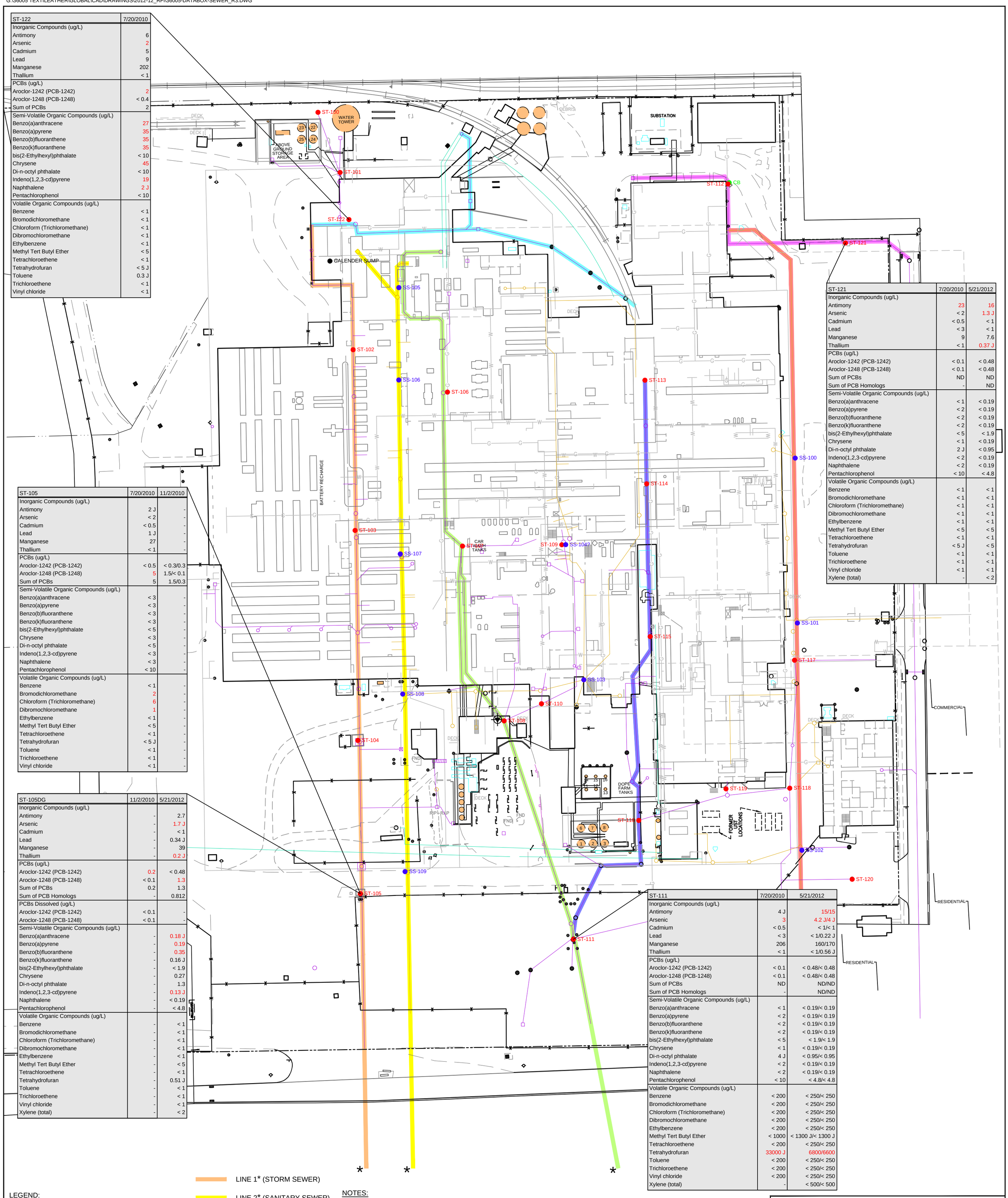
INDOOR AIR ANALYTICAL RESULTS
CALENDER BASEMENT

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 22

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-IA-AOI28_CALENDER-D1.DWG

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SEWER_R3.DWG



ST-122	7/20/2010
Inorganic Compounds (ug/L)	
Antimony	6
Arsenic	2
Cadmium	5
Lead	9
Manganese	202
Thallium	< 1
PCBs (ug/L)	
Aroclor-1242 (PCB-1242)	2
Aroclor-1248 (PCB-1248)	< 0.4
Sum of PCBs	2
Semi-Volatile Organic Compounds (ug/L)	
Benzo(a)anthracene	27
Benzo(a)pyrene	35
Benzo(b)fluoranthene	35
Benzo(k)fluoranthene	35
bis(2-Ethylhexyl)phthalate	< 10
Chrysene	45
Di-n-octyl phthalate	< 10
Indeno(1,2,3-cd)pyrene	19
Naphthalene	2 J
Pentachlorophenol	< 10
Volatile Organic Compounds (ug/L)	
Benzene	< 1
Bromodichloromethane	< 1
Chloroform (Trichloromethane)	< 1
Dibromochloromethane	< 1
Ethylbenzene	< 1
Methyl Tert Butyl Ether	< 5
Tetrachloroethene	< 1
Tetrahydrofuran	< 5 J
Toluene	0.3 J
Trichloroethene	< 1
Vinyl chloride	< 1

ST-121	7/20/2010	5/21/2012
Inorganic Compounds (ug/L)		
Antimony	23	16
Arsenic	< 2	1.3 J
Cadmium	< 0.5	< 1
Lead	< 3	< 1
Manganese	9	7.6
Thallium	< 1	0.37 J
PCBs (ug/L)		
Aroclor-1242 (PCB-1242)	< 0.1	< 0.48
Aroclor-1248 (PCB-1248)	< 0.1	< 0.48
Sum of PCBs	ND	ND
Sum of PCB Homologs	-	ND
Semi-Volatile Organic Compounds (ug/L)		
Benzo(a)anthracene	< 1	< 0.19
Benzo(a)pyrene	< 2	< 0.19
Benzo(b)fluoranthene	< 2	< 0.19
Benzo(k)fluoranthene	< 2	< 0.19
bis(2-Ethylhexyl)phthalate	< 5	< 1.9
Chrysene	< 1	< 0.19
Di-n-octyl phthalate	2 J	< 0.95
Indeno(1,2,3-cd)pyrene	< 2	< 0.19
Naphthalene	< 2	< 0.19
Pentachlorophenol	< 10	< 4.8
Volatile Organic Compounds (ug/L)		
Benzene	< 1	< 1
Bromodichloromethane	< 1	< 1
Chloroform (Trichloromethane)	< 1	< 1
Dibromochloromethane	< 1	< 1
Ethylbenzene	< 1	< 1
Methyl Tert Butyl Ether	< 5	< 5
Tetrachloroethene	< 1	< 1
Tetrahydrofuran	< 5 J	< 5
Toluene	< 1	< 1
Trichloroethene	< 1	< 1
Vinyl chloride	< 1	< 1
Xylene (total)	-	< 2

ST-105	7/20/2010	11/2/2010
Inorganic Compounds (ug/L)		
Antimony	2 J	-
Arsenic	< 2	-
Cadmium	< 0.5	-
Lead	1 J	-
Manganese	27	-
Thallium	< 1	-
PCBs (ug/L)		
Aroclor-1242 (PCB-1242)	< 0.5	< 0.3/0.3
Aroclor-1248 (PCB-1248)	5	1.5/< 0.1
Sum of PCBs	5	1.5/0.3
Semi-Volatile Organic Compounds (ug/L)		
Benzo(a)anthracene	< 3	-
Benzo(a)pyrene	< 3	-
Benzo(b)fluoranthene	< 3	-
Benzo(k)fluoranthene	< 3	-
bis(2-Ethylhexyl)phthalate	< 5	-
Chrysene	< 3	-
Di-n-octyl phthalate	< 5	-
Indeno(1,2,3-cd)pyrene	< 3	-
Naphthalene	< 3	-
Pentachlorophenol	< 10	-
Volatile Organic Compounds (ug/L)		
Benzene	< 1	-
Bromodichloromethane	2	-
Chloroform (Trichloromethane)	6	-
Dibromochloromethane	1	-
Ethylbenzene	< 1	-
Methyl Tert Butyl Ether	< 5	-
Tetrachloroethene	< 1	-
Tetrahydrofuran	< 5 J	-
Toluene	< 1	-
Trichloroethene	< 1	-
Vinyl chloride	< 1	-

ST-105DG	11/2/2010	5/21/2012
Inorganic Compounds (ug/L)		
Antimony	-	2.7
Arsenic	-	1.7 J
Cadmium	-	< 1
Lead	-	0.34 J
Manganese	-	39
Thallium	-	0.2 J
PCBs (ug/L)		
Aroclor-1242 (PCB-1242)	0.2	< 0.48
Aroclor-1248 (PCB-1248)	< 0.1	1.3
Sum of PCBs	0.2	1.3
Sum of PCB Homologs	-	0.812
PCBs Dissolved (ug/L)		
Aroclor-1242 (PCB-1242)	< 0.1	-
Aroclor-1248 (PCB-1248)	< 0.1	-
Semi-Volatile Organic Compounds (ug/L)		
Benzo(a)anthracene	-	0.18 J
Benzo(a)pyrene	-	0.19
Benzo(b)fluoranthene	-	0.35
Benzo(k)fluoranthene	-	0.16 J
bis(2-Ethylhexyl)phthalate	-	< 1.9
Chrysene	-	0.27
Di-n-octyl phthalate	-	1.3
Indeno(1,2,3-cd)pyrene	-	0.13 J
Naphthalene	-	< 0.19
Pentachlorophenol	-	< 4.8
Volatile Organic Compounds (ug/L)		
Benzene	-	< 1
Bromodichloromethane	-	< 1
Chloroform (Trichloromethane)	-	< 1
Dibromochloromethane	-	< 1
Ethylbenzene	-	< 1
Methyl Tert Butyl Ether	-	< 5
Tetrachloroethene	-	< 1
Tetrahydrofuran	-	0.51 J
Toluene	-	< 1
Trichloroethene	-	< 1
Vinyl chloride	-	< 1
Xylene (total)	-	< 2

ST-111	7/20/2010	5/21/2012
Inorganic Compounds (ug/L)		
Antimony	4 J	15/15
Arsenic	3	4.2 J/4 J
Cadmium	< 0.5	< 1/< 1
Lead	< 3	< 1/0.22 J
Manganese	206	160/170
Thallium	< 1	< 1/0.56 J
PCBs (ug/L)		
Aroclor-1242 (PCB-1242)	< 0.1	< 0.48/< 0.48
Aroclor-1248 (PCB-1248)	< 0.1	< 0.48/< 0.48
Sum of PCBs	ND	ND/ND
Sum of PCB Homologs	-	ND/ND
Semi-Volatile Organic Compounds (ug/L)		
Benzo(a)anthracene	< 1	< 0.19/< 0.19
Benzo(a)pyrene	< 2	< 0.19/< 0.19
Benzo(b)fluoranthene	< 2	< 0.19/< 0.19
Benzo(k)fluoranthene	< 2	< 0.19/< 0.19
bis(2-Ethylhexyl)phthalate	< 5	< 1.9/< 1.9
Chrysene	< 1	< 0.19/< 0.19
Di-n-octyl phthalate	4 J	< 0.95/< 0.95
Indeno(1,2,3-cd)pyrene	< 2	< 0.19/< 0.19
Naphthalene	< 2	< 0.19/< 0.19
Pentachlorophenol	< 10	< 4.8/< 4.8
Volatile Organic Compounds (ug/L)		
Benzene	< 200	< 250/< 250
Bromodichloromethane	< 200	< 250/< 250
Chloroform (Trichloromethane)	< 200	< 250/< 250
Dibromochloromethane	< 200	< 250/< 250
Ethylbenzene	< 200	< 250/< 250
Methyl Tert Butyl Ether	< 1000	< 1300 J/< 1300 J
Tetrachloroethene	< 200	< 250/< 250
Tetrahydrofuran	33000 J	6800/6600
Toluene	< 200	< 250/< 250
Trichloroethene	< 200	< 250/< 250
Vinyl chloride	< 200	< 250/< 250
Xylene (total)	-	< 500/< 500

LEGEND:

- MONITORING WELL LOCATION
- PIZOMETER LOCATION
- ST-122 593.53 STORM SEWER MANHOLE LOCATION
- SS-105 593.53 SANITARY SEWER MANHOLE LOCATION
- CB 592.66 CATCH BASIN LOCATION
- LINE 1* (STORM SEWER)
- LINE 2* (SANITARY SEWER)
- LINE 3* (STORM SEWER)
- LINE 4 (STORM SEWER)
- LINE 5 (STORM SEWER)
- LINE 6 (STORM SEWER)
- LINE 7 (SANITARY SEWER)

NOTES:

* STORM AND SANITARY SEWER LINES EXTEND TO ANTICIPATED CONNECTION WITH CITY SEWERS.

1. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/L.
2. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
3. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SEWER SAMPLES.
4. RESULTS GREATER THAN SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A - TAPWATER (EPA RSL, NOVEMBER 2012)
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.

N W E S

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SCALE IN FEET

HALEY & ALDRICH

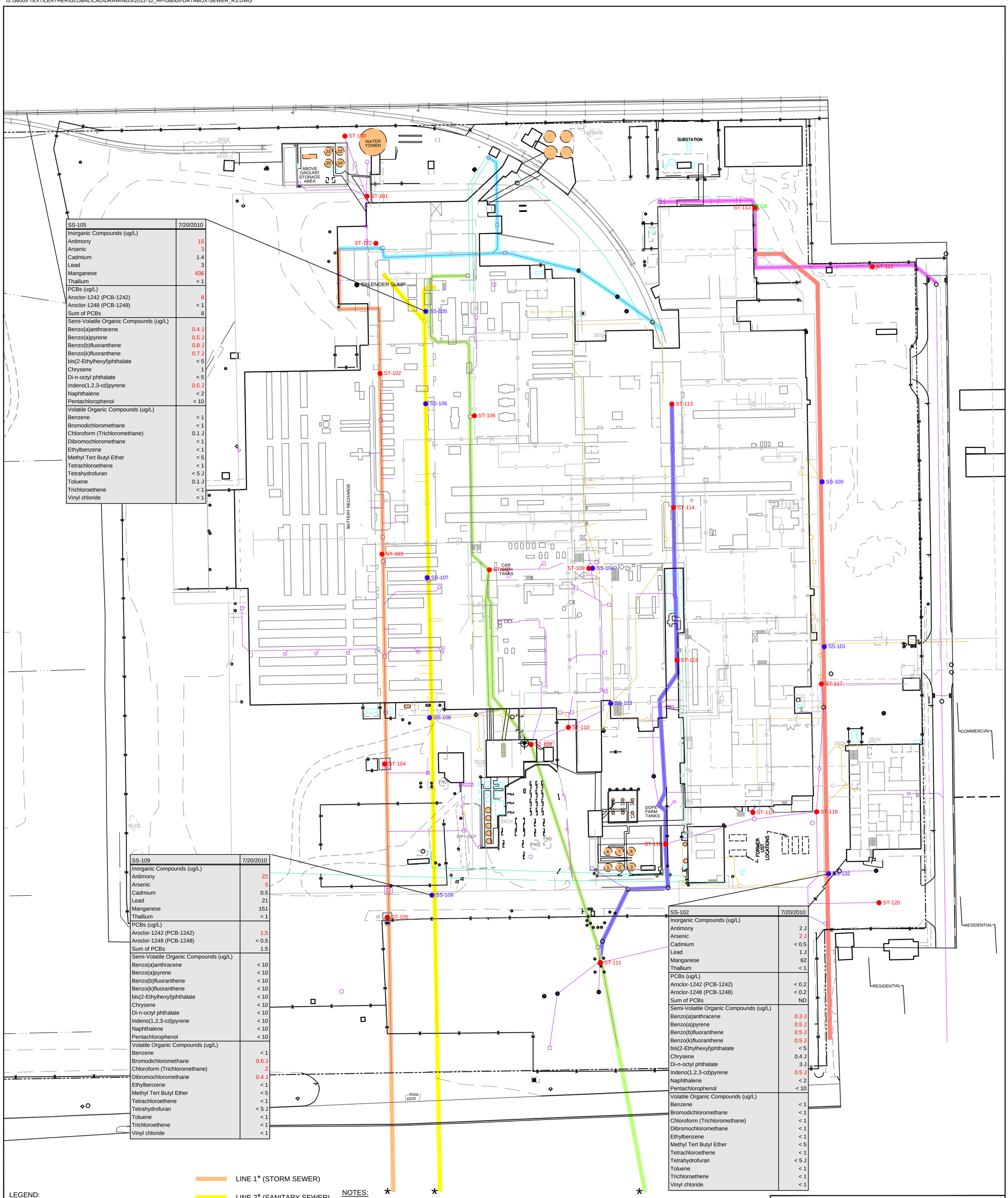
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SUMMARY OF STORM SEWER ANALYTICAL RESULTS

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 23

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-SEWER_R3.DWG



SS-105	7/20/2010
Inorganic Compounds (ug/L)	
Antimony	15
Arsenic	3
Cadmium	1.4
Lead	3
Manganese	436
Thallium	< 1
PCBs (ug/L)	
Aroclor-1242 (PCB-1242)	8
Aroclor-1248 (PCB-1248)	< 1
Sum of PCBs	8
Semi-Volatile Organic Compounds (ug/L)	
Benzo(a)anthracene	0.4 J
Benzo(a)pyrene	0.5 J
Benzo(b)fluoranthene	0.8 J
Benzo(k)fluoranthene	0.7 J
bis(2-Ethylhexyl)phthalate	< 5
Chrysene	1
Di-n-octyl phthalate	< 5
Indeno(1,2,3-cd)pyrene	0.5 J
Naphthalene	< 2
Pentachlorophenol	< 10
Volatile Organic Compounds (ug/L)	
Benzene	< 1
Bromodichloromethane	< 1
Chloroform (Trichloromethane)	0.1 J
Dibromochloromethane	< 1
Ethylbenzene	< 1
Methyl Tert Butyl Ether	< 5
Tetrachloroethene	< 1
Tetrahydrofuran	< 5 J
Toluene	0.1 J
Trichloroethene	< 1
Vinyl chloride	< 1

SS-109	7/20/2010
Inorganic Compounds (ug/L)	
Antimony	22
Arsenic	5
Cadmium	0.5
Lead	21
Manganese	151
Thallium	< 1
PCBs (ug/L)	
Aroclor-1242 (PCB-1242)	1.5
Aroclor-1248 (PCB-1248)	< 0.5
Sum of PCBs	1.5
Semi-Volatile Organic Compounds (ug/L)	
Benzo(a)anthracene	< 10
Benzo(a)pyrene	< 10
Benzo(b)fluoranthene	< 10
Benzo(k)fluoranthene	< 10
bis(2-Ethylhexyl)phthalate	< 10
Chrysene	< 10
Di-n-octyl phthalate	< 10
Indeno(1,2,3-cd)pyrene	< 10
Naphthalene	< 10
Pentachlorophenol	< 10
Volatile Organic Compounds (ug/L)	
Benzene	< 1
Bromodichloromethane	0.6 J
Chloroform (Trichloromethane)	2
Dibromochloromethane	0.4 J
Ethylbenzene	< 1
Methyl Tert Butyl Ether	< 5
Tetrachloroethene	< 1
Tetrahydrofuran	< 5 J
Toluene	< 1
Trichloroethene	< 1
Vinyl chloride	< 1

SS-102	7/20/2010
Inorganic Compounds (ug/L)	
Antimony	2 J
Arsenic	2 J
Cadmium	< 0.5
Lead	1 J
Manganese	62
Thallium	< 1
PCBs (ug/L)	
Aroclor-1242 (PCB-1242)	< 0.2
Aroclor-1248 (PCB-1248)	< 0.2
Sum of PCBs	ND
Semi-Volatile Organic Compounds (ug/L)	
Benzo(a)anthracene	0.3 J
Benzo(a)pyrene	0.5 J
Benzo(b)fluoranthene	0.5 J
Benzo(k)fluoranthene	0.5 J
bis(2-Ethylhexyl)phthalate	< 5
Chrysene	0.4 J
Di-n-octyl phthalate	3 J
Indeno(1,2,3-cd)pyrene	0.5 J
Naphthalene	< 2
Pentachlorophenol	< 10
Volatile Organic Compounds (ug/L)	
Benzene	< 1
Bromodichloromethane	< 1
Chloroform (Trichloromethane)	< 1
Dibromochloromethane	< 1
Ethylbenzene	< 1
Methyl Tert Butyl Ether	< 5
Tetrachloroethene	< 1
Tetrahydrofuran	< 5 J
Toluene	< 1
Trichloroethene	< 1
Vinyl chloride	< 1

LEGEND:

- MONITORING WELL LOCATION
- PIZOMETER LOCATION
- ST-122 593.53 STORM SEWER MANHOLE LOCATION
- SS-105 593.53 SANITARY SEWER MANHOLE LOCATION
- CB 592.66 CATCH BASIN LOCATION
- LINE 1* (STORM SEWER)
- LINE 2* (SANITARY SEWER)
- LINE 3* (STORM SEWER)
- LINE 4 (STORM SEWER)
- LINE 5 (STORM SEWER)
- LINE 6 (STORM SEWER)
- LINE 7 (SANITARY SEWER)

NOTES:

* STORM AND SANITARY SEWER LINES EXTEND TO ANTICIPATED CONNECTION WITH CITY SEWERS.

1. CONCENTRATIONS SHOWN IN DATABOXES ARE IN MG/L.
2. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
3. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER, SOIL, AND/OR SEWER SAMPLES.
4. RESULTS GREATER THAN SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A - TAPWATER (EPA RSL, NOVEMBER 2012)
5. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.

N W E S

0 80 160
SCALE IN FEET

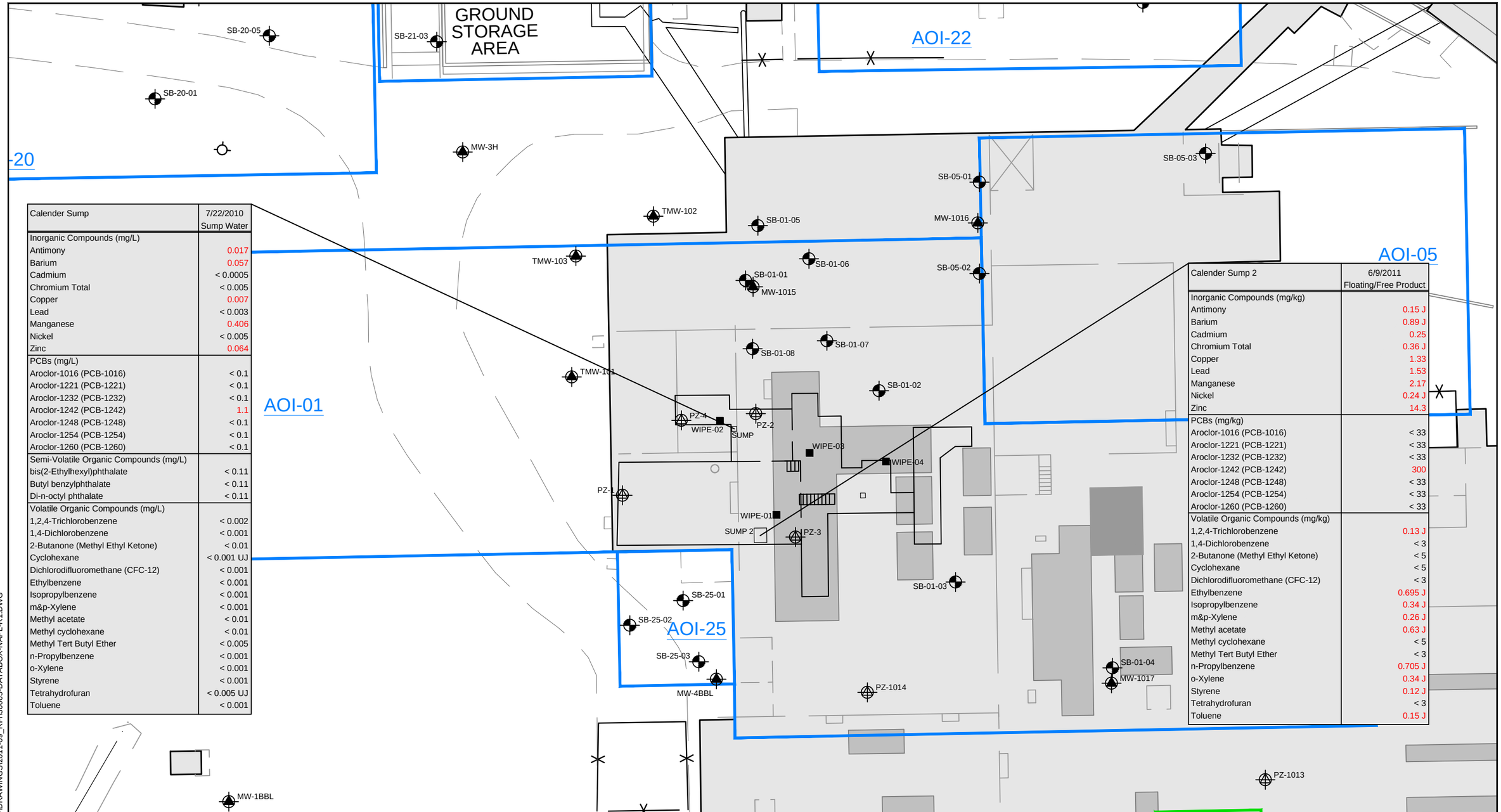
HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SUMMARY OF SANITARY SEWER ANALYTICAL RESULTS

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 24



Calender Sump	7/22/2010 Sump Water
Inorganic Compounds (mg/L)	
Antimony	0.017
Barium	0.057
Cadmium	< 0.0005
Chromium Total	< 0.005
Copper	0.007
Lead	< 0.003
Manganese	0.406
Nickel	< 0.005
Zinc	0.064
PCBs (mg/L)	
Aroclor-1016 (PCB-1016)	< 0.1
Aroclor-1221 (PCB-1221)	< 0.1
Aroclor-1232 (PCB-1232)	< 0.1
Aroclor-1242 (PCB-1242)	1.1
Aroclor-1248 (PCB-1248)	< 0.1
Aroclor-1254 (PCB-1254)	< 0.1
Aroclor-1260 (PCB-1260)	< 0.1
Semi-Volatile Organic Compounds (mg/L)	
bis(2-Ethylhexyl)phthalate	< 0.11
Butyl benzylphthalate	< 0.11
Di-n-octyl phthalate	< 0.11
Volatile Organic Compounds (mg/L)	
1,2,4-Trichlorobenzene	< 0.002
1,4-Dichlorobenzene	< 0.001
2-Butanone (Methyl Ethyl Ketone)	< 0.01
Cyclohexane	< 0.001 UJ
Dichlorodifluoromethane (CFC-12)	< 0.001
Ethylbenzene	< 0.001
Isopropylbenzene	< 0.001
m&p-Xylene	< 0.001
Methyl acetate	< 0.01
Methyl cyclohexane	< 0.01
Methyl Tert Butyl Ether	< 0.005
n-Propylbenzene	< 0.001
o-Xylene	< 0.001
Styrene	< 0.001
Tetrahydrofuran	< 0.005 UJ
Toluene	< 0.001

Calender Sump 2	6/9/2011 Floating/Free Product
Inorganic Compounds (mg/kg)	
Antimony	0.15 J
Barium	0.89 J
Cadmium	0.25
Chromium Total	0.36 J
Copper	1.33
Lead	1.53
Manganese	2.17
Nickel	0.24 J
Zinc	14.3
PCBs (mg/kg)	
Aroclor-1016 (PCB-1016)	< 33
Aroclor-1221 (PCB-1221)	< 33
Aroclor-1232 (PCB-1232)	< 33
Aroclor-1242 (PCB-1242)	300
Aroclor-1248 (PCB-1248)	< 33
Aroclor-1254 (PCB-1254)	< 33
Aroclor-1260 (PCB-1260)	< 33
Volatile Organic Compounds (mg/kg)	
1,2,4-Trichlorobenzene	0.13 J
1,4-Dichlorobenzene	< 3
2-Butanone (Methyl Ethyl Ketone)	< 5
Cyclohexane	< 5
Dichlorodifluoromethane (CFC-12)	< 3
Ethylbenzene	0.695 J
Isopropylbenzene	0.34 J
m&p-Xylene	0.26 J
Methyl acetate	0.63 J
Methyl cyclohexane	< 5
Methyl Tert Butyl Ether	< 3
n-Propylbenzene	0.705 J
o-Xylene	0.34 J
Styrene	0.12 J
Tetrahydrofuran	< 3
Toluene	0.15 J

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- WIPE LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. CHEMICALS SHOWN ARE THOSE THAT ARE DETECTED AND ALL PCBs ANALYZED.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
4. DETECTED RESULTS ARE SHOWN IN RED.
5. SEE ASSOCIATED TABLE FOR FULL RESULT SUMMARY.

N W E S

0 30 60
SCALE IN FEET

HALEY & ALDRICH

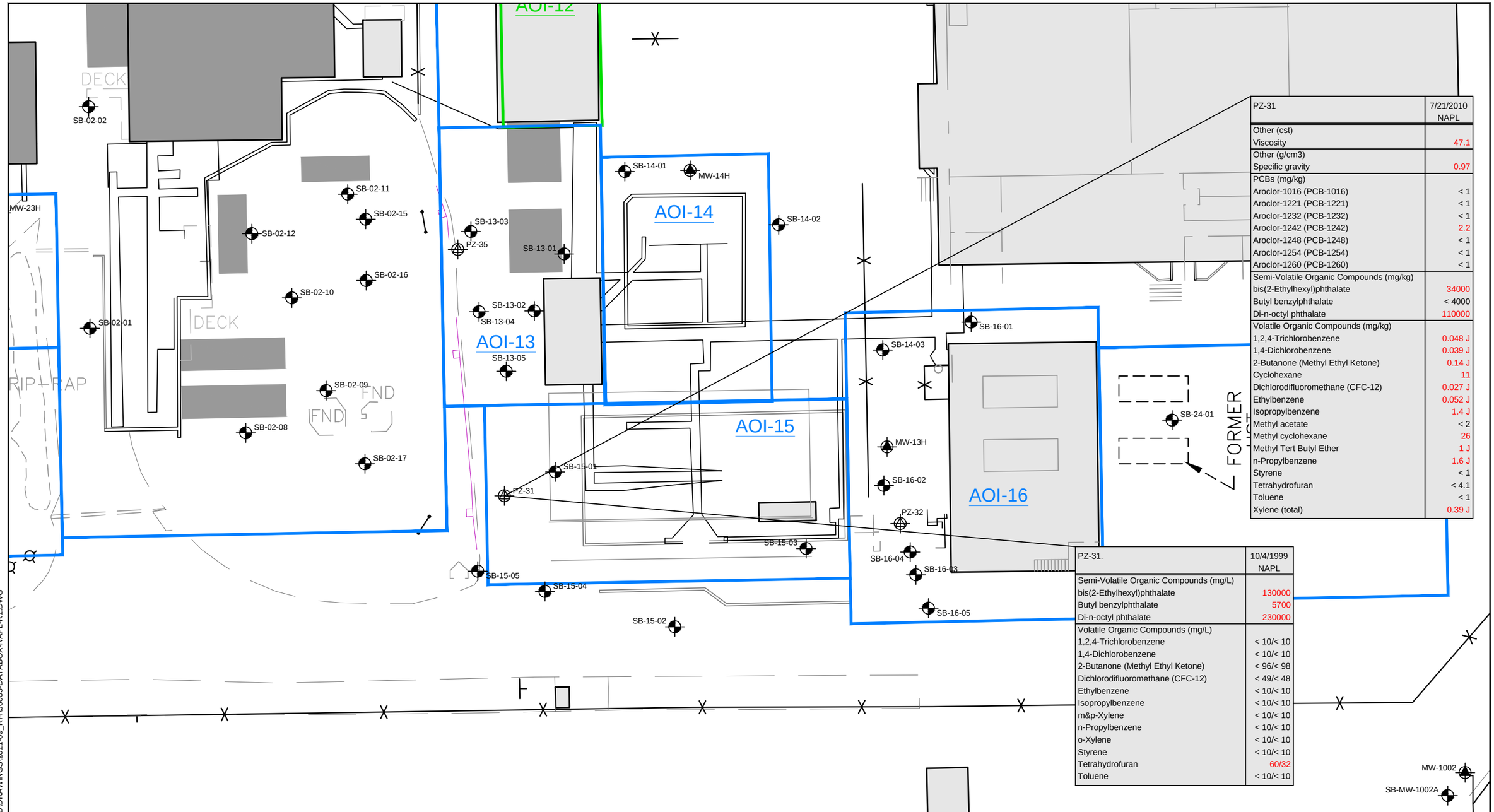
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

CALENDER BASEMENT SUMPS
ANALYTICAL RESULTS - AOI-01

SCALE: AS SHOWN
SEPTEMBER 2011

FIGURE 25A

G:\36005 TEXTILEATHER\GLOBALLCAD\DRAWINGS\2011-09_RFI\36005-DATABOX-NAPL-R1.DWG



PZ-31	7/21/2010 NAPL
Other (cst)	
Viscosity	47.1
Other (g/cm3)	
Specific gravity	0.97
PCBs (mg/kg)	
Aroclor-1016 (PCB-1016)	< 1
Aroclor-1221 (PCB-1221)	< 1
Aroclor-1232 (PCB-1232)	< 1
Aroclor-1242 (PCB-1242)	2.2
Aroclor-1248 (PCB-1248)	< 1
Aroclor-1254 (PCB-1254)	< 1
Aroclor-1260 (PCB-1260)	< 1
Semi-Volatile Organic Compounds (mg/kg)	
bis(2-Ethylhexyl)phthalate	34000
Butyl benzylphthalate	< 4000
Di-n-octyl phthalate	110000
Volatile Organic Compounds (mg/kg)	
1,2,4-Trichlorobenzene	0.048 J
1,4-Dichlorobenzene	0.039 J
2-Butanone (Methyl Ethyl Ketone)	0.14 J
Cyclohexane	11
Dichlorodifluoromethane (CFC-12)	0.027 J
Ethylbenzene	0.052 J
Isopropylbenzene	1.4 J
Methyl acetate	< 2
Methyl cyclohexane	26
Methyl Tert Butyl Ether	1 J
n-Propylbenzene	1.6 J
Styrene	< 1
Tetrahydrofuran	< 4.1
Toluene	< 1
Xylene (total)	0.39 J

PZ-31.	10/4/1999 NAPL
Semi-Volatile Organic Compounds (mg/L)	
bis(2-Ethylhexyl)phthalate	130000
Butyl benzylphthalate	5700
Di-n-octyl phthalate	230000
Volatile Organic Compounds (mg/L)	
1,2,4-Trichlorobenzene	< 10/< 10
1,4-Dichlorobenzene	< 10/< 10
2-Butanone (Methyl Ethyl Ketone)	< 96/< 98
Dichlorodifluoromethane (CFC-12)	< 49/< 48
Ethylbenzene	< 10/< 10
Isopropylbenzene	< 10/< 10
m&p-Xylene	< 10/< 10
n-Propylbenzene	< 10/< 10
o-Xylene	< 10/< 10
Styrene	< 10/< 10
Tetrahydrofuran	60/32
Toluene	< 10/< 10

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- WIPE LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. CHEMICALS SHOWN ARE THOSE THAT ARE DETECTED AND ALL PCBs ANALYZED.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
4. DETECTED RESULTS ARE SHOWN IN RED.
5. SEE ASSOCIATED TABLE FOR FULL RESULT SUMMARY.

N W E S

0 30 60
SCALE IN FEET

HALEY & ALDRICH

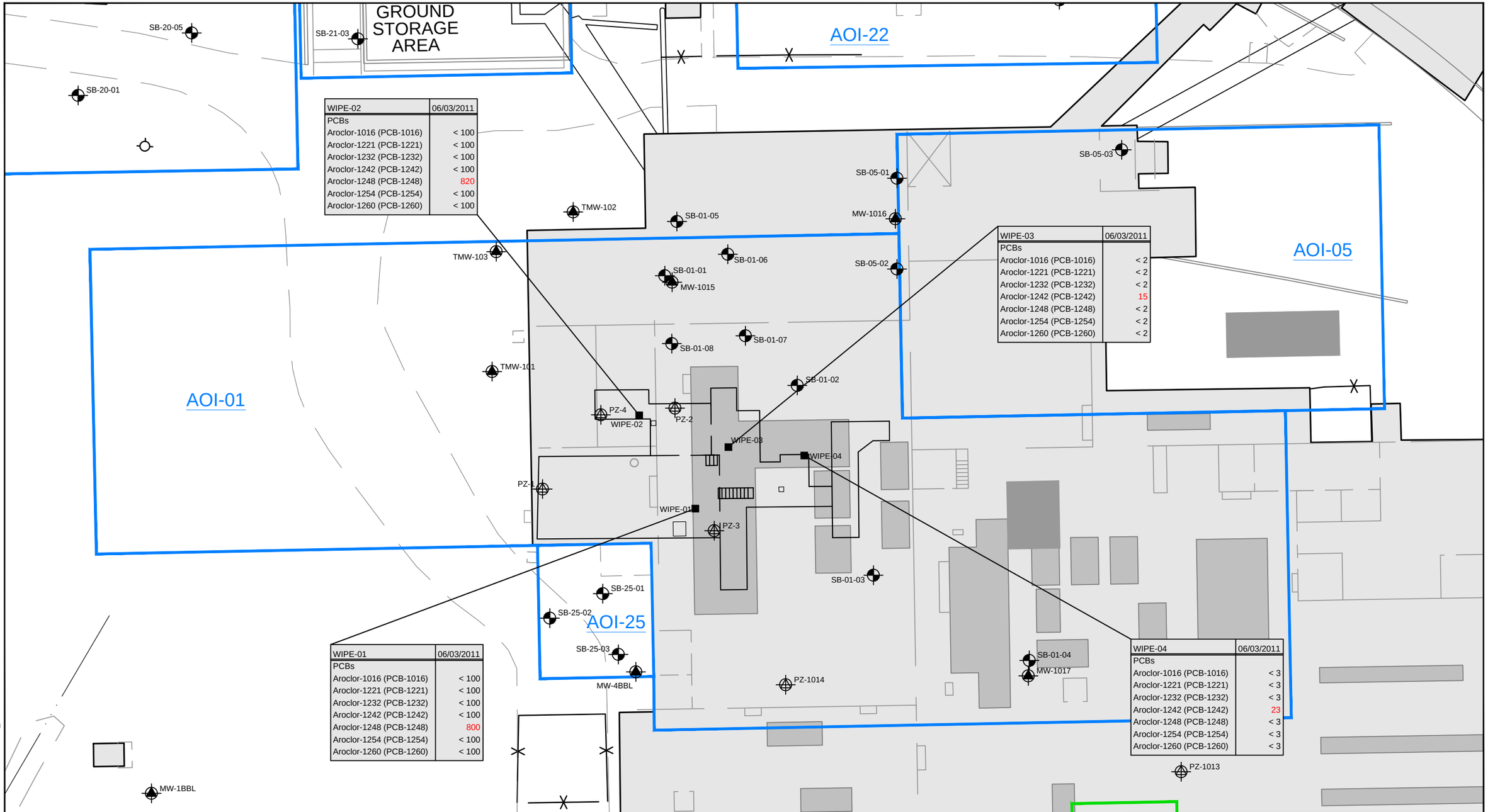
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

NAPL ANALYTICAL RESULTS
AOI-15

SCALE: AS SHOWN
SEPTEMBER 2011

FIGURE 25B

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-DATABOX-NAPL-R1.DWG



WIPE-02	06/03/2011
PCBs	
Aroclor-1016 (PCB-1016)	< 100
Aroclor-1221 (PCB-1221)	< 100
Aroclor-1232 (PCB-1232)	< 100
Aroclor-1242 (PCB-1242)	< 100
Aroclor-1248 (PCB-1248)	820
Aroclor-1254 (PCB-1254)	< 100
Aroclor-1260 (PCB-1260)	< 100

WIPE-03	06/03/2011
PCBs	
Aroclor-1016 (PCB-1016)	< 2
Aroclor-1221 (PCB-1221)	< 2
Aroclor-1232 (PCB-1232)	< 2
Aroclor-1242 (PCB-1242)	15
Aroclor-1248 (PCB-1248)	< 2
Aroclor-1254 (PCB-1254)	< 2
Aroclor-1260 (PCB-1260)	< 2

WIPE-01	06/03/2011
PCBs	
Aroclor-1016 (PCB-1016)	< 100
Aroclor-1221 (PCB-1221)	< 100
Aroclor-1232 (PCB-1232)	< 100
Aroclor-1242 (PCB-1242)	< 100
Aroclor-1248 (PCB-1248)	800
Aroclor-1254 (PCB-1254)	< 100
Aroclor-1260 (PCB-1260)	< 100

WIPE-04	06/03/2011
PCBs	
Aroclor-1016 (PCB-1016)	< 3
Aroclor-1221 (PCB-1221)	< 3
Aroclor-1232 (PCB-1232)	< 3
Aroclor-1242 (PCB-1242)	23
Aroclor-1248 (PCB-1248)	< 3
Aroclor-1254 (PCB-1254)	< 3
Aroclor-1260 (PCB-1260)	< 3

LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER
- SOIL BORING
- WIPE LOCATION
- PRODUCTION WELL

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. DATABOX RESULT UNITS ARE ug/100cm2.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
4. DETECTED RESULTS ARE SHOWN IN RED.

N W E S

0 30 60
SCALE IN FEET

HALEY & ALDRICH

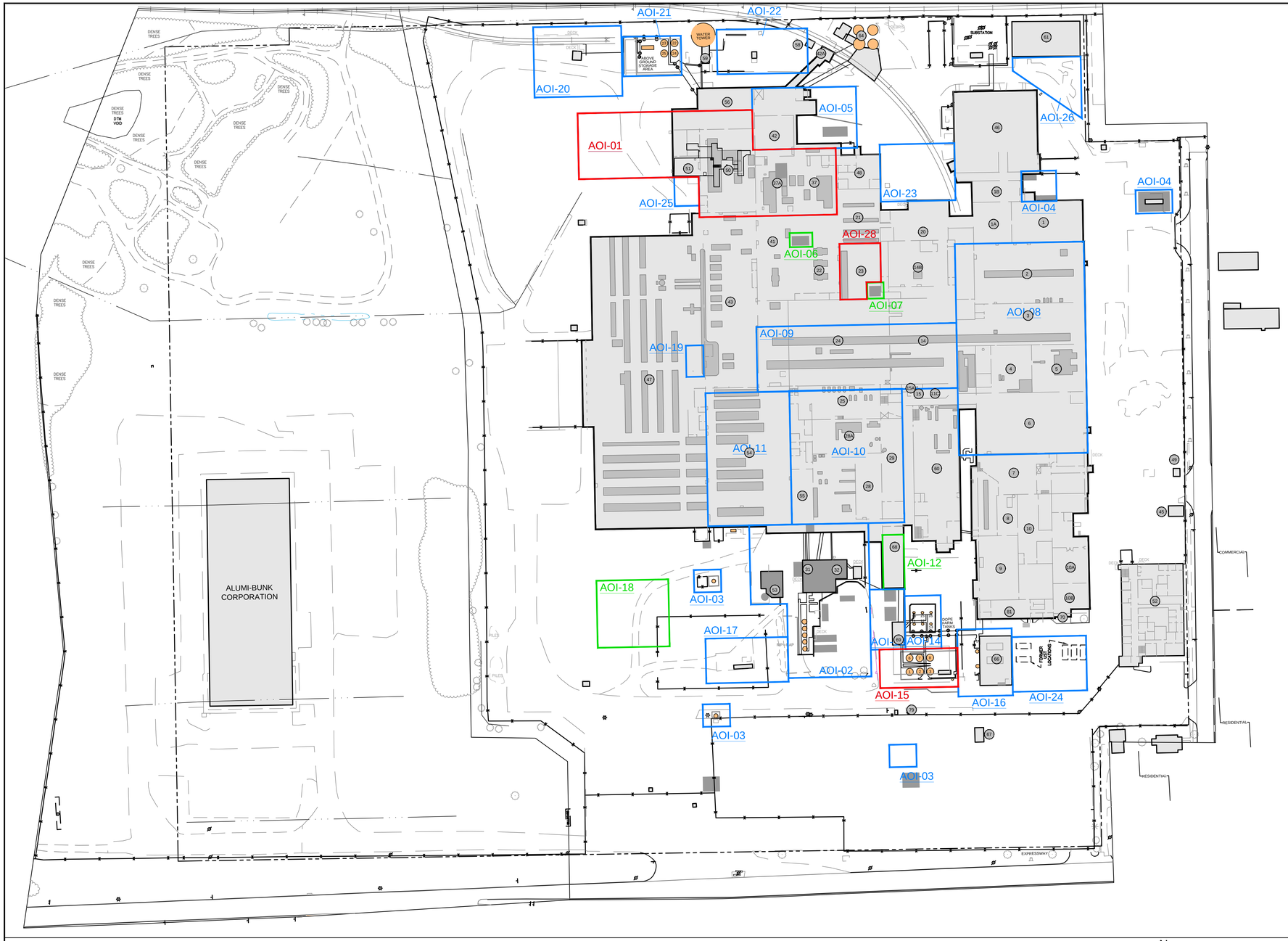
TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

WIPE SAMPLE LOCATIONS AND ANALYTICAL RESULTS

SCALE: AS SHOWN
SEPTEMBER 2011

FIGURE 25C

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2011-09_RFI\36005-DATABOX-WIPE-AOI01.DWG



LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- AREA OF INTEREST (AOI) - FURTHER INVESTIGATION RECOMMENDED
- AREA OF INTEREST (AOI) - NO ADDITIONAL INVESTIGATION RECOMMENDED
- AREA OF INTERST (AOI) IDENTIFIED IN HUMAN HEALTH RISK ASSESSMENT (HHRA) WITH POTENTIAL UNACCEPTABLE RISK
- VEGETATION
- BUILDING NUMBER

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.

BLDG NO.	DEPARTMENT	TOTAL FLOOR AREA (SQ FT.)
1	WAREHOUSE	5,800
1A	WAREHOUSE	3,600
1B	WAREHOUSE	1,800
2	FRAME ROOM	13,900
3	COATING & DOPE STORAGE	9,500
4-5	DOPE MAKEUP & NAUTA MIXER	10,100
6	WAREHOUSE	14,100
7	SAMPLE ROOM	17,700
8	WAREHOUSE	3,300
9	WAREHOUSE	5,400
10	WAREHOUSE	7,900
10A & 10B	WAREHOUSE	4,800
11C	MAINT CRIB & STORAGE	750
14	WAREHOUSE & COATING	6,800
14A	WAREHOUSE & NO 3 STOCK	1,700
14B	REELING, WHSE & NO 3 STOCK	3,800
15	COATING	5,100
15A	FIRST AID	200
20	RECEIVING	5,000
21	EMBOSSING & ROLL STORAGE	3,000
22	EMBOSSING	7,800
23	ANNEALING	4,800
24	COATING & STORAGE	24,250
25	DOPE ROOM	13,100
28	DOPE ROOM	10,300
28A	CAN WASH & WAREHOUSE	4,800
29	BULK DOPE, WHSE & FK. TRK. REP.	3,100
31	SOLVENT RECOVERY	5,500
32	SOLVENT RECOVERY	300
37	CALENDER ROOM (NO 1 CAL)	4,800
37A	CALENDER ROOM (NO 2 CAL)	7,300
41	EMBOSSING & STORAGE	21,200
42	TOLEX WAREHOUSE	18,700
42A	RECEIVING DOCK	600
43	FINAL INSPECTION	18,000
45	FIRE PUMP NO 1	330
46	WAREHOUSE	14,400
47	WAREHOUSE	68,700
48	QUALITY CONTROL	3,000
49	STORAGE SHED	230
50	CALENDER ROOM (NO 3 CAL)	9,800
51	CONTROL ROOM (NO 3 CAL)	2,600
52	MAIN OFFICE BUILDING	24,000
53	SCRAP STORAGE (SOLVENT)	1,080
54	PRINT & FINISH	25,100
55	WAREHOUSE (DOPE ROOM)	3,100
56	TEXTILE WAREHOUSE	4,800
58	PLASTICIZER UNLOADING	140
59	FIRE PUMP NO 2	240
60	MAINTENANCE & RESEARCH	26,600
61	OUTPOST WAREHOUSE	4,800
62	STORAGE & BREAK ROOM	510
63	CONTROL ROOM (SOLVENT RECOVERY)	160
64	SILOS	1,030
66	POWER HOUSE	3,800
67	GAS METER HOUSE	240
68	RED LABEL ROOM	2,560
69	PUMP HOUSE	530
70	PURCHASING STORAGE	320
72	SHED BUILDING 9	300
73	SHED PILOT LINE	1,000
74	SHED BUILDING 6	400
79	GUARD HOUSE	40
81	DEVELOPMENT CENTER	3,170
	TOTAL AREA	462,060

AREAS OF INTEREST:

AOI-01 - PCB AREA
AOI-02 - SOLVENT RECOVERY AREA
AOI-03 - OIL INTERCEPTOR BASINS
AOI-04 - EASTERN REFUSE HANDLING AREA
AOI-05 - NORTHERN REFUSE AND OIL HANDLING AREA
AOI-06 - GENERAL REFUSE HOPPERS
AOI-07 - CONTAINER STORAGE AREA
AOI-08 - BUILDINGS 2 THROUGH 6
AOI-09 - COATER LINES
AOI-10 - DOPE ROOM AND CAN WASH
AOI-11 - PRINT FINISH DEPARTMENT
AOI-12 - HAZARDOUS WASTE STORAGE ROOM
AOI-13 - BUILDING 69
AOI-14 - SOUTH UST FARM
AOI-15 - SOUTH AST FARM
AOI-16 - POWERHOUSE
AOI-17 - FORMER FUEL OIL AST AND FORMER HAZARDOUS WASTE STORAGE AREA
AOI-18 - FORMER FIRE RESPONSE TRAINING AREA
AOI-19 - BATTERY CHARGING AREA
AOI-20 - RAIL CAR UNLOADING AREA
AOI-21 - NORTH FORMER AST FARM AND CURRENT AST FARM
AOI-22 - FORMER NORTH FUEL OIL AST FARM
AOI-23 - NORTHERN PHTHALATE LEAK REMEDIATION AREA
AOI-24 - SOUTH EAST USTS
AOI-25 - TOLEX COURTYARD CHILLER
AOI-26 - OUTPOST OUTSIDE STORAGE AREA
AOI-27 - SITE-WIDE GROUNDWATER
AOI-28 - FORMER SAMPLE PRINT MACHINE

N
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S

0 80 160 240 320
SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

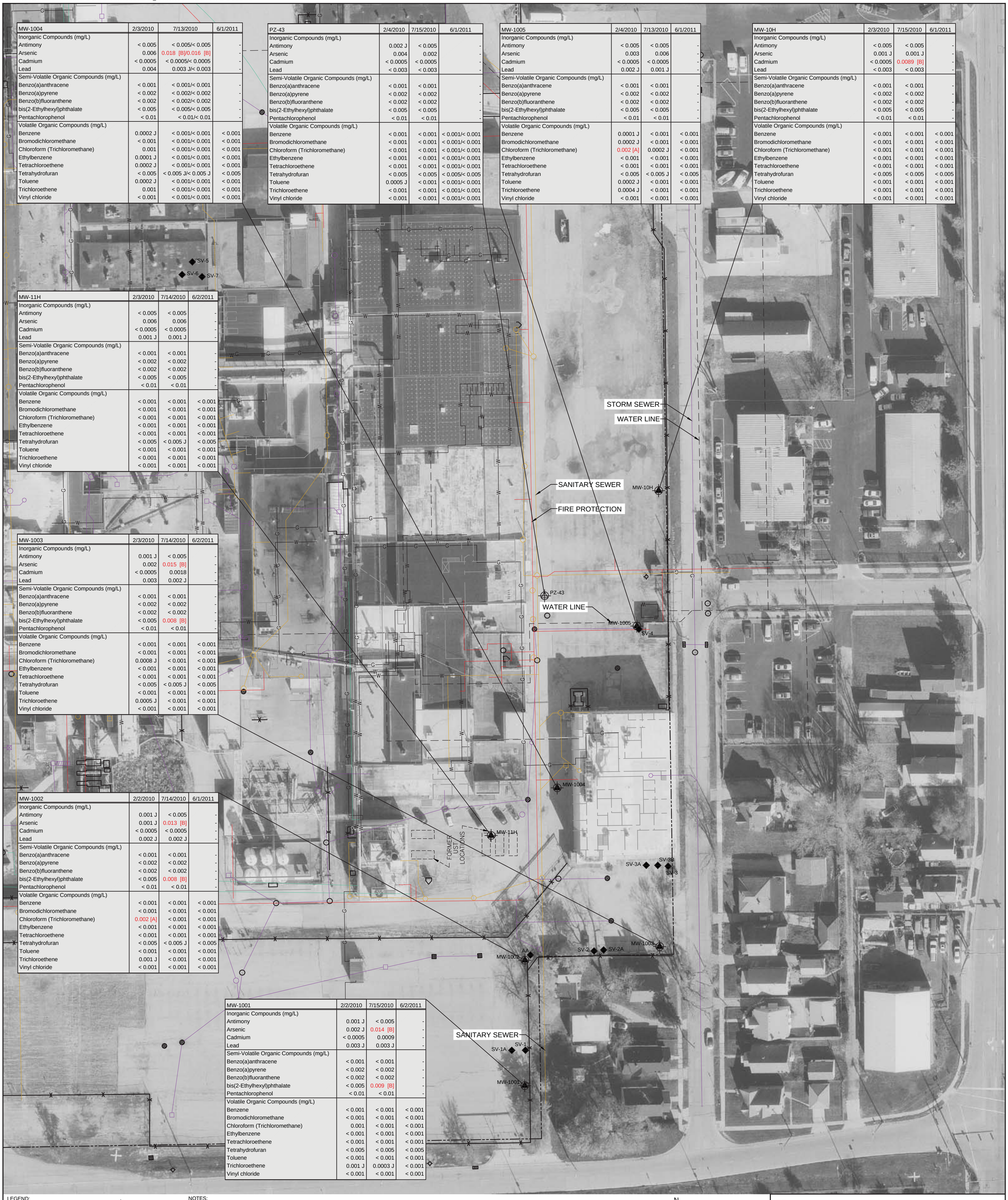
AREAS WHERE HHRA IDENTIFIED POTENTIAL UNACCEPTABLE RISK

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 26

G:\36005 TEXTILEATHER\005 - FIELD EVENT 2\CAD\DRAWINGS\36005-SITE-PLAN_WITH_AOIS-NOV2010.DWG

G:\36005 TEXTILEATHER\GLOBAL\CAD\DRAWINGS\2012-12_RFI\36005-DATABOX-GW-EPB-D1.DWG



MW-1004	2/3/2010	7/13/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005/< 0.005	-
Arsenic	0.006	0.018 [B]/0.016 [B]	-
Cadmium	< 0.0005	< 0.0005/< 0.0005	-
Lead	0.004	0.003 J/< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001/< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002/< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002/< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005/< 0.005	-
Pentachlorophenol	< 0.01	< 0.01/< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	0.0002 J	< 0.001/< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001/< 0.001	< 0.001
Chloroform (Trichloromethane)	0.001	< 0.001/< 0.001	< 0.001
Ethylbenzene	0.0001 J	< 0.001/< 0.001	< 0.001
Tetrachloroethene	0.0002 J	< 0.001/< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J/< 0.005 J	< 0.005
Toluene	0.0002 J	< 0.001/< 0.001	< 0.001
Trichloroethene	0.001	< 0.001/< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001/< 0.001	< 0.001

PZ-43	2/4/2010	7/15/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	0.002 J	< 0.005	-
Arsenic	0.004	0.002	-
Cadmium	< 0.0005	< 0.0005	-
Lead	< 0.003	< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001/< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001/< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001	< 0.001/< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001/< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001/< 0.001
Tetrahydrofuran	< 0.005	< 0.005	< 0.005/< 0.005
Toluene	0.0005 J	< 0.001	< 0.001/< 0.001
Trichloroethene	< 0.001	< 0.001	< 0.001/< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001/< 0.001

MW-1005	2/4/2010	7/13/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005	-
Arsenic	0.003	0.006	-
Cadmium	< 0.0005	< 0.0005	-
Lead	0.002 J	0.001 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	0.0001 J	< 0.001	< 0.001
Bromodichloromethane	0.0002 J	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.002 [A]	0.0002 J	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	0.0002 J	< 0.001	< 0.001
Trichloroethene	0.0004 J	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-10H	2/3/2010	7/15/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005	-
Arsenic	0.001 J	0.001 J	-
Cadmium	< 0.0005	0.0089 [B]	-
Lead	< 0.003	< 0.003	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-11H	2/3/2010	7/14/2010	6/2/2011
Inorganic Compounds (mg/L)			
Antimony	< 0.005	< 0.005	-
Arsenic	0.006	0.006	-
Cadmium	< 0.0005	< 0.0005	-
Lead	0.001 J	0.001 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	< 0.005	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	< 0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	< 0.001	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-1003	2/3/2010	7/14/2010	6/2/2011
Inorganic Compounds (mg/L)			
Antimony	0.001 J	< 0.005	-
Arsenic	0.002	0.015 [B]	-
Cadmium	< 0.0005	0.0018	-
Lead	0.003	0.002 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	0.008 [B]	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.0008 J	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	0.0005 J	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-1002	2/2/2010	7/14/2010	6/1/2011
Inorganic Compounds (mg/L)			
Antimony	0.001 J	< 0.005	-
Arsenic	0.001 J	0.013 [B]	-
Cadmium	< 0.0005	< 0.0005	-
Lead	0.002 J	0.002 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	0.008 [B]	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.002 [A]	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005 J	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001 J	< 0.001	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

MW-1001	2/2/2010	7/15/2010	6/2/2011
Inorganic Compounds (mg/L)			
Antimony	0.001 J	< 0.005	-
Arsenic	0.002 J	0.014 [B]	-
Cadmium	< 0.0005	0.0009	-
Lead	0.003 J	0.003 J	-
Semi-Volatile Organic Compounds (mg/L)			
Benzo(a)anthracene	< 0.001	< 0.001	-
Benzo(a)pyrene	< 0.002	< 0.002	-
Benzo(b)fluoranthene	< 0.002	< 0.002	-
bis(2-Ethylhexyl)phthalate	< 0.005	0.009 [B]	-
Pentachlorophenol	< 0.01	< 0.01	-
Volatile Organic Compounds (mg/L)			
Benzene	< 0.001	< 0.001	< 0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001
Chloroform (Trichloromethane)	0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001
Tetrahydrofuran	< 0.005	< 0.005	< 0.005
Toluene	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001 J	0.0003 J	< 0.001
Vinyl chloride	< 0.001	< 0.001	< 0.001

LEGEND:
- PROPERTY LINE
- FENCE
- STORM SEWER
- SANITARY SEWERS
- UTILITIES 3
- FIRE PROTECTION
- GAS LINE
- WATER LINE
- RAILROAD
- SOIL VAPOR LOCATION
- MONITORING WELL
- PIEZOMETER

NOTES:
1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.
2. DATABOX RESULT UNITS ARE MG/L.
3. <: RESULT IS BELOW INDICATED REPORTING LIMIT
   J: ESTIMATED RESULT
   R: REJECTED
4. ANALYTES SHOWN ARE THOSE THAT EXCEED IN ONE OR MORE SITEWIDE GROUNDWATER AND/OR SOIL SAMPLES.
5. RESULTS GREATER THAN GROUNDWATER SCREENING CRITERIA SHOWN IN RED, SPECIFIC SCREENING CRITERIA ARE INDICATED WITHIN [ ]:
   A: RESIDENTIAL VISL FOR TARGET GROUNDWATER CONCENTRATIONS (MAY 2012 RSLs)
   B: MCL (EPA REGIONAL SCREENING LEVEL MCL, NOVEMBER 2012)
6. SEE SUMMARY TABLES FOR COMPLETE LIST OF ANALYTES.

N W E S

0 60 120
SCALE IN FEET

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

GROUNDWATER ANALYTICAL RESULTS
EASTERN PROPERTY BOUNDARY

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 27

RESOURCE CONSERVATION AND RECOVERY ACT
FACILITY INVESTIGATION REPORT
VOLUME 2 – APPENDICES A - E

TEXTILEATHER CORPORATION
3729 TWINING STREET
TOLEDO, OHIO

US EPA ID # OHD 980 279 376
U.S. EPA DOCKET # RCRA-05-2010-0001

by

Haley & Aldrich, Inc.
Cleveland, Ohio

for

Textileather Corporation
Toledo, Ohio

File No. 36005-007
28 September 2011
Revised 31 December 2012

APPENDIX A
Soil Boring Logs and Well Completion Reports

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1001

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 12, 2010
Finish January 12, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0			GM	Top 3.5 inches Asphalt. Loose, black, silty GRAVEL with sand (GM), mps=5 cm, no odor, saturated due to water used to extrude sample, slag/cinder-like material throughout.
					2.3	ML	Soft, dark brown, SILT (ML), mps<1 mm, no odor, moist, roots throughout.
					3.5	CL	Stiff, brown, silty CLAY (CL), mps< 1 mm, no odor, moist, gray mottling throughout.
5		S2 60	5.0				
					6.0	ML	Stiff, brown, clayey SILT (ML), mps< 1mm, no odor, moist, contains areas of high clay content.
10		S3 60	10.0				Gray at 10 feet bgs, very moist to wet.
							Contains trace sands and gravel at 13 feet bgs.
15					15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
1/14/10	13:35				5.17

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples S3

Boring No. MW-1001

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

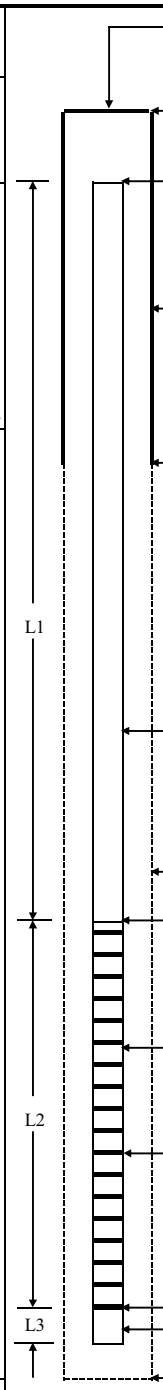
Well No.	Boring No.
MW-1001	MW-1001

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/12/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	595.82 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3	15.3

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface	0.4	ft
Depth of top of riser pipe below ground surface	0.0	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

5 ft	+	10 ft	+	0.3 ft	=	15.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1002

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 13, 2010
Finish January 13, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 50	0.0			ML	Top 5 inches Asphalt. Medium-stiff, dark brown, gravelly SILT with sand (ML), mps=4 cm, no odor, moist.
					2.5	CL	Very stiff, brown, silty CLAY (CL), mps<1 mm, no odor, moist, gray mottling throughout.
5		S2 60	5.0		4.8	ML	Stiff to very stiff, brown, clayey SILT (ML), mps<1 mm, no odor, moist, gray mottling throughout.
						ML	Gray-brown at 9 feet bgs.
10		S3 60	10.0		10.0	CL	Medium-stiff to soft, gray, silty CLAY (CL), mps=4 cm, no odor, very moist to wet, trace sands and gravels throughout, some areas have very high silt content (approximately 50%).
15					15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples S3

Boring No. MW-1002

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

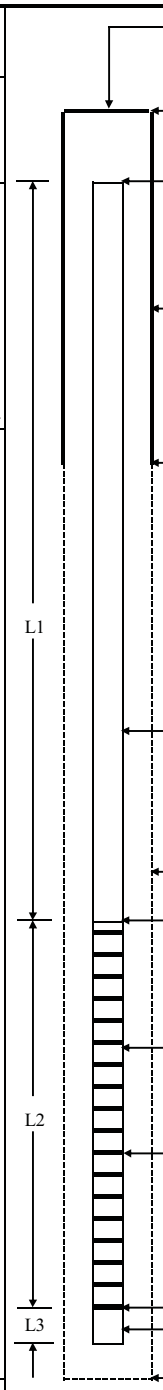
Well No.	Boring No.
MW-1002	MW-1002

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/13/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	595.47 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3	15.3

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.2	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

5 ft	+	10 ft	+	0.3 ft	=	15.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1003

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 13, 2010
Finish January 13, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0			GM	Top 4.5 inches Asphalt. Medium-dense, brown, silty GRAVEL with sand (GM), mps=2.5 cm, no odor, saturated due to water used to extrude sample.
					0.8	ML	Medium-stiff, brown, SILT (ML), mps<1 mm, no odor, moist.
					1.5	CL	Very stiff to hard, brown, silty CLAY (CL), mps<1 mm, no odor, moist, gray mottling throughout, silt content increasing with depth. Very thin (about 1.5 mm) sandy SILT (ML) layer at 3.5 feet bgs.
5		S2 60	5.0		5.0	ML	Medium stiff, brown, SILT (ML), mps<1 mm, no odor, moist, clay content increasing with depth, gray mottling throughout.
					7.5	CL	Stiff to very stiff, gray-brown, silty CLAY (CL), mps<1 mm, no odor, moist, gray mottling throughout. Gray at 8.75 feet bgs.
10		S3 60	10.0				Contains trace sands and gravel at 10.5 feet bgs, very moist.
15					15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples S3

Boring No. MW-1003

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

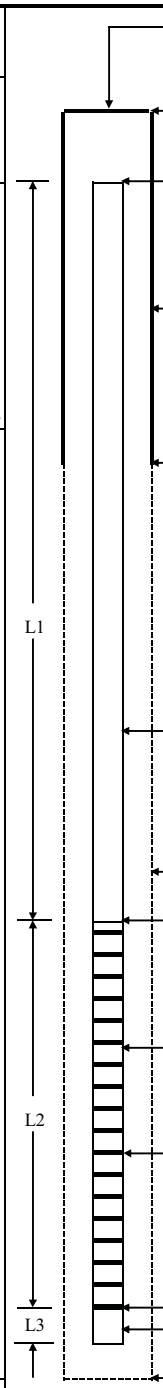
Well No.	Boring No.
MW-1003	MW-1003

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/13/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	594.37 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3 (Bottom of Exploration)	15.3

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.4	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0.3 ft	=	15.3 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1004

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 13, 2010
Finish January 13, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel
Type	Sonic	S	-
Inside Diameter (in.)	5	4	4
Hammer Weight (lb)	-	-	-
Hammer Fall (in.)	-	-	-

Drilling Equipment and Procedures
Rig Make & Model: Mini Sonic Track
Bit Type: Cutting Head
Drill Mud: None
Casing:
Hoist/Hammer: None
PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0		GC	Top 6 inches Asphalt. Loose, gray-brown, clayey GRAVEL with sand (GC), mps=4 cm, no odor, saturated due to water used to extrude sample.
				1.0	CL	Hard, brown, silty CLAY (CL), mps=2.5 cm, no odor, moist, gray mottling, slag/cinder-like materials throughout. FILL
5		S2 46	5.0			At 4.5 to 5.0 feet bgs, apporximately 75% of sample is slag/cinder-like material.
				6.5	CL	Stiff, brown, silty CLAY (CL), mps<1 mm, no odor, moist, gray mottling throughout, some areas have very high silt content (approximately 50%).
						Gray-brown at 8.75 feet bgs.
10		S3 60	10.0		CL	Gray at 10 feet bgs, contains trace sands and gravels throughout, very moist.
				14.0	ML	Stiff, gray, SILT (ML), mps<1 mm, no odor, very moist to wet.
15				15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples S3

Boring No. MW-1004

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

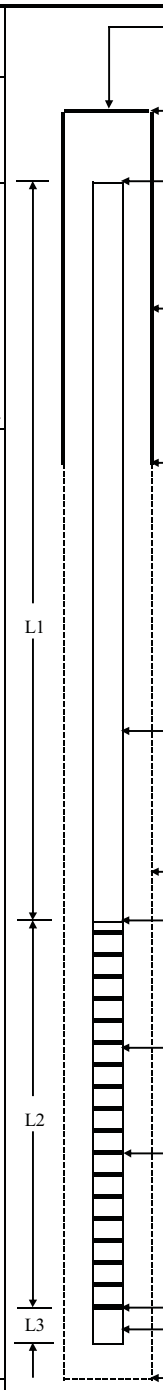
Well No.	Boring No.
MW-1004	MW-1004

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/13/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	594.46 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3 (Bottom of Exploration)	15.3

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.4	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0.3 ft	=	15.3 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1005

Project	Textileather RFI Phase I Toledo, Ohio
Client	Textileather Corporation
Contractor	Boart Longyear

File No.	36005-004
Sheet No.	1 of 1
Start	January 14, 2010
Finish	January 14, 2010
Driller	J. Tidwell
H&A Rep.	A. Foerster
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0				Top 3.5 inches Asphalt. Loose, black, gravel, slag/cinder-like material. FILL
					1.5	CL	Stiff, dark brown-black, silty CLAY (CL), mps<1 mm, no odor, moist. Brown at 2.25 feet bgs with gray mottling throughout. Very stiff to hard at 3 feet bgs. Silt content increasing with depth.
5		S2 60	5.0				
					6.8	ML	Soft, brown, clayey SILT (ML), mps<1 mm, no odor, moist to very moist.
10		S3 60	10.0		10.3	CL	Soft to medium-stiff, gray, silty CLAY (CL), mps=1.5 cm, no odor, very moist, trace sands and gravel throughout.
15					15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram

Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary

Overburden (ft)	15
Rock Cored (ft)	
Samples	S3

Boring No. MW-1005

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

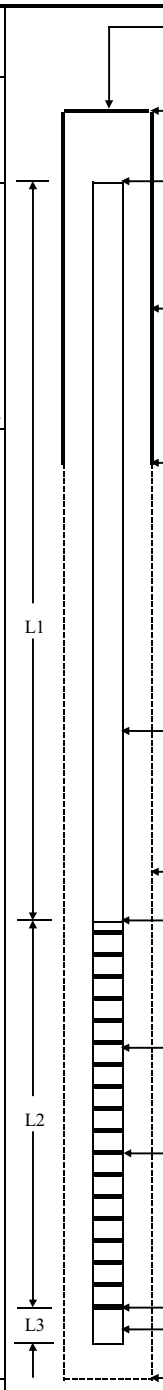
Well No.	Boring No.
MW-1005	MW-1005

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/14/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	593.39 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3 (Bottom of Exploration)	15.3

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.6	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0.3 ft	=	15.3 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1006

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 14, 2010
Finish January 14, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0				Top 2 inches Asphalt.
					0.5		Loose, gray, limestone FILL material.
							Loose, black, industrial FILL (slag/cinder-like materials) mixed with clay, no odor, moist.
					1.5	CL	Very stiff, black, silty CLAY (CL), mps<1 mm, no odor, moist.
							Dark brown to brown at 2.5 feet bgs.
							Brown at 3 feet bgs, gray mottling throughout.
5		S2 60	5.0				
					5.5	ML	Stiff, brown, clayey SILT (ML), mps<1 mm, no odor, moist.
10		S3 60	10.0		10.0	CL	Soft, gray, silty CLAY (CL), mps<1 mm, no odor, very moist to wet.
							Thin fine sand seam at 12 feet bgs.
15					15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples S3

Boring No. MW-1006

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

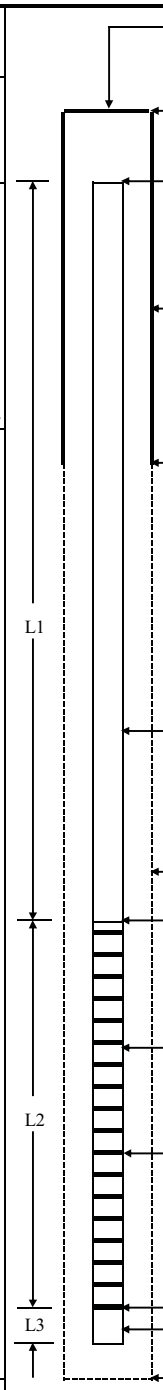
Well No.	Boring No.
MW-1006	MW-1006

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/14/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	592.63 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3 (Bottom of Exploration)	15.3

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.5	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

5 ft	+	10 ft	+	0.3 ft	=	15.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1007

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 11, 2010
Finish January 11, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0			ML	Medium-stiff, brown, gravelly SILT with sand (ML), mps=5 cm, no odor, saturated due to water used to extrude sample from core barrel.
					1.8	ML	Stiff to very stiff, dark brown, SILT (ML), mps=4 mm, no odor, moist, trace sands and gravels throughout.
					2.3	CL	Hard to very stiff, brown, lean CLAY (CL), mps<1 mm, no odor, moist, minor silt component.
							Silt layer 2 inches thick at 4.25 feet bgs.
5		S2 60	5.0				Contains trace sands and gravels at 6.75 feet bgs.
10		S3 60	10.0				Gray at 10 feet bgs, very moist. Medium-stiff to soft at 11 feet bgs, thinly laminated.
15		S4 60	15.0			CL	Same as above.
20					20.0		Bottom of Exploration at 20 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram	
	Riser Pipe
	Screen
	Filter Sand
	Cuttings
	Grout
	Concrete
	Bentonite Seal

Summary	
Overburden (ft)	20
Rock Cored (ft)	
Samples	S4

Boring No. MW-1007

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

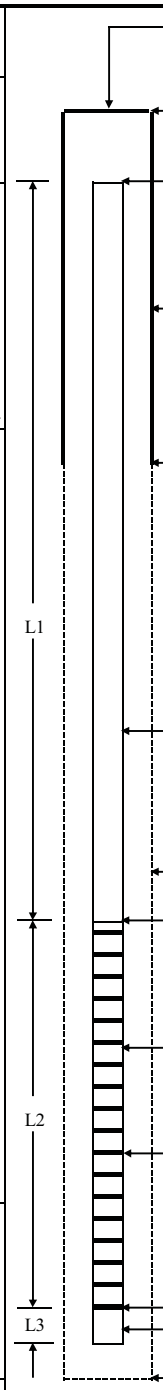
Well No.	Boring No.
MW-1007	MW-1007

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/11/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	593.42 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand 15
	15 Bentonite 20
See Test Boring Report for Overburden details.	
20 (Bottom of Exploration)	20

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.3	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.0
Bentonite	15.0	5.0

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	20.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0.3 ft	=	15.3 ft

COMMENTS:

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1008

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 12, 2010
Finish January 12, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0				Top 3.5 inches Asphalt. Limestone sub-base FILL material.
					1.0	ML	Soft to medium-stiff, yellow-brown to brown, sandy SILT (ML), mps<1 mm, no odor, moist, sand is very fine.
					1.8	CL	Very stiff, brown, lean CLAY (CL), mps<1 mm, no odor, moist, contains minor silt component, gray mottling throughout, occasional silty clay layer. Silt content increases with depth.
5		S2 60	5.0				
					7.0	ML	Medium-stiff, brown, SILT (ML), mps<1 mm, no odor, moist, minor clay component. Very moist at 8 feet bgs.
10		S3 60	10.0		10.0	CL	Soft, gray, CLAY (CL), mps=1.5 mm, no odor, very moist, trace sands and fine gravel throughout.
15					15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples S3

Boring No. MW-1008

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

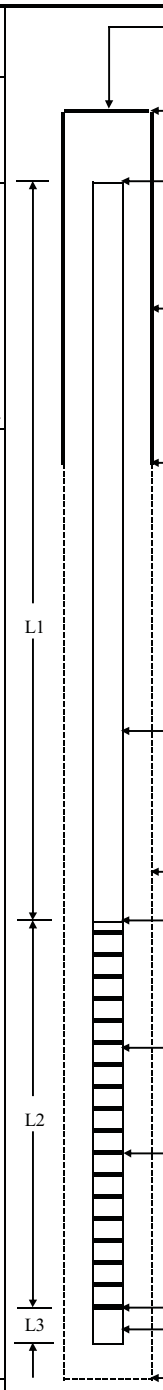
Well No.	Boring No.
MW-1008	MW-1008

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/12/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	594.78 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3 (Bottom of Exploration)	15.3

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.4	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0.3 ft	=	15.3 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1009

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Boart Longyear

File No. 36005-004
Sheet No. 1 of 1
Start January 12, 2010
Finish January 12, 2010
Driller J. Tidwell
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Sonic	S	-	Rig Make & Model: Mini Sonic Track
Inside Diameter (in.)	5	4	4	Bit Type: Cutting Head Drill Mud: None
Hammer Weight (lb)	-	-	-	Casing:
Hammer Fall (in.)	-	-	-	Hoist/Hammer: None PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 60	0.0				Top 3.5 inches Asphalt.
					0.8	ML	Soft, black, sandy SILT with gravel (ML), mps=4 cm, no odor, saturated due to water used to extrude sample, slag and clinker-like material throughout. FILL
					2.0	CL	Stiff, black to dark brown, SILT (ML), mps<1 mm, no odor, moist. Stiff, brown, silty CLAY (CL), mps<1 mm, no odor, moist, gray mottling throughout, silt content increasing with depth.
5		S2 60	5.0		5.3	ML	Stiff, brown, SILT (ML), mps<1 mm, no odor, moist, minor clay component, gray mottling throughout. Sand seam 2 mm thick at 8.5 feet bgs, very moist.
10		S3 60	10.0		9.5	CL	Soft, gray, CLAY (CL), mps<1 mm, no odor, very moist to wet, minor silt component.
15					15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
1/14/10	13:30				8.60

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples S3

Boring No. MW-1009

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

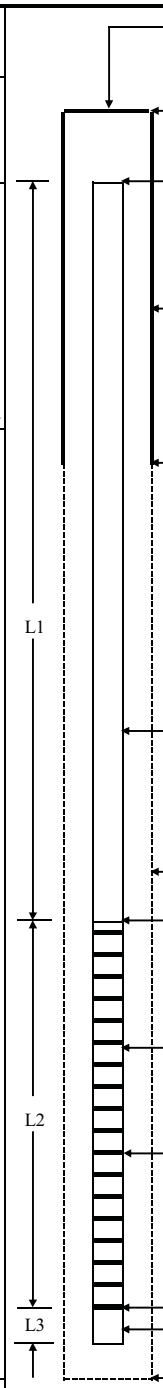
Well No.	Boring No.
MW-1009	MW-1009

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	1/12/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	595.62 ft	Location	See Site Plan for Details	☐ Guard Pipe
El. Datum	NAVD88			☑ Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15.3	15.3

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.4	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.3

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

5 ft	+	10 ft	+	0.3 ft	=	15.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1015

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS ENVIRONMENTAL CONTRACTING, INC.

File No.	36005-005
Sheet No.	1 of 1
Start	July 14, 2010
Finish	July 14, 2010
Driller	J. Lolnaugh
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0						Top 6 inches Concrete.
	ND	G1 30	0.0			6 to 9 inches bgs: limestone sub-base FILL material.
				0.8	CL	Stiff, dark gray, silty CLAY (CL), mps<1 mm, no odor, moist.
	ND	G2 48	4.0		CL	Gray-brown at 4 feet bgs with gray mottling and iron oxide staining throughout.
5						5.25 to 6.75 feet bgs interval contains second phase liquid within cracks/voids in sample.
	ND	G3 48	8.0		CL	Brown at 8.25 feet bgs with gray mottling and iron oxide staining throughout.
10						
	ND	G4 36	12.0		CL	Gray at 12 feet bgs.
15				15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	15
Rock Cored (ft)	
Samples	S4

Boring No. MW-1015

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

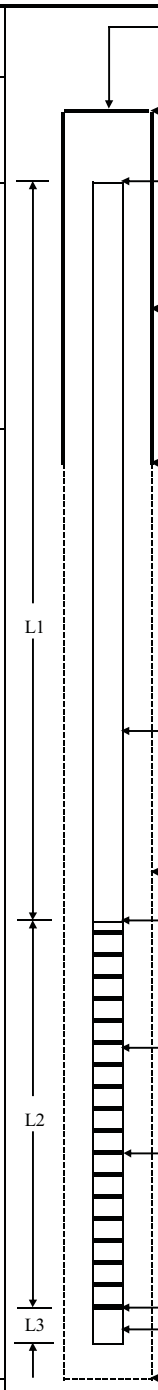
Well No.	Boring No.
MW-1015	MW-1015

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	SCS Environmental Contracting, Inc.	DATE INSTALLED	7/14/2010
DRILLER	J. Lolnaugh	WATER LEVEL	

Ground El.	593.52 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 3.5
	3.5 #5 Quartz Sand
See Test Boring Report for Overburden details.	
14 (Bottom of Exploration)	14

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of roadway box above ground surface	0.0	ft
Depth of top of riser pipe below ground surface	0.3	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	2.5
#5 Quartz Sand	3.5	10.5

Type of riser pipe:	304 Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	4.0	ft
Type of screen	304 Stainless Steel	
Screen gauge or size of openings	0.01	in
Diameter of screen	2.0	in
Type of backfill around screen	Quartz Sand	
Depth of bottom of well screen	14.0	ft
Bottom of Silt trap	14.0	ft
Depth of bottom of borehole	14.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
4 ft	+	10 ft	+	0 ft	=	14 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1016

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS Environmental Contracting, Inc.

File No.	36005-005
Sheet No.	1 of 1
Start	July 14, 2010
Finish	July 14, 2010
Driller	J. Lolnaugh
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 20	0.0			Top 5 inches Concrete. *Poor recovery in 0 to 4-foot sample.
				0.7	CL	5 to 8 inches bgs: poorly graded fine SAND, sub-base FILL.
						Stiff, brown, silty CLAY (CL), mps<1 mm, no odor, moist, occasional slag-like material throughout.
	ND	G2 30	4.0		CL	
5						Gray-brown at 4.75 feet bgs.
						Slight petroleum-like odor at 6 to 7.5 feet bgs.
	ND	G3 48	8.0		CL	No slag-like material at 8 feet bgs. Brown at 8.5 feet bgs, higher silt content, no odor.
10						Gray at 11.25 feet bgs, very moist to wet, medium stiff, occasional thin silt layer.
	ND	G4 36	12.0		CL	
15				15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	15
Rock Cored (ft)	
Samples	S4

Boring No. MW-1016

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

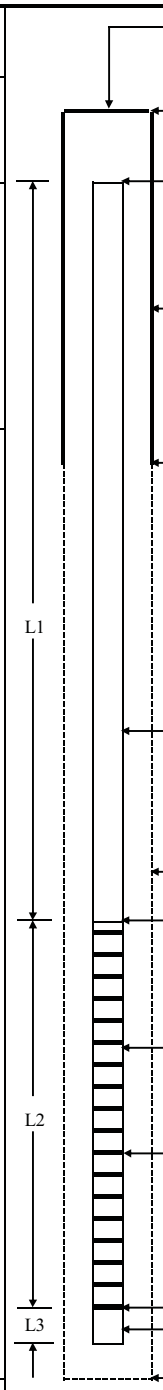
Well No.	Boring No.
MW-1016	MW-1016

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	SCS Environmental Contracting, Inc.	DATE INSTALLED	7/14/2010
DRILLER	J. Lolnaugh	WATER LEVEL	

Ground El.	593.54 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 3.5
	3.5 #5 Quartz Sand
See Test Boring Report for Overburden details.	
14.5 (Bottom of Exploration)	14.5

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of roadway box above ground surface	0.0	ft
Depth of top of riser pipe below ground surface	0.3	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	2.5
#5 Quartz Sand	3.5	11.0

Type of riser pipe:	304 Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	4.5	ft
Type of screen	304 Stainless Steel	
Screen gauge or size of openings	0.01	in
Diameter of screen	2.0	in
Type of backfill around screen	Quartz Sand	
Depth of bottom of well screen	14.5	ft
Bottom of Silt trap	14.5	ft
Depth of bottom of borehole	14.5	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
4.5 ft	+	10 ft	+	0 ft	=	14.5 ft

COMMENTS:

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1017

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS Environmental Contracting, Inc.

File No.	36005-005
Sheet No.	1 of 1
Start	July 14, 2010
Finish	July 14, 2010
Driller	J. Lolnaugh
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0						Top 6 inches Concrete.
	ND	G1 18	0.0	0.5	CL	*Poor recovery in 0 to 4-foot sample. Stiff, dark gray, silty CLAY (CL), mps<1 mm, no odor, moist.
	ND	G2 36	4.0		CL	Brown at 4 feet bgs, gray mottling and iron oxide staining throughout.
5						
	ND	G3 48	8.0		CL	Gray-brown at 9.5 feet bgs, no mottling or iron oxide staining, occasional thin silt layer. Very moist at 10 feet bgs.
10						
	ND	G4 36	12.0		CL	Very moist to wet at 12 feet bgs. Gray at 14 feet bgs.
15				15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	15
Rock Cored (ft)	
Samples	S4

Boring No. MW-1017

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

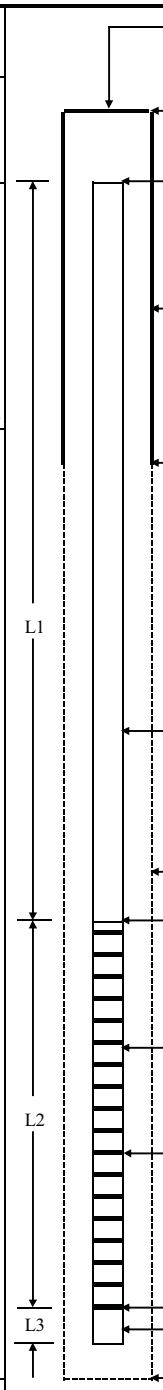
Well No.	Boring No.
MW-1017	MW-1017

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	SCS Environmental Contracting, Inc.	DATE INSTALLED	7/14/2010
DRILLER	J. Lolnaugh	WATER LEVEL	

Ground El.	593.52 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15 (Bottom of Exploration)	15

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of roadway box above ground surface	0.0	ft
Depth of top of riser pipe below ground surface	0.4	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.0

Type of riser pipe:	304 Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	304 Stainless Steel	
Screen gauge or size of openings	0.01	in
Diameter of screen	2.0	in
Type of backfill around screen	Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.0	ft
Depth of bottom of borehole	15.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0 ft	=	15 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1018

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS Environmental Contracting, Inc.

File No.	36005-005
Sheet No.	1 of 1
Start	July 15, 2010
Finish	July 15, 2010
Driller	J. Lolnaugh
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0						Top 6 inches Concrete.
		G1 38	0.0			6 to 9 inches bgs: black slag-like material, FILL.
	ND			0.8	CL	Stiff, gray-brown, lean CLAY (CL), mps<1 mm, no odor, moist, minor silt component.
	3.4					
	12.5					
		G2 48	4.0		CL	
5	1.6					
	3.1					
	1.4					Second phase liquid present at 7.25 feet bgs, slight chemical-like odor, fluoresces under UV light, clay is soft.
	ND	G3 48	8.0		CL	Gray at 8.5 feet bgs.
10						No second phase liquid present at 10 feet bgs.
	ND	G4 36	12.0		CL	
						Trace sands and fine gravel at 14 feet bgs.
15				15.0		Bottom of Exploration at 15 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary	
Overburden (ft)	15
Rock Cored (ft)	
Samples	S4

Boring No. MW-1018

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

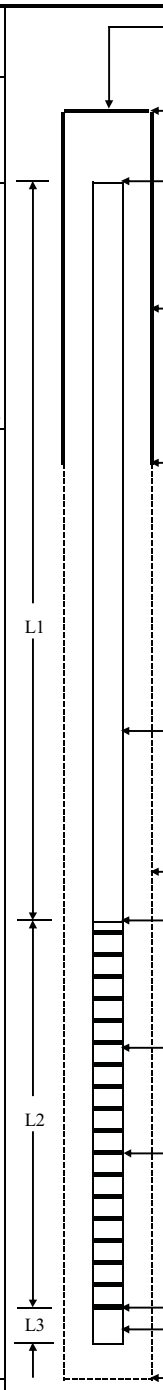
Well No.	Boring No.
MW-1018	MW-1018

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	SCS Environmental Contracting, Inc.	DATE INSTALLED	7/15/2010
DRILLER	J. Lolnaugh	WATER LEVEL	

Ground El.	593.92 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15 (Bottom of Exploration)	15

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of roadway box above ground surface	0.0	ft
Depth of top of riser pipe below ground surface	0.5	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.0

Type of riser pipe:	304 Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	304 Stainless Steel	
Screen gauge or size of openings	0.01	in
Diameter of screen	2.0	in
Type of backfill around screen	Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.0	ft
Depth of bottom of borehole	15.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0 ft	=	15 ft

COMMENTS:

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1019

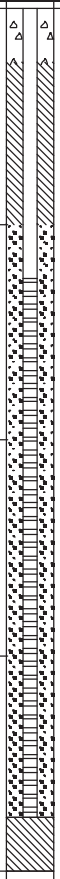
Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS Environmental Contracting, Inc.

File No.	36005-005
Sheet No.	1 of 1
Start	July 13, 2010
Finish	July 13, 2010
Driller	J. Lolnaugh
H&A Rep.	A. Foerster
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0			Top 3 inches Asphalt.
				0.6	CL	3 to 7 inches bgs: limstone sub-base FILL material.
						Stiff, gray, silty CLAY (CL), mps<1 mm, no odor, moist, occasional wood fragment.
						No wood fragments at 3.25 feet bgs.
	ND	G2 48	4.0		CL	
5						Brown at 5 feet bgs.
	ND	G3 48	8.0		CL	
						Gray-brown at 9 feet bgs, occasional thin silt layer.
10						
	ND	G4 48	12.0		CL	Medium-stiff at 12 feet bgs, very moist to wet.
						Gray at 14 feet bgs.
15						
				16.0		Bottom of Exploration at 16 feet bgs.

Well Diagram



Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram	
	Riser Pipe
	Screen
	Filter Sand
	Cuttings
	Grout
	Concrete
	Bentonite Seal

Summary	
Overburden (ft)	16
Rock Cored (ft)	
Samples	S4

Boring No. MW-1019

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
MW-1019	MW-1019

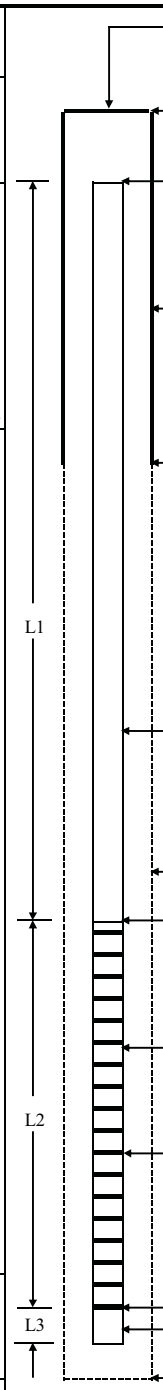
PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	SCS Environmental Contracting, Inc.	DATE INSTALLED	7/13/2010
DRILLER	J. Lolnaugh	WATER LEVEL	

Ground El.	592.96 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand 15
	15 Bentonite 16
16 (Bottom of Exploration)	16

See Test Boring Report for Overburden details.

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of roadway box above ground surface	0.0	ft
Depth of top of riser pipe below ground surface	0.3	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.0
Bentonite	15.0	1.0

Type of riser pipe:	304 Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	304 Stainless Steel	
Screen gauge or size of openings	0.01	in
Diameter of screen	2.0	in
Type of backfill around screen	Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.0	ft
Depth of bottom of borehole	16.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0 ft	=	15 ft

COMMENTS: Used GeoProbe to sample 0-16' bgs, used 4.25" ID HAS to install well 0-15' bgs.

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1020

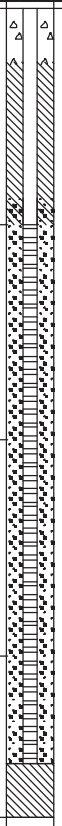
Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS Environmental Contracting, Inc.

File No.	36005-005
Sheet No.	1 of 1
Start	July 15, 2010
Finish	July 15, 2010
Driller	J. Lolnaugh
H&A Rep.	A. Foerster
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 33	0.0		ML	Top 3.5 inches Organics. Medium-stiff, brown, clayey SILT (ML), mps=1 cm, no odor, moist, slag-like material throughout, FILL.
				1.0	ML	Dark brown, no slag-like material.
				1.3	CL	Stiff, brown, silty CLAY (CL), mps<1 mm, no odor, moist, gray mottling and iron oxide staining throughout,
	ND	G2 43	4.0			
5				5.0	ML	Stiff, gray-brown, SILT (ML), mps<1 mm, no odor, moist, minor clay component.
				6.3	CL	Stiff, gray-brown, silty CLAY (CL), mps<1 mm, no odor, moist.
	ND	G3 48	8.0		CL	Brown at 8.25 feet bgs.
10						
	ND	G4 36	12.0		CL	Gray-brown at 12 feet bgs.
						Gray at 13.5 feet bgs.
15				15.0		Bottom of Exploration at 15 feet bgs.

Well Diagram



Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram	
	Riser Pipe
	Screen
	Filter Sand
	Cuttings
	Grout
	Concrete
	Bentonite Seal

Summary	
Overburden (ft)	15
Rock Cored (ft)	
Samples	S4

Boring No. MW-1020

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

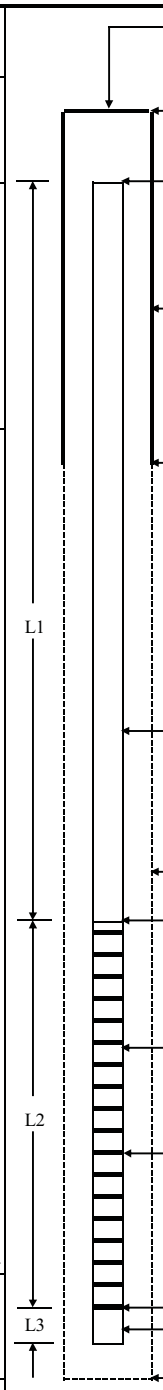
Well No.	Boring No.
MW-1020	MW-1020

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	SCS Environmental Contracting, Inc.	DATE INSTALLED	7/15/2010
DRILLER	J. Lolnaugh	WATER LEVEL	

Ground El.	593.73 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 3.5
	3.5 #5 Quartz Sand 14
	14 Bentonite 15
See Test Boring Report for Overburden details.	

15 (Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of roadway box above ground surface	0.0	ft
Depth of top of riser pipe below ground surface	0.4	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	2.5
#5 Quartz Sand	3.5	10.5
Bentonite	14.0	1.0

Type of riser pipe:	304 Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	4.0	ft
Type of screen	304 Stainless Steel	
Screen gauge or size of openings	0.01	in
Diameter of screen	2.0	in
Type of backfill around screen	Quartz Sand	
Depth of bottom of well screen	14.0	ft
Bottom of Silt trap	14.0	ft
Depth of bottom of borehole	15.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
4 ft	+	10 ft	+	0 ft	=	14 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1021

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS Environmental Contracting, Inc.

File No.	36005-005
Sheet No.	1 of 1
Start	July 13, 2010
Finish	July 13, 2010
Driller	J. Lolnaugh
H&A Rep.	A. Foerster
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 32	0.0		ML	Top 4.5 inches Organics. Medium-stiff, brown, gravelly SILT (ML), mps=1.5 cm, no odor, moist, slag-like material throughout. No slag-like material and no gravel at 1 foot bgs.
				1.8	CL	Stiff, brown, silty CLAY (CL), mps<1 mm, no odor, moist.
	ND	G2 40	4.0		CL	Slight petroleum-like odor at 4 feet bgs.
5	22					Wet at 5.5 feet bgs, petroleum-like odor, gray in color, higher silt content.
	10.6					
	3.4					
	ND	G3 43	8.0		CL	Gray-brown at 7.75 feet bgs, occasional thin silt layer.
10						Medium-stiff, gray at 11.25 feet bgs.
	ND	G4 48	12.0		CL	
15						
				16.0		Bottom of Exploration at 16 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	16
Rock Cored (ft)	
Samples	S4

Boring No. MW-1021

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
MW-1021	MW-1021

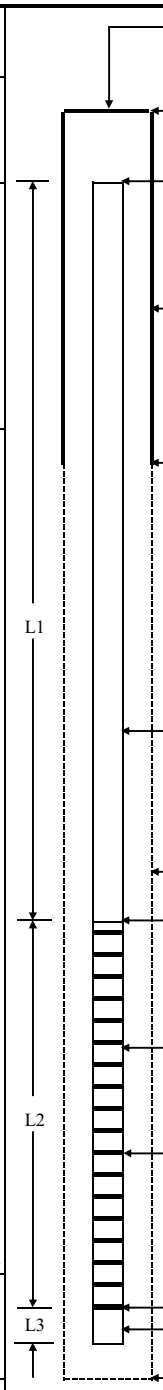
PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	SCS Environmental Contracting, Inc.	DATE INSTALLED	7/13/2010
DRILLER	J. Lolnaugh	WATER LEVEL	

Ground El.	594.4 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 3
	3 #5 Quartz Sand 14
	14 Bentonite 16
16 (Bottom of Exploration)	16

See Test Boring Report for Overburden details.

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of roadway box above ground surface	0.0	ft
Depth of top of riser pipe below ground surface	0.2	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	2.0
#5 Quartz Sand	3.0	11.0
Bentonite	14.0	2.0

Type of riser pipe:	304 Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	4.0	ft
Type of screen	304 Stainless Steel	
Screen gauge or size of openings	0.01	in
Diameter of screen	2.0	in
Type of backfill around screen	Quartz Sand	
Depth of bottom of well screen	14.0	ft
Bottom of Silt trap	14.0	ft
Depth of bottom of borehole	16.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
4 ft	+	10 ft	+	0 ft	=	14 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-1022

Project	Textileather RFI, Field Event #3 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS Environmental

File No.	36005-005
Sheet No.	1 of 1
Start	July 26, 2011
Finish	July 26, 2011
Driller	T.Rinker
H&A Rep.	A. Foerster
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	S-1 12	0.0	0.3	CL	CONCRETE Medium stiff to stiff, brown, silty CLAY (CL), mps = < 1 mm, no odor, moist, gray mottling and iron oxide staniing throughout.
	ND	S-2 39	4.0			
5						
	ND	S-3 38	8.0			
10						Very moist at 10.5 feet below ground surface.
				11.3	ML	Medium-stiff to soft, gray-brown, clayey SILT, mps=<1mm, no odor, very moist, iron oxide staining present.
	ND	S-4 36	12.0			Gray at 13 feet below ground surface, no iron oxide staining.
15				15.0		BOTTOM OF EXPLORATION at 15 feet below ground surface. NOTE: Very poor recovery 0-4 feet sample Off-set 2 feet southwest of boring, re-collect 0-4 feet sample. Second 0-4 feet sample contained 25 inches of recovery. Set stainless steel well screen 5-15 feet below ground surface; sand 4 - 15 feet below ground surface; bentonite chips 0.5-4 feet below ground surface.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram

Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary

Overburden (ft)	15
Rock Cored (ft)	
Samples	S4

Boring No. MW-1022

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 CLE_LIBRARY_R1.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Sep 13, 11

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	MW-1022
Boring No.	MW-1022

PROJECT	Textileather RFI Field Event #3	H&A FILE NO.	36005-005
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corp	FIELD REP.	A.Foerster
CONTRACTOR	SCS Environmental Contracting	DATE INSTALLED	7/26/2011
DRILLER	Tim Rinker	WATER LEVEL	

Ground El.	ft	Location	AOI-28
El. Datum			

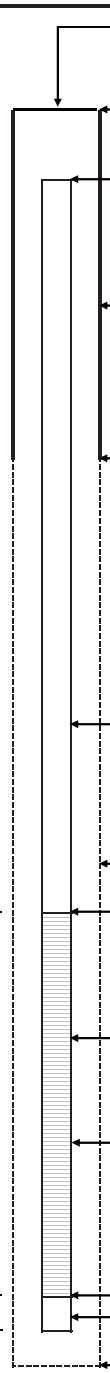
☐ Guard Pipe
☑ Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Betonite 4
	4 #5 Quartz Sand 15.3

See Test Boring Report for Overburden details.

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock		
Height/Depth of top of guard pipe/roadway box above/below ground surface		ft
Height/Depth of top of riser pipe above/below ground surface		ft
Type of protective casing:	Steel Flushmount	
Length	1.0	ft
Inside Diameter	8.0	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite Seal	1.0	3.0
#5 Quartz Sand	4.0	11.0

Type of riser pipe:	Stainless Steel	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Stainless Steel	
Screen gauge or size of openings	0.010	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

5 ft	+	10 ft	+	0.3 ft	=	15.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. PZ-1010

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 18, 2010
Finish February 18, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 20	0.0		SP	Top 3 inches Concrete. Poor recovery 0 to 4 foot sample. Sample appears to be loose, yellow-brown, poorly-graded SAND (SP), mps=<1 mm, chemical-like odor, moist.
	ND	G2 30	4.0	4.0	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist.
5						
	ND	G3 45	8.0			Silty layer 4 inches thick at 8.25 feet bgs, very moist. Silt content increasing with depth, slight chemical-like odor.
10						
	ND	G4 30	12.0			Same as above except gray-brown, high silt content.
15						Very moist to wet at 15 feet bgs, gray in color.
	ND	G5 31	16.0			Same as above.
20				20.0		Bottom of Exploration at 20 feet bgs. 1 inch diameter piezometer set, hole chipped to 19 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 20
Rock Cored (ft)
Samples G5

Boring No. PZ-1010

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	PZ-1010
Boring No.	PZ-1010

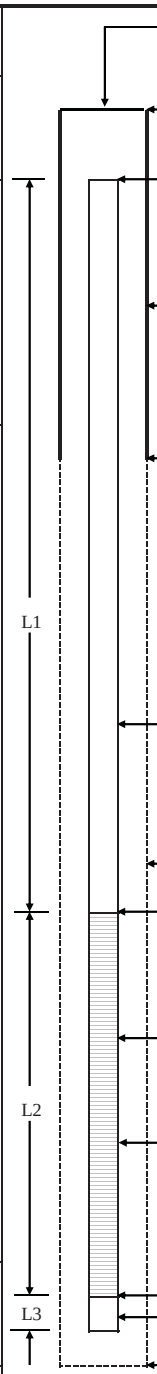
PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	2/18/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	596.21 ft	Location	See Site Plan for Details	☐ Guard Pipe
El. Datum	NAVD88			☑ Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 7
	7 #5 Quartz Sand 19
	19 Cuttings 20
See Test Boring Report for Overburden details.	

20 (Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.2	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	6.0
#5 Quartz Sand	7.0	12.0

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	9.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	19.0	ft
Bottom of Silt trap	19.3	ft
Depth of bottom of borehole	20.0	ft

9 ft	+	10 ft	+	0.3 ft	=	19.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

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HALEY & ALDRICH

TEST BORING REPORT

Boring No. PZ-1011

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 18, 2010
Finish February 18, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 2 inches Concrete. Alternating layers of gravels, sands, red brick, slag/cinder-like materials, clay, FILL.
				2.5	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 42	4.0		CL	Same as above, silt content increasing with depth.
5						
	ND	G3 48	8.0			2-inch thick layer of clayey SAND with gravel (SC) at 8.25 feet bgs, wet.
10				9.8	ML	Very stiff, brown, clayey SILT (ML), mps=<1 mm, no odor, moist. Clay content increasing with depth.
	ND	G4 36	12.0	12.3	CL	Grades into soft to medium-stiff, silty CLAY (CL), very moist to wet. Gray at 13.5 feet bgs.
15				15.0		Bottom of Exploration at 15 feet bgs. 1 inch diameter piezometer set, hole collapsed to 14.5 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples G4

Boring No. PZ-1011

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	PZ-1011
Boring No.	PZ-1011

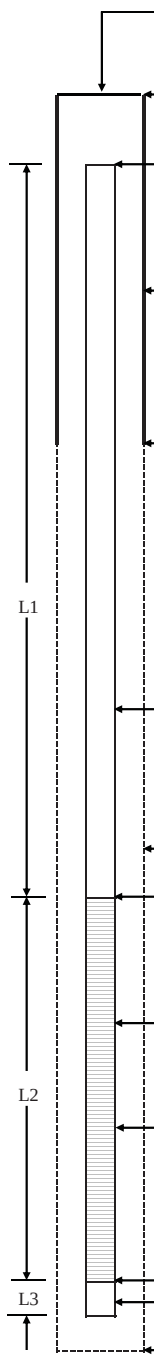
PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	2/18/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	593.49 ft	Location	See Site Plan for Details	☐ Guard Pipe
El. Datum	NAVD88			☑ Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL	
	0 Concrete 1	
	1 Bentonite 4	
See Test Boring Report for Overburden details.	4 #5 Quartz Sand 14.5	
	14.5 Cuttings	
15	15	

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.2	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	10.5

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	4.5	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	14.5	ft
Bottom of Silt trap	14.8	ft
Depth of bottom of borehole	15.0	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
4.5 ft	+	10 ft	+	0.3 ft	=	14.8 ft

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. PZ-1012

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 30	0.0		SC	Top 3 inches Concrete. Mix of clayey SAND (SC), red brick, clay fill materials, FILL.
	ND	G2 48	4.0			3-inch thick layer of slag/cinder-like material at 4.5 bgs.
5	0.5 ND			5.0	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining and gray mottling throughout. Silt content increasing with depth.
	ND	G3 42	8.0			
10	ND	G4 36	12.0	12.5	ML	Medium-stiff, brown, clayey SILT (ML), mps=<1 mm, no odor, very moist.
15				15.0		Gray-brown at 14.5 feet bgs. Gray, wet at 14.75 feet bgs.

Bottom of Exploration at 15 feet bgs.
1 inch diameter piezometer set.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples G4

Boring No. PZ-1012

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

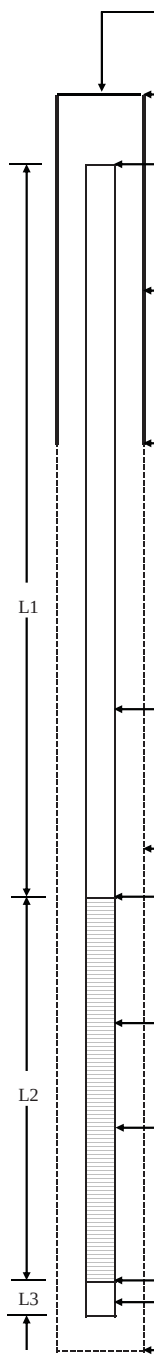
Well No.	PZ-1012
Boring No.	PZ-1012

PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	2/22/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	596.4 ft	Location	See Site Plan for Details	☐ Guard Pipe
El. Datum	NAVD88			☑ Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15 (Bottom of Exploration)	15

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.2	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.0

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

Riser Pay Length (L1)	+	Length of screen (L2)	+	Length of silt trap (L3)	=	Pay length
5 ft	+	10 ft	+	0.3 ft	=	15.3 ft

COMMENTS:

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TEST BORING REPORT

HALEY & ALDRICH

Boring No. PZ-1013

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 3 inches Concrete. Dark brown to red-brown, fly-ash-like material, FILL.
				2.3	CL	Medium-stiff, dark brown to brown, silty CLAY (CL), mps=<1 mm, no odor, moist, slight iron oxide staining throughout. Brown at 3.5 feet bgs. Heavy iron oxide staining and gray mottling throughout.
	ND	G2 46	4.0			3-inch thick clayey SILT (ML) layer at 7 feet bgs, very moist.
5						
	ND	G3 44	8.0	8.0	ML	Stiff, brown, clayey SILT (ML), mps=<1 mm, no odor, very moist.
10				10.0	CL	Sfiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, very moist to wet.
	ND	G4 0	12.0			No recovery from 12 - 15 feet bgs. Driller indicated soft conditions, sample core came up saturated.
15				15.0		Bottom of Exploration at 15 feet bgs. 1 inch diameter piezometer set, hole collapsed to 14 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 15
Rock Cored (ft)
Samples G4

Boring No. PZ-1013

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	PZ-1013
Boring No.	PZ-1013

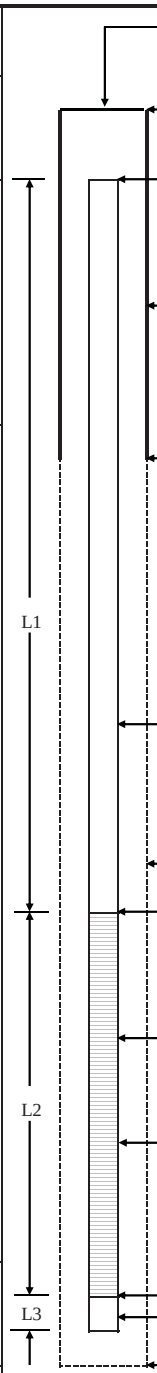
PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	2/22/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	593.53 ft	Location	See Site Plan for Details	☐	Guard Pipe
El. Datum	NAVD88			☑	Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand 14
	14 Cuttings 15
See Test Boring Report for Overburden details.	

15 (Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.2	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	10.0

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	4.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	14.0	ft
Bottom of Silt trap	14.3	ft
Depth of bottom of borehole	15.0	ft

4 ft	+	10 ft	+	0.3 ft	=	14.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. PZ-1014

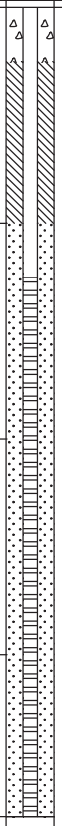
Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 18, 2010
Finish February 18, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 3 inches Concrete.
				0.7	CL	3 to 5 inches bgs, yellow-brown, poorly-graded SAND, FILL. 5 to 8 inches bgs, black, cinder/slag-like material.
						Stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Brown at 2 feet bgs, gray mottling throughout.
	ND	G2 46	4.0			
5						Contains higher silt content at 6.5 feet bgs.
	ND	G3 36	8.0			
10				9.5	CL	Low silt content, grades into stiff, brown, lean CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G4 30	12.0			Gray at 12.5 feet bgs, very moist, contains silt component throughout.
15				15.0		Bottom of Exploration at 15 feet bgs. 1 inch diameter piezometer set.

Well Diagram



Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram	
	Riser Pipe
	Screen
	Filter Sand
	Cuttings
	Grout
	Concrete
	Bentonite Seal

Summary	
Overburden (ft)	15
Rock Cored (ft)	
Samples	G4
Boring No.	**PZ-1014**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

OBSERVATION WELL INSTALLATION REPORT

HALEY & ALDRICH

Well No.	PZ-1014
Boring No.	PZ-1014

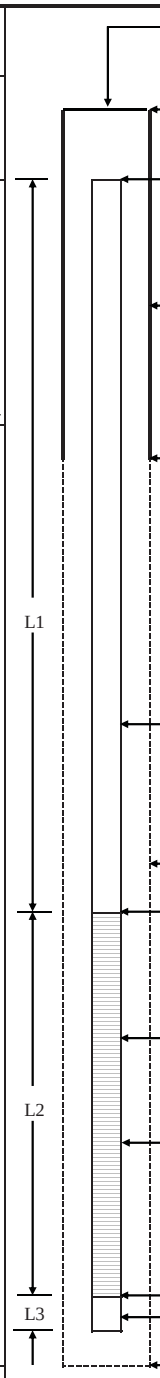
PROJECT	Textileather RFI Phase I	H&A FILE NO.	36005-004
LOCATION	Toledo, Ohio	PROJECT MGR.	D. Putz
CLIENT	Textileather Corporation	FIELD REP.	A. Foerster
CONTRACTOR	Boart Longyear	DATE INSTALLED	2/18/2010
DRILLER	J. Tidwell	WATER LEVEL	

Ground El.	593.55 ft	Location	See Site Plan for Details	☐ Guard Pipe
El. Datum	NAVD88			☑ Roadway Box

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0 Concrete 1
	1 Bentonite 4
	4 #5 Quartz Sand
See Test Boring Report for Overburden details.	
15	15

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Materlock #3476 Key	
Height of top of guard roadway box above ground surface		ft
Depth of top of riser pipe below ground surface	0.2	ft
Type of protective casing:	Steel Flushmount	
Length	1	ft
Inside Diameter	8	in
Depth of bottom of guard pipe/roadway box		ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite	1.0	3.0
#5 Quartz Sand	4.0	11.0

Type of riser pipe:	Schedule 40 PVC	
Inside diameter of riser pipe	2.0	in
Type of backfill around riser	Bentonite	
Diameter of borehole	6.0	in
Depth to top of well screen	5.0	ft
Type of screen	Schedule 40 PVC	
Screen gauge or size of openings	0.0	in
Diameter of screen	2.0	in
Type of backfill around screen	#5 Quartz Sand	
Depth of bottom of well screen	15.0	ft
Bottom of Silt trap	15.3	ft
Depth of bottom of borehole	15.3	ft

5 ft	+	10 ft	+	0.3 ft	=	15.3 ft
Riser Pay Length (L1)		Length of screen (L2)		Length of silt trap (L3)		Pay length

COMMENTS:

Form 2007

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-01-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		SP	Top 3 inches Concrete. Poor recovery 0 to 4 foot sample. Medium-dense, yellow-brown, poorly graded SAND (SP), mps=<1 mm, no odor, moist. 3-inch sandy layer at 1.25 feet bgs. Last 3 inches of 0 - 4 foot sample, very moist.
	ND	G2 48	4.0	4.0	CL	Stiff, brown, lean CLAY (CL), mps=<1 mm, no odor, moist, minor silt component. Petroleum-like substance at 4.75 feet bgs, soil has petroleum-like odor.
5				6.0	ML	Grades into gray-brown, SILT (ML), mps=<1 mm, petroleum-like odor, moist, petroleum-like substance throughout. No petroleum-like substance at 7.25 feet bgs.
	ND	G3 24	8.0			
				9.5	CL	Grades into medium-stiff, gray, lean CLAY (CL), mps=< 1 mm, no odor, moist to very moist.
10				10.0		Bottom of Exploration at 10 feet bgs. Petroleum-like substance present from 4.75 - 7.25 feet bgs. Soil from 4.75 - 7.25 fluoresced under UV light. Third sample (5 - 7 feet bgs) collected to target area of highest apparent petroleum-like substance/fluorescence.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-01-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-01-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 37	0.0		SP	Top 3 inches Concrete. Loose, yellow-brown, poorly graded SAND (SP), mps=<1 mm, no odor, moist.
	ND	G2 39	4.0	4.3	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
5						Very moist at 6.5 feet bgs.
	ND	G3 24	8.0			Becomes gray-brown at 8 feet bgs, clay content increasing with depth
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-01-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-01-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 34	0.0		SP	Top 3 inches Concrete. Loose, yellow-brown, poorly graded SAND (SP), mps=<1 mm, no odor, moist, FILL.
5	ND	G2 20	4.0			Very poor recovery 4 - 8 foot sample, sample appears to be same as above.
	ND	G3 9	8.0			Same as above except very moist.
				8.8		Refusal at 8.75 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	8.75
Rock Cored (ft)	
Samples	G3

Boring No. SB-01-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-01-04

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0		CL	Top 4 inches Concrete. Stiff, dark brown to brown, sandy CLAY with gravel (CL), mps=1 cm, no odor, moist, slag/cinder-like material throughout.
				2.5	CL	Grades into lean CLAY (CL), minor silt component.
	ND	G2 48	4.0			
5						
				6.3	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist to very moist, UV light fluoresces parts of sample from 6.5 - 8 feet bgs.
	ND	G3 24	8.0	8.3	CL	Grades into stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist to very moist, no fluorescence present.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-01-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-01-05

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 30, 2010
Finish June 30, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0		SP	Top 3 inches Concrete. 3 to 6 inches bgs: loose, yellow-brown, poorly graded SAND (SP), mps < 1 mm, no odor, moist.
				0.8	CL	6 to 9 inches bgs: limestone sub-base fill material. Stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
						Brown at 2.5 feet bgs with iron oxide staining throughout.
	ND	G2 48	4.0			Gray mottling throughout at 4 feet bgs, silt content increasing.
5						Very moist at 7 feet bgs.
	ND	G3 24	8.0	8.0		Gray-brown at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-01-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-01-06

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 30, 2010
Finish June 30, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0		SP	Top 3 inches Concrete. 3 to 8 inches bgs: loose, yellow-brown, poorly graded SAND (SP), mps < 1 mm, no odor, moist. 8 to 12 inches bgs: Limestone sub-base fill material.
				1.0	CL	Stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
						Brown at 2.5 feet bgs.
	ND	G2 48	4.0		CL	Same as above except with gray mottling throughout.
5						
	ND	G3 24	8.0			Very moist at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-01-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-01-07

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 30, 2010
Finish June 30, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 32	0.0		SP	Top 3 inches Concrete. Loose, yellow-brown, poorly graded SAND (SP), mps < 1 mm, no odor, moist.
				2.0	CL	Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist, iron oxide staining throughout.
	ND	G2 26	4.0			Somewhat poor recovery for 4 to 8 foot sample. Appears to be same as above except gray mottling throughout.
5						
	ND	G3 24	8.0			Same as above except silt content increasing.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-01-07

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-01-08

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 30, 2010
Finish	June 30, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 33	0.0		SP	Top 3 inches Concrete. Loose, yellow-brown, poorly graded SAND (SP), mps < 1 mm, no odor, moist.
	ND	G2 39	4.0			
5						Oil-like material saturating SAND at 6.0 feet bgs.
				6.8	CL	Stiff, gray-brown, silty CLAY (CL), mps < 1 mm, no odor, moist, oil-like material within cracks and voids of clay.
		G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-01-08

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	110	G1 48	0.0			Top 2 inches Asphalt.
				0.8	CL	2 to 9 inches bgs, limestone sub-base fill material.
	3.4					Stiff, dark gray to black, silty CLAY (CL), mps=<1 mm, slight chemical-like odor, moist.
	36.8					Gray-brown at 2 feet bgs, strong chemical-like odor, iron oxide staining throughout.
	364					
	436					
		G2 45	4.0			
5	210					
	116					
	85					
	0.5	G3 24	8.0			Very high silt content at 8 feet bgs (approximately 50%).
	ND					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 4 inches Concrete.
				0.5	CL	4 to 6.5 inches bgs, limestone gravel, wet.
						Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and slight iron oxide staining throughout.
	0.4	G2 45	4.0			
5	11.6					Slight chemical-like odor from 4.5 - 6.5 feet bgs.
	6.4					
	ND					
	ND	G3 24	8.0			Brown at 8 feet bgs, occasional thin silt layer.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-02-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND ND 5	G1 45	0.0		CL	Top 3 inches Concrete. Medium-stiff, dark brown to black, silty CLAY (CL), mps=1.5 cm, slight chemical-like odor, moist, slag-like material throughout.
				2.0	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist, gray mottling throughout. Areas of sample fluoresce under UV light.
5	0.3 1.3 ND	G2 48	4.0			
	ND	G3 24	8.0			Same as above except slight chemical-like odor, no fluorescence.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-04

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	1.3	G1 38	0.0			Top 4 inches Concrete. 2 to 12 inches bgs slag-like material with clay, FILL.
				1.0	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, slight chemical-like odor, moist, gray mottling throughout.
	0.8					
						Chemical-like odor at 3 feet bgs.
	20.7					
	19.2	G2 48	4.0			
5						
	20.1					Second-phase liquid found within sample 6 to 8 feet bgs, liquid fluoresces with UV light.
	8.9					
	0.4	G3 24	8.0			Same as above, including trace second-phase liquid from 8 to 9 feet bgs, fluoresces throughout 8 to 10 feet bgs.
	2.4					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-05

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0		SC	Top 3 inches Concrete. Medium-dense, tan, clayey SAND with gravel (SC), mps=2.5 cm, no odor, moist.
					SP	3-inch layer of poorly graded fine SAND (SP) at 2.5 feet bgs.
				2.8	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 45	4.0			Gray-brown at 4 feet bgs, no mottling or iron oxide staining. Silt content increasing with depth.
5						
	ND	G3 24	8.0			Occasional thin silt layer from 8 to 10 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-02-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-02-06

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0		CL	Top 3 inches Concrete. Stiff, brown, silty CLAY with gravel (CL), mps=1.5 cm, no odor, moist.
				1.3	CL	Becomes stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 45	4.0			
5						
	ND	G3 24	8.0			Brown at 8 feet bgs, higher silt content.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-07

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0			Top 2 inches Concrete.
				0.5	CL	2 to 6 inches bgs, limestone sub-base material.
					SP	3-inch layer of gravelly CLAY (CL) at 0.5 feet bgs.
				0.8	CL	Yellow-brown, poorly graded SAND (SP), mps=<1 mm, no odor, moist, FILL.
				1.3		Stiff, brown, lean CLAY (CL), mps=0.5 cm, no odor, moist, gray mottling and iron oxide staining throughout, trace gravel.
		G2 42	4.0	4.0		Gray at 4 feet bgs, no gravel, becomes silty CLAY (CL).
5	0.2					
	20.6 4.8					Slight chemical-like odor from 6.5 to 7.5 bgs.
		G3 24	8.0			
	0.5					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-02-07

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-08

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 2.5 inches Organics and SILT.
						2.5 to 9 inches bgs, black, slag/cinder-like material mixed with silt, FILL.
				0.8	ML	Stiff, dark brown, SILT (ML), mps=<1 mm, no odor, moist.
				2.0	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
		G2 48	4.0			
5	1.5					
	26.7					
	3.2					
	ND	G3 24	8.0			Gray-brown at 8 feet bgs, medium-stiff, very moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-08

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-09

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 2 inches Organics. 2 to 12 inches bgs, industrial sands/slag-like material, FILL.
	1.3			1.0	ML	Stiff, dark brown, SILT (ML), mps=<1 mm, no odor, moist.
				1.5	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, slight chemical-like odor, moist, gray mottling and iron oxide staining throughout.
	184					
		G2 48	4.0			
5	1326					Strong chemical-like odor at 4.5 feet bgs.
	264					
	26.1					
		G3 24	8.0			Gray at 8 feet bgs, medium-stiff, no iron oxide staining or mottling.
	3.2					
	1.8					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-09

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-10

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 30	0.0			Somewhat poor recovery. Top 3 inches Organics and industrial sands/slag-like material. Dense, gray, limestone, FILL.
	115			1.0	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, slight chemical-like odor, moist.
	316	G2 45	4.0			Strong chemical-like odor from 4 to 6 feet bgs.
5	6.5					Gray at 6.5 feet bgs, slight chemical-like odor, very moist to wet.
	3.5					
	ND	G3 24	8.0			Same as above, except wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-10

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-11

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	2.4 106	G1 36	0.0	1.5		Top 2 inches Organics. Medium-stiff, dark brown, SILT (ML), mps=1 cm, no odor, moist, industrial sands and slag-like material throughout, FILL.
					CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist.
5	4320 4765 MAX	G2 48	4.0			Very strong chemical-like odor at 4 feet bgs. Gray-brown at 5.5 feet bgs.
	157 67.9	G3 24	8.0			Strong chemical-like odor, gray in color.
10				10.0		Bottom of Exploration at 10 feet bgs. MAX PID reading >9,999 ppm.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-02-11

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-12

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 2 inches Organics.
				0.5	ML	Alternating layers of fill materials including industrial sands/slag-like materials, silts and clay.
					CL	Medium-stiff, brown to dark brown, SILT (ML), mps=<1 mm, no odor, moist.
				1.0		Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 48	4.0			
5						Gray-brown at 6 feet bgs.
						Gray at 7 feet bgs.
	ND	G3 24	8.0			Wet at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-02-12

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-14

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 29, 2010
Finish June 29, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 35	0.0		ML	Top 3 inches Concrete. Medium-stiff, black, sandy SILT (ML), mps = 0.5 cm, no odor, moist, industrial sands and slag throughout. 3-inch thick red brick fragments at 1 foot bgs.
				1.0	CL	Stiff, gray-brown, silty CLAY, mps = 1 cm, no odor, moist, occasional slag-like material throughout. Fill.
	ND	G2 48	4.0			No slag-like material at 4 feet bgs.
5	ND					5 to 8 feet bgs: unknown second phase liquid fluoresces under UV light, within cracks and interstitial space of sample. Silt content increasing with depth.
		G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-02-14

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-15

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 29, 2010
Finish June 29, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0		ML	Top 3 inches Organics. Medium-stiff to stiff, dark brown SILT (ML), mps < 1 mm, no odor, moist.
				1.0	CL	Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
	27.6	G2 48	4.0			Gray-brown at 4.5 feet bgs, gray mottling throughout, chemical-like odor.
5	86.8					
	113					
	55.1	G3 24	8.0			No mottling at 8 feet bgs, medium-stiff, moist to very moist.
	147					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-02-15

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-16

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 30, 2010
Finish	June 30, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0			Top 3.5 inches Concrete.
				0.8	CL	3.5 to 9 inches bgs: black, slag-like material.
						Stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
						Brown at 3 feet bgs with iron oxide staining throughout.
	186	G2 48	4.0			Chemical-like odor at 4 feet bgs.
5	2264					
	246 17.4					
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-16

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-17

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0		CL	Top 3.5 inches Concrete. Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist, gray mottling throughout.
	987	G2 48	4.0			Same as above except chemical-like odor.
5	168					Medium-stiff at 7.25 feet bgs.
	ND	G3 24	8.0			Very moist at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-02-17

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-03-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 41	0.0			Top 3 inches Organics and brown SILT. 3 to 12 inches bgs, dense, black, industrial sands and slag-like material, FILL. 12 to 18 inches bgs, limestone FILL.
				1.7	SP	18 to 20 inches bgs, yellow-brown, poorly graded SAND (SP).
					CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 46	4.0			
5						
	ND	G3 24	8.0			Same as above, occasional silt layer.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-03-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-03-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0		CL	Top 3 inches Organics. Stiff, brown, silty CLAY (CL), mps=1.5 cm, no odor, moist, slag-like material throughout.
						Less slag-like material at 3 feet bgs.
	ND	G2 40	4.0			
5						Same as above, including occasional slag-like material.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-03-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-03-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0	0.5		Top 2 inches Asphalt. 2 to 6 inches bgs, crushed limestone sub-base fill material, very moist to wet. Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist to very moist. 2-inch thick layer of sandy CLAY with gravel (CL) at 2.75 feet bgs.
5	ND	G2 26	4.0			Somewhat poor recovery, 4 to 8 foot bgs. Sample appears to be medium-stiff, brown, sandy lean CLAY (CL), mps=2.5 cm, no odor, moist, trace gravel.
	ND	G3 24	8.0			Same as above.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon Sample
- G Geoprobe

Well Diagram
- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-03-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-03-04

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 28, 2010
Finish June 28, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0		CL	Top 2.5 inches Organics. Stiff, brown to dark brown, lean CLAY (CL), mps = 1.5 cm, no odor, moist, silt, gravel, sands and slag-like material throughout. Fill.
				3.5	CL	Stiff to very stiff, dark brown to brown, silty CLAY (CL), mps < 1 mm, no odor, moist. Becomes brown with gray mottling throughout at 4 feet bgs.
5	ND	G2 48	4.0			
	ND	G3 24	8.0			Silt content increasing, becomes very moist.
10				10.0		Bottom of Exporation at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-03-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-03-05

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 28, 2010
Finish	June 28, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0		CL	Top 3.5 inches Organics. Stiff, brown, lean CLAY (CL) with gravel, mps = 1 cm, no odor, moist. Slag-like material throughout.
				2.5		No gravel or slag-like material, fine roots throughout, silt content increasing with depth.
5	ND	G2 48	4.0			
	ND	G3 24	8.0			Becomes silty CLAY (CL) at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-03-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-03-06

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 28, 2010
Finish	June 28, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 4.5 inches Asphalt. 4.5 to 15 inches bgs: Limestone sub-base fill material. 15 to 17 inches bgs: Poorly graded fine SAND (SP).
				1.5	CL	Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist, gray mottling throughout. Silt content increasing with depth.
	ND	G2 48	4.0			Grades into silty CLAY (CL) at 4 feet bgs.
5						3-mm thick sand seam at 7.25 feet bgs.
	ND	G3 24	8.0			Occasional silt layer 8 to 10 feet bgs, very moist to wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-03-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-03-07

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 28, 2010
Finish June 28, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 4 inches Asphalt. 4 to 12 inches bgs: Limestone sub-base fill material.
				1.0	CL	Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist, minor silt component, gray mottling throughout.
				3.3	ML	Stiff, brown, SILT (ML), mps < 1 mm, no odor, very moist to wet.
	ND	G2 48	4.0	4.0	CL	Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, very moist.
5						3-mm thick sand seam at 7.25 feet bgs.
	ND	G3 24	8.0			Alternating layers of silt and clay, very moist to wet. Driller indicated borehole was filled with water.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-03-07

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-01

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start July 1, 2010
Finish July 1, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 3 inches Concrete.
				0.8	CL	3 to 9 inches bgs: Black, slag-like fill material.
						Stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
						Brown at 2 feet bgs, gray mottling and iron oxide staining throughout.
		G2 43	4.0			
5	ND					Very moist at 5.5 feet bgs, silt content increasing with depth, no mottling or iron oxide staining.
	ND	G3 24	8.0			Gray-brown at 8 feet bgs. Crack in clay from 8.5 to 9 feet bgs, almost vertical, iron oxide staining on crack surfaces.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-04-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-02

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	July 1, 2010
Finish	July 1, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0			Top 3 inches Concrete and Asphalt
				0.5	CL	3 to 6 inches bgs: Black, slag-like material. Poor recovery in 0 to 4 foot sample.
				1.5	CL	Stiff, brown, lean CLAY (CL), mps = 1 cm, no odor, moist, large percentage of slag-like material throughout. Fill.
						Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist, iron oxide staining and gray mottling throughout.
	ND	G2 48	4.0			
5						
	ND					Very moist to wet at 6.5 feet bgs, silt content increasing with depth.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-04-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-03

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start July 1, 2010
Finish July 1, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 28	0.0			Top 4.5 inches Asphalt and Concrete. 4.5 to 8.5 inches bgs: Black, slag-like material.
				0.8	CL	Stiff, brown, silty CLAY (CL), mps = 1 cm, no odor, moist, slag-like material throughout. Somewhat poor recovery in 0-4 foot sample and 4-8 foot sample.
	ND	G2 32	4.0	4.0	CL	Medium-stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist, gray mottling throughout.
5						Very moist at 6 feet bgs.
	ND	G3 24	8.0			Gray-brown at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-04-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-05-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 3 inches Concrete. 3 to 6 inches bgs, yellow-brown, poorly-graded SAND, FILL.
				1.0	CL	Stiff, brown, lean CLAY (CL), mps=1 cm, no odor, moist, slag/cinder-like material throughout. Medium-stiff at 3 feet bgs, increase in sand and gravel content, sandy lean CLAY with gravel (CL), no slag/cinder-like material.
	ND	G2 9	4.0			Very poor recovery in 4 - 8 foot sample, driller moved to twin hole to collect 4 - 8 foot sample. Appears to be stiff, gray-brown, SILT (ML), mps=<1 mm, no odor, very moist, tested with UV light, fluoresced throughout.
5						
	ND	G3 24	8.0			
				8.5	CL	Stiff, gray-brown, lean CLAY (CL), mps=<1 mm, no odor, very moist. Test with UV light shows trace fluorescence inside sample and fluorescence on moist "smears" on outside of sample.
10				10.0		Bottom of Exploration at 10 feet bgs. Twin hole drilled to collect 4 - 8 foot sample, PID=ND, Recovery=32/48 inches: 4 - 6 feet bgs: Same as sandy lean CLAY with gravel (CL) above. Fluoresced at 5.5 feet bgs. 6 - 8 feet bgs: Stiff, brown, SILT (ML), mps=<1 mm, slight petroleum-like odor, very moist, slight petroleum-like staining, fluorescence throughout.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-05-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-05-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 41	0.0		SP	Top 3 inches Concrete.
				0.5	CL	3 - 6 inches bgs: yellow-brown, poorly-graded SAND (SP), FILL.
						Stiff, brown, sandy lean CLAY with gravel (CL), mps=1 cm, no odor, moist, trace slag/cinder-like material throughout, minor silt component. No sands, gravels, or slag/cinder-like material at 1.5 feet bgs.
	ND	G2 42	4.0			
5						Slight petroleum-like staining and petroleum-like odor at 6.5 feet bgs.
				7.0	ML	Grades into stiff, gray-brown, SILT (ML), mps=<1 mm, petroleum-like odor, moist to very moist, petroleum-like staining throughout, fluoresced with UV light.
	ND	G3 24	8.0			No visible staining at 8.75 feet bgs, has petroleum-like odor, fluoresced with UV light in trace spots, moisture on exterior of sample.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-05-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-05-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 28	0.0			Top 9 inches Concrete. Somewhat poor recovery.
				0.8	SP	Medium-dense, gray, poorly graded SAND (SP), mps=5 mm, no odor, wet, trace gravel.
				2.5	ML	Stiff, gray-brown, clayey SILT (ML), mps=<1 mm, no odor, wet.
	ND	G2 48	4.0			Brown at 4 feet bgs.
5						
				6.5	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, wet.
	ND	G3 24	8.0			Occasional silt layer.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-05-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 34	0.0			Top 8 inches Concrete. Loose, gray to tan, limestone/dust fill material, subgrade FILL. Slight clay content at 3.5 feet bgs.
	ND	G2 20	4.0	4.0	CL	Somewhat poor recovery 4 - 8 foot sample. Stiff, brown, lean CLAY (CL), mps=<1 mm, no odor, moist, minor silt component.
5				6.8	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist, minor clay component.
	ND	G3 18	8.0			Very moist at 9.5 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-08-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 43	0.0		SM	Top 3 inches Concrete.
				0.5	ML	Loose, tan, silty SAND (SM), mps=<1 mm, no odor, moist, sand is very fine.
						Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist, minor clay component.
				2.0	CL	Stiff, brown, lean CLAY (CL), mps=<1 mm, no odor, moist, minor silt component.
	ND	G2 40	4.0			
5				5.0	ML	Stiff, dark brown, SILT (ML), mps=<1 mm, no odor, moist, minor clay component.
				7.0	CL	Stiff, brown, lean CLAY (CL), mps=<1 mm, no odor, moist, minor silt component.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-08-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 20	0.0		SP	Top 4 inches Concrete. Loose, light brown, poorly-graded SAND (SP), no odor, moist, sand is very fine. FILL
				3.0		Refusal at 3 feet bgs. Concrete chips in cutting shoe. Offset by 3.5 feet WNW, repeated boring with same results.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary
Overburden (ft) 3
Rock Cored (ft)
Samples G1

Boring No. SB-08-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-03A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor SCS Environmental Contracting, Inc.

File No. 36005-005
Sheet No. 1 of 1
Start July 13, 2010
Finish July 13, 2010
Driller J. Lolnaugh
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		SP	Top 3 inches Concrete. Medium-dense, yellow-brown, poorly graded fine SAND (SP), mps < 1mm, no odor, moist, 5-cm wood fragement at 0.75 feet bgs, fill.
				1.0		Medium-dense, slag-like fill material.
	ND	G2 38	3.0	3.0		Concrete sub-floor, 5 inches thick.
				3.5	CL	Stiff, brown, lean CLAY (CL), mps =< 1mm, no odor, moist, minor silt component.
5						
	ND	G3 24	8.0	8.0		Very moist at 9.75 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples S3

Boring No. SB-08-03A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-04

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 26	0.0		SP	Top 4 inches Concrete. Loose, light brown, poorly-graded SAND (SP), mps=<1 mm, no odor, moist, sand is very fine. Somewhat poor recovery from 0 - 4 foot sample.
	ND	G2 12	4.0			
5				5.0		Dark brown to black, foundry sand/slag-like material, very moist.
						Refusal at 5 feet bgs.
						Concrete fragments in cutting shoe.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 5
Rock Cored (ft)
Samples G2

Boring No. SB-08-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-08-04A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor SCS Environmental Contracting, Inc.

File No. 36005-005
Sheet No. 1 of 1
Start July 13, 2010
Finish July 13, 2010
Driller J. Lolnaugh
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 25	0.0		SP	Top 3 inches Concrete. Somewhat poor recovery for 0 to 4 foot sample. Loose, yellow-brown, poorly graded fine SAND (SP), mps < 1 mm, no odor, moist.
		G2 32	4.0	4.0		Red-brown to black, slag-like fill material.
						2.5 inches of Concrete at 4.5 feet bgs.
5	ND			4.5	CL	3.0 inches of slag-like material below Concrete.
				5.0		Stiff, dark gray, silty CLAY (CL), mps < 1 mm, no odor, moist.
						Gray-brown at 7 feet bgs.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples S3

Boring No. SB-08-04A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-05

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 15, 2010
Finish February 15, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 26	0.0		SP	Top 4 inches Concrete. Loose, yellow-brown, poorly-graded SAND (SP), mps=<1 mm, no odor, somewhat moist. FILL
				4.0		Refusal at 4 feet bgs. Concrete fragments in cutting shoe.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 4
Rock Cored (ft)
Samples G1

Boring No. SB-08-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-05A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor SCS Environmental Contracting, Inc.

File No. 36005-005
Sheet No. 1 of 1
Start July 13, 2010
Finish July 13, 2010
Driller J. Lolnaugh
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 12	0.0		SP	Top 3 inches Concrete. Very poor recovery for 0 to 4 foot sample. Loose, yellow-brown, poorly graded fine SAND (SP), mps < 1 mm, no odor, somewhat moist.
	ND	G2 12	4.0			
5				5.0		Concrete sub-slab. Bottom of Exploration at 5 feet bgs. Note: Unable to drill through concrete sub-slab. Assumed to be on footer. Made 3 attempts to collect 0 to 4 foot samples, all were unsuccessful. Assumed 0 to 4.5 feet is poorly graded SAND fill.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 5
Rock Cored (ft)
Samples S2

Boring No. SB-08-05A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-06A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor SCS Environmental Contracting, Inc.

File No. 36005-005
Sheet No. 1 of 1
Start July 14, 2010
Finish July 14, 2010
Driller J. Lolnaugh
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	4.25	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 0	0.0			Top 1.5 inches Concrete. Void under Concrete to 3.75 feet bgs.
				3.8		
	ND	G2 6	4.0			Very poor recovery for 4 to 8 foot sample. Sample appears to be limestone fill material.
5						
	ND	G3 19	8.0	8.0		Medium-stiff to stiff, gray-brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples S3

Boring No. SB-08-06A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-07

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 29, 2010
Finish June 29, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		CL	Top 3.5 inches Concrete. Thin layer of slag-like material below concrete. Stiff, brown, silty CLAY (CL), mps = 0.5 mm, no odor, moist, trace slag-like material throughout.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 2
Rock Cored (ft)
Samples G1

Boring No. SB-08-07

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-08-08

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		CL	Top 4 inches Concrete. Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-08-08

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-09-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 2 inches Concrete. Alternating layers of fill materials (slags, sands, red brick, silt).
				2.0	CL	Stiff, dark brown to brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 48	4.0			
5						
				7.0	ML	Medium-stiff to stiff, brown, SILT (ML), mps<1 mm, no odor, very moist to wet.
	ND	G3 24	8.0			
				9.0	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist to very moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-09-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-09-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 18, 2010
Finish February 18, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0		SP	Top 3 inches Concrete. Loose, yellow-brown, poorly graded SAND (SP), mps=<1 mm, chemical-like odor, moist. FILL
	ND	G2 40	4.0	4.0	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist.
5						
	ND	G3 12	8.0			
10				9.8	ML	Stiff, brown, SILT (ML), mps=<1 mm, chemical-like odor, moist.
				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-09-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-10-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0		ML	Top 1 inch Concrete.
				0.5	ML	Medium-stiff, dark brown, sandy SILT (ML), mps=2 mm, chemical-like odor, moist, slag/sand-like material throughout.
						Stiff, dark brown, SILT (ML), mps=<1 mm, chemical-like odor, moist.
						Brown at 2 feet bgs, clay content increasing with depth.
				2.8	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist.
	ND	G2 45	4.0			Gray at 4 feet bgs with organic-like odor.
5						Slight chemical-like odor at 6 feet bgs.
						Wet at 6.5 feet bgs.
				7.3	CL	Stiff, gray, lean CLAY (CL), mps=<1 mm, slight chemical-like odor, very moist, silt content increasing with depth.
	ND	G3 24	8.0			
				9.0	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, very moist to wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-10-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-10-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0		CL	Top 3 inches Concrete. Stiff, brown, sandy CLAY (CL) with gravel, mps=2.5 cm, no odor, moist, trace slag/cinder-like material.
				1.0	CL	FILL
						Stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist, silt/clay content ratio about 50:50.
						Brown at 2.5 feet bgs, silt content decreasing with depth.
	ND	G2 42	4.0			
5						
				6.5	CL	Grades into stiff, brown, lean CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G3 24	8.0	8.0	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-10-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-10-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	7.2	G1 48	0.0		GM	Top 3 inches Concrete. Loose, gray to tan, silty GRAVEL (GM), fill material, chemical-like odor, moist. 4-inch thick red brick layer at 1 foot bgs.
				1.5	CL	Stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND					Brown at 2.5 feet bgs.
	ND					
	ND	G2 41	4.0			
5						
				6.0	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
	ND	G3 24	8.0			Very moist at 8 feet bgs. Gray-brown at 9 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-10-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-10-04

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 3 inches Concrete.
				1.0	CL	Medium-stiff to stiff, red-brown to black, sandy CLAY (CL), mps=1.5 cm, no odor, moist, foundry sand/slag throughout.
						FILL
						No slag/sand-like material.
						Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling throughout.
	ND	G2 48	4.0			
5						
				6.5	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist to very moist.
						Very moist to wet at 7 feet bgs.
						Gray-brown at 7.5 feet bgs.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-10-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-10-05

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 2 inches Concrete.
				0.3	CL	2 to 4 inches bgs, poorly-graded SAND (SP), FILL.
						Stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist. Brown at 1.25 feet bgs.
		G2 42	4.0			Same as above except chemical-like odor.
5	47					
	*14			6.8	ML	Stiff, gray-brown, SILT (ML), mps=<1 mm, slight chemical-like odor, very moist.
		G3 24	8.0			
	*7.2					Very moist to wet at 9.25 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

*PID readings questionable. Readings keep climbing after removed from sample, recalibrated PID with same results. Made arrangements to get new PID.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-10-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-10-06

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 43	0.0			Top 3 inches Concrete.
				0.8	CL	Medium-stiff, dark brown to black, sandy CLAY (CL), mps=1.5 cm, no odor, moist, slag/sand-like material throughout.
						Stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Brown at 2 feet bgs.
	ND	G2 42	4.0			
5						
				7.3	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, very moist, minor clay component.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-10-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-11-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 3 inches Concrete. Alternating layers of poorly-graded SAND (SP), sandy CLAY with gravel (CL), and gravel FILL materials.
				2.0	CL	Stiff, dark brown to brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 48	4.0			
5				5.5	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
	ND	G3 24	8.0			Clay content increasing with depth.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-11-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-11-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 44	0.0		SP	Top 3 inches Concrete. Loose, yellow-brown, poorly-graded SAND (SP), mps=<1 mm, no odor, moist.
				1.5		Loose, gray, limestone/dust, FILL.
				2.0	CL	Stiff, dark brown to brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 45	4.0			
5						
				6.5	ML	Stiff, brown, SILT (ML), mps=<1 mm, very moist, no odor.
	ND	G3 24	8.0			2.5-inch gravelly sand layer at 8.5 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-11-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-11-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0			Top 4 inches Concrete. Loose, gray, limestone/dust, FILL material.
				2.0	CL	Stiff, dark brown to brown, silty CLAY (CL), mps=<1 mm, no odor, moist. Brown at 3.5 feet bgs.
	ND	G2 40	4.0			
5						
				6.5	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist to very moist, minor clay component.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-11-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-13-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 29	0.0			Top 3 inches Asphalt. Somewhat poor recovery, 0 to 4 foot bgs. Sample is tan, crushed limestone, FILL.
5	127 268 459	G2 44	4.0	4.0	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist, gray mottling and iron oxide staining throughout.
	528 624	G3 24	8.0	8.5	ML	Medium-stiff, gray, clayey SILT (ML), mps=<1 mm, strong chemical-like odor, very moist to wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-13-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-13-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 2 inches Asphalt. Medium-dense, tan, crushed limestone, FILL.
	ND	G2 40	4.0	3.8	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout, contains oil-like substance in cracks/interstitial space within sample.
5						
	ND	G3 24	8.0			Gray at 8 feet bgs.
				9.0	ML	Medium-stiff, gray, clayey SILT (ML), mps=<1 mm, no odor, very moist to wet, oil-like substance within cracks of silt.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-13-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-13-03

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 30, 2010
Finish June 30, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 4 inches Asphalt. 4 to 12 inches bgs: Limestone sub-base fill material.
				1.0	SC	Medium dense, dark brown to black, clayey SAND (SC), mps = 0.5 cm, no odor, moist, slag-like material throughout. At 2 feet bgs, no slag-like material.
	ND	G2 38	4.0	4.0	CL	Stiff, gray-brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
5						
	58.6 108	G3 24	8.0			Chemical-like odor at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-13-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

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TEST BORING REPORT

Boring No. SB-13-04

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		G1 38	0.0			Top 2 inches Asphalt. 2 to 12 inches bgs: Limestone sub-base material. 12 to 19 inches bgs: Black, slag-like material.
	19.2					
				1.5	CL	Stiff, brown to dark brown, silty CLAY (CL), mps < 1 mm, chemical-like odor, moist.
	12.6					
	106					
	310	G2 48	4.0		CL	Gray-brown at 4.25 feet bgs.
5						
	346					Second phase liquid at 5.5 feet bgs.
	137					
	108	G3 24	8.0			No visible second phase liquid at 9 feet bgs. Soft.
	116					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-13-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-13-05

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 3.0 inches Asphalt. 3 to 12 inches bgs: Limestone sub-base material.
				1.0		12 to 24 inches bgs: Medium-dense, black, industrial slag-like material.
				2.0		Stiff, black, silty CLAY (CL), mps < 1 mm, no odor, moist.
	ND	G2 48	4.0		CL	Gray-brown at 4 feet bgs.
5						Second phase liquid at 5.5-10.0 feet bgs. Slight petroleum-like odor.
	ND	G3 24	8.0			Same as above.
						Very moist at 9.5 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-13-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-14-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0		CL	Top 2 inches Asphalt.
						2 to 9 inches bgs, limestone sub-base FILL material.
	26.4					Stiff, dark brown, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist.
	86.1					
						Brown at 3 feet bgs, gray mottling and iron oxide staining throughout.
	139					
	146	G2 48	4.0			Same as above.
5						
	88.2					
	38.4					
						Gray-brown at 7.5 feet bgs.
	36.4	G3 24	8.0			Gray at 8 feet bgs, higher silt content.
	75.8					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3
Boring No.	**SB-14-01**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-14-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 2 inches Asphalt.
				0.8	SP	2 to 9 inches bgs, crushed limestone sub-base FILL. Loose, tan, poorly-graded SAND (SP), mps=<1 mm, no odor, moist.
	ND	G2 36	4.0		SP	Same as above.
5						
	17.5 16.4	G3 24	8.0		SP	Contains fine gravel at 8.25 feet bgs. Wet at 8.5 feet bgs. Gray at 9 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon Sample
- G Geoprobe

Well Diagram
- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary
- Overburden (ft) 10
- Rock Cored (ft)
- Samples G3

Boring No. SB-14-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-14-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0			Top 3 inches Asphalt. 3 inches to 2.75 feet bgs, alternating layers of limestone fill, clay, sands, silts, FILL. Very moist to wet layer from 2 to 2.5 feet bgs.
				2.8		Stiff, brown to gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 45	4.0			4 to 8 foot sample sleeve came out filled with water, water entering borehole from above.
5						
	38.9 19.6	G3 24	8.0			Same as above except chemical-like odor.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-14-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-15-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 39	0.0	0.3	SP	Top 2 inches Asphalt. 2 to 4 inches bgs, crushed limestone sub-base FILL. Loose, yellow-brown, poorly-graded SAND (SP), mps=<1 mm, no odor, moist.
	ND	G2 45	4.0			Same as above, except wet.
5				7.3	CL	3-inch oil-like substance at clay-sand interface. Stiff, gray, silty CLAY (CL), mps=<1 mm, no odor, very moist to wet.
	ND	G3 24	8.0	9.5	ML	Medium-stiff to stiff, gray, SILT (ML), mps=<1 mm, no odor, moist, trace oil-like substance at clay-silt interface.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-15-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-15-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 3 inches Asphalt. 3 to 12 inches bgs, crushed limestone FILL.
				1.0	CL	Stiff, dark gray, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Gray-brown at 2.5 feet bgs, trace roots throughout, gray mottling throughout.
	ND	G2 48	4.0			
5						Same as above, silt content increasing with depth.
	ND	G3 24	8.0	8.0	ML	Medium-stiff, gray-brown, clayey SILT (ML), mps=<1 mm, no odor, very moist to wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-15-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-15-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 29	0.0			*Somewhat poor recovery 0 to 4 foot sample. Top 3 inches Asphalt.
				0.8	CL	3 to 9 inches bgs, limestone FILL material. Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 44	4.0			
5						2.5-inch thick gray, silt seam at 6 feet bgs, occasional silt layers.
	ND	G3 24	8.0			3-mm thick fine sand seam at 7.75 feet bgs. Gray-brown at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-15-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-15-04

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 3 inches Asphalt. 3 to 12 inches bgs: Limestone sub-base material.
				1.0	CL	Medium stiff to stiff, dark brown, silty CLAY (CL), mps = 0.5 cm, no odor, moist, occasional slag-like material throughout.
				2.0	CL	Stiff, gray-brown, sandy CLAY (CL), mps < 1 mm, no odor, moist.
				2.8	CL	Stiff to very stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 48	4.0			
5						
	ND	G3 24	8.0			Very moist at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-15-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

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TEST BORING REPORT

Boring No. SB-15-05

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0			Top 3.0 inches Organics. 3 to 18 inches bgs: Silty CLAY (CL) with slag-like material, red brick.
				1.5	CL	Stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
						Brown at 3.25 feet bgs with gray mottling and iron oxide staining throughout.
	ND	G2 48	4.0			
5						
	ND	G3 24	8.0			Very moist to wet at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-15-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-16-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 2.5 inches Asphalt. 2.5 to 12 inches bgs, alternating layers of limestone FILL, foundry sand/cinder-like materials.
				1.0	CL	Stiff, dark gray, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Brown at 2 feet bgs, gray mottling and iron oxide staining throughout.
	ND	G2 46	4.0			
5						
						Soft at 7.75 feet bgs.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-16-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-16-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0			Top 3 inches Asphalt. Alternating layers of crushed limestone fill, slag/cinder-like material and clay, FILL. Occasional wet layer in limestone fill.
	9.2			2.3	CL	Stiff, gray, silty CLAY (CL), mps=<1 mm, chemical-like odor, moist.
	125					
	274	G2 48	4.0			Gray-brown at 4 feet bgs.
5	415					
	156					
	85.1					
		G3 24	8.0			Silt content increasing.
	38.6					
	27.4					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-16-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-16-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 33	0.0			Top 2 inches Asphalt. 2 to 24 inches bgs, alternating layers of limestone fill, clay fill, sands and gravel, FILL.
				2.0	CL	Wet from 1.75 to 2 feet bgs. Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, very moist, occasional silt layer, gray mottling throughout.
	ND	G2 48	4.0			
5						
	ND	G3 24	8.0			Same as above except silt layers more frequent, very moist to wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-16-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-16-04

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 29, 2010
Finish June 29, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0			Top 4 inches Asphalt. 4 to 12 inches bgs: Limstone sub-base material.
				1.0	CL	Stiff, gray, gravelly CLAY (CL), mps = 3.5 cm, no odor, moist.
					CL	Medium-stiff, gray, sandy lean CLAY (CL), mps < 1 mm, no odor, moist.
				1.5		Bottom of Exploration at 2.0 feet bgs.
				2.0		

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 2
Rock Cored (ft)
Samples G1

Boring No. SB-16-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-16-05

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		SP	Top 4 inches Asphalt. 4 to 16 inches bgs: Limestone sub-base material. 16 to 18 inches bgs: Yellow-brown, poorly graded fine SAND (SP).
				1.5	CL	Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-16-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-17-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 9 inches Limestone gravel.
				0.8	CL	Stiff, brown, silty CLAY (CL), mps=2 cm, no odor, moist, industrial sands and slag-like materials throughout.
				1.8	ML	Soft, brown, SILT (ML), mps=<1 mm, no odor, very moist.
				2.3	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining throughout, gray mottling throughout.
	ND	G2 38	4.0			
5						
	ND	G3 24	8.0			High silt content at 8.5 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-17-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-17-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0			Top 2.5 inches Organics. Stiff, brown, silty CLAY (CL), mps=1 cm, no odor, moist, slag-like material throughout, FILL.
				1.0	SP	Brown, poorly graded SAND (SP).
				1.8	CL	Same as silty clay above except more slag-like material (approximately 65% of sample), FILL.
	ND	G2 45	4.0	3.8	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
5						
	ND	G3 24	8.0			
	0.2					Gray-brown at 9.5 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon Sample
- G Geoprobe

Well Diagram
- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary
- Overburden (ft) 10
- Rock Cored (ft)
- Samples G3

Boring No. SB-17-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-17-02A

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0						See boring log for SB-17-02 for lithology.
5						
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-17-02A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-17-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0		CL	Top 3.5 inches Organics. Stiff, brown, silty lean CLAY (CL), mps=1.5 cm, no odor, moist, slag-like material throughout.
				2.0	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 40	4.0			
5						Higher silt content at 5 feet bgs.
	0.4	G3 24	8.0			Gray-brown at 8.5 feet bgs, slight chemical-like odor.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-17-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-19-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0			Top 3 inches Concrete. Loose, gray, limestone/dust FILL material.
				1.8	CL	Stiff, dark brown to brown, lean CLAY (CL), mps=<1 mm, no odor, moist, minor silt component. 2.5-inch layer of slag/cinder-like material at 2 feet bgs. Brown at 2.75 feet bgs.
	ND	G2 42	4.0			
5				5.8	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist. 3.5-inch thick layer of very soft, very moist to wet, SILT at 6 feet bgs. Very moist to wet at 6.25 feet bgs.
	ND	G3 24	8.0			
				9.5	ML	Soft, brown, gravelly SILT (ML), mps=1.5 cm, no odor, wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-19-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-19-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 16, 2010
Finish February 16, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 3 inches Concrete. Loose, gray, limestone/dust, FILL material. 2.5-inch layer of slag/cinder-like material at 2 feet bgs.
				2.5	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 36	4.0			
5						
				6.0	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist, minor clay component.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-19-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-19-03

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		CL	Top 4 inches Concrete. 4 to 6 inches bgs: Dark brown, silty CLAY (CL).
				0.5	SM	Loose, brown, silty SAND (SM) fill material, mps = 1 cm, no odor, moist.
				1.5	CL	Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-19-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-19-04

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 29, 2010
Finish	June 29, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	2.1	G1 24	0.0		CL	Top 4 inches Concrete. Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
	ND			1.0		3-inch thick layer of industrial slag-like material at 1 foot bgs. Medium dense, tan, limestone sub-base material.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-19-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-20-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 30	0.0		ML	Top 2.5 inches Organics. Stiff, dark brown, sandy SILT (ML) with gravel, mps=1 cm, no odor, moist, industrial sands and slag-like material throughout.
	ND	G2 48	4.0			Brown at 4.25 feet bgs.
5				4.8	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining and gray mottling throughout.
				7.8	ML	Stiff, brown, clayey SILT (ML), mps=<1 mm, no odor, moist to very moist.
	ND	G3 24	8.0	8.5	CL	Medium-stiff, gray, lean CLAY (CL), mps=<1 mm, no odor, moist to very moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon Sample
- G Geoprobe

Well Diagram
- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary
- Overburden (ft) 10
- Rock Cored (ft)
- Samples G3

Boring No. SB-20-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-20-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0			Top 6 inches limestone gravel.
				0.5	CL	Stiff, brown, sandy CLAY with gravel (CL), mps=3 cm, no odor, moist, industrial sands and slag-like material throughout.
	ND	G2 44	4.0	4.0	CL	Grades into stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
5				6.5	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
	ND	G3 24	8.0			At 8.5 feet bgs, contains minor clay component, iron oxide staining throughout.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-20-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-20-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 46	0.0			Top 2 inches Organics. 2 to 4 inches bgs, limestone gravel.
					CL	Stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist, FILL.
						3-inch fill gravel and plastic layer at 3.5 feet bgs.
	ND	G2 38	4.0			Brown at 4 feet bgs.
5						
	ND	G3 24	8.0			Very moist at 7.75 feet bgs. Same as above.
10				10.0		Bottom of Exploration at 10 feet bgs.

First attempt with SB-20-03 was unable to retrieve 8-10 foot sample. Offset by 1 foot, redrilled SB-20-03 to obtain 8-10 foot sample.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-20-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-20-04

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 28, 2010
Finish	June 28, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		CL-SP	Top 4.0 inches Organics and lean CLAY (CL). Loose, tan, poorly graded SAND (SP), mps < 1 mm, no odor, moist.
				1.0	CL	Stiff, brown, lean CLAY (CL), mps = 0.5 cm, no odor, moist, trace gravels and sands.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-20-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-20-05

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 28, 2010
Finish	June 28, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		CL	Top 2.0 inches Organics. Stiff, brown, lean CLAY with gravel (CL), mps = 1 cm, no odor, moist.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-20-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-21-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 34	0.0		CL	Top 3 inches Organic. Stiff, brown, sandy CLAY with gravel (CL), mps=3 cm, no odor, moist, industrial sands and slag-like materials throughout. FILL
	ND	G2 48	4.0	4.0	CL	No sands or gravels, grades into silty CLAY (CL).
5						From 5.5 to 6.75 feet bgs, contains second-phase liquid that fluoresces under UV light.
				6.8	ML	Stiff, gray, SILT (ML), mps=<1 mm, no odor, very moist to wet, second-phase liquid that fluoresces under UV light throughout.
	ND	G3 24	8.0			
				9.3	CL	Stiff, gray, silty CLAY (CL), mps=<1 mm, no odor, moist, no signs of second-phase liquid.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-21-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-21-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0		SP	Top 2.5 inches Organics. Loose, dark brown, poorly-graded SAND (SP), mps=<1 mm, no odor, moist. 3-inch thick sandy CLAY (CL) layer at 0.5 feet bgs.
	ND	G2 48	4.0			Same as above.
5						Gray at 7 feet bgs, wet, slight petroleum-like odor.
	0.4	G3 24	8.0			
10				9.8	CL	Stiff, gray, silty CLAY (CL), mps=<1 mm, no odor, very moist.
				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-21-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-21-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0		SP	Top 6 inches Concrete. Loose, tan to gray, poorly-graded SAND (SP), mps=<1 mm, no odor, moist.
				3.8		
	ND	G2 30	4.0			Medium-dense, white to tan, crushed limestone FILL.
5						Wet at 6.5 feet bgs.
	ND	G3 24	8.0			Same as above.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-21-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0		ML	Top 2.5 inches Organics. Stiff, brown, SILT (ML), mps=4 cm, no odor, moist, trace sands and gravel throughout. FILL
	ND	G2 48	4.0			
5				7.5		Tan, limestone FILL, wet.
	ND	G3 20	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-22-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0		ML	Top 2 inches Organics. Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
				0.8		Tan, limestone sub-base FILL material.
				2.0	CL	Stiff, brown, gravelly CLAY with sand (CL), mps=2.5 cm, no odor, moist.
	ND	G2 30	4.0			
5						
	ND	G3 20	8.0			
				8.5		Tan, limestone gravel, wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-22-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0		ML	Top 3 inches Organics. Stiff, brown, SILT (ML), mps=3 cm, no odor, moist, trace sands and gravel, slag-like material throughout. FILL
	ND	G2 42	4.0			Contains minor clay component.
5						
	ND	G3 24	8.0	8.1		2-inch thick layer of clay at 7.9 feet bgs. Tan, limestone gravel, FILL, wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-22-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-04

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0		CL	Top 2.5 inches Organics. Medium-stiff, brown, sandy lean CLAY (CL), mps=5 mm, no odor, moist.
				0.8		Loose, black, industrial sand and slag-like material, no odor, moist.
				1.0	CL	4-inch thick layer of limestone gravel FILL material.
				1.3		Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 48	4.0			
5				5.0	ML	Stiff, gray-brown, SILT (ML), mps=<1 mm, no odor, moist.
	ND	G3 24	8.0			8 to 9 feet bgs, vertical fracture with iron oxide staining.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3
Boring No.	**SB-22-04**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-05

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0		CL	Top 2.5 inches Organics. Stiff, brown, sandy CLAY (CL) with gravel, mps=1.5 cm, no odor, moist, industrial sands and slag-like material throughout. FILL
				3.3	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 48	4.0			
5				5.0	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist. Gray-brown at 6.75 feet bgs. 7 to 8 feet bgs, second-phase liquid observed, no odor, fluoresces under UV light.
	ND	G3 24	8.0			8.5 to 9.5 feet bgs, vertical fracture with iron oxide staining.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-22-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-06

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0		CL	Top 3 inches Organics. Stiff, brown, sandy, lean CLAY with gravel (CL), mps=1 cm, no odor, moist, industrial sands and slag-like material throughout, FILL.
				2.0	SP	Loose, brown, poorly graded SAND (SP), mps=<1 mm, no odor, moist, roots throughout, FILL.
	ND	G2 48	4.0	4.0	CL	Hard, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining and gray mottling throughout.
5	5.8 4.9			6.0	ML	Very stiff, gray-brown, clayey SILT (ML), mps=<1 mm, fuel-oil-like odor, moist, second-phase liquid observed, fluoresces under UV light.
	3.8 0.9	G3 24	8.0	8.8	ML	Less clay, SILT (ML), fuel oil-like odor, moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-22-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-07

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 28, 2010
Finish	June 28, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		CL	Top 2 inches Organics. Stiff, brown, lean CLAY (CL), mps = 4 cm, no odor, moist, trace sands, gravels, slag-like materials throughout, fill.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-22-07

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-08

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 28, 2010
Finish	June 28, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0		CL	Top 3.0 inches Organics. Stiff, brown, lean CLAY (CL), mps = 0.5 cm, no odor, moist, trace sands, gravel, slag-like material throughout. Fill. 2 inch thick slag-like layer at 1.5 feet bgs.
				2.0		Bottom of Exploration at 2 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	2
Rock Cored (ft)	
Samples	G1

Boring No. SB-22-08

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-23-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 4 inches Asphalt. Tan, limestone sub-base FILL material.
				1.0	CL	Stiff, brown, sandy CLAY with gravel (CL), mps=4 cm, no odor, moist, slag-like material and red brick throughout, FILL.
				3.0	CL	Grades into stiff, brown, silty lean CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining and gray mottling throughout.
	ND	G2 14	4.0		ML	Poor recovery, 4 to 8 foot sample. Appears to be stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
5						
	ND	G3 24	8.0	8.0	ML	Stiff, gray-brown, clayey SILT (ML), mps=<1 mm, no odor, very moist.
				9.5	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, very moist to wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-23-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-23-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 37	0.0			Top 3 inches Asphalt. Tan limestone sub-base FILL material.
				2.0	CL	Medium-stiff to soft, gray, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 32	4.0			Stiff at 4 feet bgs.
5						Gray-brown at 5 feet bgs, iron oxide staining throughout.
	ND	G3 18	8.0	8.0	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-23-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-23-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 44	0.0			Top 4.5 inches Asphalt. Limestone sub-base FILL material.
				2.0	CL	Stiff, dark gray, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 46	4.0			Same as above except gray.
5						5 to 6 feet bgs, unknown liquid fluoresces under UV light, very slight petroleum-like odor, very moist to wet.
						Brown at 6.5 feet bgs, gray mottling throughout.
	ND	G3 12	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-23-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-23-04

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 22, 2010
Finish February 22, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 41	0.0			Top 4 inches Asphalt. Tan, limestone sub-base FILL material.
				0.8	ML	Stiff, black, SILT (ML), mps=<1 mm, no odor, moist.
						Gray at 2.75 feet bgs with minor clay component.
	ND	G2 30	4.0			Same as above.
5						5.5 to 6.5 feet bgs, unknown liquid within soil, fluoresces under UV light.
	ND	G3 24	8.0	8.0	ML	Gray, clayey SILT with sand and gravel (ML), mps=5 mm, slight petroleum-like odor, wet, oil-like substance throughout, fluoresces under UV light.
				9.3	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, moist to very moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-23-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-24-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 6 inches Asphalt. Crushed limestone sub-base fill material.
				2.5	CL	Medium-stiff to stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 40	4.0			Gray mottling and iron oxide staining throughout at 4.5 feet bgs.
5						
	381 20.2	G3 24	8.0			At 8 feet bgs, very strong chemical-like odor, no mottling or iron oxide staining.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-24-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-24-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 45	0.0			Top 3.5 inches Asphalt. 3.5 to 6.5 inches bgs, limestone sub-base fill materials. 6.5 to 11 inches bgs, industrial slag/cinder-like fill material.
				0.9	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
		G2 48	4.0			
5	ND					
	46.8					Chemical-like odor at 7.5 feet bgs.
	11.5	G3 24	8.0			Same as above except brown, higher silt content, chemical-like odor.
	ND					
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-24-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-24-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 1 foot Asphalt and Concrete.
				1.0	CL	Medium-stiff to stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining and gray mottling throughout. Dark brown at 2.25 feet bgs.
	ND	G2 48	4.0			Brown at 4 feet bgs.
5						
	ND	G3 24	8.0			Gray-brown at 8 feet bgs, medium-stiff, no iron oxide staining or mottling.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3
Boring No.	**SB-24-03**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-25-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 35	0.0		GP	Top 4 inches pea gravel. Dense, gray, limestone sub-base FILL material
				2.3	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining and gray mottling throughout.
5	ND	G2 39	4.0			
	ND	G3 24	8.0			3-inch SILT (ML) layer at 7.75 feet bgs. Gray-brown at 9 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-25-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-25-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 39	0.0			Top 3 inches Asphalt.
				0.5	CL	3 to 6 inches bgs, limestone sub-base FILL material.
						Stiff, dark brown to brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Brown at 3.25 feet bgs, gray mottling and iron oxide staining throughout.
	ND	G2 38	4.0			Same as above.
5						
	ND	G3 24	8.0			6-inch thick brown, SILT (ML) layer at 8.25 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-25-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-25-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 23, 2010
Finish February 23, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0		CL	Top 3.5 inches pea gravel. Stiff, brown to dark brown, silty CLAY (CL), mps=1 cm, no odor, moist, industrial slag-like material throughout. No slag-like material at 2 feet bgs, brown in color, gray mottling and iron oxide staining throughout.
	ND	G2 38	4.0			
5						
	ND	G3 18	8.0			3.5-inch layer of SILT at 8.5 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-25-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-26-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 30	0.0			Top 1.5 inches Asphalt. 1.5 inches to 1.25 feet bgs, alternating layers of slag-like material, clay, gravel fill materials, wet.
				1.3	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout. Silt content increasing with depth.
	ND	G2 48	4.0			
5						
	ND	G3 24	8.0	8.0	ML	Stiff, brown, SILT (ML), mps=<1 mm, no odor, wet. Gray-brown at 9.5 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-26-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-26-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 46	0.0		SM	Loose, dark brown, silty SAND (SM), mps=1 cm, no odor, moist. 6 to 18 inches bgs, alternating layers of gravel, slag-like material, and clay.
				1.5	CL	Medium-stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Brown at 3.25 feet bgs, gray mottling and iron oxide staining throughout.
	ND	G2 30	4.0			
5						Occasional silt layer at 6 feet bgs, no mottling or iron oxide staining.
	ND	G3 24	8.0			Frequent silt layers at 8 feet bgs. Silt layers range in thickness from <1 inch to 4 inches thick.
10				10.0		Gray at 9.75 feet bgs.
						Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-26-02

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-26-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 10, 2010
Finish March 10, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 28	0.0			Somewhat poor recovery 0 to 4 foot sample. Top 1.5 inches Asphalt. 1.5 to 6 inches bgs limestone sub-base material, wet. 6 to 12 inches bgs slag/cinder-like material mixed with clay, wet.
				1.0		Stiff, black, silty CLAY (CL), mps=<1 mm, no odor, moist. Gray at 1.5 feet bgs.
	ND	G2 48	4.0			Brown at 4 feet bgs.
5						Silt content increasing with depth, occasional silt layer.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon Sample
- G Geoprobe

Well Diagram
- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary
- Overburden (ft) 10
- Rock Cored (ft)
- Samples G3

Boring No. SB-26-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0			Top 2 inches Concrete. Somewhat poor recovery from 0 to 4 foot bgs sample. Mix of gravel, slags, sands, silt, and coal. FILL
				3.0	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 48	4.0			
5						Same as above except gray mottling throughout.
	ND	G3 24	8.0	8.0	ML	Stiff, brown, clayey SILT (ML), mps=<1 mm, no odor, moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-28-01

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 39	0.0		ML	Top 2 inches Concrete. Medium-stiff, yellow-brown, SILT (ML), mps=4 mm, no odor, moist, trace cinder-like material throughout, trace slag-like material throughout.
				2.5	CL	Stiff, gray-brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
	ND	G2 48	4.0			
5						Silt content increasing with depth at 6.5 feet bgs.
	ND	G3 24	8.0			Wet at 8 feet bgs.
				8.3	ML	Stiff, gray-brown, clayey SILT (ML), mps=<1 mm, no odor, wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3
Boring No.	**SB-28-02**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 17, 2010
Finish February 17, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 30	0.0		ML	Top 2 inches Concrete. Medium-stiff to stiff, dark brown, sandy SILT (ML), mps=1.5 cm, no odor, moist, trace gravel.
				0.8	ML	Grades into SILT (ML). Iron oxide staining from 1.25 to 1.75 feet bgs.
				3.0	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, silt content increasing with depth.
	ND	G2 48	4.0			
5						
				7.0	ML	Very stiff, gray-brown, SILT (ML), mps=<1 mm, no odor, moist, minor clay component.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-28-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-04

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 30, 2010
Finish	June 30, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 44	0.0		SM	Top 2.5 inches Concrete. Medium-dense, dark brown to yellow-brown, silty SAND (SM), mps < 1 mm, no odor, moist.
				1.0	CL	Stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
						Brown at 3 feet bgs.
	ND	G2 48	4.0			Same as above except iron-oxide staining throughout.
5						
	ND	G3 24	8.0			No iron oxide staining, high silt content.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-28-04

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-05

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 30, 2010
Finish	June 30, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	4.2	G1 45	0.0		SM	Top 2.5 inches Concrete. Medium dense, dark brown to yellow-brown, silty SAND (SM), mps < 1 mm, no odor, moist.
	15.6			1.0	CL	Stiff, brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
	5.9					
	4.8					
	ND	G2 48	4.0			Same as above except silt content increasing with depth.
5						
	ND	G3 24	8.0			High silt content, very moist.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-28-05

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-06

Project Textileather RFI, Field Event #3 Toledo, Ohio
Client Textileather Corporation
Contractor SCS

File No. 36005-005
Sheet No. 1 of 1
Start July 26, 2011
Finish July 26, 2011
Driller T. Rinker
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Dual Tube	G	Macro	Rig Make & Model: Geoprobe 6620 DT
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	S1 42	0.0			CONCRETE
				0.3	CL	Medium stiff to soft, dark brown, sandy SILT fill material, maximum particle size = 0.5 cm, no odor, moist.
				0.5		Medium-stiff to stiff, brown, silty CLAY (CL), maximum particle size = <1mm, no odor, moist, gray mottling and iron oxide staining throughout, occasional thin silt layer.
	ND	S2 39	4.0			
5						
	ND	S3 24	8.0			
10				10.0		BOTTOM OF EXPLORATION AT 10 FEET BELOW GROUND SURFACE.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon Sample
- G Geoprobe

Well Diagram
- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary
- Overburden (ft) 10
- Rock Cored (ft)
- Samples S3

Boring No. SB-28-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 CLE_LIBRARY_R1.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Sep 13, 11

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-07

Project	Textileather RFI, Field Event #3 Toledo, Ohio
Client	Textileather Corporation
Contractor	SCS

File No.	36005-005
Sheet No.	1 of 1
Start	July 26, 2011
Finish	July 26, 2011
Driller	T. Rinker
H&A Rep.	A. Foerster
Elevation	
Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Dual Tube	G	Macro	Rig Make & Model: Geoprobe 6620 DT
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	S1 40	0.0			CONCRETE
				0.3	SM	Loose, dark brown, sandy SILT (SM) fill material, maximum particle size = 0.5 cm, no odor, moist.
				0.5	CL	Stiff, brown, silty CLAY (CL), maximum particle size = <1mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	S2 38	4.0			
5						2 inches thick, very moist to wet SILT layer at 7.0 feet below ground surface.
	ND	S3 24	8.0			Very moist at 8.0 feet below ground surface.
10				10.0		BOTTOM OF EXPLORATION AT 10 FEET BELOW GROUND SURFACE.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	2
Rock Cored (ft)	
Samples	S3

Boring No. SB-28-07

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 CLE_LIBRARY_R1.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Sep 13, 11

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-08

Project: Textileather RFI, Field Event #3 Toledo, Ohio
Client: Textileather Corporation
Contractor: SCS

File No. 36005-005
Sheet No. 1 of 1
Start: July 26, 2011
Finish: July 26, 2011
Driller: T. Rinker
H&A Rep.: A. Foerster
Elevation:
Datum: NGVD
Location: See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Dual Tube	G	Macro	Rig Make & Model: Geoprobe 6620 DT
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	S1 31	0.0	0.3	SM	CONCRETE
						Loose, dark brown, sandy SILT (SM) fill material, maximum particle size = 0.5 cm., no odor, moist.
				0.5	CL	Stiff, brown, silty CLAY (CL), maximum particle size = <1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	S2 40	4.0			
5						Very moist at 6.5 feet below ground surface, occasional silt layer.
	ND	S3 24	8.0			
10				10.0		BOTTOM OF EXPLORATION AT 10 FEET BELOW GROUND SURFACE.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 2
Rock Cored (ft)
Samples S3

Boring No. SB-28-08

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 CLE_LIBRARY_R1.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Sep 13, 11

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-09

Project Textileather RFI, Field Event #3 Toledo, Ohio
Client Textileather Corporation
Contractor SCS

File No. 36005-005
Sheet No. 1 of 1
Start July 26, 2011
Finish July 26, 2011
Driller T. Rinker
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Dual Tube	G	Macro	Rig Make & Model: Geoprobe 6620 DT
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	S1 39	0.0			CONCRETE
				0.3	SP	Loose, yellow-brown, poorly-graded SAND (SP), maximum particle size = < 1.0 cm., no odor, moist. Fill.
				0.8	SM	Medium-stiff, dark-brown, sandy SILT (SM) fill material. Trace cinders throughout.
				1.0	CL	Stiff, brown, silty CLAY (CL), maximum particle size = <1 mm, no odor, moist, gray mottling and iron oxide staining thgouhout. Occasional very moist to wet silt layers @6.5 feet below ground surface.
	ND	S2 40	4.0			
5						Occasional very moist to wet silt layers at 6.5 feet below ground surface.
	ND	S3 24	8.0			
10				10.0		BOTTOM OF EXPLORATION AT 10 FEET BELOW GROUND SURFACE

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples S3

Boring No. SB-28-09

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 CLE_LIBRARY_R1.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Sep 13, 11

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-10

Project Textileather RFI, Field Event #3 Toledo, Ohio
Client Textileather Corporation
Contractor SCS

File No. 36005-005
Sheet No. 1 of 1
Start July 26, 2011
Finish July 26, 2011
Driller T. Rinker
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	S1 42	0.0			CONCRETE
				0.3	SP	Loose, yellow-brown, poorly-graded SAND (SP), maximum particle size = < 1.0 mm., no odor, moist. FIll.
					SM	0.25 feet thick layer of sandy SILT (SM) fill, cinder-like material throughout.
				0.8	CL	Stiff, brown, silty CLAY (CL), maximum particle size = < 1.0 mm, no odor, moist, gray mottling and iron oxide staining throughout.
				1.0		
	ND	S2 26	4.0			
5						
	ND	S3 24	8.0			
10				10.0		BOTTOM OF EXPLORATION AT 10 FEET BELOW GROUND SURFACE

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples S3

Boring No. SB-28-10

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 CLE_LIBRARY_R1.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Sep 13, 11

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-BACK-01

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0		CL	Top 2 inches Organics. Stiff to medium-stiff, dark brown to brown, sandy CLAY with gravel (CL), mps=3.5 cm, no odor, moist, industrial sands and slag-like material throughout, FILL.
				1.3	CL	No sands, gravel, or fill. Grades into silty CLAY (CL).
						Brown at 3.5 feet bgs, with gray mottling and iron oxide staining throughout, occasional clayey silt layer.
	ND	G2 48	4.0			
5						
	ND	G3 24	8.0			Gray-brown at 8.5 feet bgs, no mottling.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3
Boring No.	**SB-BACK-01**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-BACK-02

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 32	0.0			Top 3.5 inches Organics and sandy SILT (ML).
				0.5		3.5 to 6.5 inches bgs, black, industrial sands and slag-like material, FILL
					CL	Alternating layers of limestone gravel, silt, sands, FILL.
				1.0		Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
	ND	G2 40	4.0			
5						
	ND	G3 20	8.0			Gray-brown at 8.25 feet bgs, occasional silt layer.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3
Boring No.	**SB-BACK-02**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-BACK-03

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 36	0.0		CL	Top 3 inches Organics. Stiff to medium-stiff, dark brown, silty CLAY, mps=<1 mm, no odor, moist.
	ND	G2 48	4.0			Brown at 4 feet bgs, gray mottling and iron oxide staining throughout.
5						Occasional silt layer.
	ND	G3 24	8.0			
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. SB-BACK-03

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-BACK-04

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 24, 2010
Finish February 24, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 3 inches Asphalt.
				0.5	CL	3 to 6 inches limestone sub-base material.
						Stiff, dark brown, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Brown at 2.5 feet bgs, gray mottling and iron oxide staining throughout.
	ND	G2 42	4.0			Same as above, occasional silt layer.
5						
	ND	G3 24	8.0			Same as above, except gray-brown at 8 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3
Boring No.	**SB-BACK-04**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-BACK-05

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 1 inch Asphalt.
				0.5	CL	1 to 5 inches bgs, loose, black, cinder-like material, very moist to wet, FILL.
						Stiff, dark brown to black, silty CLAY (CL), mps=<1 mm, no odor, moist.
						Brown at 2 feet bgs, gray mottling and iron oxide staining throughout.
	ND	G2 46	4.0			
5						Same as above, except outside of sample is wet, water entering boring from above.
	ND	G3 24	8.0			Same as above, except no mottling or iron oxide staining, higher silt content, occasional silt layer, very moist to wet.
10				10.0		Bottom of Exploration at 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	10
Rock Cored (ft)	
Samples	G3

Boring No. **SB-BACK-05**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

TEST BORING REPORT

HALEY & ALDRICH

Boring No. SB-BACK-06

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start March 9, 2010
Finish March 9, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 38	0.0			Top 1.5 inches Asphalt.
				0.5	ML	1.5 to 6 inches bgs, black, slag/cinder-like material, FILL.
						Medium-stiff to stiff, black, sandy SILT (ML), mps=<1 mm, no odor, wet.
				1.3	CL	Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, iron oxide staining and gray mottling throughout.
	ND	G2 40	4.0			
5						6.5 to 7 feet bgs, very moist to wet layer.
	ND	G3 24	8.0			Same as above, except no mottling, no iron oxide staining within sample. Vertical fracture in clay from 8 to 10 feet bgs with iron oxide staining on fracture surface. Gray-brown at 9 feet bgs.
10				10.0		Bottom of Exploration at 10 feet bgs.
						Offset 1 foot, redrill 0 to 4 foot sample to collect enough sample for MS/MSD.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples G3

Boring No. SB-BACK-06

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

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TEST BORING REPORT

Boring No. SB-MW-1001A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 28, 2010
Finish June 28, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 40	0.0			Top 2 inches Asphalt. Medium dense, dark gray to black, industrial slag and cinder-like material, moist, no odor.
				1.0	ML	Stiff, dark brown, SILT (ML), mps < 1 mm, moist, no odor, minor clay and fine sand component.
				2.3	CL	Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist, minor silt component, gray mottling throughout.
5	ND	G2 24	4.0			
				6.0		Bottom of Exploration at 6 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 6
Rock Cored (ft)
Samples G2

Boring No. SB-MW-1001A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-MW-1002A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 28, 2010
Finish June 28, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 42	0.0			Top 3.5 inches Asphalt. Medium-dense, gray, limestone sub-base material.
				1.0	ML	Medium-stiff, dark brown, SILT (ML), mps < 1 mm, no odor, moist to very moist, minor clay and fine sand component.
				2.3	CL	Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist, minor silt component and gray mottling throughout.
5	ND	G2 24	4.0			
				6.0		Bottom of Exploration at 6 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 6
Rock Cored (ft)
Samples G2

Boring No. SB-MW-1002A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-MW-1004A

Project	Textileather RFI, Field Event #2 Toledo, Ohio
Client	Textileather Corporation
Contractor	Tiger Probe, LLC

File No.	36005-005
Sheet No.	1 of 1
Start	June 28, 2010
Finish	June 28, 2010
Driller	T. Setty
H&A Rep.	A. Foerster
Elevation Datum	NGVD
Location	See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 37	0.0			Top 3 inches Asphalt. Medium dense, black, industrial slag-like material, no odor, very moist to wet, clay content increasing with depth.
				1.5	CL	Medium stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist.
				3.5	CL	Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist, minor silt content.
5	ND	G2 24	4.0			
				6.0		Bottom of Exploration at 6 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID	
O	Open End Rod
T	Thin Wall Tube
U	Undisturbed Sample
S	Split Spoon Sample
G	Geoprobe

Well Diagram: Riser Pipe, Screen, Filter Sand, Cuttings, Grout, Concrete, Bentonite Seal

Summary	
Overburden (ft)	6
Rock Cored (ft)	
Samples	G2

Boring No. SB-MW-1004A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-MW-1005A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 28, 2010
Finish June 28, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 44	0.0		CL	Top 9 inches Asphalt and sub-base material. Stiff, brown, lean CLAY (CL), mps = 0.5 cm, no odor, moist, trace sands, gravels, slag-like material throughout, fill.
	ND	G2 24	4.0	4.3	CL	Stiff, brown, lean CLAY (CL), mps < 1 mm, no odor, moist, gray mottling throughout, trace silt content.
5				6.0		Bottom of Exploration at 6 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon Sample
- G Geoprobe

Well Diagram
- Riser Pipe
- Screen
- Filter Sand
- Cuttings
- Grout
- Concrete
- Bentonite Seal

Summary
Overburden (ft) 6
Rock Cored (ft)
Samples G2

Boring No. SB-MW-1005A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ Oct 20, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-MW-1006A

Project Textileather RFI, Field Event #2 Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-005
Sheet No. 1 of 1
Start June 28, 2010
Finish June 28, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 48	0.0			Top 2 inches Asphalt 2 to 8 inches bgs: Limestone sub-base fill material. 8 to 12 inches bgs: Industrial slag-like material.
				1.0	CL	Stiff, dark brown, silty CLAY (CL), mps < 1 mm, no odor, moist. Brown at 2.5 inches bgs, less silt, gray mottling throughout.
5	ND	G2 24	4.0			
				5.5	ML	Soft, brown, clayey SILT (ML), mps < 1 mm, no odor, very moist to wet.
				6.0		Bottom of Exploration at 6 feet bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 6
Rock Cored (ft)
Samples G2

Boring No. SB-MW-1006A

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SV-1

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 26, 2010
Finish February 26, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0			CL	Top 4 inches Asphalt. Stiff, brown, sandy CLAY (CL), mps=1 cm, no odor, moist, trace slag-like material. FILL
					2.0		Bottom of Exploration at 2 feet bgs. Set 6-inch long soil vapor sample screen 18 to 24 inches bgs, set #5 global quartz sand 18 to 24 inches bgs, granular bentonite from 3 to 18 inches bgs. Soil vapor point finished with 6-inch diameter manhole in a 1-foot by 1-foot concrete pad.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 2
Rock Cored (ft)
Samples G1

Boring No. SV-1

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SV-2

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 26, 2010
Finish February 26, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0			CL	Top 4 inches Asphalt. From 4 to 8 inches bgs, limestone sub-base fill material. Stiff, brown, silty CLAY (CL), mps=<1 mm, no odor, moist, gray mottling and iron oxide staining throughout.
					2.0		Bottom of Exploration at 2 feet bgs. Set 6-inch long soil vapor sample screen 18 to 24 inches bgs, set #5 global quartz sand 18 to 24 inches bgs, granular bentonite from 3 to 18 inches bgs. Soil vapor point finished with 6-inch diameter manhole in a 1-foot by 1-foot concrete pad.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 2
Rock Cored (ft)
Samples G1

Boring No. SV-2

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SV-3

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 25, 2010
Finish February 25, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0			ML	Top 3.5 inches Organics. Medium-stiff, dark brown, sandy SILT (ML), mps=<1 mm, no odor, moist.
					2.0		Bottom of Exploration at 2 feet bgs.

Set 6-inch long soil vapor sample screen 1.5 to 2.0 feet bgs, set #5 global quartz sand 16 to 24 inches bgs, granular bentonite from 3 to 16 inches bgs. Soil vapor point finished with 6-inch diameter manhole in a 1-foot by 1-foot concrete pad.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 2
Rock Cored (ft)
Samples G1

Boring No. SV-3

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SV-4

Project Textileather RFI Phase I Toledo, Ohio
Client Textileather Corporation
Contractor Tiger Probe, LLC

File No. 36005-004
Sheet No. 1 of 1
Start February 26, 2010
Finish February 26, 2010
Driller T. Setty
H&A Rep. A. Foerster
Elevation
Datum NGVD
Location See Plan

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	Steel	G	Macro	Rig Make & Model: Track Geoprobe
Inside Diameter (in.)	-	-	-	Bit Type:
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing: Direct Push
				Hoist/Hammer:
				PID Make & Model: MiniRAE 2000 10.6 eV

Depth (ft)	PID (ppm)	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0	ND	G1 24	0.0			CL	Top 4 inches Asphalt. Stiff, brown, silty CLAY (CL), mps=2.5 cm, no odor, moist, industrial sands and slag-like material throughout. FILL
					2.0		Bottom of Exploration at 2 feet bgs.

Set 6-inch long soil vapor sample screen 18 to 24 inches bgs, set #5 global quartz sand 18 to 24 inches bgs, granular bentonite from 3 to 18 inches bgs. Soil vapor point finished with 6-inch diameter manhole in a 1-foot by 1-foot concrete pad.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon Sample
G Geoprobe

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 2
Rock Cored (ft)
Samples G1

Boring No. SV-4

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
Toughness: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07 36005_LIBRARY.GLB HA-TB+CORE+WELL-07.GDT G:\36005 TEXTILEATHER\GLOBAL\GINT\36005.GPJ May 24, 10

Soil data from the following borings were used to formulate conclusions about AOI-02 as part of the Baseline Risk Assessment, boring logs could not be located for the following: borings:

AOI	Boring I.D.	Installation Date
AOI-02	SB-32MW	7/6/1995
AOI-02	SB-36MW	7/6/1995
AOI-02	SB-44MW	8/1/1995
AOI-02	SB-54MW	7/6/1995
AOI-02	S10S11-E1MW	5/7/1996
AOI-02	S10S13MW	5/7/1996
AOI-02	S9S10MW	5/7/1996

The following monitoring wells were sampled during the RCRA Facility Investigation, however, no boring logs or installation reports were located-:

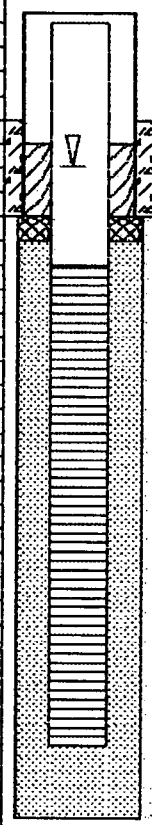
Monitoring Well I.D.
MW-1TL
MW-2TL
MW-3TL
MW-7H

BLASLAND, BOUCK & LEE

SURFACE ELEVATION: 594.1'	DATE STARTED: 12/1/92	**MW-2**
CLASSIFIED BY: RRM	DATE COMPLETED 12/1/92	
	PROJECT: GENCORP	PROJECT NO.: 566.01
	LOCATION: Toledo, Ohio	PAGE: 1 of 1

SUBSURFACE LOG

DEPTH (FT)	SAMPLES	SAMPLE NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID HEADSPACE (ppm)	WELL COLUMN	GEOLOGIC COLUMN	SOIL CLASSIFICATION
0		1	1.8	2, 2, 4, 5				Dark brown silty CLAY, little fine sand, little vegetation and roots, moist.
								Medium brown silty CLAY, little vegetation and roots, moist.
		2	1.3	4, 5, 6, 7				Light orange brown and gray mottled silty CLAY, trace fine sand, moist.
5		3	2.0	3, 3, 3, 3				Tan to orange-brown SILT, some gray mottling, wet at approximately 4.0'.
		4	2.0	3, 3, 4, 3				
								Brownish-gray silty CLAY, wet.
		5	2.0	SHELBY				Gray silty CLAY to clayey SILT, wet.
10		6	2.0	1, 2, 3, 3				
		7	2.0	1, 1, 2, 1				
15								End of boring at 14.0 feet.
20								
25								



WELL CONSTRUCTION DETAILS

2-inch diameter PVC riser 2.5' to 2.5' above grade
2-inch diameter 0.010-inch machine slotted PVC screen 12.5' - 2.5'
Sand pack 14.0' - 2.0'
Bentonite seal 2.0' - 1.5'
Cement grout 1.5' - 0.0'
Well completed with 4-inch X 4-inch outer protective casing

NOTES:

Measuring point Elevation = 596.41 (Top of Stainless Steel Riser)
Ground water Elevation (12/31/92) = 594.95

CONFIDENTIAL

GC05822

BLASLAND, BOUCK & LEE

DATE STARTED: 12/1/92		
DATE COMPLETED 12/1/92		
SURFACE ELEVATION: 596.9'	PROJECT: GENCORP	PROJECT NO.: 566.01
CLASSIFIED BY: RRM	LOCATION: Toledo, Ohio	PAGE: 1 of 1

MW-3

SUBSURFACE LOG

DEPTH (FT)	SAMPLES	SAMPLE NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID HEADSPACE (ppm)	WELL COLUMN	GEOLOGIC COLUMN	SOIL CLASSIFICATION
0		1	1.8	4				Gray SAND and GRAVEL FILL, moist.
				6				Brownish-gray silty CLAY, little sand and fine gravel, moist.
				5				
				8				
		2	1.5	3				Brown and gray mottled silty CLAY, moist at 2.0' to 6.0', wet at approximately 6.0'.
				5				
				6				
				6				
		3	1.3	SHELBY				
5		4	2.0	3				
				3				
				3				
				5				Brown and gray mottled silty CLAY and clayey SILT with silt seams, black mottling or staining present at 10.2' to 10.5', wet.
		5	2.0	1				
				2				
				2				
				2				
10		6	2.0	2				
				2				
				4				
				5				
		7	2.0	2				Gray silty CLAY, wet.
				2				
				2				
				3				
15								End of boring at 14.0 feet.
20								
25								

WELL CONSTRUCTION DETAILS

2-inch diameter PVC riser 2.5' to 2.5' above grade
2-inch diameter 0.010-inch machine slotted PVC screen 12.5' - 2.5'
Sand pack 14.0' - 2.0'
Bentonite seal 2.0' - 1.5'
Cement grout 1.5' - 0.0'
Well completed with 4-inch X 4-inch outer protective casing

NOTES:

Measuring point Elevation = 599.20 (Top of Stainless Steel Riser)
Ground water Elevation (12/31/92) = 592.34

GC05823

CONFIDENTIAL

BLASLAND, BOUCK & LEE

SURFACE ELEVATION: 594.8'	DATE STARTED: 12/1/92	**SB-1**
	DATE COMPLETED 12/1/92	
CLASSIFIED BY: RRM	PROJECT: GENCORP	PROJECT NO.: 566.01
	LOCATION: Toledo, Ohio	PAGE: 1 of 1

DEPTH (FT)	SAMPLES	SAMPLE NO.	SOIL DATA: RECOVERY (FT)	SOIL DATA: BLOWS/6 IN.	SOIL DATA: PID HEADSPACE (ppm)	WELL COLUMN	GEOLOGIC COLUMN	SUBSURFACE LOG — SOIL CLASSIFICATION
5								
0		1	2.0	3, 4, 4, 6				Tan silty CLAY with roots, minor fine sand seam at 0.8', brick fragment at 1.8', moist.
		2	1.3	2, 4, 4, 3				Tan and orange-brown mottled silty CLAY, gray mottling below 4.0', increase in plasticity and moisture below 5.0'.
5		3	1.3	2, 2, 2, 2				
		4	1.5	2, 2, 2, 3				Tan, orange-brown and gray mottled clayey SILT with seams of silt and silty clay, wet.
								End of boring at 8.0 feet.
10								
15								
20								
25								

NOTES:

Boring Grouted to surface after completion

CONFIDENTIAL

GC05825

SB-1H

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Assess.	PROJECT NUMBER: BAD006	SHEET NO.: 1 of 2	HOLE NUMBER: SB-1L
SITE: Textileather Corporation	COORDINATES: 6197.48 / 3901.94	LOGGED BY: Jeff Martin	CHECKED BY: JWM
BEGUN: 03/04/85	COMPLETED: 03/04/85	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" hollow stem augers
BORING DIA.: 6"	TOTAL DEPTH: 50	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 593.99 ft	DEPTH/ELEV. GROUND WATER: ▽ 5.97 / 588.0; ▽ 46.30 / 547.7
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 2.5" and 3" O.D. split spoons	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. (USGS) data are in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS 18"/12"/6"	PID (ppm)	LAYER Elev. Depth	DEPTH	GRAPHIC LOG / SAMPLE	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
SP-1/ SS-1	2.0/1.2	9/25/20	1.9				Soil mixed with gravel in upper 3"; wet.	
SP-2/ SS-2	2.0/0.8	9/27/18	1.9	2.4			Very stiff dark brown clayey **SILT**: trace gravel, little sand; slightly moist to moist; no odor; slight light brown mottling; topsoil.	OVM 580B PID background reading = 1.9 ppm.
SP-3/ SS-3	2.0/1.7	3/11/7	1.9		5		Stiff to very stiff brown silty **CLAY** with gray mottling: trace to little sand; slightly moist; high plasticity; no odor;	
SP-4/ SS-4	2.0/2.0	4/12/9	1.9	6.0				Sampling with 3" O.D. split spoons.
SP-5/ SS-5	2.0/2.0	4/14/7	1.9	8.0			Stiff brown clayey **SILT**: trace sand; very moist, discretely wet along silty varved laminations between 8.8'-7.8'; no odor; slight gray mottling; medium to high plasticity; natural organic debris.	Stopped at 1430 hours, 03/04/85; total depth = 10'.
SP-6/ SS-6 SS-7	2.0/2.0	4/16/9	split 2.1 2.1		10		Interbedded stiff gray silty **CLAY** and brown clayey **SILT** to **SILT**: trace to little sand; silt layers are varved, < 0.125"-0.5" thick; moist to very moist; high plasticity; no odor.	
SP-7/ SS-8	2.0/1.6	4/9/7	2.0				...same as above, iron oxide staining along silty varves and vertical fractures/root traces.	Water level in augers 5.97' from grade at 0805 hours on 03/05/85.
SP-8/ SS-9	2.0/1.8	2/7/4	2.0	14.0	15		Stiff gray varved clayey **SILT** to silty **CLAY**: trace to little sand; very moist; high plasticity; no odor.	
SP-9/ SS-10	2.0/1.2	WOR/3/ 3/4	2.1				Medium stiff gray varved clayey **SILT**: trace to little sand; very moist; high plasticity; no odor.	Before starting drilling at 1000 hours on 03/08/85 bailed 2 gallons of water out of augers.
SP-10/ SS-11	2.0/1.7	2/5/4	2.1	17.2			...same as above, gray varved clayey **SILT**.	
SP-11/ SS-12	2.0/2.0	2/8/7	2.1		20		Medium stiff gray clayey **SILT** to silty **CLAY** with red mottling; very moist; high plasticity; no odor.	
SP-12/ SS-13	2.0/1.8	2/10/8	2.0	21.1			Stiff gray clayey **SILT** to silty **CLAY**: trace subrounded to subangular gravel, little sand; very moist; high plasticity; no odor.	Checked soil sample SS-8 and water sample with Sudan IV dye - no reactions; checked water column in augers with interface probe and clear bailer - no interface, sheen, or odors. Water level in augers rose between 1.0' and 1.5' in appox. 20 mins.
SP-13/ SS-14	2.0/2.0	2/10/10	2.0				...same as above, reddish gray clayey **SILT** to silty **CLAY**; slightly stratified.	
SP-14/ SS-15	2.0/2.0	2/10/8	2.0		25		...same as above; gray.	
SP-15/ SS-16	2.0/2.0	2/8/6	2.0				...same as above, very moist.	
SP-16/ SS-17	2.0/2.0	4/16/11	2.0		30		...same as above.	Changed from 3" to 2.5" spoons at 20'.
SP-17/ SS-18	2.0/2.0	3/10/8	2.0				...same as above.	
SP-18/ SS-19	2.0/2.0	3/13/8	2.1		35		...same as above.	

SB-14

GEOLOGIC DRILL LOG

PROJECT	PROJECT NUMBER	SHEET NO.	HOLE NUMBER
Phase II Environmental Site Assess.	8A0008	2 of 2	SB-1L

continuation

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (6"/12"/18")	PID (ppm)	LAYER Elev. Depth	DEPTH	GRAPHIC LOG	SAMPLE	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
SP-19/ SS-20	2.0/2.0	2/8/7	2.1					...same as above.	
SP-20/ SS-21	2.0/1.9	1/9/8	4.2					...same as above.	PID background elevated to 4.2 ppm due to exhaust from truck engines (had to keep truck running to warm soil samples for screening).
SP-21/ SS-22	2.0/1.8	4/10/8	2.1		40			...same as above.	
SP-22/ SS-23	2.0/1.8	4/17/17	2.1	42.0				Sandy clayey SILT: moist; becomming stiff and hard.	
SP-23/ SS-24	2.0/1.8	7/38/40	2.1		45			Very stiff gray sandy clayey SILT: trace subround to subangular gravel, little to some sand; moist to slightly moist; stiff; medium plasticity; no odor.	
SP-24/ SS-25	2.0/1.3	15/80/ 50/4"	2.1					...same as above, but hard and slightly moist.	
SP-25/ SS-26	2.0/1.7	NR	2.1					...same as above.	Last split spoon collected from 48-50'. Augers left in place until 03/07/95, water level in augers 48.30' from grade at 0800 hours on 03/07/95.
				50.0	50				
					55				▽ Static water level measured in augers on 03/05/95, total depth = 10.0'.
					60				▽ Static water level measured in augers on 03/07/95, total depth = 50.0'.
					65				
					70				
					75				

HULL & ASSOCIATES, INC.

WELL CONSTRUCTION LOG

PROJECT	PROJECT NUMBER	WELL NUMBER
Phase II Environmental Site Assess.	8A0006	MW-19

SITE	COORDINATES	GROUND SURFACE ELEVATION	CASING STICKUP
Textileather Corporation	5476.88 / 4492.03	593.37 ft ☒Surveyed ☐Estimated	NA

Soil Boring Cross-Reference *SB-19*
Town and City *Toledo*
County and State *Lucas, OH*

Installation Date (s) *03/08/95*

Drilling Method *4.25" hollow stem augers*
Drilling Contractor *Summit Drilling Company*
Drilling Fluid *None*

Development Technique (s) / Dates
Developed with 2" I.D. PVC bailer. Completed on 03/13/95 prior to initial ground-water sampling on 03/13/95.

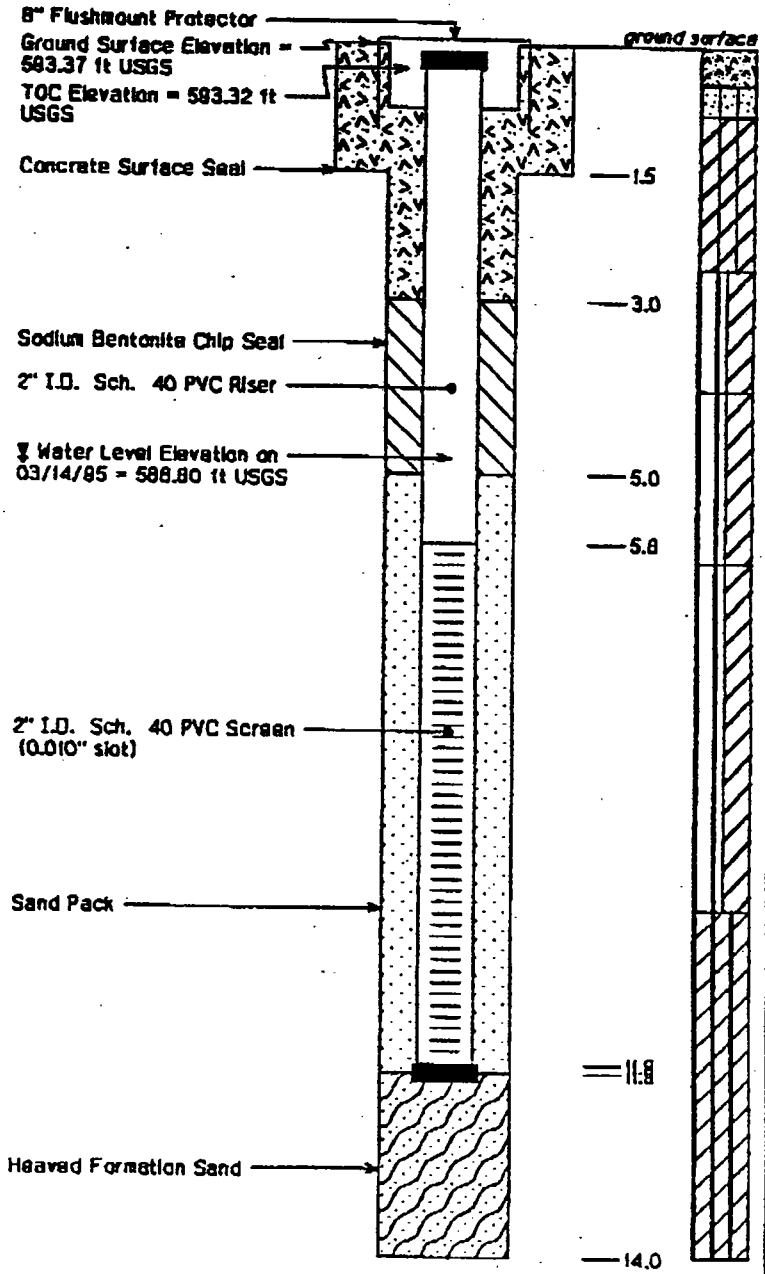
Fluid Loss During Drilling (gals) *NA*
Water Removed During Development (gals)
5 gallons – 03/13/95

Static Depth to Water Date *03/14/95*
Static Depth to Water (feet) *4.52 ft TOC*

Well Purpose *Monitoring water quality and potentiometric surface at the hazardous waste staging/solvent recovery area.*

Remarks *All elevations referenced to NGS benchmark A 313, vertical datum = NAVD 88, elevation = 598.91 ft USGS, located at intersection of Stickney Avenue and Interstate 75.*

Prepared By *Jeff Martin*
Date Prepared *4/07/95*



SG-23 H

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Assess.	PROJECT NUMBER: BAD006	SHEET NO.: 1 of 1	HOLE NUMBER: SB-23
SITE: Textileather Corporation	COORDINATES: 5386.87 / 4375.87	LOGGED BY: Jeff Martin	CHECKED BY: JWM
BEGUN: 03/09/95	COMPLETED: 03/09/95	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" hollow stem augers
BORING DIA.: 8"	TOTAL DEPTH: 14	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 594.21 ft	DEPTH/ELEV. GROUND WATER: ▽ 8.83 / 587.4; ▼ 8.75 / 587.5
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 2.5" O.D. split spoons	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. (USGS) data are in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (8"/12"/18")	PID (ppm)	LAYER Elev. Depth	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
HA-1/ SS-1	NA	NA	2.1	.3	Soil as described below underlain by 1"-2" gravel.	OVM 580B PID background reading = 2.1 ppm.
SP-1/ SS-2	2.0/1.8	pushed	2.1	2.2	Dark brown clayey silt FILL: trace gravel; little to some sand; moist; medium plasticity; no odor.	
SP-2/ SS-3	2.0/1.8	pushed	2.1	4.0	Mottled gray and brown silty CLAY: trace sand; moist; medium to high plasticity; no odor; root traces and burrows; traces of natural organic debris.	Pushing spoons because of proximity to fire protection lines.
SP-3/ SS-4	2.0/2.0	pushed	2.1	4.8	...same as above grading to...	
SP-4/ SS-5	2.0/2.0	pushed	2.1	7.7 / 8.0	Gray clayey SILT with black mottling at 4.8' underlain by varved gray silty CLAY and clayey SILT: trace sand; very moist to wet (siltier varves tend to be wet); high plasticity; natural organic debris.	Checked soil samples SS-2 and SS-5 with Sudan IV dye, no reaction.
SP-5 SS-6	2.0/1.5	pushed	2.1	11.1	...same as above, trace to little sand.	Approx. 1" water in bottom of soil boring at total depth = 8'.
SP-6 SS-7	2.0/1.8	pushed	2.1	13.8 / 14.0	Gray clayey SILT: trace sand; no odor; wet; very plastic.	
					Mottled brown and greenish-gray varved clayey SILT: moist to slightly moist; medium to high plasticity; no odor; trace natural organics; burrows.	Depth to water in boring at 1040 hours = 8.48' from grade (total depth = 14'). Collected water sample with clear bailer; no interface, sheen, or odor; water sample headspace = 2.1 ppm. Water sample did not react with Sudan IV dye.
					Gray silty CLAY with reddish-gray mottles: trace sand; very moist to wet; high plasticity; no odor.	
					Gray sandy clayey SILT with reddish-brown mottles: trace gravel; very moist; high plasticity; no odor.	

DEPTH: 5, 10, 15, 20, 25, 30, 35

▽ Water level measured prior to development 03/10/95.

▼ Static water level measured prior to initial ground-water sampling on 03/13/95.

HULL & ASSOCIATES, INC.

SB-8U H

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Assess	PROJECT NUMBER: 8AD006	SHEET NO.: 1 of 1	HOLE NUMBER: SB-8U
SITE: Textileather Corporation	COORDINATES: 6204.52 / 4572.12	LOGGED BY: Brent A. Graves	CHECKED BY:
BEGUN: 03/09/95	COMPLETED: 03/09/95	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" hollow stem augers
BORING DIA.: 8"	TOTAL DEPTH: 10.0	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 593.43 ft	DEPTH/ELEV. GROUND WATER: ▼ 4.52 / 588.9; ▼ 4.70 / 588.7
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 3" O.D. split spoons	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. (USGS) data are in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (6"/12"/6")	PID (ppm)	LAYER Elev. Depth	DEPTH	GRAPHIC LOG	SAMPLE	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
				.4				Top 0.2 feet ASPHALT. Sandy gravel SUBGRADE from 0.2 to 1.0 foot. Subgrade wet.	Boring augered to 10.0 feet. Stratigraphy taken from soil boring log for SB-8L.
				1.0				Stiff olive-green and grey mottled silty CLAY, trace sand, plastic, moist, roots.	
				2.7				Stiff brown and grey mottled silty CLAY, trace sand, plastic, moist, roots.	
				4.0	5			Stiff brown and grey mottled silty CLAY to clayey SILT, plastic to slightly plastic, moist, varves.	
								... same as above, FeO stained fractures, moist.	
				10.0	10			... same as above, upper 1.0 foot contained wet silt zones. Water in augers.	▼ Static water level measured during development on 03/10/95.
					15				▼ Static water level measured during initial ground-water sampling on 03/14/95.
					20				
					25				
					30				
					35				

HULL & ASSOCIATES, INC.

SB-11

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Asseas.	PROJECT NUMBER: BA0006	SHEET NO.: 1 of 1	HOLE NUMBER: SB-11
SITE: Textileather Corporation	COORDINATES: 5324.40 / 4801.78	LOGGED BY: Jeff Martin	CHECKED BY: JWM
BEGUN: 03/12/95	COMPLETED: 03/12/95	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" Hollow Stem Augers
BORING DIA.: 8"	TOTAL DEPTH: 14.8	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 594.66 ft	DEPTH/ELEV. GROUND WATER: ▼ 8.59 / 586.1; ▼ 8.70 / 586.0
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 2.5" O.D. split spoons	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. data (USGS) are in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (18"/12"/18")	PID (ppm)	LAYER Elev. Depth	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
AS-1/ SS-1	NA	NA	2.3	.3	Top 0.3" ASPHALT, underlain by crushed limestone FILL.	OVM 580B PID background reading =2.3 ppm. Hand augered to 3.0'.
SP-1/ SS-2	2.0/1.0	20/28/20	2.3	3.0	Medium dense gray clayey silt FILL; trace to little gravel, little to some sand; very moist to wet; very plastic; no odor.	
SP-2/ SS-3	2.0/1.0	20/43/18	2.3		crushed limestone FILL as above, slightly moist to moist.	
SP-3/ SS-4	2.0/0.3	11/10/4	2.3		..same as above, dense; moist to very moist; no odor.	Checked soil sample SS-4 with Sudan IV dye, no reaction. Water sample was cloudy with no odor or sheen, headspace = 2.3 ppm. Water did not react with Sudan dye.
					..same as above, loose; wet at 8.2'.	
SP-4/ SS-5	2.0/0.2	1/3/2	2.3		..same as above, very loose; saturated.	
SP-5/ SS-6	2.0/0.2	1/7/2	2.3		..same as above; loose.	
SP-6/ SS-7	2.0/0.9	14/11/9	2.3	12.3	..same as above; medium dense.	
SP-7/ SS-8	2.0/0.8	3/14/7	2.3		Medium dense gray clayey SILT; trace gravel, little to some sand; moist; very plastic; no odor.	
				18.0		Checked soil sample SS-7 from base of excavation with Sudan dye, no reaction.

Depth scale: 5, 10, 15, 20, 25, 30, 35

▼ Water level measured prior to development on 03/13/95.

▼ Static water level measured prior to initial ground-water sampling on 03/14/95.

HULL & ASSOCIATES, INC.

SB-10 H

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Assess.	PROJECT NUMBER: BAD008	SHEET NO.: 1 of 1	HOLE NUMBER: SB-10
SITE: Textileather Corporation	COORDINATES: 5652.09 / 4966.70	LOGGED BY: Brent Graves	CHECKED BY: JWM
BEGUN: 03/14/95	COMPLETED: 03/14/95	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" Hollow Stem Augers
BORING DIA.: 8"	TOTAL DEPTH: 16	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 593.26 ft.	DEPTH/ELEV. GROUND WATER: ▽ 13.82 / 579.4; ▽ 7.84 / 585.6
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 3" O.D. split spoons	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. (USGS) data are in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (6"/12"/6")	PID (ppm)	LAYER Elev. Depth	DEPTH	GRAPHIC LOG	SAMPLE	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
				.3 / 1.0				Top 0.3' ASPHALT, underlain by sandy GRAVEL subgrade.	
SP-1/ SS-1	2.0/2.0	8/15/8	2.3					Stiff brown and gray mottled clayey SILT: trace sand; slightly plastic; moist; roots.	QVM 580B PID background reading = 2.3 ppm.
SP-2/ SS-2	2.0/2.0	4/13/7	2.3					...same as above, varved; some varves iron oxide stained; roots.	Checked soil samples from 1.0'-14.2' and ground-water sample with Sudan IV dye, no reactions.
SP-3/ SS-3	2.0/2.0	8/13/7	2.3		5			...same as above, top 0.1' silt; possible iron oxide stained fractures.	
SP-4/ SS-4	2.0/2.0	2/7/5	2.3					...same as above, 8.2'-8.7' very silty; iron oxide stained fractures.	
SP-5/ SS-5	2.0/2.0	1/8/5	2.3		10			...same as above, thin wet at 10.2'.	
SP-6/ SS-6	2.0/2.0	3/10/5	2.3						
SP-7/ SS-7	2.0/2.0	0/4/8	2.3	12.0				Stiff gray silty CLAY with reddish-brown mottles; plastic; moist.	Checked water level in augers at 1650 hours, depth to water (DTW) = 13.82' below grade and rising; at 1658 hours DTW = 13.45' below grade.
				16.0	15			Soft gray silty CLAY with reddish-brown mottles; little sand; trace gravel; plastic; moist.	
					20				▽ Static water level measured during development on 03/14/95.
					25				▽ Static water level measured prior to initial ground-water sampling on 03/17/95.
					30				
					35				

HULL & ASSOCIATES, INC.

SB-14 H

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Assess.	PROJECT NUMBER: BA0006	SHEET NO.: 1 of 1	HOLE NUMBER: SB-14
SITE: Textileather Corporation	COORDINATES: 5397.04 / 4591.72	LOGGED BY: Jeff Martin	CHECKED BY: JWM
BEGUN: 03/15/95	COMPLETED: 03/15/95	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" hollow stem augers
BORING DIA.: 8"	TOTAL DEPTH: 18	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 583.84 ft	DEPTH/ELEV. GROUND WATER: ▽ 8.55 / 587.3; ▼ 8.48 / 587.4
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 2.5" split spoons	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. (USGS) data in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (6"/12"/6")	PID (ppm)	LAYER Elev. Depth
HA-1/ SS-1	NA / NA	NA / NA	2.4 / 0.0	2 / 1.8
HA-2/ SS-2	2.0/1.0	pushed	0.0	2.3
SP-1/ SS-3				
SP-2/ SS-4	2.0/1.6	pushed	0.0	
SP-3/ SS-5	2.0/1.8	3/8/4	102	8.0
SP-4/ SS-6	2.0/1.7	3/8/4	154	
SP-5/ SS-7	2.0/1.7	3/8/4	85	10.0
SP-6/ SS-8	2.0/1.8	2/6/4	2.4	
SP-7/ SS-9	2.0/1.8	2/8/6	2.4	14.0
				16.0

DEPTH: 5, 10, 15, 20, 25, 30, 35

GRAPHIC LOG / SAMPLE

DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor

- **ASPHALT** underlain by brown sand and crushed limestone **FILL**: slightly moist to moist; no odor
- Black clayey silt and silty clay **FILL**: little to some sand and gravel; slightly moist; no odor; contains coal and coal ash.
- Mottled gray and brown silty **CLAY**: trace to little sand; slightly moist to moist; medium plasticity; no odor; root traces.
- ...same as above with clayey silt varves.
- Medium stiff greenish-gray varved clayey **SILT**: trace to little sand; moist; medium to high plasticity; solvent odor?
- ...same as above but very moist to discretely wet along siltier varves; very plastic; solvent odor?
- Medium stiff greenish-gray varved clayey **SILT**, as above, interbedded with greenish-gray silty **CLAY** with red mottling; moist; very plastic; solvent odor?.
- ...same as above, increase in clay content; varves less distinct.
- Greenish-gray sandy clayey **SILT**: trace gravel; little to some sand; moist; very plastic; no odor.

DRILLING NOTES water levels, water return, character of drilling, etc.

OVM 580B PID background reading = 0.0 ppm.

Hand augered to 2.3'.

Checked soil samples SS-5, SS-6, and SS-7 with Sudan IV dye, no reactions.

No water in boring at 12.0'.

Depth to water in boring at 1442 hours = 14.30' from grade (total depth = 18.0'). Checked water sample with clear baller, no interface or sheen. Water sample headspace approx. 12 ppm; water sample did not react with Sudan IV dye.

▽ Water level measured prior to development on 03/16/95.

▼ Static water level measured prior to initial ground-water sampling on 03/17/95.

HULL & ASSOCIATES, INC.

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

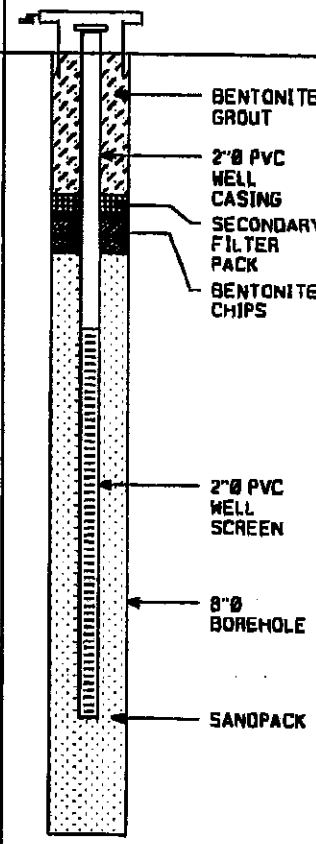
(DL-02)
Page 1 of 1

PROJECT NAME: TEXTILEATHER
PROJECT NUMBER: 6324
CLIENT: TEXTILEATHER/GENCORP
LOCATION: TOLEDO, OHIO

HOLE DESIGNATION: SB/PZ-26
DATE COMPLETED: AUGUST 11, 1999
DRILLING METHOD: 4¼" HSA
CRA SUPERVISOR: M. MILLER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.
	GROUND SURFACE	0.00
	ASPHALT	-.2
	SAND (FILL), some gravel, loose, medium to coarse grained, poorly graded, black, dry	
2.5		-3.0
	CL-CLAY (NATIVE), some silt and fine sand, firm, medium plasticity, homogeneous, light orange-brown, with gray-ox, moist	
5.0		
7.5		
	- silt and fine sand lense, ox, wet	
10.0		-10.0
	ML-SILT (NATIVE), some clay, little fine sand, loose, low plasticity, homogeneous, light gray, very moist	
12.5	- silt, brown, moist	
	- wet	-13.0
	CL-CLAY (NATIVE), some silt, little fine sand, low plasticity, soft, light gray, very moist, silt and fine sand seams throughout, very moist	
15.0		-18.0
	CH-CLAY (NATIVE), little silt, trace coarse sand, very soft, very plastic, homogeneous, light gray with red mottling, very moist	
17.5		
	- 1/8" medium grained sand seam, very moist, gray	
20.0	END OF HOLE @ 20.0ft BGS	-20.0
22.5		
25.0		
27.5		
30.0		
32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
7.0 to 17.0ft BGS
Length: 10.0ft
Diameter: 2"
Slot Size: #10
Material: PVC
Sand Pack:
5.0 to 20.0ft BGS
Material: Sand

SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	X	3	0.3
2SS	X	5	ND
3SS	X	5	ND
4SS	X	3	ND
5SS	X	4	ND
6SS	X	4	ND
7SS	X	2	ND
8SS	X	2	ND

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

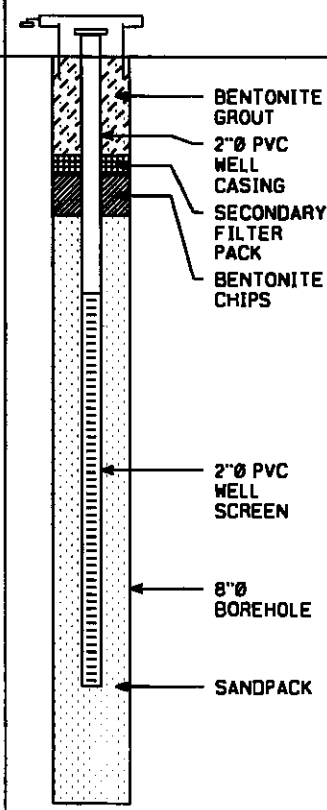
(DL-09)
Page 1 of 1

PROJECT NAME: TEXTILEATHER
PROJECT NUMBER: 6324
CLIENT: TEXTILEATHER/GENCORP
LOCATION: TOLEDO, OHIO

HOLE DESIGNATION: SB/PZ-33
DATE COMPLETED: AUGUST 12, 1999
DRILLING METHOD: 4¼" HSA
CRA SUPERVISOR: M. MILLER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.
	GROUND SURFACE	0.00
	TOPSOIL (FILL), vegetation (grass), black, moist	-.5
	SAND (FILL), some gravel, compact, medium to fine grained, poorly sorted, light brown, dry	-1.5
-2.5	CRUSHED STAMP SANDS, volcanic rock-slag	-1.8
	CLAY (NATIVE), little silt and fine sand, some roots, low plasticity, fractured, light orange-brown, dry	-1.8
-5.0	CLAY (NATIVE), little silt and fine sand, stiff, low plasticity, homogeneous, ox brn and gray, moist (little recovery in samples 2 and 3)	
-7.5	SILT (NATIVE), some clay, little fine sand, low plasticity, varved, light gray to greenish-gray, moist to very moist	-8.0
-10.0	- color change to light brown	
-12.5	CLAY (NATIVE), little silt, trace coarse subangular sand, firm, very plasticity, homogeneous, gray with re-gray mottles, moist to very moist	-12.3
-15.0	CH-CLAY (NATIVE), some silt, little subangular or subrounded gravel and coarse sand, firm, homogeneous, medium plastic, moist to very moist	-15.5
-17.5		
-20.0	END OF HOLE @ 20.0ft BGS	-20.0
-22.5		
-25.0		
-27.5		
-30.0		
-32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
6.0 to 16.0ft BGS
Length: 10.0ft
Diameter: 2"
Slot Size: #10
Material: PVC
Sand Pack:
4.0 to 19.0ft BGS
Material: Sand

SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	X	15	15.7
2SS	X	16	4.7
3SS	X	9	1.0
4SS	X	8	1.3
5SS	X	8	218
6SS	X	4	122
7SS	X	7	1.8
8SS	X	4	1.9

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

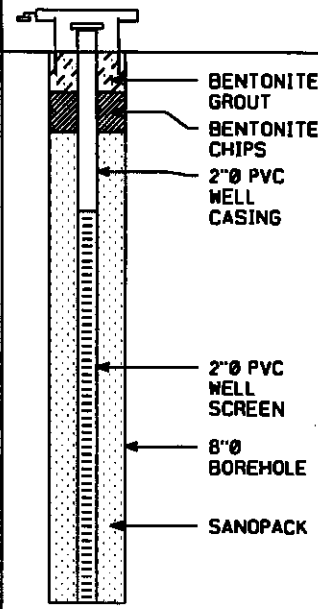
(DL-11)
Page 1 of 1

PROJECT NAME: TEXTILEATHER
PROJECT NUMBER: 6324
CLIENT: TEXTILEATHER/GENCORP
LOCATION: TOLEDO, OHIO

HOLE DESIGNATION: SB/PZ-35
DATE COMPLETED: AUGUST 18, 1999
DRILLING METHOD: 4¼" HSA
CRA SUPERVISOR: M. MILLER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.
	GROUND SURFACE	0.00
	ASPHALT	-.3
	SAND and CRUSHED LIMESTONE (FILL), compact, medium sand to gravel size, well graded, brown, dry	
2.5	- very moist	-3.0
	CL-CLAY (NATIVE), some silt, root traces, trace fine sand, firm, plastic, homogeneous, olive gray/light gray, moist	
5.0		
	-1/8" sand seam, wet, gray, medium grained	
7.5		
10.0		
	- 1/4" silt seam, wet, brown	
12.5	CH-CLAY (NATIVE), firm, very plastic, mottled, light gray with red-gray mottles, moist to very moist	-12.0
	- trace subangular coarse sand to gravel	
15.0	END OF HOLE @ 15.0ft BGS	-15.0
17.5		
20.0		
22.5		
25.0		
27.5		
30.0		
32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
4.0 to 14.0ft BGS
Length: 10.0ft
Diameter: 2"
Slot Size: #10
Material: PVC
Sand Pack:
2.0 to 14.0ft BGS
Material: Sand

SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
1SS	X	15	14.7
2SS	X	5	0.2
3SS	X	6	40.5
4SS	X	5	224
5SS	X	9	446
6SS	X	3	3.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

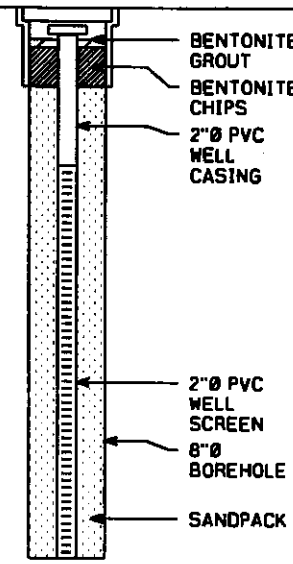
(DL-14)
Page 1 of 1

PROJECT NAME: TEXTILEATHER
PROJECT NUMBER: 6324
CLIENT: TEXTILEATHER/GENCORP
LOCATION: TOLEDO, OHIO

HOLE DESIGNATION: SB/PZ-38
DATE COMPLETED: AUGUST 18, 1999
DRILLING METHOD: 4¼" HSA
CRA SUPERVISOR: M. MILLER

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.
	GROUND SURFACE	0.00
	CONCRETE	-.4
	SAND and CRUSHED LIMESTONE (FILL)	-1.0
2.5	CLAY (NATIVE), with silt, trace fine sand, plastic, block, light gray/ light brown-oxidized, moist	-3.5
5.0	CL-CLAY (NATIVE) with silt, trace fine sand, firm, plastic, olive-gray/ light gray, moist to very moist (blocky with occasional lenses)	
7.5		
10.0		
12.5	CH-CLAY (NATIVE), trace sand, firm, very plastic, homogeneous, light gray with red-gray mottles, very moist	-11.7
15.0	END OF HOLE @ 15.0ft BGS	-15.0
17.5		
20.0		
22.5		
25.0		
27.5		
30.0		
32.5		

MONITOR INSTALLATION



SCREEN DETAILS
Screened interval:
4.0 to 14.0ft BGS
Length: 10.0ft
Diameter: 2"
Slot Size: #10
Material: PVC
Sand Pack:
2.0 to 14.0ft BGS
Material: Sand

SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
1HA		--	12
2SS		8	5.6
3SS		7	7.2
4SS		5	13
5SS		6	4.5
6SS		6	9.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

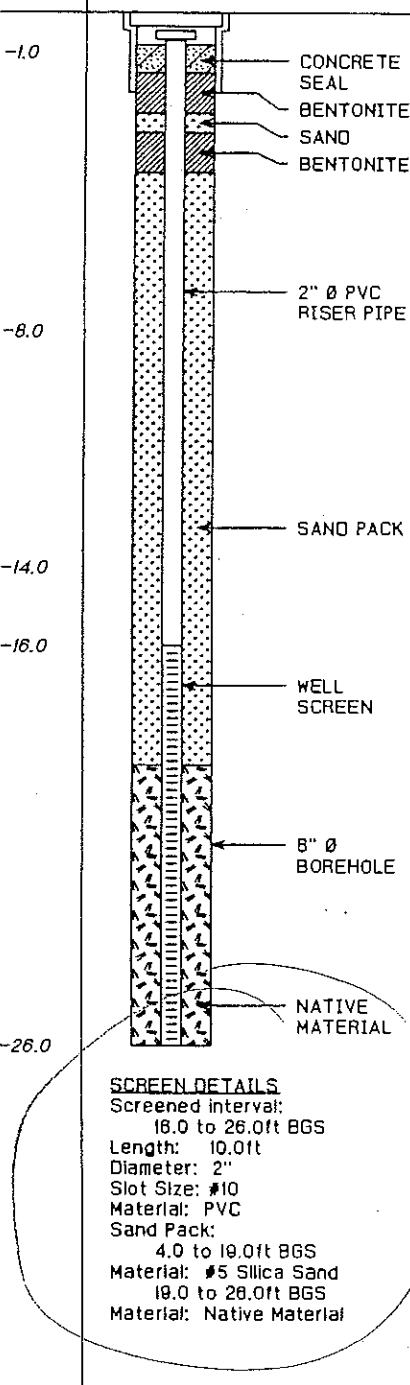
(WL-02)
Page 1 of 1

PROJECT NAME: TEXTILEATHER
PROJECT NUMBER: 6324
CLIENT:
LOCATION: TOLEDO, OHIO

HOLE DESIGNATION: PZ-43
DATE COMPLETED: DECEMBER 2, 1999
DRILLING METHOD: 4 ¼" ID HSA
CRA SUPERVISOR: D. NEWTON

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL
	REFERENCE POINT (Top of Riser) GROUND SURFACE	0.00 0.0
	ASPHALT, gravelly, brown clay mixed, dry	
	CL-CLAY mixed with coarse gravel, light brown, black staining, dry	-1.0
2.5	- with orange brick material mixed, firm, smooth	
	- mixed with light brown clay, compact, low plasticity, dark brown	
5.0	- silty	
7.5		-8.0
	CL-SILTY CLAY, soft, low plasticity, organic streaking, light brown, dry	
10.0	- sticky	
12.5	- with fine gravel mixed	
		-14.0
15.0	CL-CLAY, fine gravels, soft, sticky, brown, dry to moist	
		-16.0
17.5	CH-CLAY, some gravels, very soft, smooth, homogeneous, high plasticity, brownish gray, dry	
	- gravelly	
20.0		
22.5		
25.0		
	END OF HOLE @ 26.0ft BGS	-26.0
27.5		
30.0		
32.5		

MONITOR INSTALLATION



SAMPLE NUMBER	STATE	'N' VALUE	PID (ppm)
1SS		6	0.9
2SS		8	0.9
3SS		8	0.1
4SS		5	0.1
5SS		8	0.0
6SS		3	0.0
7SS		5	0.0
8SS		1	0.0
9SS		4	0.0
10SS		3	0.0
11SS		3	0.0
12SS		1	0.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

BORING LOG

Boring	SB-10
Sheet	1 of 1
Boring Location	Inside berm near aboveground MEK storage tanks
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Joe Woytowicz
Date started	16-Feb-90
Date completed	16-Feb-90
Boring method	Hand auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
SNR	Gray	0	0	0	Gravel Fill
SS	Dark brown	1	0	0	Moist, stiff Clay
SS	Gray	3	0	0	Same; solvent odor
		5			Boring terminated at 5 feet below ground surface Gorundwater not encountered

BORING LOG

Boring	SB-11
Sheet	1 of 1
Boring Location	Inside berm near aboveground MEK storage tanks
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Joe Woytowicz
Date started	16-Feb-90
Date completed	16-Feb-90
Boring method	Hand auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
SNR	Gray	0		0	Gravel Fill
SS	Dark brown	1	0	0	Moist, stiff Clay
SS	Gray	3	0	0	Same; orange mottling; solvent odor
		5			Boring terminated at 5 feet below ground surface Groundwater not encountered

BORING LOG

Boring	SB-16
Sheet	1 of 1
Boring Location	North of Building 53
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Bruce Patterson
Date started	17-Feb-90
Date completed	17-Feb-90
Boring method	Hollow-stem auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
SS		0	0	0	Gravel, cinders, clay Fill
SS	Gray	2	0	0	Moist, slightly silty, stiff Clay with red-brown mottling
SS		4	0	0	Same; wet, silty partings
SS	Gray to brown	6	0	0	Very moist to wet, very silty, Clay with red-brown mottling
SS	Gray	8	0	0	Same; maroon mottling and occasional stiff red-brown clay zones
		10			Boring terminated at 10 feet below ground surface Groundwater encountered at approximately 6 feet below ground surface

BORING LOG

Boring	SB-17
Sheet	1 of 1
Boring Location	South of Building 53
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Bruce Patterson
Date started	17-Feb-90
Date completed	17-Feb-90
Boring method	Hollow-stem auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
SS	Black	0	0	2.0	Gravel and clay Fill; odor
SS	Gray	2	0	0	Moist, slightly silty, medium-stiff Clay; odor
SS		4	0	0	Same; ocassional red-brown or black mottling; odor
SS	Gray to red-brown	6	0	0	Very moist to wet, silty, soft Clay
SS	Gray	8	0	0	Same; maroon mottling
		10			Boring terminated at 10 feet below ground surface Groundwater encountered at approximately 7 feet below ground surface

BORING LOG

Boring	SB-12
Sheet	1 of 1
Boring Location	North of Solvent Recovery Building
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Bruce Patterson
Date started	20-Feb-90
Date completed	20-Feb-90
Boring method	Hollow-stem auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
		0			Asphalt/Concrete
SS	Brown	0.5	0	0	Sand
	Gray	1			Moist, slightly silty, stiff Clay with olive mottling
SS		2	0	0	Silty, medium-stiff Clay with olive mottling
SS		4	0	0	Same; very moist with black mottling
SS		6	0	2	Same; red-brown mottling
SS		8	0	0	Same; grades into a gray, moist, silty, stiff Clay with maroon mottling and trace gravel; wet 9.5 to 10 feet
		10			Boring terminated at 10 feet below ground surface
					Groundwater encountered at approximately 9.5 feet below grade

BORING LOG

Boring	SB-14
Sheet	1 of 1
Boring Location	North of Solvent Recovery Building
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Bruce Patterson
Date started	20-Feb-90
Date completed	20-Feb-90
Boring method	Hollow-stem auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
		0			Concrete
SS	Gray	0.5	0	0	Slightly moist, slightly silty, stiff Clay with red-brown mottling
SS		2	0	0	Same
SS	Light brown	4	0	0	Very moist, silty, soft Clay with gray mottling
SS		6	0	0	
SS	Gray	8	0	0	Same; maroon mottling
		10			Boring terminated at 10 feet below ground surface Groundwater not encountered

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

BORING LOG

Boring	SB-15
Sheet	1 of 1
Boring Location	North of Solvent Recovery Building
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Bruce Patterson
Date started	20-Feb-90
Date completed	20-Feb-90
Boring method	Hollow-stem auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
		0			Concrete
SS	Gray		0	1	Slightly moist, silty, stiff Clay with olive mottling
SS		2	0	1	Slightly moist, very silty, medium-stiff Clay with olive mottling; wet in zones
SS		4	0	2	Same grades into brown, moist, slightly silty, stiff Clay
SS	Brown	6	0	5	Same
SS	Gray	8	0	3	Same
		10			Boring terminated at 10 feet below ground surface
					Groundwater not encountered

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

BORING LOG

Boring	SB-8
Sheet	1 of 1
Boring Location	In truck pit west of red label building
Client	GenCorp and Toledo Buy-out Committee
Project No.	27682.00
Project Location	GenCorp Polymer Products 3729 Twining Street Toledo, Ohio

Drilling contractor	Layne Environmental Services
Clayton geologist	Bruce Patterson
Date started	20-Feb-90
Date completed	20-Feb-90
Boring method	Hollow-stem auger
Surface elevation	
Weather	

Monitoring well	No well installed
TOC elevation	
Length of screen	
Screen material	
TOC to screen	
TOC to grade	
Bentonite seal	
Sand screen	
Borehole plug	
Well lock	

Groundwater	
Water table	
Conductivity (x1000, µmho)	
Temperature °F	
pH	

LEGEND

MSL = Mean sea level
SS = 2-inch-diameter split-spoon sample
ST = Shelby tube sample
Grab = Grab sample
HA = Hand auger
SNR = Sample not recovered
CS = Core barrel sample
NA = Not applicable
Sample ID = Boring-upper depth-lower depth
TOC = Top of well casing
GW = Groundwater
Indicates sample interval

Sample Type and ID	Color	Depth in Feet	PID Type: HNU Bkg	PID Type: HNU Pk	Description
		0			Concrete
SS	Brown		0	0	Well sorted fine-grained sand Fill
SS	Gray to olive	2	0	12	Moist to very moist clay Fill with black sandy zone (2.0 to 3.0)
SS	Gray	4	0	18	Very moist, silty, soft Clay with maroon mottling
SS		6	0	20	Same; wet black sandy zone (6.5 to 7.0)
					Very moist, silty, soft Clay with maroon mottling
SS	Black to gray	8	0 0	0 7	Same; black sandy zone (8.5 to 9.0)
		10			Boring terminated at 10 feet below ground surface
					Groundwater not encountered

SB-19H

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Assess.	PROJECT NUMBER: 8AD006	SHEET NO.: 1 of 1	HOLE NUMBER: SB-19
SITE: Textileather Corporation	COORDINATES: 5476.88 / 4492.03	LOGGED BY: Jeff Martin	CHECKED BY: JWM
BEGUN: 03/08/95	COMPLETED: 03/08/95	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" hollow stem augers
BORING DIA.: 8"	TOTAL DEPTH: 14.5	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 593.37 ft	DEPTH/ELEV. GROUND WATER: ▽ 5.12 / 588.2; ▼ 4.52 / 588.8
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 2.5" O.D. split spoon	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. (USGS) data are in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (6"/12"/6")	PID (ppm)	LAYER Elev. Depth	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
HA-1/ SS-1	NA	NA	2.0	4.0	Top 0.45' CONCRETE	OVM 580B PID background reading = 2.0 ppm.
SP-1/ SS-2	2.0/1.5	10/55/25	2.0	2.8	FILL gray silty sand (crushed stone?): trace to little gravel, trace clay; slightly moist; no odor; at 0.8', changes to mostly gray silty clay with some brown silty clay: trace gravel, little sand; slightly moist to moist; no odor; medium plasticity.	
SP-2/ SS-3 SS-4	2.0/1.8	5/18/7	split 12.8 14.7	4.0	Very hard mottled gray and brown silty CLAY: trace sand; moist; slight solvent odor; medium to high plasticity; root traces; carbonized plant debris.	Hand augered to 2.0'.
SP-3/ SS-5	2.0/2.0	4/14/9	4.2	8.0	Very hard gray and brown varved silty CLAY and clayey SILT: trace sand; moist; slight solvent odor; medium to high plasticity; silty clay varves are gray, clayey silt varves are greenish-brown.	Checked SS-3 (4.0-5.1'), SS-4 (5.1-5.8'), SS-5 (6.0-8.0'), SS-6 (8.0-8.8'), and SS-7 (10.0-11.2') with Sudan dye, no reaction.
SP-4/ SS-6	2.0/1.8	4/17/13	2.0			
SP-5/ SS-7	2.0/1.2	5/17/13	18.0	10.0	...same as above, but stiff to very stiff, clayey silt varves are very moist to wet; no odor; high plasticity.	Solvent odors in ambient air.
ST-1/ SS-8	2.0/2.0	pushed	NS	14.0	...same as above, with burrow traces and natural organic debris (black mottling), root traces?	At 10', water level in borehole 7.52' from grade (let augers set from 1:00 PM to 1:30 PM to allow water to enter). Checked water sample with PID and Sudan dye: 8.0 ppm headspace, no reaction.
					Very stiff gray silty CLAY: trace sand, very moist to moist; no odor; high plasticity; some varves; faint reddish-gray mottling burrow traces); brown Fe oxide-stained near vertical fractures (old dessication cracks?).	
					Stiff gray clayey SILT: trace subangular to subrounded gravel, little to some sand; moist; no odor; high plasticity; not stratified.	Pushed shelby tube sample ST-1 from 12-14', full recovery.
						▽ Water level measured prior to development on 03/13/95.
						▼ Static water level measured prior to ground-water sampling on 03/14/95.

HULL & ASSOCIATES, INC.

SG-23 H

GEOLOGIC DRILL LOG

PROJECT: Phase II Environmental Site Assess.	PROJECT NUMBER: BAD006	SHEET NO.: 1 of 1	HOLE NUMBER: SB-23
SITE: Textileather Corporation	COORDINATES: 5386.87 / 4375.87	LOGGED BY: Jeff Martin	CHECKED BY: JWM
BEGUN: 03/09/95	COMPLETED: 03/09/95	DRILLER: Summit Drilling Company	DRILL EQUIPMENT: 4.25" hollow stem augers
BORING DIA.: 8"	TOTAL DEPTH: 14	CORE RECOVERY (FT./%): NA / NA	CORE BOXES: NA
SAMPLES: NA	CASING STICKUP: NA	GROUND ELEV.: 594.21 ft	DEPTH/ELEV. GROUND WATER: ▽ 8.83 / 587.4; ▼ 8.75 / 587.5
DEPTH/ELEV. TOP OF ROCK: NA /	SAMPLE TYPE: 2.5" O.D. split spoons	CASING DIA/LENGTH: NA	NOTES: Depth, location and elev. (USGS) data are in feet.

SAMPLE NUMBER	LENGTH/RECOV. (feet)	BLOW COUNTS (8"/12"/18")	PID (ppm)	LAYER Elev. Depth	DESCRIPTION AND CLASSIFICATION density, grain size/shape, color, structure composition, sorting, texture, moisture facies, odor	DRILLING NOTES water levels, water return, character of drilling, etc.
HA-1/ SS-1	NA	NA	2.1	.3	Soil as described below underlain by 1"-2" gravel.	OVM 580B PID background reading = 2.1 ppm.
SP-1/ SS-2	2.0/1.8	pushed	2.1	2.2	Dark brown clayey silt FILL: trace gravel; little to some sand; moist; medium plasticity; no odor.	
SP-2/ SS-3	2.0/1.8	pushed	2.1	4.0	Mottled gray and brown silty CLAY: trace sand; moist; medium to high plasticity; no odor; root traces and burrows; traces of natural organic debris.	Pushing spoons because of proximity to fire protection lines.
SP-3/ SS-4	2.0/2.0	pushed	2.1	4.8	...same as above grading to...	
SP-4/ SS-5	2.0/2.0	pushed	2.1	7.7 / 8.0	Gray clayey SILT with black mottling at 4.8' underlain by varved gray silty CLAY and clayey SILT: trace sand; very moist to wet (siltier varves tend to be wet); high plasticity; natural organic debris.	Checked soil samples SS-2 and SS-5 with Sudan IV dye, no reaction.
SP-5 SS-6	2.0/1.5	pushed	2.1	11.1	...same as above, trace to little sand.	Approx. 1" water in bottom of soil boring at total depth = 8'.
SP-6 SS-7	2.0/1.8	pushed	2.1	13.8 / 14.0	Gray clayey SILT: trace sand; no odor; wet; very plastic.	
					Mottled brown and greenish-gray varved clayey SILT: moist to slightly moist; medium to high plasticity; no odor; trace natural organics; burrows.	Depth to water in boring at 1040 hours = 8.48' from grade (total depth = 14'). Collected water sample with clear bailer; no interface, sheen, or odor; water sample headspace = 2.1 ppm. Water sample did not react with Sudan IV dye.
					Gray silty CLAY with reddish-gray mottles: trace sand; very moist to wet; high plasticity; no odor.	
					Gray sandy clayey SILT with reddish-brown mottles: trace gravel; very moist; high plasticity; no odor.	

DEPTH: 5, 10, 15, 20, 25, 30, 35

▽ Water level measured prior to development 03/10/95.

▼ Static water level measured prior to initial ground-water sampling on 03/13/95.

HULL & ASSOCIATES, INC.

WELL CONSTRUCTION LOG

PROJECT	PROJECT NUMBER	WELL NUMBER
Phase II Environmental Site Assess.	BAD008	MW-21U

SITE	COORDINATES	GROUND SURFACE ELEVATION	CASING STICKUP
Textileather Corporation	5483.36 / 4310.12	593.55 ft ☒Surveyed ☐Estimated	NA

Soil Boring Cross-Reference *SB-21U*
Town and City *Toledo*
County and State *Lucas, Ohio*

Installation Date (s) *03/10/95*

Drilling Method *4.25" hollow stem augers*
Drilling Contractor *Summit Drilling Company*
Drilling Fluid *NA*

Development Technique (s) / Dates
Purged with 1.75" O.D. PVC bailer on 03/13/95 prior to initial ground-water sampling on 03/14/95.

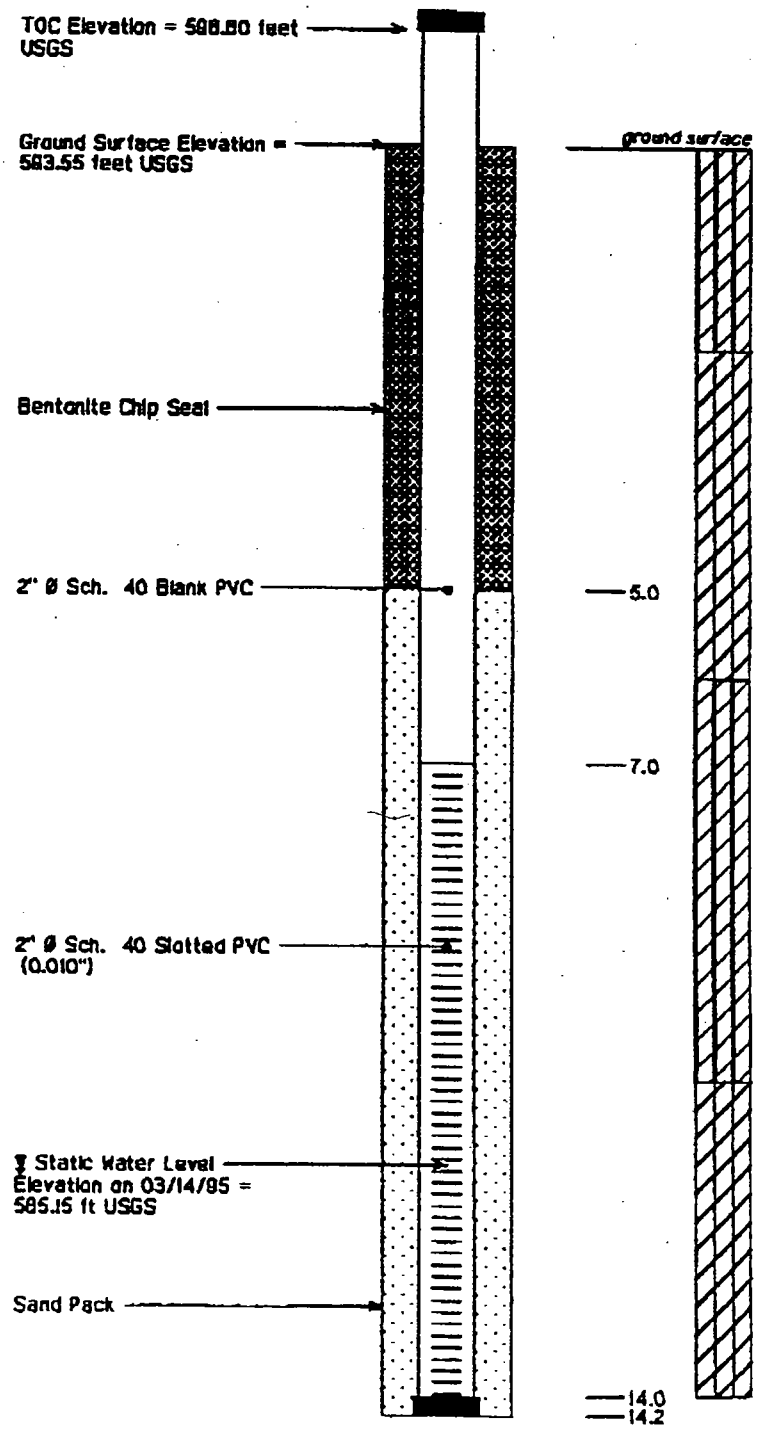
Fluid Loss During Drilling (gals) *NA*
Water Removed During Development (gals)
10 gallons - 03/13/95

Static Depth to Water Date *03/14/95*
Static Depth to Water (feet) *11.45*

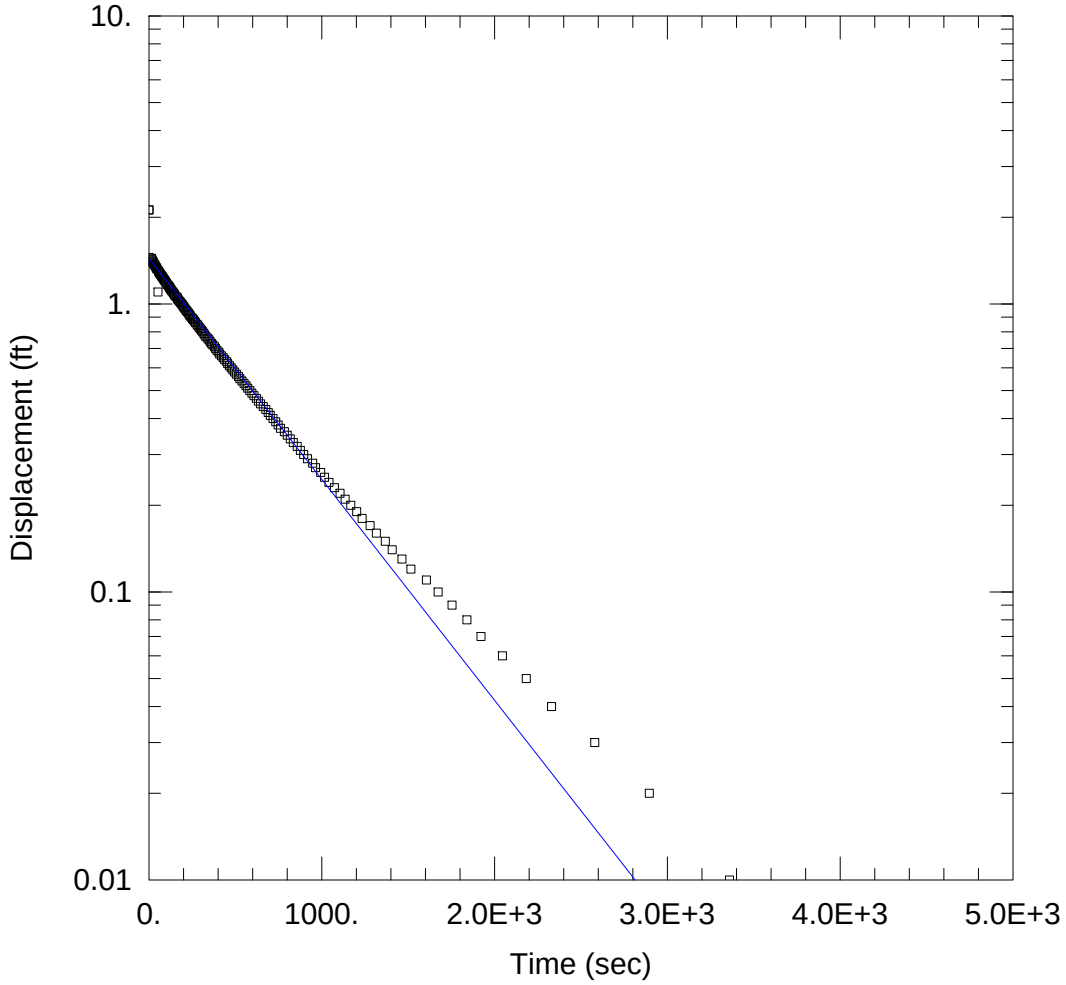
Well Purpose *Monitoring water quality and potentiometric surface near solvent recovery and northwest corner of plant.*

Remarks *All elevations referenced to NGS benchmark A 313, vertical datum = NAVD 88, elevation = 598.91 ft USGS, located at intersection of Stickney Avenue and Interstate 75.*

Prepared By *Jeff Martin*
Date Prepared *04/24/95*



APPENDIX B
Hydrogeologic Testing Results



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1TL.aqt
Date: 05/20/11 Time: 12:08:03

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1TL
Test Date: 3/3/11

AQUIFER DATA

Saturated Thickness: 14.25 ft Anisotropy Ratio (Kz/Kr): 1.

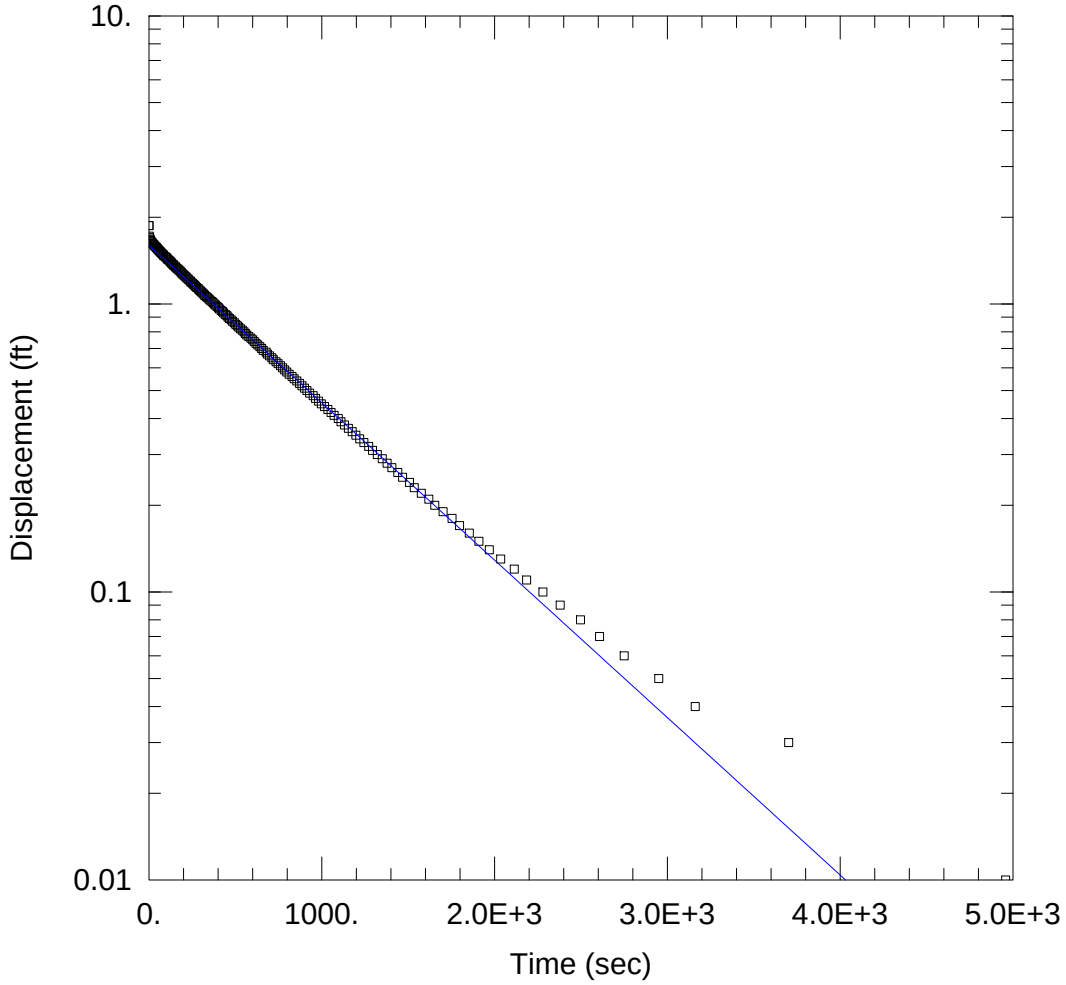
WELL DATA (MW-1TL)

Initial Displacement: 2.12 ft
Total Well Penetration Depth: 14.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.25 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 5.626E-5 cm/sec
y0 = 1.437 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-3TL.aqt
Date: 05/20/11 Time: 12:33:09

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-3TL
Test Date: 3/3/11

AQUIFER DATA

Saturated Thickness: 14.53 ft
Anisotropy Ratio (Kz/Kr): 1.

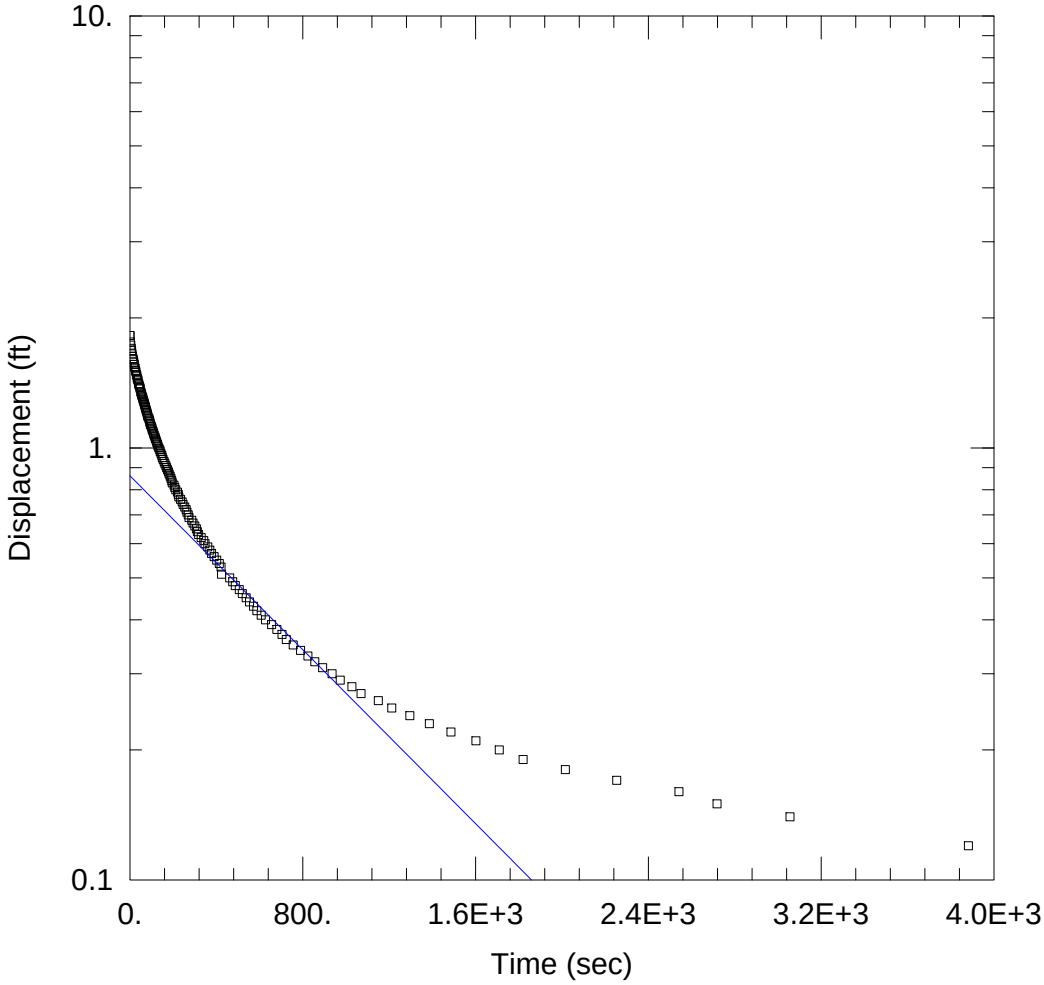
WELL DATA (MW-3TL)

Initial Displacement: 1.87 ft
Total Well Penetration Depth: 14.53 ft
Casing Radius: 0.083 ft
Static Water Column Height: 14.53 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 4.027E-5 cm/sec
y0 = 1.598 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Test\AQTESOLV\MW-8H_Middle.aqt
Date: 09/23/11 Time: 11:02:39

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-8H
Test Date: 2/24/11

AQUIFER DATA

Saturated Thickness: 7.67 ft
Anisotropy Ratio (Kz/Kr): 1.

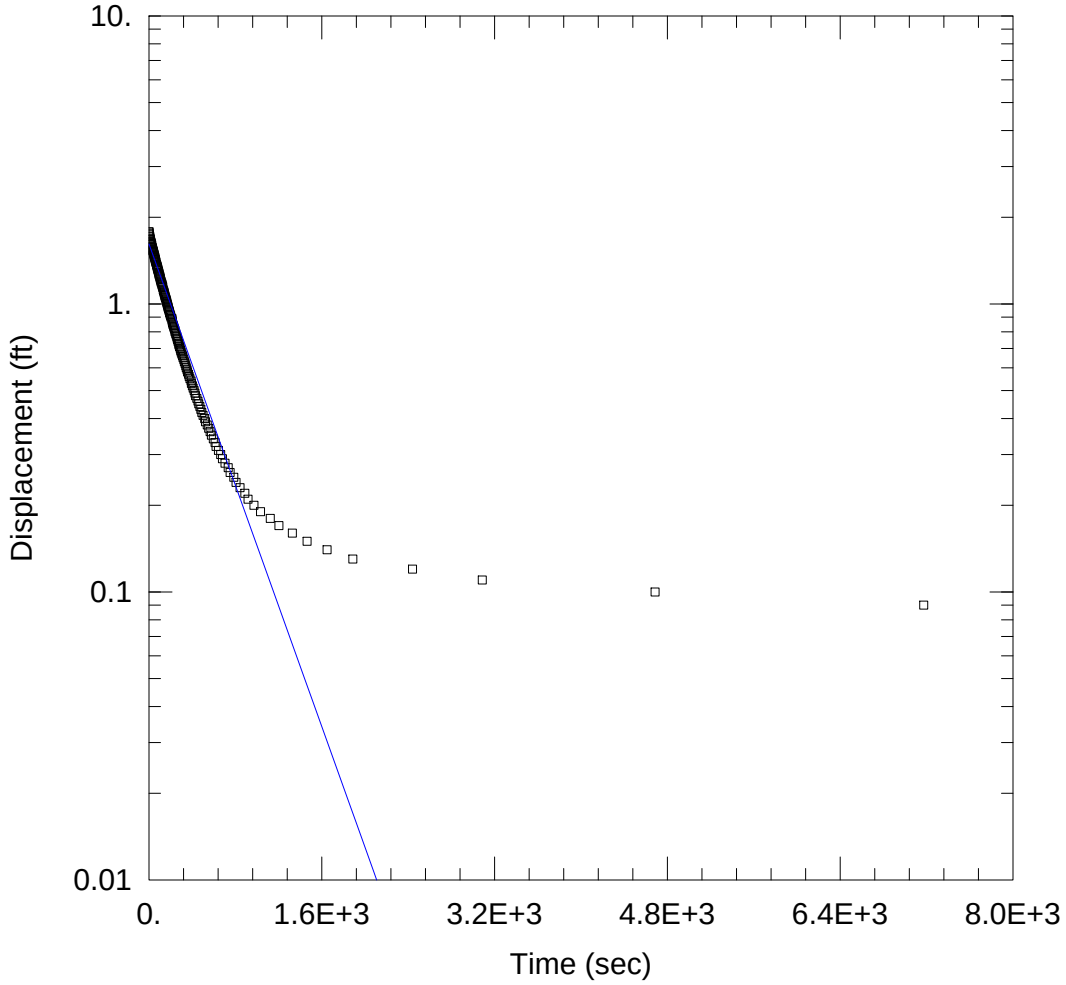
WELL DATA (MW-8H)

Initial Displacement: 1.82 ft
Total Well Penetration Depth: 7.67 ft
Casing Radius: 0.083 ft
Static Water Column Height: 7.67 ft
Screen Length: 5. ft
Wellbore Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 6.017E-5 cm/sec
y0 = 0.8617 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Test\AQTESOLV\MW-10H_Early.aqt
Date: 09/23/11 Time: 11:09:07

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-10H
Test Date: 3/29/11

AQUIFER DATA

Saturated Thickness: 11.02 ft Anisotropy Ratio (Kz/Kr): 1.

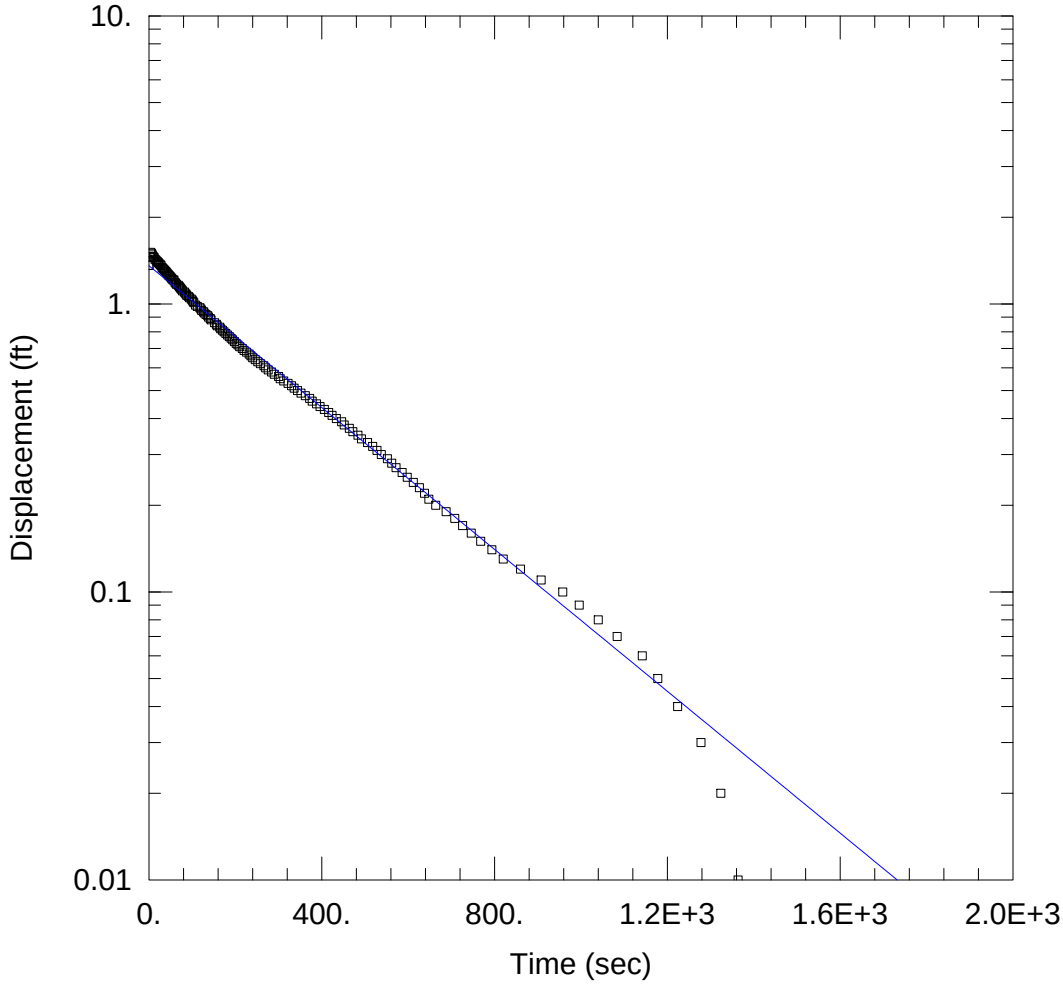
WELL DATA (MW-10H)

Initial Displacement: 1.78 ft
Total Well Penetration Depth: 11.02 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.02 ft
Screen Length: 6. ft
Wellbore Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0001157 cm/sec
y0 = 1.615 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Test\AQTESOLV\MW-21H.aqt
Date: 09/23/11 Time: 11:10:54

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-21H
Test Date: 3/01/11

AQUIFER DATA

Saturated Thickness: 9.06 ft
Anisotropy Ratio (Kz/Kr): 1.

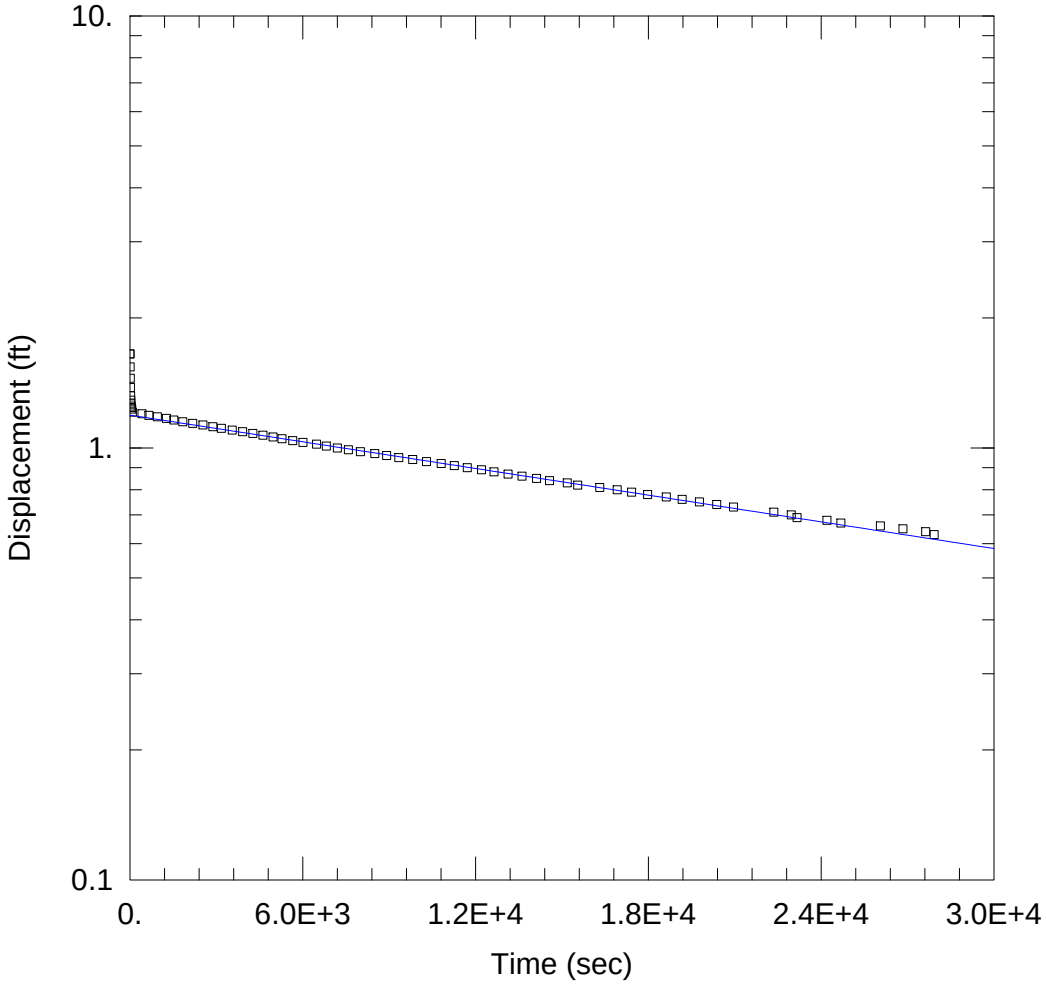
WELL DATA (MW-21H)

Initial Displacement: 1.36 ft
Total Well Penetration Depth: 9.06 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.06 ft
Screen Length: 7. ft
Wellbore Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0001136 cm/sec
y0 = 1.357 ft



WELL TEST ANALYSIS

Data Set: G:\36005 Textileather\005 - Field Event 2\Slug Test\Slug Tests_AQTESolv\MW-1001a.aqt
Date: 09/19/11 Time: 15:52:49

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1001a
Test Date: 3/3/11

AQUIFER DATA

Saturated Thickness: 11.08 ft Anisotropy Ratio (Kz/Kr): 1.

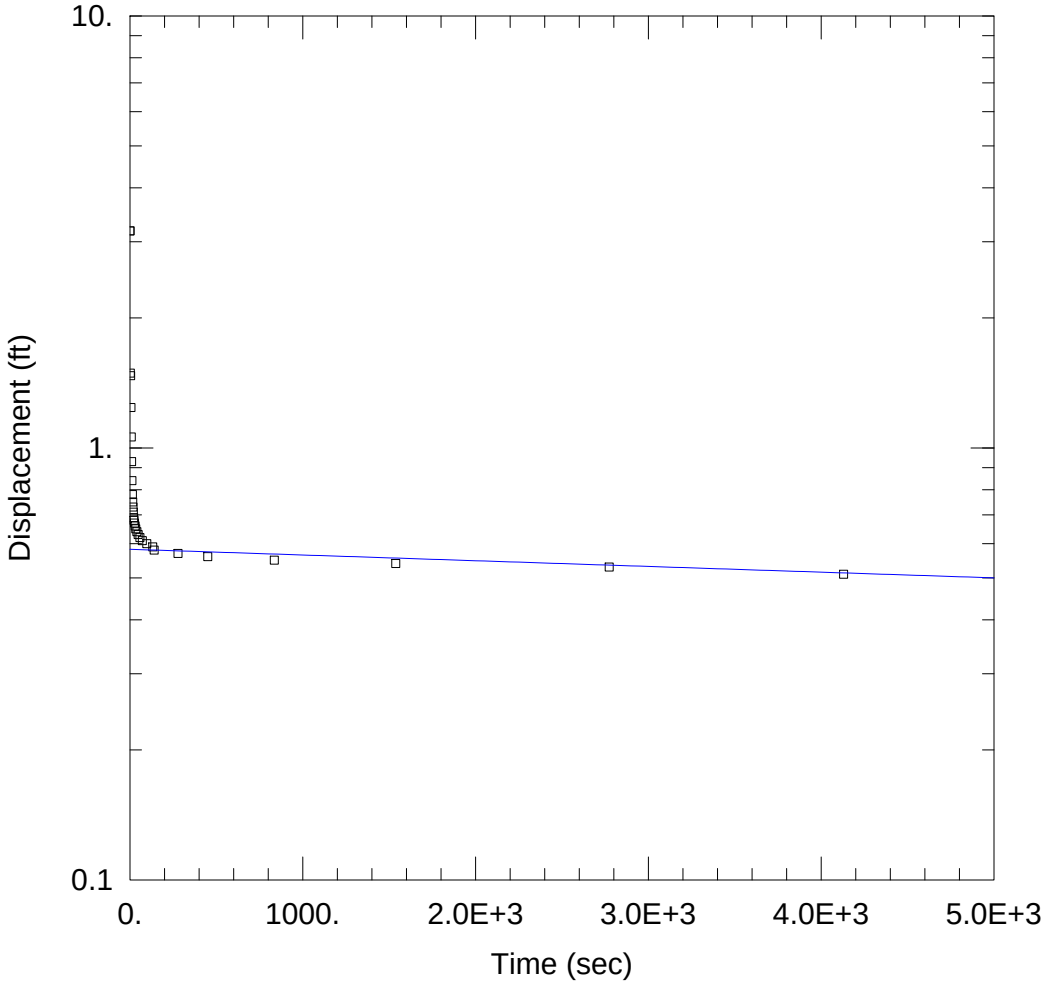
WELL DATA (MW-1001)

Initial Displacement: 1.65 ft Static Water Column Height: 11.08 ft
Total Well Penetration Depth: 11.08 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 7.16E-7 cm/sec y0 = 1.191 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1002.aqt
Date: 05/20/11 Time: 13:32:53

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1002
Test Date: 3/02/11

AQUIFER DATA

Saturated Thickness: 9.23 ft Anisotropy Ratio (Kz/Kr): 1.

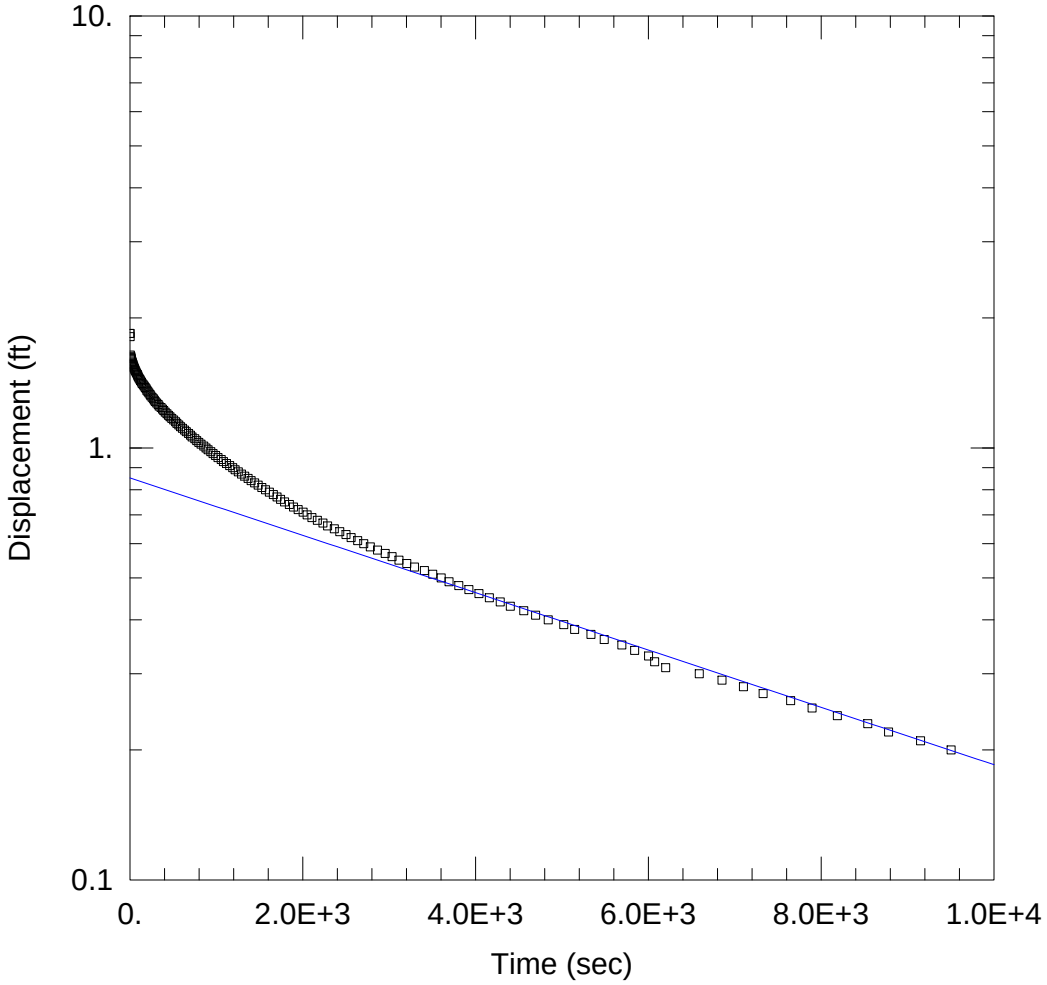
WELL DATA (MW-1002)

Initial Displacement: 3.18 ft Static Water Column Height: 9.23 ft
Total Well Penetration Depth: 10.77 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 9.863E-7 cm/sec y0 = 0.5826 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1003_Late.aqt
Date: 05/20/11 Time: 13:33:53

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1003
Test Date: 3/02/11

AQUIFER DATA

Saturated Thickness: 13.05 ft Anisotropy Ratio (Kz/Kr): 1.

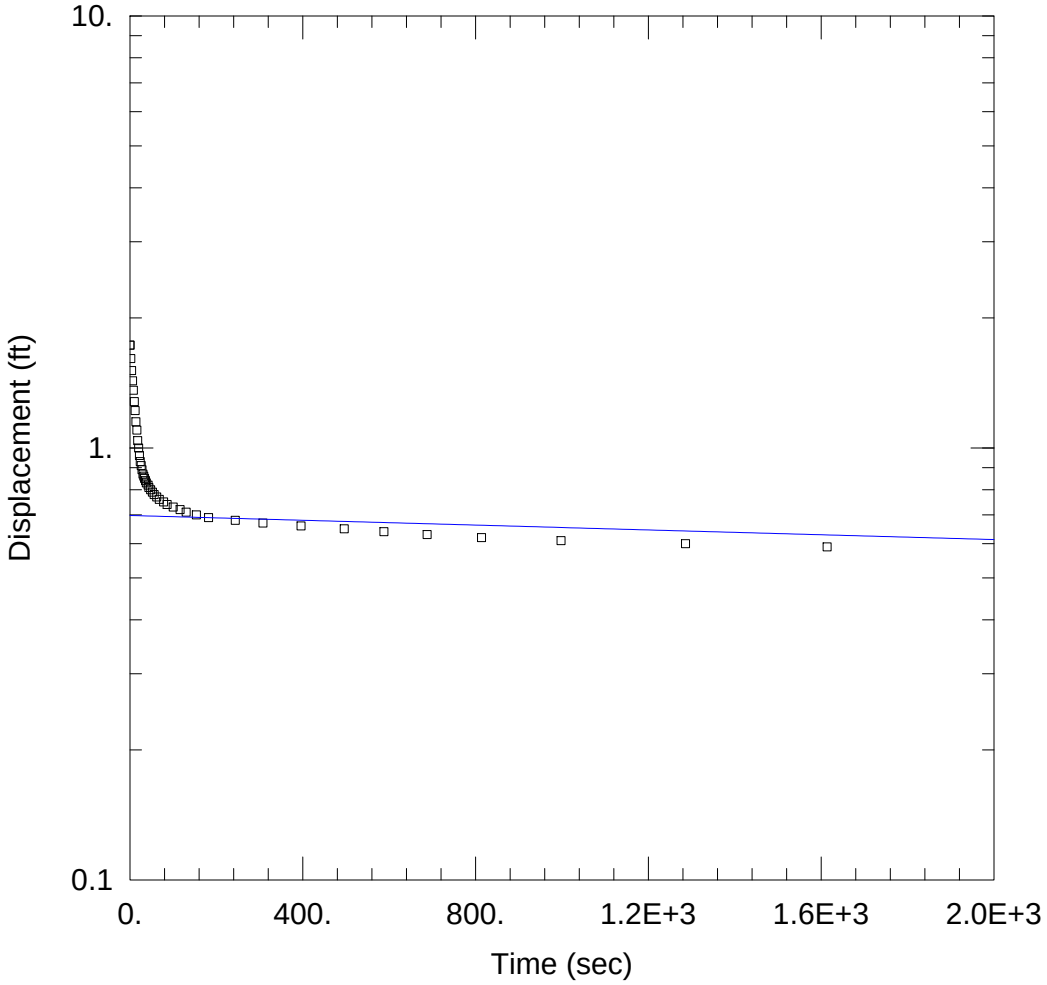
WELL DATA (MW-1003)

Initial Displacement: 1.84 ft
Total Well Penetration Depth: 13.05 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.05 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 4.782E-6 cm/sec
y0 = 0.852 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1004.aqt
Date: 05/20/11 Time: 13:35:34

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1004
Test Date: 03/29/11

AQUIFER DATA

Saturated Thickness: 6.87 ft
Anisotropy Ratio (Kz/Kr): 1.

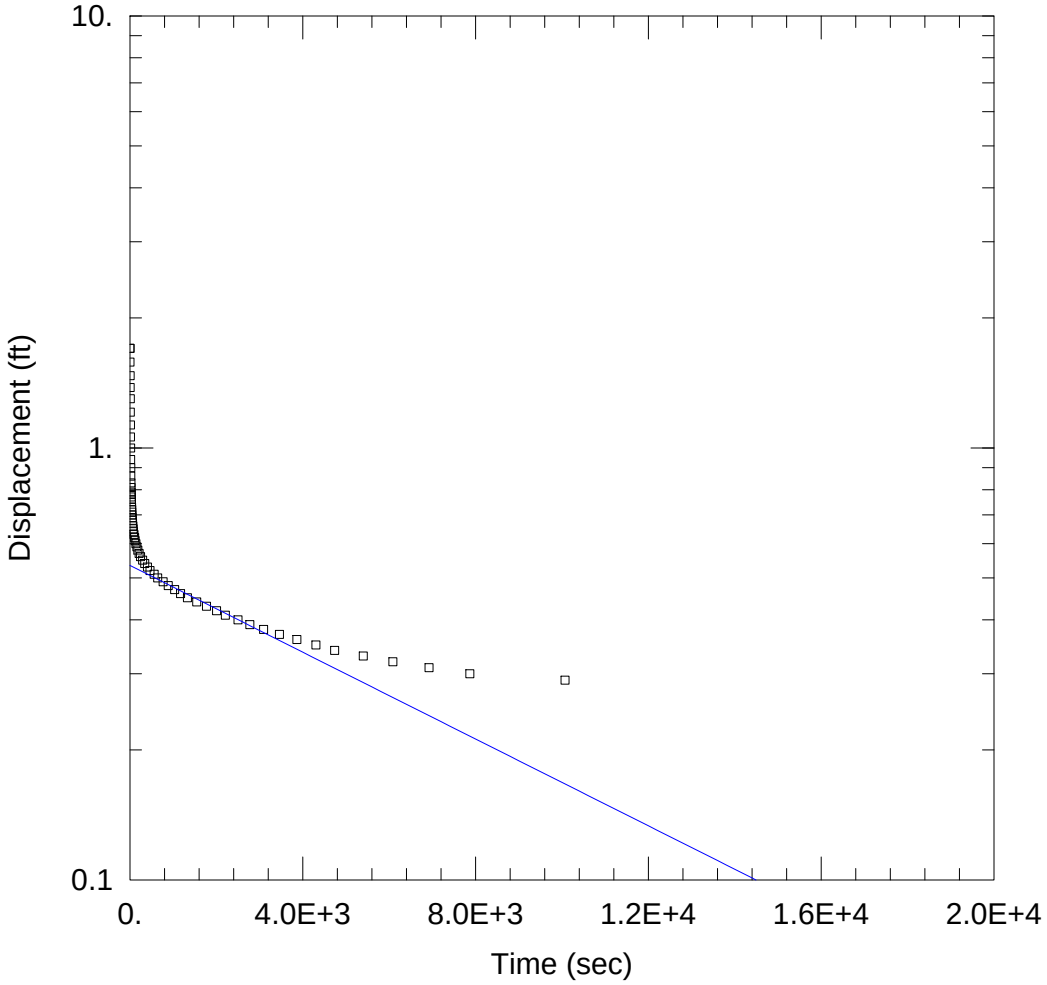
WELL DATA (MW-1004)

Initial Displacement: 1.73 ft
Total Well Penetration Depth: 13.13 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.87 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.838E-6 cm/sec
y0 = 0.6977 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1005.aqt
Date: 05/20/11 Time: 13:10:28

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1005
Test Date: 03/01/11

AQUIFER DATA

Saturated Thickness: 9.52 ft
Anisotropy Ratio (Kz/Kr): 1.

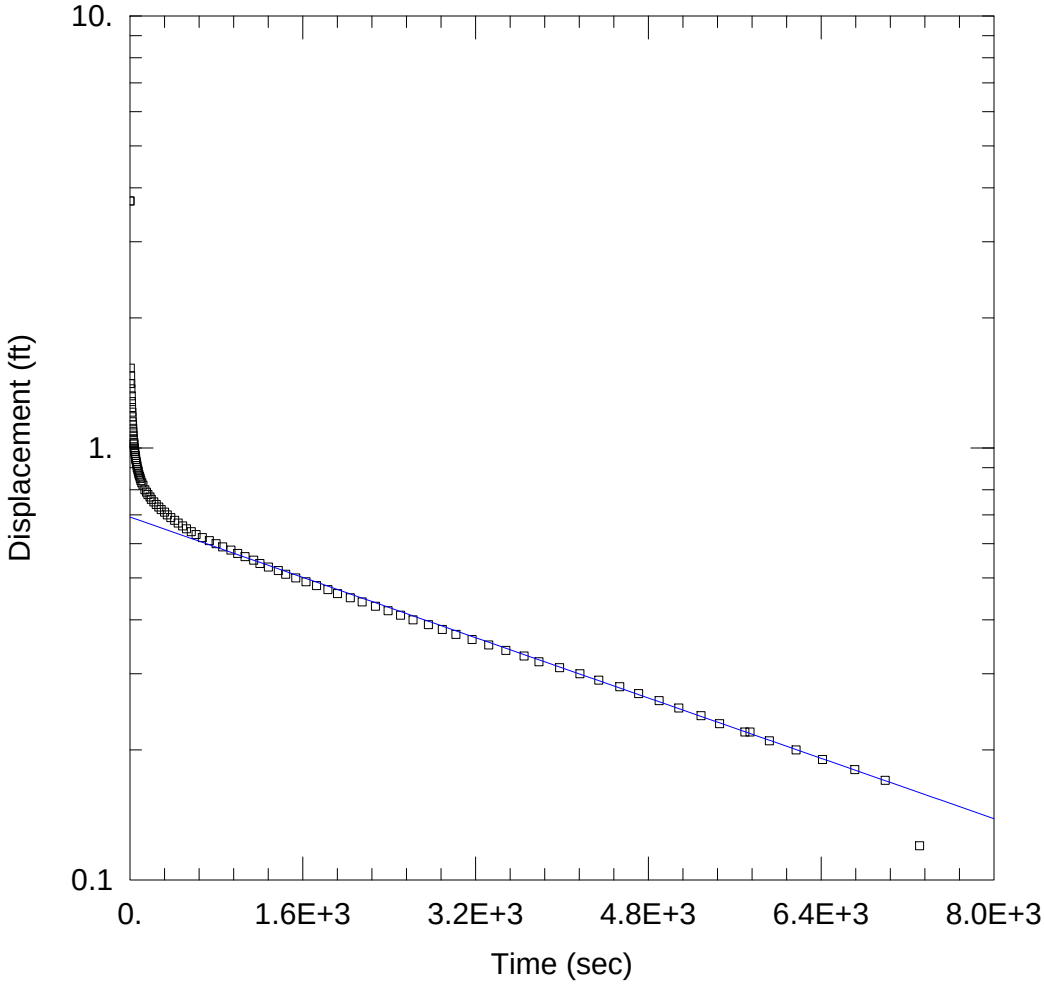
WELL DATA (MW-1005)

Initial Displacement: 1.7 ft
Static Water Column Height: 9.52 ft
Total Well Penetration Depth: 10.48 ft
Screen Length: 10. ft
Casing Radius: 0.083 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.613E-6 cm/sec
y0 = 0.5346 ft



WELL TEST ANALYSIS

Data Set: G:\36005 Textileather\005 - Field Event 2\Slug Test\Slug Tests_AQTESolv\MW-1006a.aqt
Date: 09/19/11 Time: 15:52:12

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1006a
Test Date: 2/24/11

AQUIFER DATA

Saturated Thickness: 10.08 ft Anisotropy Ratio (Kz/Kr): 1.

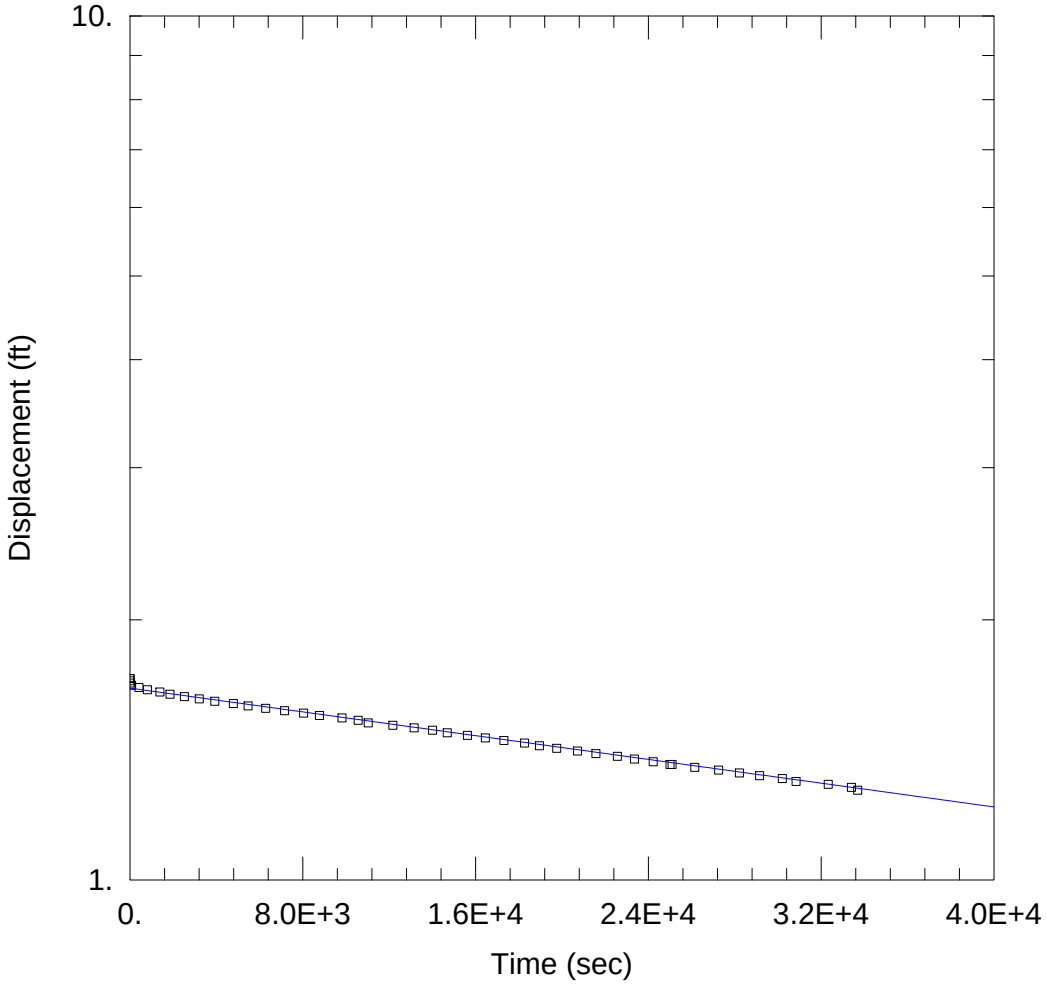
WELL DATA (MW-1006)

Initial Displacement: 3.73 ft
Total Well Penetration Depth: 10.08 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.08 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 5.943E-6 cm/sec
y0 = 0.6917 ft



WELL TEST ANALYSIS

Data Set: G:\36005 Textileather\005 - Field Event 2\Slug Test\Slug Tests_AQTESolv\MW-1007.aqt
Date: 09/19/11 Time: 15:50:54

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1007
Test Date: 3/30/11

AQUIFER DATA

Saturated Thickness: 12.8 ft Anisotropy Ratio (Kz/Kr): 1.

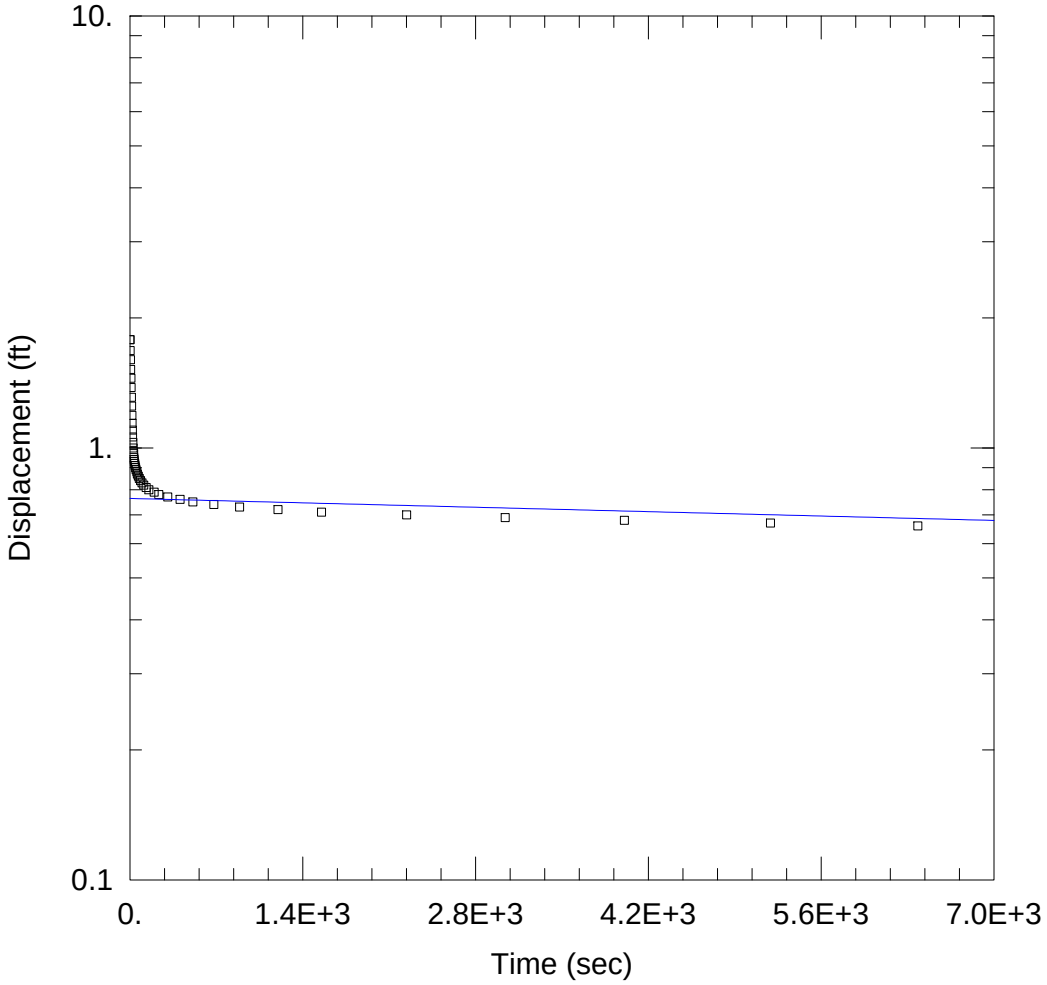
WELL DATA (MW-1007)

Initial Displacement: 1.71 ft
Total Well Penetration Depth: 12.8 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.8 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.466E-7 cm/sec
y0 = 1.667 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1009.aqt
Date: 05/20/11 Time: 13:37:01

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1009
Test Date: 03/02/11

AQUIFER DATA

Saturated Thickness: 6.11 ft
Anisotropy Ratio (Kz/Kr): 1.

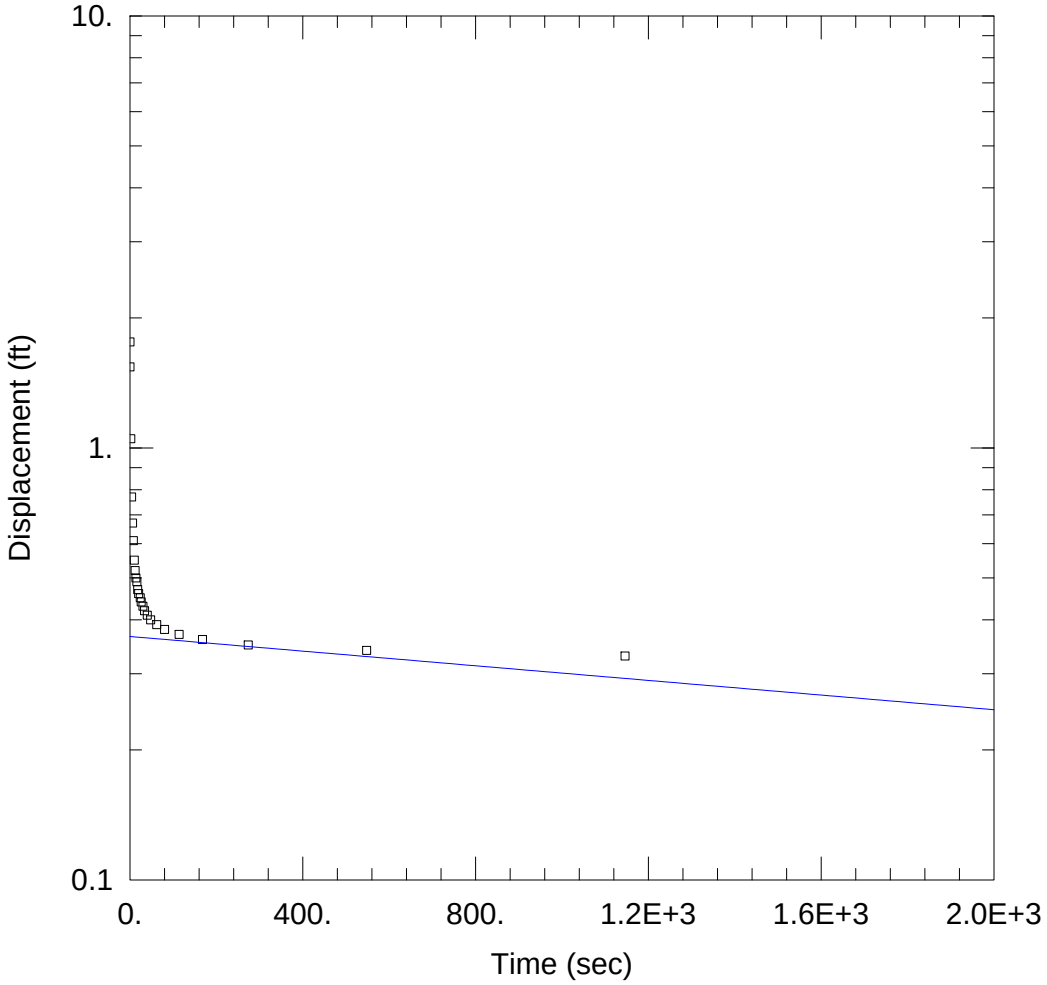
WELL DATA (MW-1009)

Initial Displacement: 1.78 ft
Total Well Penetration Depth: 13.89 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.11 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 8.281E-7 cm/sec
y0 = 0.7639 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1017a.aqt
Date: 05/20/11 Time: 13:56:00

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1017a
Test Date: 03/03/11

AQUIFER DATA

Saturated Thickness: 8.37 ft
Anisotropy Ratio (Kz/Kr): 1.

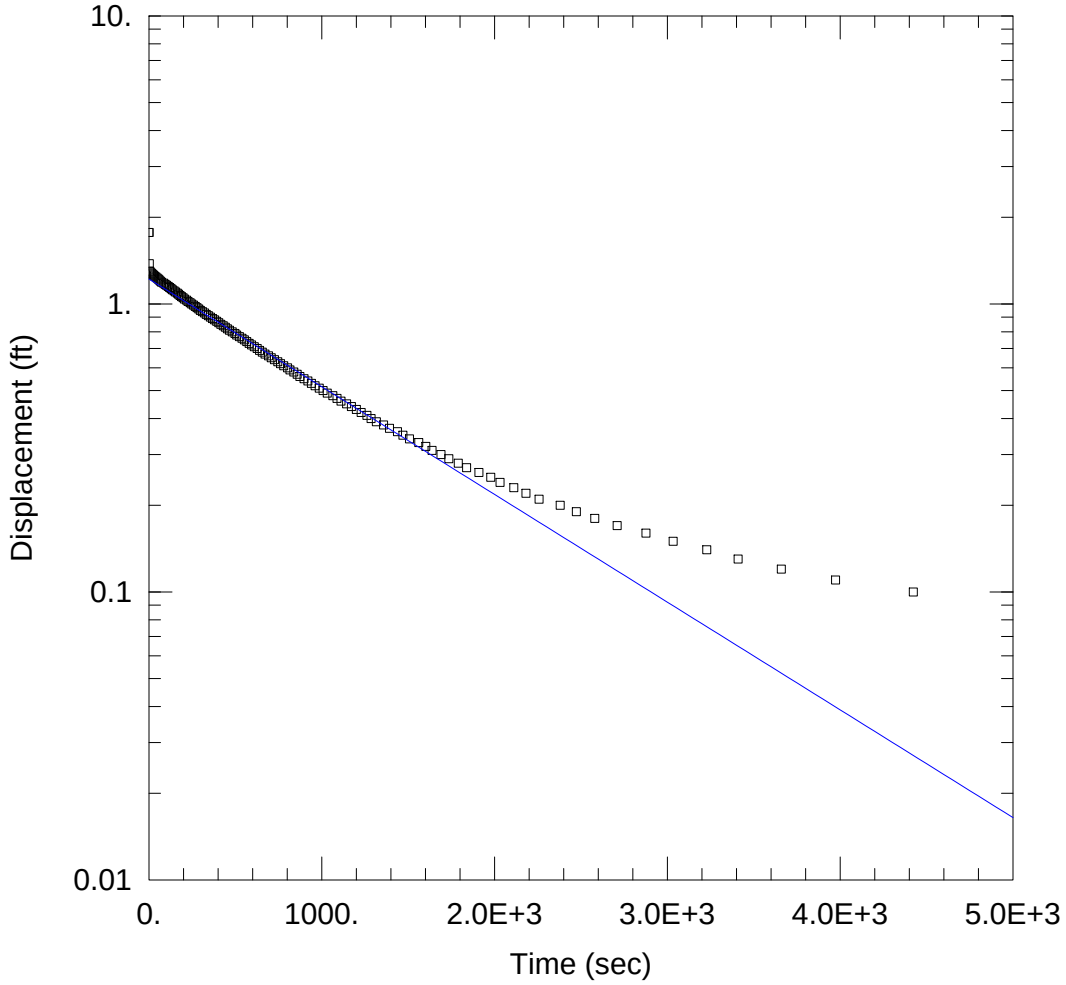
WELL DATA (MW-1017a)

Initial Displacement: 1.54 ft
Total Well Penetration Depth: 11.63 ft
Casing Radius: 0.083 ft
Static Water Column Height: 8.37 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 7.022E-6 cm/sec
y0 = 0.366 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1020.aqt
Date: 05/20/11 Time: 13:12:04

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1020
Test Date: 02/28/11

AQUIFER DATA

Saturated Thickness: 11.56 ft Anisotropy Ratio (Kz/Kr): 1.

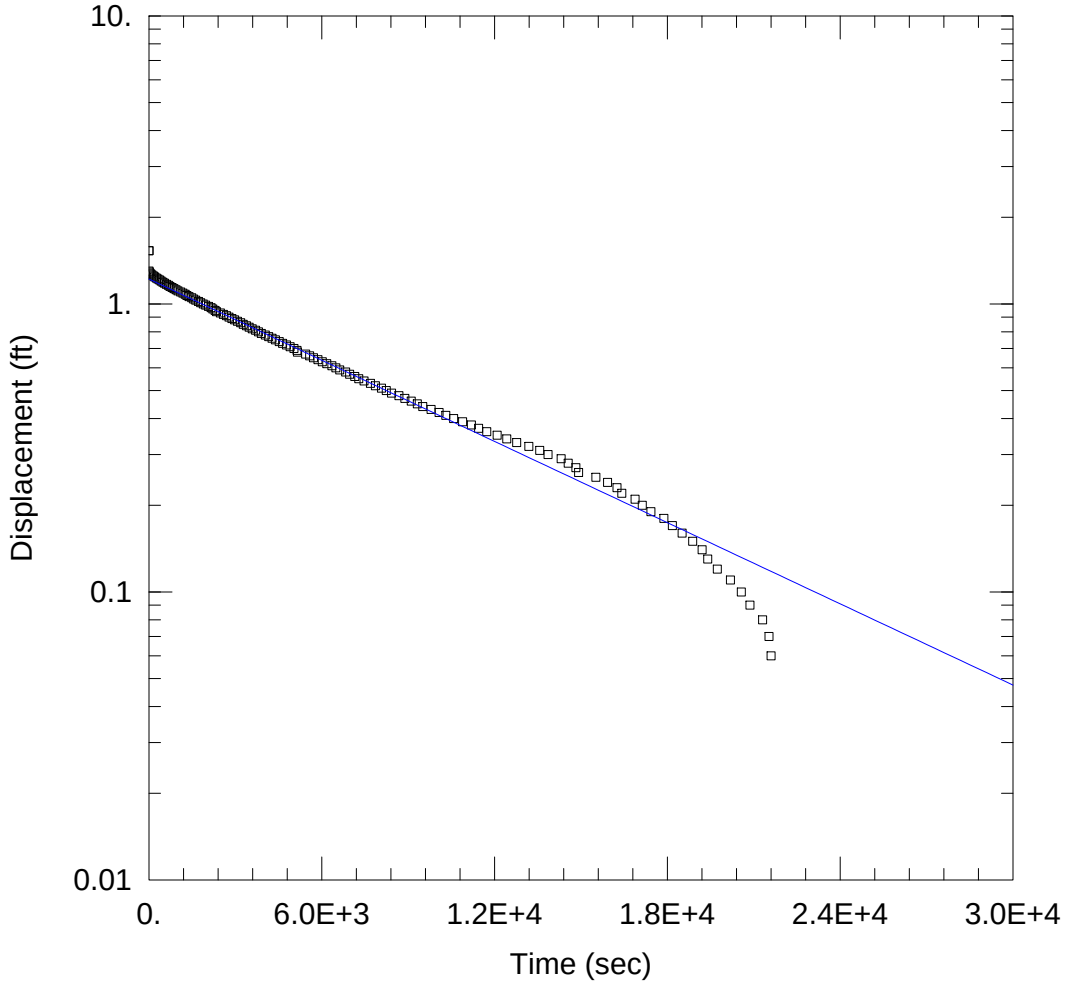
WELL DATA (MW-1020)

Initial Displacement: 1.77 ft
Total Well Penetration Depth: 11.56 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.56 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.625E-5 cm/sec
y0 = 1.22 ft



WELL TEST ANALYSIS

Data Set: M:\36005 Textileather\Slug Tests\MW-1021.aqt
Date: 05/20/11 Time: 13:13:01

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: MW-1021
Test Date: 03/01/11

AQUIFER DATA

Saturated Thickness: 12.53 ft
Anisotropy Ratio (Kz/Kr): 1.

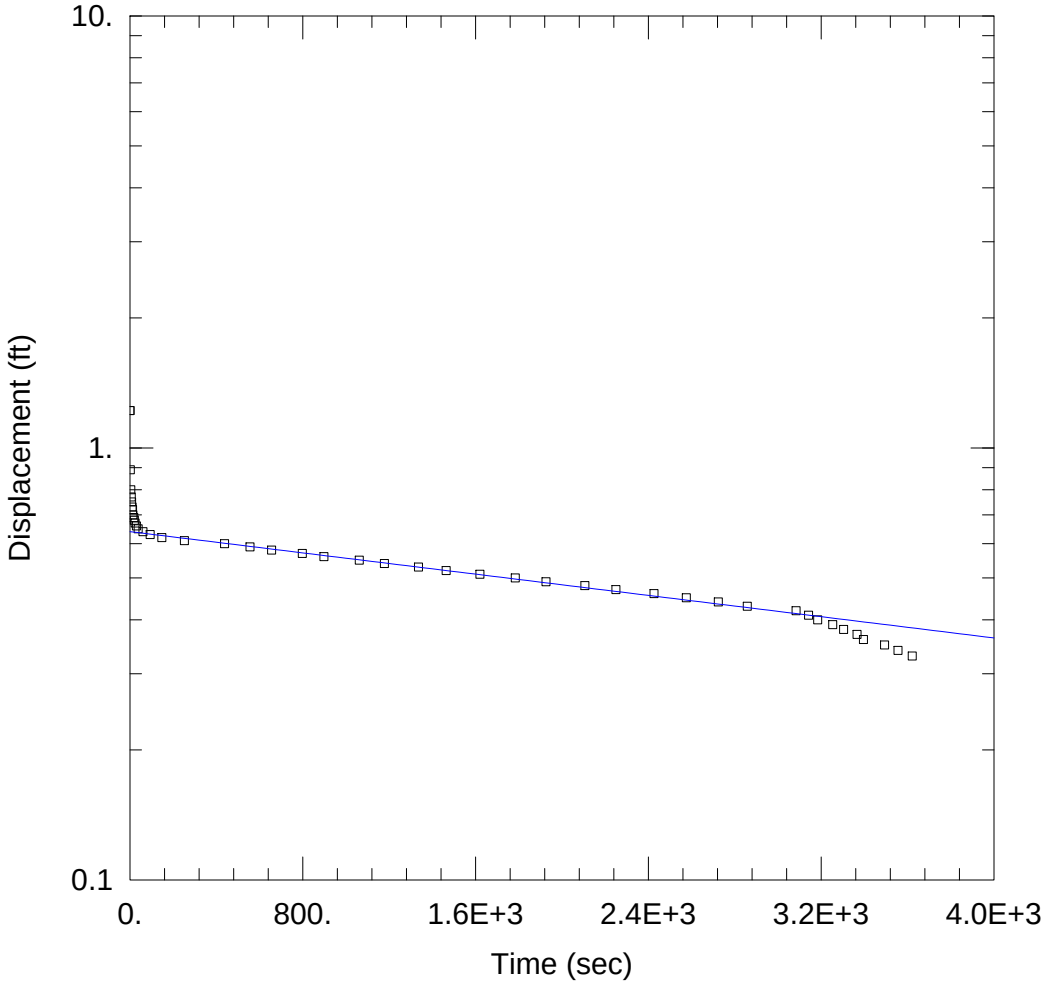
WELL DATA (MW-1021)

Initial Displacement: 1.53 ft
Total Well Penetration Depth: 12.53 ft
Casing Radius: 0.083 ft
Static Water Column Height: 12.53 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.357E-6 cm/sec
y0 = 1.22 ft



WELL TEST ANALYSIS

Data Set: G:\36005 Textileather\005 - Field Event 2\Slug Test\PZ-35\PZ-35.pdf
Date: 09/19/11 Time: 15:50:04

PROJECT INFORMATION

Company: Haley & Aldrich
Test Well: PZ-35
Test Date: 3/1/11

AQUIFER DATA

Saturated Thickness: 10.27 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (PZ-35)

Initial Displacement: 1.22 ft
Total Well Penetration Depth: 10.27 ft
Casing Radius: 0.083 ft
Static Water Column Height: 10.27 ft
Screen Length: 10. ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 4.208E-6 cm/sec
y0 = 0.6401 ft

APPENDIX C
CD of Laboratory Analytical and Data Usability Reports

CONTACT CAROLYN BURY FOR DVD OF LABORATORY ANALYTICAL RESULTS

APPENDIX D
Site Management Plan

SITE MANAGEMENT PLAN

TEXTILEATHER CORPORATION
3729 TWINING STREET
TOLEDO, OHIO

by

Haley & Aldrich, Inc.
Cleveland, Ohio

for

Textileather Corporation
Toledo, Ohio

File No. 36005-007
January 28, 2011

HALEY & ALDRICH

Haley & Aldrich, Inc.
5755 Granger Road
Suite 320
Cleveland, OH 44131-1442

Tel: 216.739.0555
Fax: 216.739.0560
HaleyAldrich.com

HALEY & ALDRICH

January 28, 2011
File No. 36005-007

Textileather Corporation
3729 Twining Street
Toledo, OH 43612

Attention: Nicole Zielinski

Subject: Site Management Plan
Textileather Corporation
3729 Twining Street
Toledo, OH 43612

Dear Ms. Zielinski,

Haley & Aldrich, Inc. (Haley & Aldrich) prepared this Site Management Plan (SMP) on behalf of Textileather Corporation for the Textileather Facility (the Site), located in Toledo, Ohio.

This Site Management Plan (SMP) documents the measures required to maintain protection of human health and the environment at the Site. This plan specifies the methods necessary to ensure compliance with the engineering controls (ECs) required to prevent and/or control human exposure to Site contaminants. Compliance with this plan is required for current and future use at the Site.

Please contact the undersigned with any questions you may have.

Sincerely yours,
HALEY & ALDRICH, INC.

Daniel R. Putz
Project Manager

David J. Hagen
Vice President

Enclosures

G:\36005 Textileather\007 - EI Eval and Reporting\Deliverables\CA725 Report\Textileather Site Management Plan\2011-01-28 Textileather Site Management Plan F.docx

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1	Parameter List, Analytical Methods and Target Quantitation Limits
2	Soil Reuse Criteria

LIST OF FIGURES

Figure No.	Title
1	Project Locus
2	Locations Exceeding Criteria for Soil

1. INTRODUCTION

1.1 Introduction

Haley & Aldrich, Inc. (Haley & Aldrich) prepared this Site Management Plan (SMP) on behalf of Textileather Corporation for the Textileather Facility (the Site), located in Toledo, Ohio, pursuant to the Administrative Order on Consent (Order), U.S. EPA Docket # RCRA-05-2010-0001. The United States Environmental Protection Agency (USEPA) ID Number is #OHD980279376. The Site is located at 3729 Twining Street, Toledo, Ohio and covers approximately 30.4 acres (Figure 1), which are currently owned and operated by Textileather.

As detailed in this plan, Textileather Corporation completed investigation and evaluation activities to identify and define the nature and extent of releases of hazardous waste and/or hazardous constituents at the Site. The investigation activities have identified the presence of contamination beneath the Site. This SMP presents the requirements to prevent and/or control human exposures to contamination for workers at the Site.

1.2 Site Background

Under terms of the Order, Textileather Corporation completed activities to identify and define the nature and extent of releases of hazardous waste and/or hazardous constituents at the Site. These activities included preparation of a Current Conditions Report (CCR) (Haley & Aldrich, December 2009) that identified 27 main areas of interest (AOIs) at the Site and described the physical conditions, historical operations, and any previous investigation or remedial action at each AOI. One additional area was identified during implementation of Field Event #1.

1.3 Site Management Requirements

Haley & Aldrich conducted a risk evaluation (CA725, Haley & Aldrich 2011) of hazardous constituents found during the investigation activities at the site. The risk evaluation identified the presence of metals, volatile organic compounds (VOCs), semi- volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs) in soil, groundwater and stormwater contamination exceeding direct contact criteria for residential, industrial and maintenance workers. An evaluation of the potential exposure pathways identified:

1. Maintenance workers, utility workers, or construction workers could be exposed to constituents of concern during excavation activities unless they are protected,
2. Maintenance workers entering the calender basement could be exposed to constituents of concern unless they are protected, and
3. Maintenance workers could be exposed to constituents of concern during sewer maintenance activities unless they are protected.

Therefore, the following controls are required at the Site to address and minimize potential exposures:

- Prevent ingestion/direct contact with contaminated soil[1];
- Prevent inhalation of or exposure to contaminants volatilizing from contaminated soil;
- Prevent ingestion, dermal contact, and inhalation exposure to groundwater with contaminant levels that exceed drinking water standards;

1.4 Site Management Plan

The following sections present the engineering control requirements to prevent and/or control human exposures. The required engineering controls consist of the following action plans:

- Excavation Management,
- Calender Basement Operations and Maintenance, and
- Sewer Maintenance.

The purpose of this Plan is to provide:

- A description of the required controls on the Site;
- The basic operation and intended role of each implemented control;
- A description of plans and procedures to be followed for implementation of the controls, such as the implementation of an Excavation Management Plan for the safe handling of remaining contamination that may be disturbed during maintenance, redevelopment work or other related activities where exposure could occur on the Site; and
- A description of the reporting requirements for these controls.

[1] The CA 725 determined that no unacceptable risks were associated with potential exposures to unpaved surface soil.

2. EXCAVATION MANAGEMENT

The soils handling and disposition activities outlined in this Excavation Management Plan (EMP) shall apply to ALL soil excavation at the Site, regardless of purpose.

Any intrusive work that will penetrate, encounter or disturb the contamination, and any modifications or repairs to the existing pavement or concrete will be performed in compliance with the following requirements. Evaluation of existing data indicate that the Calender Basement, storm or sanitary sewers, former battery charging area, south pump house area, and the former test print finish room are potentially exhibit unacceptable levels of contamination for maintenance or industrial workers. However, given the potential for elevated levels of contamination in other areas of the site, the following excavation management procedures cover excavation work activities across the entire Site.

Intrusive construction work must also be conducted in accordance with the procedures defined in the Site Health and Safety Plan (HASP – Appendix A). A project-specific Excavation Plan and HASP must be developed prior to excavation work, and conform to 29 CFR 1910, 29 CFR 1926, and other applicable Federal, State and local regulations extant at the time of work performance. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP will be updated as needed. Any intrusive construction work will be performed in compliance with the Site Management Plan, HASP, and will be included in the periodic inspection.

The Contractor and Site Manager are responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations).

2.1 Excavation Permitting

Prior to performing any excavation activity, permission must be obtained from Nicole Zielinski, the Site Manager. Contact information for the Site Manager can be found in the HASP (Appendix A). The Contractor or maintenance worker must notify the Site Manager of all planned or emergency work involving any demolition/ excavation by completing and submitting to the Site Manager an Excavation/Sewer Work Permit. The Excavation/Sewer Work Permit form may be obtained from the Site Manager and is included in Appendix B. The Site Manager shall review the Excavation/Sewer Work Permit and identify whether task-specific plans are required (e.g. HASP, Perimeter Air Monitoring and Vapor Management Plan, etc.).

2.2 Contamination Present in Subsurface

The risk assessment conducted for the CA725 Report (Haley & Aldrich 2011) identified locations in the subsurface that require implementation of this plan (Figure 2). During the preparation and review of Excavation/Sewer Work Permit the existing data from the RCRA Facility Investigation will be reviewed for the proposed work zone. If insufficient data are available for proposed work zone, the Site Manager and contractor should consider collection of additional data. The project-specific

Excavation Plan and HASP will be developed utilizing the existing and additional data prior to implementation of the excavation work.

2.3 Excavation Requirements

Once the Excavation/Sewer Work Permit has been reviewed and approved, the following procedures are required during excavation activities:

- A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.
- The Site Manager and contractor are responsible for safe execution of all invasive and other work performed under this Plan.
- The presence of utilities and easements on the Site will be evaluated by the Site Manager who will determine if a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.
- Work will proceed using the following:

2.3.1 Air Monitoring and Vapor Management

Perimeter air monitoring will be conducted for all intrusive excavation activities to protect on- and off-site personnel. The perimeter air monitoring will include the following:

- Background measurements of local air quality will be made during mobilization on one day prior to the start of demolition or intrusive underground work. Background air quality will be measured on a day without sustained precipitation. Measurements of background air quality will replicate the procedures, sample types and measures (real-time and laboratory) for perimeter air quality monitoring as planned for performance of daily/weekly monitoring activities during the remedial action.
- Monitoring of air quality at the perimeter of the excavation area will be conducted daily throughout work periods while impacted soils or concrete are being excavated, demolished, removed, milled, sorted, staged or loaded onto trucks for disposal. Periodic monitoring of ambient air quality may continue for as long as equipment or materials used or generated during the excavation, remain on-site with a potential to be an emission source of COPC to air. Results of air monitoring during active demolition and excavation should indicate if monitoring during periods of low level activity or passive source emission (e.g., from stockpiled materials) is warranted.
- Following the end of site remediation and restoration activities, measurements of local air quality may be made to confirm or re-establish baseline conditions of air quality for the site.

A task-specific Perimeter Air Monitoring and Vapor Management Plan may be required depending upon the area of work and the potential levels of contaminants in the work area. The Site Manager shall review the excavation permit in reference to existing data to determine, is a task-specific Perimeter Air Monitoring and Vapor Management Plan is required. The Perimeter Air Monitoring and Vapor Management Plan, if required, shall contain provisions

for the use of vapor and odor suppressant materials in the event that task-specific action levels for ambient air are exceeded during either perimeter air monitoring or work zone monitoring in accordance with the HASP. At a minimum action levels shall be 5 ppmV above background at the perimeter and 50% of the PEL in the work zone..

2.3.2 Soil Screening Methods

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated areas. Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work.

Soils will be segregated in separate piles based on environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

2.3.3 Soil Stockpiling

Stockpiles shall be identified by material type (material that requires off-site disposal, material that requires testing, material that can be reused onsite, etc.). Soil will be stockpiled on poly sheeting with a minimum of 6-mil thickness. If stockpiles are located near drainage ways, or are larger than can be contained by poly sheeting, soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points. Stockpiles that require off-site disposal, and material that requires testing will be kept covered at all times with appropriately anchored tarps and shall be located in the fenced/secure are of the facility to prevent exposures. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced. Soils may be containerized in appropriate containers including drums and soil roll-off containers if quantities warrant such treatment.

2.3.4 Excavated Soil Characterization

To determine if excavated soil requires off-site disposal or can be reused onsite as fill material, the soil will be characterized through representative sampling and laboratory analysis in accordance with SW846, as detailed below. If the soil will be disposed of off-site, the disposal facility may require different and/or additional analysis.

Sampling will be conducted by the Site Manager or Contractor. Each sample will be collected using a decontaminated or new stainless steel or plastic sampling device (hand trowel, shovel, scoop, hand augers or other appropriate sampling equipment). For similarly stockpiled soil (i.e. – soil originating from the same location and soil type), one composite soil sample will be collected for every 100 cubic yards. The composite samples will be comprised of soil collected from four randomly selected areas of the pile at least 12 inches below the soil pile surface. To ensure the sample is properly composited, the soil will be combined and quartered in a decontaminated or new stainless steel or plastic bowl prior to containerizing the sample in the appropriate sample jars.

If soil is containerized (i.e. – roll-off), a sample from each container of a group of containers totaling 100 cubic yards or less of container volume will be collected and composited. Each sample will be collected from the mid-depth of the soil pile or a minimum of approximately depth of 12 inches below the soil surface using a decontaminated or new stainless steel or plastic sampling device. Stockpile sampling will include field screening and sample collection for laboratory analysis at a frequency of one sample per 20 cubic yards for the first 100 cubic yards of soil and one sample for each additional 100 cubic yards. A reduced frequency can be proposed for quantities of soil greater than 1,000 cubic yards.

Immediately upon collection, samples will be labeled and placed in coolers and chilled with ice to approximately 4°C. The sample labels will identify the soil stockpile or container group, sample type (grab or composite), time and date of collection, name of the sampler, and required analyses. Sealed sample coolers will be delivered with accompanying chain of custody documentation to the analytical laboratory. Laboratory analysis of the samples shall include: EPA Method 8260 (Target Compound List VOCs), EPA Method 8270 (Target Compound List SVOCs), EPA Method 6020 (Target Analyte List metals plus cyanide), and EPA Method 8082 (PCBs), as detailed in Table 1.

2.3.5 Materials Reuse On-Site

Soils demonstrated through sampling and analysis to have specific constituent concentrations below industrial RSLs may be reused onsite. Chemical criteria for on-site reuse of material are listed in Table 2. Note that the reuse criteria listed in Table 2 represent the most recent criteria prepared as of the date of this SMP. Should those criteria be revised in the future, the most recent available cleanup criteria should be used. The Site Manager, consultant, or contractor will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain onsite.

Contaminated onsite soil that is acceptable for reuse onsite will be placed back into the original excavation or in close proximity to the original excavation, but not outside the limits of the Site. Following excavation and backfilling, the original existing cover must be restored or the existing cover shall be restored in kind to the original cover as described below.

Soils that do not meet the applicable criteria, or soils that meet the criteria, which cannot be managed onsite will be required to be disposed offsite as described below.

2.3.6 Materials Disposal Off-Site

All soil/fill excavated and removed from the Site will be transported and disposed in accordance with all local, State and Federal regulations. If disposal of soil from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), the Site Manager will be notified prior to disposal and will approve/disprove of such disposal.

Off-site disposal locations for excavated soils will be identified in the Excavation/Sewer Work Permit. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment

facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the Site Manager at the completion of the work. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

2.3.7 Underground Utilities

As identified in Section 4, subsurface utilities present a hazard for contact with impacted storm or sewer water. As such, the contractor will implement the safety procedures outlined in Section 4, where there is a potential to come in contact with this water.

In addition, utility trenches have the potential to behave as migration pathways for groundwater and/or soil vapor, the contractor shall install proper utility bedding and engineered trench collars (of concrete, bentonite, or similar) on the utilities where they are installed in impacted areas to act as a barrier for groundwater and vapor migration. When appropriate and depending on the type of utility, the contractor shall seal pipe joints to prevent the migration of contaminated groundwater into the utility pipes.

Procedures for work in sewers at the Site are provided in section 4.0 of this document.

2.3.8 Fluids Management

All liquids to be removed from the Site, including excavation dewatering and utility water, will be containerized, handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids that require removal will not be recharged back to the land surface or subsurface of the Site, but will be containerized and disposed off-site. Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a project-specific NPDES permit.

2.3.9 Cover Restoration

After the completion of soil removal and any other invasive remedial activities the existing cover will be restored in a manner that complies with this SMP. All excavated areas will be restored in kind with respect to the original cover or other more protective barrier than currently exists so that contaminated soils do not remain exposed. “In kind” refers to replacing the original cover with a similar cover such that pavement is replaced by pavement, landscaped areas are replaced by landscaped areas, a building foundation is replaced by a building foundation, etc. Other acceptable barriers include pavement (asphalt or concrete), or placement of a demarcation layer and at least 1 foot of imported clean cover material (free of industrial and/or other potential sources of chemical contamination).

2.3.10 Backfill from Off-Site Sources

All materials proposed for import onto the Site as backfill will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP, applicable regulations and guidance prior to receipt at the Site. Commercially purchased bagged topsoil used for landscaping purposes does not require approval prior to use. Material from industrial

sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

Soils brought to the Site for filling and grading purposes shall be from an acceptable borrow source, free of industrial and/or other potential sources of chemical contamination. For all sources, analytical testing of backfill materials imported to the Site for use as clean cover shall consist of analyses presented in Table 1, which includes VOCs, SVOCs, metals, and PCBs.

Testing shall be performed by a certified/accredited laboratory. Samples shall be collected at a frequency of one sample per 300 cubic yards of proposed imported material or one sample per source if imported from a virgin mine/pit.

2.3.11 Stormwater Pollution Prevention

If construction or excavation is performed that exceeds the criteria for construction-related stormwater pollution prevention control, during the duration of construction and until cover is restored, barriers and hay bale checks will be installed and inspected once a week and after every storm event. All necessary repairs to the sediment control system shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the remedial construction area.

2.3.12 Excavation Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed and consist of EPA Method 8270 (Target Compound List SVOCs), EPA Method 6020 (Target Analyte List metals plus cyanide), and EPA Method 8082 (PCBs), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to the Site Manager. Reportable quantities of petroleum product will also be reported to the Ohio EPA spills hotline.

2.3.13 Other Nuisances

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances, where necessary.

3. CALENDER BASEMENT OPERATIONS AND MAINTENANCE

All work and maintenance activities conducted in the Calender Basement shall follow the Site HASP.

Investigation activities at the Site have identified the presence of free-phase PCBs in and around the Calender Basement (AOI-01). As part of Site remediation activities, an oil collection system was installed in the Calender Basement to collect and separate oil and water from wall seeps and the floor of the basement. Oil from the collection system is characterized in totes for off-site disposal, and the water is discharged to the sanitary sewer.

3.1 Operations and Maintenance

The following operations and maintenance activities will be performed for the Calender Basement:

Daily System Inspection
- Verify system is operating properly and oil is separated and collected,
- Verify integrity of system and collection tote,
- Maintain pumps and oil/water separator, and
- Identify the product level in the collection tote.

Semi-Annual Inspection/Maintenance
- Inspect the basement to observe the performance of the crack sealer and conditions of the surface coatings.

Annual Inspection/Maintenance
- Clean/seal wall water weeps, and reapply coatings to surfaces (basement exterior walls, floors, and sumps as described above), to the extent possible and as necessary, to minimize oil and water leakage into the basement.

As Needed
- Sample full collection totes for waste characterization, and
- Coordinate proper off-site disposal of collected oil.

3.2 Health and Safety Precautions

As identified above, the fluids on the basement floor and walls contain elevated levels of PCBs. As such, all work and maintenance activities conducted in the Calender Basement will need special precautions to prevent dermal contact with PCB-containing materials. At a minimum, the work and maintenance shall be conducted in OSHA HAZWOPER modified Level D, which includes face shield when working in contact with liquids, appropriate gloves, tyvek suit and chemical resistant protective boots or boot covers, as detailed in the Site HASP (Appendix A). A log of the persons entering the Calender Basement shall be kept on-site.

4. SEWER MAINTENANCE

All work and maintenance activities in or around sewers will follow the Site HASP.

Investigation activities at the Site have identified elevated levels of PCBs, SVOCs and tetrahydrofuran in sewer water at the Site. As such, all work and maintenance activities conducted in or around Site sewers will require special precautions to prevent dermal contact with potentially impacted fluids. At a minimum, the work and maintenance shall be conducted in OSHA HAZWOPER modified Level D, which includes face shield (when working in contact with liquids), appropriate gloves, tyvek suit and chemical resistant protective boots or boot covers, as detailed in the Site HASP (Appendix A). It is noted that several of the sewer access points/manholes may be considered confined spaces. Management of confined space entry is detailed in the Site HASP.

Further all excavation activities for sewers shall follow the excavation practices outlined in Section 2, which includes an Excavation/Sewer Work Permit (Appendix B)

REFERENCES

1. 1990, U.S. EPA, "Code of Federal Regulations, Title 40, Part 300, National Oil and Hazardous Substances Pollution Contingency Plan"; Federal Register; March 8.

2. 2002, U.S. EPA, "Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils"; Office of Solid Waste and Emergency Response/Office of Solid Waste and Remedial Response; November 29.

3. 2002, U.S. EPA, "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites". Office of Solid Waste and Emergency Response/Office of Solid Waste and Remedial Response; OSWER 9355.4-24; December.

4. 2003, U.S. EPA, "Human Health Toxicity Values in Superfund Risk Assessments" (OSWER No. 9285.7-53, December 2003)

5. 2009, Current Conditions Report for Textileather Corporation, December, Haley & Aldrich

6. 2009, RCRA Facility Investigation Work Plan for Textileather Corporation, December, Haley & Aldrich.

7. 2010, Eastern Property Boundary Investigation Work Plan for Textileather Corporation, March, Haley and Aldrich.

8. 2010, U.S. EPA, "Regional Screening Levels for Chemical Contaminants at Superfund Sites"; U.S. EPA Office of Superfund. November

9. 2011 RCRA Environmental Indicators CA725 Current Human Exposures Under Control Report, Haley & Aldrich, January

TABLES

TABLE 1
PARAMETER LIST, ANALYTICAL METHODS AND
TARGET QUANTITATION LIMITS
TEXTILEATHER CORRECTIVE ACTION
TOLEDO, OHIO

	CAS #	Analytical Method		Detection Limits Limits[1]			
		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
TCL Volatile Organic Compounds (VOC)							
Acetone	67-64-1	SW8260	SW8260	0.8	10	1.7	10
Benzene	71-43-2	SW8260	SW8260	0.1	5	0.6	5
Bromochloromethane	74-97-5	SW8260	SW8260	0.4	5	0.9	5
Bromodichloromethane	75-27-4	SW8260	SW8260	0.2	5	0.7	5
Bromoform	75-25-2	SW8260	SW8260	0.2	5	0.9	5
Bromomethane	74-83-9	SW8260	SW8260	0.5	5	0.9	5
2-Butanone	78-93-3	SW8260	SW8260	0.5	10	0.5	10
Carbon disulfide	75-15-0	SW8260	SW8260	0.2	5	0.5	5
Carbon tetrachloride	56-23-5	SW8260	SW8260	0.2	5	0.7	5
Chlorobenzene	108-90-7	SW8260	SW8260	0.1	5	0.6	5
Chloroethane	75-00-3	SW8260	SW8260	0.2	5	0.9	5
Chloroform	67-66-3	SW8260	SW8260	0.1	5	0.5	5
Chloromethane	74-87-3	SW8260	SW8260	0.2	5	0.9	5
Cyclohexane	110-82-7	SW8260	SW8260	0.3	10	0.9	10
Dibromochloromethane	124-48-1	SW8260	SW8260	0.1	5	0.6	5
1,2-Dibromo-3-chloropropane	96-12-8	SW8260	SW8260	0.4	10	1.0	10
1,2-Dibromoethane	106-93-4	SW8260	SW8260	0.2	5	0.8	5
1,2-Dichlorobenzene	95-50-1	SW8260	SW8260	0.1	5	0.5	5
1,3-Dichlorobenzene	541-73-1	SW8260	SW8260	0.1	5	0.6	5
1,4-Dichlorobenzene	106-46-7	SW8260	SW8260	0.2	5	0.5	5
Dichlorodifluoromethane	75-71-8	SW8260	SW8260	0.4	5	2.5	5
1,1-Dichloroethane	75-34-3	SW8260	SW8260	0.1	5	0.6	5
1,2-Dichloroethane	107-06-2	SW8260	SW8260	0.2	5	0.6	5
1,1-Dichloroethene	75-35-4	SW8260	SW8260	0.3	5	1.0	5
cis-1,2-Dichloroethene	156-59-2	SW8260	SW8260	0.3	2.5	1.0	5
trans-1,2-Dichloroethene	156-60-5	SW8260	SW8260	0.2	2.5	0.6	5
1,2-Dichloropropane	78-87-5	SW8260	SW8260	0.2	5	0.7	5
cis-1,3-Dichloropropene	10061-01-5	SW8260	SW8260	0.1	5	0.5	5
trans-1,3-Dichloropropene	10061-02-6	SW8260	SW8260	0.1	5	0.6	5
Ethylbenzene	100-41-4	SW8260	SW8260	0.1	5	0.5	5
2-Hexanone	561-78-6	SW8260	SW8260	0.2	10	0.8	10
Isopropylbenzene	98-82-8	SW8260	SW8260	0.1	5	0.5	5
Mehtyl acetate	79-20-9	SW8260	SW8260	0.6	10	0.6	10
Methylene chloride	75-09-02	SW8260	SW8260	0.3	5	0.7	5
Methylcyclohexane	108-87-2	SW8260	SW8260	0.1	10	0.9	10
4-Methly-2-pentanone	108-10-1	SW8260	SW8260	0.3	10	0.7	10
Methyl tert-butyl ether	1634-04-4	SW8260	SW8260	0.2	5	0.5	5
Propyl benzene	103-65-1	SW8260	SW8260	0.1	5	0.6	5
Styrene	100-42-5	SW8260	SW8260	0.1	5	0.6	5
1,1,2,2-Tetrachloroethane	79-34-5	SW8260	SW8260	0.1	5	0.4	5
Tetrachloroethene	127-18-4	SW8260	SW8260	0.2	5	1.2	5
Tetrahydrofuran	109-99-9	SW8260	SW8260	0.7	5	0.8	5
Toluene	108-88-3	SW8260	SW8260	0.1	5	0.7	5
1,2,4-Trichlorobenzene	120-82-1	SW8260	SW8260	0.2	5	0.7	5
1,1,1-Trichloroethane	71-55-6	SW8260	SW8260	0.1	5	0.4	5
1,1,2-Trichloroethane	79-00-5	SW8260	SW8260	0.2	5	0.6	5
Trichloroethene	79-01-6	SW8260	SW8260	0.2	5	1.0	5
Trichlorofluoromethane	75-69-4	SW8260	SW8260	0.2	5	1.3	5
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	SW8260	SW8260	0.2	5	1.5	5
Vinyl Chloride	75-01-4	SW8260	SW8260	0.3	5	1.6	5
Xylenes (total)	1330-20-7	SW8260	SW8260	0.3	10	1.4	10

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		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
TCL Semi-Volatile Organic Compounds (SVOC)							
Acenapthene	83-32-9	SW8270	SW8270	0.035	10	1.2	330
Acenaphthylene	208-96-8	SW8270	SW8270	0.047	10	1.6	330
Acetophenone	98-86-2	SW8270	SW8270	0.041	10	1.4	330
Anthracene	120-12-7	SW8270	SW8270	0.045	10	1.5	330
Atrazine	1912-24-9	SW8270	SW8270	0.053	10	1.8	330
Benzaldehyde	100-52-7	SW8270	SW8270	0.053	10	1.8	330
Benzo(a)anthracene	56-55-3	SW8270	SW8270	0.064	10	2.1	330
Benzo(b)fluoranthene	205-99-2	SW8270	SW8270	0.064	10	2.1	330
Benoz(k)fluorathene	207-08-9	SW8270	SW8270	0.069	10	2.3	330
Benzo(g,h,I)perylene	191-24-2	SW8270	SW8270	0.096	10	3.2	330
Benzo(a)pyrene	50-32-8	SW8270	SW8270	0.080	10	2.7	330
1,1-Biphenyl	92-52-4	SW8270	SW8270	0.027	10	0.9	330
4-Bromophenylphenyl ether	101-55-3	SW8270	SW8270	0.057	10	1.9	330
Butyl benzyl phthalate	85-68-7	SW8270	SW8270	0.137	10	4.6	330
di-n-Butyl phthalate	87-74-2	SW8270	SW8270	0.074	10	2.5	330
Caprolactam	105-60-2	SW8270	SW8270	0.147	10	4.9	330
Carbazole	86-74-8	SW8270	SW8270	0.048	10	1.6	330
4-Chloroaniline	106-47-8	SW8270	SW8270	0.064	10	2.1	330
bis(2-Chloroethoxy)methane	111-91-1	SW8270	SW8270	0.042	10	1.4	330
bis(2-Chloroethyl)ether	111-44-4	SW8270	SW8270	0.025	10	0.8	330
bis(2-Chloroisopropyl)ether	108-60-1	SW8270	SW8270	0.030	10	1.0	330
4-Chloro-3-methylphenol	59-50-7	SW8270	SW8270	0.070	10	2.3	330
2-Chloronaphthalene	91-58-7	SW8270	SW8270	0.032	10	1.1	330
2-Chlorophenol	95-57-8	SW8270	SW8270	0.058	10	1.9	330
4-Chlorophenyl phenyl ether	7005-72-3	SW8270	SW8270	0.053	10	1.8	330
Chrysene	218-01-9	SW8270	SW8270	0.032	10	1.1	330
Dibenz(a,h)anthracene	53-70-3	SW8270	SW8270	0.094	10	3.1	330
Dibenzofuran	132-64-9	SW8270	SW8270	0.048	10	1.6	330
3,3-Dichlorobenzidine	91-94-1	SW8270	SW8270	0.182	10	6.1	330
2,4-Dichlorophenol	120-83-2	SW8270	SW8270	0.081	10	2.7	330
Diethylphthalate	84-66-2	SW8270	SW8270	0.071	10	2.4	330
2,4-Dimethylphenol	105-67-9	SW8270	SW8270	0.072	10	2.4	330
Dimethylphthalate	121-11-3	SW8270	SW8270	0.055	10	1.8	330
4,6-Dinitro-2-methylphenol	534-52-1	SW8270	SW8270	0.085	25	2.8	830
2,4-Dinitrophenol	51-28-5	SW8270	SW8270	0.072	25	2.4	830
2,4-Dinitrotoluene	121-14-2	SW8270	SW8270	0.128	10	4.3	330
2,6-Dinitrotoluene	606-20-2	SW8270	SW8270	0.099	10	3.3	330
bis(2-Ethylhexyl)phthalate	117-81-7	SW8270	SW8270	0.114	10	3.8	330
Fluoranthene	206-44-0	SW8270	SW8270	0.076	10	2.5	330
Fluorene	86-73-7	SW8270	SW8270	0.047	10	1.6	330
Hexachlorobenzene	118-74-1	SW8270	SW8270	0.074	10	2.5	330
Hexachlorobutadiene	87-68-3	SW8270	SW8270	0.045	10	1.5	330
Hexachlorocyclopentadiene	77-47-4	SW8270	SW8270	0.037	10	1.2	330
Hexachloroethane	67-72-1	SW8270	SW8270	0.030	10	1.0	330
Indeno(1,2,3-cd)pyrene	193-39-5	SW8270	SW8270	0.083	10	2.8	330
Isophorone	78-59-1	SW8270	SW8270	0.059	10	2.0	330
2-Methylnaphthalene	91-57-6	SW8270	SW8270	0.039	10	1.3	330
2-Methylphenol	95-48-7	SW8270	SW8270	0.063	10	2.1	330
4-Methylphenol	106-44-5	SW8270	SW8270	0.053	10	1.8	330
Naphthalene	91-20-3	SW8270	SW8270	0.021	10	0.7	330
2-Nitroaniline	88-74-4	SW8270	SW8270	0.129	25	4.3	830

TABLE 1
PARAMETER LIST, ANALYTICAL METHODS AND
TARGET QUANTITATION LIMITS
TEXTILEATHER CORRECTIVE ACTION
TOLEDO, OHIO

	CAS #	Analytical Method		Detection Limits Limits[1]			
		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
TCL Semi-Volatile Organic Compounds (SVOC) (continued)							
3-Nitroaniline	99-09-2	SW8270	SW8270	0.107	25	3.6	830
4-Nitroaniline	100-01-6	SW8270	SW8270	0.136	25	4.5	830
Nitrobenzene	98-95-3	SW8270	SW8270	0.067	10	2.2	330
2-Nitrophenol	88-75-5	SW8270	SW8270	0.096	10	3.2	330
4-Nitrophenol	100-02-7	SW8270	SW8270	0.186	25	6.2	830
N-Nitroso-di-n-propylamine	621-64-7	SW8270	SW8270	0.051	10	1.7	330
N-Nitrosodiphenylamine (diphenylam	86-30-6	SW8270	SW8270	0.062	10	2.1	330
di-n-Octyl phthalate	117-84-0	SW8270	SW8270	0.180	10	6.0	330
Pentachlorophenol	87-86-5	SW8270	SW8270	0.120	10	4.0	330
Phenanthrene	85-01-8	SW8270	SW8270	0.053	10	1.8	330
Phenol	108-95-2	SW8270	SW8270	0.059	10	2.0	330
Pyrene	129-00-0	SW8270	SW8270	0.067	10	2.2	330
2,4,5-Trichlorophenol	95-95-4	SW8270	SW8270	0.110	25	3.7	830
2,4,6-Trichlorophenol	88-06-2	SW8270	SW8270	0.092	10	3.1	330
TCL Polychlorinated Biphenyls (PCB)							
Aroclor 1016	12674-11-2	SW8082	SW8082	0.07	1	2.9	33
Aroclor 1221	11104-28-2	SW8082	SW8082	0.07	1	3.1	33
Aroclor 1232	11141-16-5	SW8082	SW8082	0.08	1	3.7	33
Aroclor 1242	53469-21-9	SW8082	SW8082	0.07	1	4.6	33
Aroclor 1248	12672-29-6	SW8082	SW8082	0.08	1	4.5	33
Aroclor 1254	11097-69-1	SW8082	SW8082	0.05	1	5.7	33
Aroclor 1260	11096-82-5	SW8082	SW8082	0.07	1	2.2	33
TAL Metals							
Antimony	7440-36-0	SW6020	SW6020	0.05	60	2	6000
Arsenic	7440-38-2	SW6020	SW6020	0.11	10	4.4	1000
Barium	7440-39-3	SW6020	SW6020	0.18	200	7.2	20000
Beryllium	7440-41-7	SW6020	SW6020	0.12	5	4.8	500
Cadmium	7440-43-9	SW6020	SW6020	0.08	5	3.2	500
Chromium	7440-47-3	SW6020	SW6020	0.08	10	3.2	500
Cobalt	7440-48-4	SW6020	SW6020	0.03	50	1.2	5000
Copper	7440-50-8	SW6020	SW6020	0.07	25	2.8	2500
Lead	7439-92-1	SW6020	SW6020	0.06	3	2.4	300
Manganese	7439-96-5	SW6020	SW6020	0.1	15	4	1500
Mercury	7439-97-6	SW7470	SW7471	0.008	0.2	0.4	100
Nickel	7440-02-0	SW6020	SW6020	0.12	40	4.8	4000
Selenium	7782-49-2	SW6020	SW6020	0.2	5	8	500
Silver	7740-22-4	SW6020	SW6020	0.03	10	1.2	1000
Thallium	7440-28-0	SW6020[4]	SW6020	0.1	1	4	1000
Vanadium	7440-62-2	SW6020	SW6020	0.51	50	20.4	5000
Zinc	7440-66-6	SW6020	SW6020	0.7	20	28	2000
Cyanide (total)	57-12-5	SW9012	SW9012	4	10	80	500

TABLE 1
PARAMETER LIST, ANALYTICAL METHODS AND
TARGET QUANTITATION LIMITS
TEXTILEATHER CORRECTIVE ACTION
TOLEDO, OHIO

	CAS #	Analytical Method		Detection Limits Limits[1]			
		Water	Soil	Lab MDL Water (ug/L)	Target PQL Water (ug/L)	Lab MDL Soil (ug/kg)	Target PQL Soil (ug/kg)
Glycols							
Ethylene glycol	107-21-1	SW8015	SW8015	2.64	1000	4.3	1000

Notes:

1. Please note that target these quantitation limits are presented for guidance only. Actual quantitation limits are highly matrix dependent and may be elevated due to matrix effects, QA/QC problems and high concentrations of target and non-target analytes.
   Lab MDL - Laboratory Method Detection Limit
   PQL - Target Practical Quantitation Limit

2. TAL Metals aluminum, calcium, iron, magnesium, potassium and sodium will not be analyzed due to the low risk associated with these parameters.

3. TCL VOC and TCL SVOC analysis excludes dioxins, pesticides, and herbicides.

4. Thallium requires SW6020 ICP-MS.

TABLE 2
SUMMARY OF SOIL REUSE CRITERIA
TEXTILEATHER
TOLEDO, OH

Compound Group (result unit) Parameter	Industrial Soil (RSL)	MCL-based SSL (RSL)
Inorganic Compounds (mg/kg)		
Antimony	410	0.27
Arsenic	1.6	0.29
Barium	190000	82
Beryllium	2000	3.2
Cadmium	800	-
Chromium Total	-	180000
Cobalt	300	-
Copper	41000	46
Cyanide (total)	20000	2
Lead	800	14
Manganese	-	-
Mercury	34	0.1
Nickel	20000	-
Selenium	5100	0.26
Silver	5100	-
Thallium	-	0.14
Vanadium	72	-
Zinc	310000	-
PCBs (mg/kg)		
Aroclor-1016 (PCB-1016)	21	-
Aroclor-1221 (PCB-1221)	0.54	-
Aroclor-1232 (PCB-1232)	0.54	-
Aroclor-1242 (PCB-1242)	0.74	-
Aroclor-1248 (PCB-1248)	0.74	-
Aroclor-1254 (PCB-1254)	0.74	-
Aroclor-1260 (PCB-1260)	0.74	-
Semi-Volatile Organic Compounds (mg/kg)		
2,2'-oxybis(1-Chloropropane)	22	-
2,4,5-Trichlorophenol	62000	-
2,4,6-Trichlorophenol	160	-
2,4-Dichlorophenol	1800	-
2,4-Dimethylphenol	12000	-
2,4-Dinitrophenol	1200	-
2,4-Dinitrotoluene	5.5	-
2,6-Dinitrotoluene	620	-
2-Chloronaphthalene	82000	-
2-Chlorophenol	5100	-
2-Methylnaphthalene	4100	-
2-Methylphenol	31000	-
2-Nitroaniline	6000	-
2-Nitrophenol	-	-
3&4-Methylphenol	-	-
3,3'-Dichlorobenzidine	3.8	-
3-Nitroaniline	-	-
4,6-Dinitro-2-methylphenol	49	-
4-Bromophenyl phenyl ether	-	-
4-Chloro-3-methylphenol	62000	-
4-Chloroaniline	8.6	-
4-Chlorophenyl phenyl ether	-	-
4-Nitroaniline	86	-
4-Nitrophenol	-	-
Acenaphthene	33000	-
Acenaphthylene	-	-

TABLE 2
SUMMARY OF SOIL REUSE CRITERIA
TEXTILEATHER
TOLEDO, OH

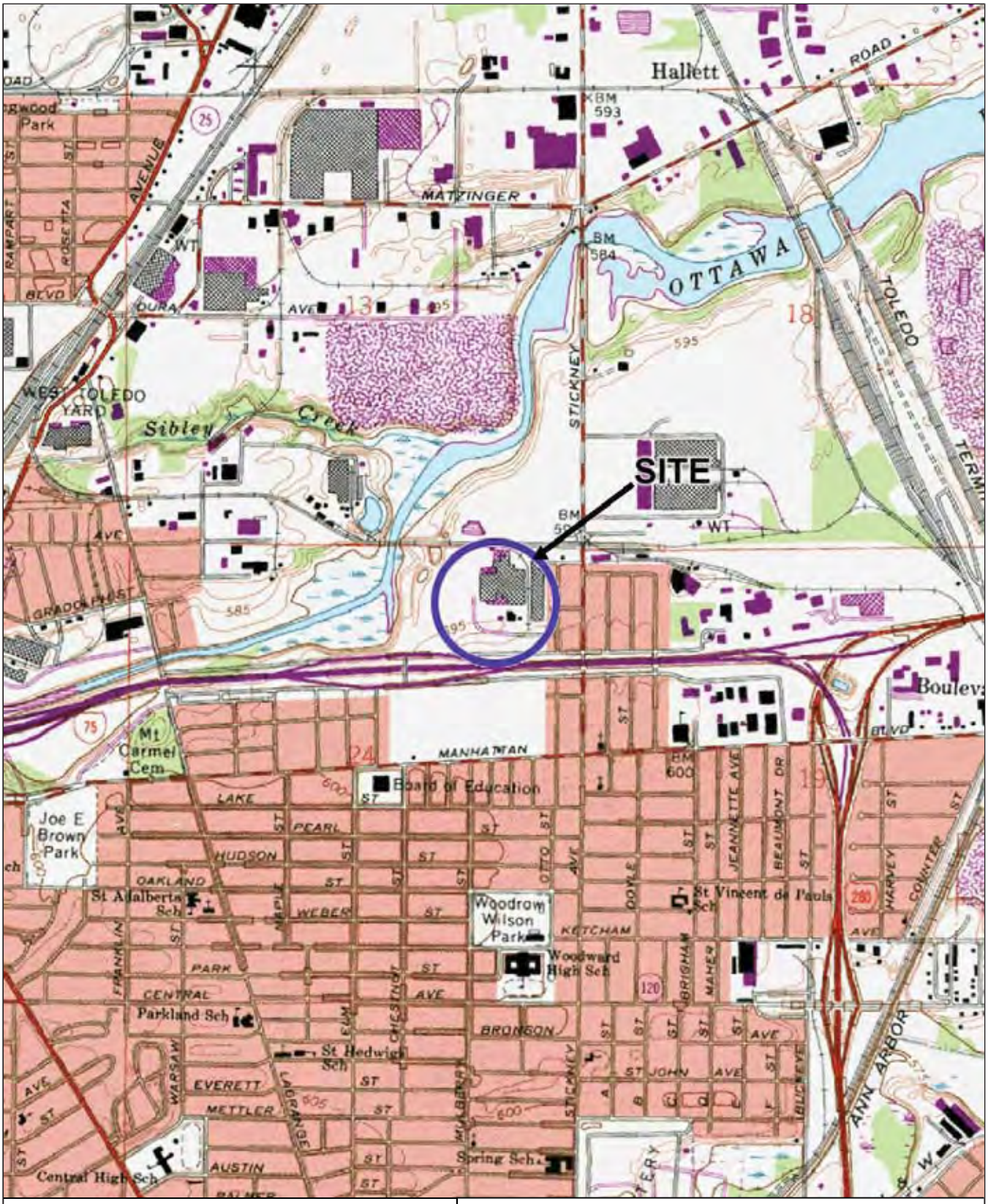
Compound Group (result unit) Parameter	Industrial Soil (RSL)	MCL-based SSL (RSL)
Acetophenone	100000	-
Anthracene	170000	-
Atrazine	7.5	0.0019
Benzaldehyde	100000	-
Benzo(a)anthracene	2.1	-
Benzo(a)pyrene	0.21	0.24
Benzo(b)fluoranthene	2.1	-
Benzo(g,h,i)perylene	-	-
Benzo(k)fluoranthene	21	-
Biphenyl	51000	-
bis(2-Chloroethoxy)methane	1800	-
bis(2-Chloroethyl)ether	1	-
bis(2-Ethylhexyl)phthalate	120	1.4
Butyl benzylphthalate	910	-
Caprolactam	310000	-
Carbazole	-	-
Chrysene	210	-
Di-n-butylphthalate	62000	-
Di-n-octyl phthalate	-	-
Dibenz(a,h)anthracene	0.21	-
Dibenzofuran	1000	-
Diethyl phthalate	490000	-
Dimethyl phthalate	-	-
Dimethylformamide	62000	-
Fluoranthene	22000	-
Fluorene	22000	-
Hexachlorobenzene	1.1	0.013
Hexachlorobutadiene	22	-
Hexachlorocyclopentadiene	3700	0.16
Hexachloroethane	120	-
Indeno(1,2,3-cd)pyrene	2.1	-
Isophorone	1800	-
N-Nitrosodi-n-propylamine	0.25	-
N-Nitrosodiphenylamine	350	-
Naphthalene	18	-
Nitrobenzene	24	-
Pentachlorophenol	2.7	0.01
Phenanthrene	-	-
Phenol	180000	-
Pyrene	17000	-
Volatile Organic Compounds (mg/kg)		
1,1,1-Trichloroethane	38000	0.07
1,1,2,2-Tetrachloroethane	2.8	-
1,1,2-Trichloroethane	5.3	0.0016
1,1-Dichloroethane	17	-
1,1-Dichloroethene	1100	0.0025
1,2,4-Trichlorobenzene	99	0.2
1,2-Dibromo-3-chloropropane (DBCP)	0.069	0.000086
1,2-Dibromoethane (Ethylene Dibromide)	0.17	0.000014
1,2-Dichlorobenzene	9800	0.58
1,2-Dichloroethane	2.2	0.0014
1,2-Dichloropropane	4.5	0.0017
1,3-Dichlorobenzene	-	-
1,4-Dichlorobenzene	12	0.072
2-Butanone (Methyl Ethyl Ketone)	200000	-

TABLE 2
SUMMARY OF SOIL REUSE CRITERIA
TEXTILEATHER
TOLEDO, OH

Compound Group (result unit) Parameter	Industrial Soil (RSL)	MCL-based SSL (RSL)
2-Hexanone	1400	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	53000	-
Acetone	630000	-
Benzene	5.4	0.0026
Bromodichloromethane	1.4	0.022
Bromoform	220	0.021
Bromomethane (Methyl Bromide)	32	-
Carbon disulfide	3700	-
Carbon tetrachloride	3	0.0019
Chlorobenzene	1400	0.068
Chlorobromomethane	-	-
Chloroethane	61000	-
Chloroform (Trichloromethane)	1.5	0.022
Chloromethane (Methyl Chloride)	500	-
cis-1,2-Dichloroethene	2000	0.021
cis-1,3-Dichloropropene	-	-
Cyclohexane	29000	-
Dibromochloromethane	3.3	0.021
Dichlorodifluoromethane (CFC-12)	780	-
Dimethylformamide	62000	-
Ethylbenzene	27	0.78
Ethylene glycol	1200000	-
Isopropylbenzene	11000	-
m&p-Xylene	-	-
Methyl acetate	1000000	-
Methyl cyclohexane	-	-
Methyl Tert Butyl Ether	220	-
Methylene chloride	53	0.0013
n-Propylbenzene	21000	-
o-Xylene	19000	-
Styrene	36000	0.11
Tetrachloroethene	2.6	0.0023
Tetrahydrofuran[2]	21	-
Toluene	45000	0.69
trans-1,2-Dichloroethene	690	0.029
trans-1,3-Dichloropropene	-	-
Trichloroethene	14	0.0018
Trichlorofluoromethane (CFC-11)	3400	-
Trifluorotrichloroethane (Freon 113)	180000	-
Vinyl chloride	1.7	0.00069

Notes and Abbreviations:
1. Regional Screening Levels (RSL), November 2010

FIGURES



SITE COORDINATES:41°41'30"N 83°31'51"W

U.S.G.S. QUADRANGLE: TOLEDO, OH

HALEY & ALDRICH

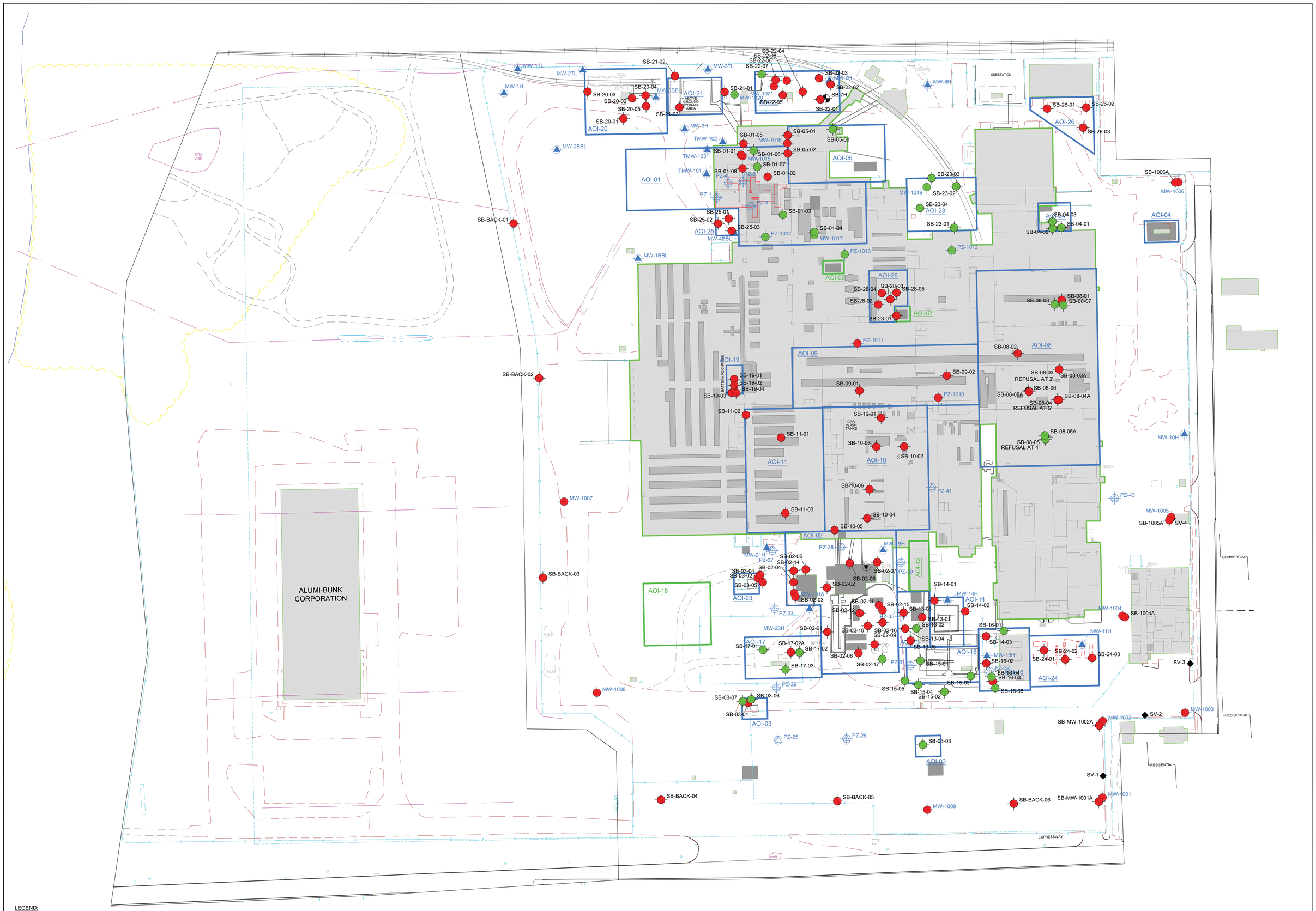
TEXTILE LEATHER CORPORATION
3729 TWINING STREET
TOLEDO, OHIO

PROJECT LOCUS

SCALE: 1:24,000
NOVEMBER 2009

FIGURE 1

36005 1.PDF



LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- VEGETATION
- MONITORING WELL/PIEZOMETER LOCATED
- SOIL BORING
- SOIL GAS LOCATION
- PRODUCTION WELL
- SOIL RESULTS DO NOT EXCEED SELECTED CRITERIA
- ONE OR MORE SOIL RESULTS EXCEED SELECTED CRITERIA

NOTES:

1. BASEPLAN PROVIDED BY AERIAL SURVEY CONDUCTED ON 6 NOVEMBER 2009 BY AEROCON PHOTOGRAMMETRIC SERVICES AND SURVEY BY JC ANDRUS & ASSOCIATES, INC.
2. SOIL RESULTS SCREENED AGAINST REGIONAL SCREENING LEVELS (RSLs):
   A: INDUSTRIAL SOIL
   B: PROTECTION OF GROUNDWATER RISK-BASED MCLs

HALEY & ALDRICH

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

LOCATIONS EXCEEDING CRITERIA FOR SOIL

SCALE: AS SHOWN
JANUARY 2011

FIGURE 2

G:\36005 TEXTILEATHER\005 - FIELD EVENT 2\CAD\DRAWINGS\36005-DOT-SO-RSLS.DWG

APPENDIX A

Site Health and Safety Plan

TEXTILEATHER CORPORATION

SITE SPECIFIC HEALTH AND SAFETY PLAN

Revised by: Daniel R. Putz Date: January 28, 2011

Revised by: Date:

Revised by: Date:

APPROVALS: The following signatures constitute approval of this Health & Safety Plan

_____ _____

Nicole Zielinski – Site Manager Date

_____ _____

David Veinot Date

All personnel working at the Textileather Corporation are to read, understand and sign this document

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4	Site Evacuation Plan

1. CRITICAL EMERGENCY INFORMATION

1.1 Police, Medical or Fire Emergency

EMERGENCY: 911

Security: 311

1.2 Primary Emergency Contacts

Role	*Name*	*Responsibility*	*Phone Number*
Site Manager (SM)	Nicole Zielinski	1. Assess the situation and make appropriate decisions for implementing Textileather's response to the emergency. 2. Initiate contact with members of the Emergency Contact List. 3. Execute emergency response in accordance with this HASP and Textileather Corporation's Health & Safety Program. 4. Assess the situation and call 911. 5. Notify Security. 6. Assist in directing emergency personnel to incident location. 7. Notify emergency room if any injured personnel are chemically contaminated.	Cell: (419) 367-2009

1.3 Evacuation, Communication, Procedure and Muster Points

Evacuation Step	*Methods and Comments*
Notify affected workers	Use cellular phones
Evacuate to safe location	Primary assembly point – Front gate at Security post Backup assembly point – Twining Street.

Assemble and account for workers	The SM shall refer to daily site entry sign-up sheet and take count of all personnel.

1.4 Location of First Aid Kits, Fire Extinguishers, and Spill Kits

First aid kits:

- Administrative area adjacent to Nicole Zielinski's office,
- Site security office, and
- All field vehicles should be equipped with first aid kits.

Fire extinguishers:

- Administrative area adjacent to Nicole Zielinski's office,
- Site security office, and
- All field vehicles should be equipped with fire extinguishers.

Spill kits:

- Located in areas formerly containing bulk chemical storage.

1.5 Emergency Medical Facility Information

Mercy St. Vincent Medical Center: Specialty Clinics
2213 Cherry Street
Toledo, OH 43608-2603
Phone: (419) 251-4354

Directions to this hospital are found in **Figure 3**

2. INTRODUCTION

This Health and Safety Plan (HASP) is the core occupational health and safety document for any subsurface work at the Textileather Corporation Facility (Site) including work performed in the Calender Basement area.

Subsurface work includes, but is not limited to, any excavation activities, trenching activities and/or subsurface utility servicing. Potentially hazardous areas include the Calender Basement, storm or sanitary sewers, former battery charging area, south pump house area, and the former test print finish room, however, this HASP covers all above work activities across the entire Site. Full descriptions of potentially hazardous areas are listed in section 2.5.

This HASP identifies the health & safety requirements for all work to be performed at the Site. This HASP has been designed to minimize any potential risk to Site personnel, contractors, subcontractors and the general public working on the Site at all times during work activities.

2.1 Site Induction

The Site Manager (SM) or designate will undertake an initial briefing of all Site personnel at the commencement of any work activities. The primary aim of the induction is to provide Site personnel with an overview of policies, procedures and practices that apply to the work being performed and to provide them with a sound understanding of their health and safety responsibilities.

The induction is compulsory for all personnel performing site work. The compliance agreement at the end of this HASP must be signed and dated by all personnel performing subsurface work and/or working in the potentially hazardous areas of the Site. This includes site personnel or outside contractors entering the Calender Basement.

Copies of this HASP will be available and accessible to Site personnel for reference and review. The Site Manager is responsible for ensuring that all personnel have read and understood the HASP, are competent for their tasks, have the proper personal protective equipment (PPE) and are familiar with relevant work procedures and safety systems before any work takes place.

2.2 Site Location

The Facility is located at 3729 Twining Street, Toledo, Ohio within Lucas County.

2.3 Site Description

In general, the Site is located at 3729 Twining Street, Toledo, Ohio and covers approximately 30.4 acres, which are currently owned and operated by Textileather (Figures 1 and 2).

2.4 Areas of Concern

2.4.1 Calender Basement Area

The Calender Basement Area consists of Area of Contamination 01 (AOC 01) (PCB Contaminated Soils) and Storm Water Management Unit 1 (SWMU 1) (Storm Sewer System) from the property assessment/visual site inspection (PA/VSI), which comprises Area of Interest (AOI)-01. Between 1967 and 1972 Poly Chlorinated Biphenyls (PCBs) were present in Therminol heat transferring oil in the calendering process. Therminol oil was transferred via underground piping which lead from above ground storage tanks outside the building to the calendering process equipment in buildings 50, 37 and 37A.

AOC 1 is the outdoor area of PCB contaminated subsurface soils on the northwest side of the Facility. The following information was based on a review of previous reports and interviews of Facility personnel. From 1967 to 1972 the Facility's calender process used PCB containing heat exchange fluid. The fluid was stored outside in above ground storage tanks (ASTs) and leaked from process equipment, pumps and underground piping. Extensive investigations of this area began in 1987 and remediation began in 1994 under Ohio Environmental Protection Agency (EPA) supervision under a consent order. PCB contaminated soils were excavated in the area west of Building 50. Approximately 5,500 cubic yards of soil were removed from the area, followed by post-excavation verification soil sampling. Residual PCBs remained within the building foundations and were contained by a slurry wall. The storm sewers were also cleaned and sampled as part of the remediation project. A PCB collection system was installed and is currently operating in the basement of Building 50 which collects PCB contaminated oil from the dewatering sumps in the basement. The PCB remediation efforts were completed by GenCorp in the mid-1990s. In 2003 an agreement was reached between GenCorp and Textileather defining their roles in operation and maintenance (O&M) and waste disposal activities associated with the dewatering sumps and the PCB collection system.

SWMU 1 consists of a sump beneath the calender equipment and a storm sewer line. A pump in the sump discharged to the storm sewer line. During the time of PCB use at the Facility, PCB containing Therminol oil leaked into the sump and was discharged to the Facility's storm sewer system. The leaks to this sump are the same releases noted for AOC 1.

Located inside the northwest corner of the facility, the Calender Basement contains seeps along the base of the walls where groundwater containing PCBs have entered the structure from outside of foundation. The Calender Basement contains the piping and pumps used for heat transferring oil during the calendering process, as well as, an active PCB collection sump and oil water separator.

All persons entering the Calender Basement or performing subsurface activities in the vicinity must be outfitted in modified level D personal protective equipment (PPE) consisting of coated Tyvek suit, chemical resistant protective boots or boot covers, nitrile gloves, and a face shield when working with liquids, in addition to any other site specific and job specific PPE necessary. If power washing activities are to take place in the Calender Basement, in addition to the above mentioned PPE, the worker must upgrade to level C PPE by adding a full-face respirator with the appropriate cartridges to protect from PCBs in an aerosol-like state.

2.4.2 Oil Interceptor Basins & Sewer Systems (AOI 03)

Three subsurface oil interceptor basins in the storm sewer system are located on the southern end of the Facility. Discharges from these interceptors are regulated under the U.S. EPA National

Pollutant Discharge Elimination System (NPDES) program. The east interceptor is one of the sources of NPDES Outfall 001 and the west interceptor is one of the sources of NPDES Outfall 002. The western storm sewer line has another interceptor located upstream of the outfall. The interceptors were installed in 1974. According to Facility personnel and pervious reports several releases of oils, PCBs and solvents have been released to the storm sewer system and the oil interceptor basins. Absorbent booms are used to collect oil in the interceptors.

Any work activities required within the oil interceptors or the storm and sanitary sewers is considered confined space work and a confined space entry permit needs to be obtained prior to commencing work activities. Personnel working within the interceptors and or storm and sanitary sewers are required to wear modified level D PPE consisting of coated Tyvek suit, chemical resistant protective boot covers, nitrile gloves, and a face shield when working with liquids, in addition to any other site specific and job specific PPE necessary.

2.4.3 Former Test Print Finish Room (AOI-28)

The Former Test Print Finish Room is located in Building 23 and is where inks were used to print on vinyl products. Soil investigation in this area revealed concentrations of volatile organic compounds (VOCs) above industrial screening criteria. Any excavation work taking place in the Former Test Print Finish Room is required to be done in level C PPE, preferably with a full face respirator equipped with the appropriate cartridges for VOCs.

2.4.4 Former Battery Charging Area (AOI-19)

The Battery Charging Area located in Building 47 is used to recharge forklift batteries. The trench drain in this area is used to contain overflow of battery fluid from refilling of batteries. According to Facility personnel it is unknown if the trench drain is blind or if it has an outflow. Concentrations of lead were found in soils above industrial screening criteria in this area. Workers planning to perform subsurface activities in this area should be outfitted in modified Level D PPE consisting of nitrile gloves in addition to any other site specific and job specific PPE necessary.

2.4.5 Building 69 – Pump House Area (AOI-13)

Building 69 is known as the Pump House and it contains the pumps and equipment to transfer the contents of the South underground storage tank (UST) and AST tank farms (AOI 14 and AOI 15). Materials historically managed in this area include methyl ethyl ketone (MEK),tetrahydrofuran (THF) and various phthalates.

According to Facility personnel, equipment in the Pump House has leaked for at least 30 years. Over the years various pan and dike containment systems have been installed to control the leaks. The asphalt adjacent to the east of the Pump House was replaced due to being eroded by solvent leaks from the Pump House. According to Facility documents two spills occurred in January 2007 releasing a total of 1,200 gallons of Palatinol DPHP plasticizer oil onto the pavement outside the Pump House. Oil dry and a vacuum truck were used to collect the oil from the pavement and the oil did not make it to the storm sewer system. The City of Toledo Department of Environmental Services inspected the spill area at the time of the clean-up. The Ohio EPA Spill ID# for this incident is 0702-48-0432.

Workers planning to perform subsurface activities in the vicinity of Building 69 are required to wear modified level D PPE.

2.4.6 Remainder of Site

Subsurface contamination exists in other areas of the Site. Therefore, any subsurface activities planned in areas of the Site not listed above must first be evaluated for conditions that may create pose a hazard to human health or the environment.

2.5 Site Authorities & Responsibilities

The implementation of health and safety at the Site will be the responsibility of the Site Manager (SM).

2.5.1 Site Manager (Nicole Zielinski)

The (SM) will verify that all work activities conducted and consistent with all HASP policies and practices. The SM will verify that the HASP is being implemented on-site and by all workforce members. The SM will participate, where necessary, in the development and verification of Site permits.

The SM is the individual who has the primary responsibility for ensuring the overall health and safety of this project. The SM is also responsible for cultivating and maintaining a high level of health and safety consciousness among the entire Site workforce. Responsibilities also include:

- Reviewing, approving and amending the HASP for this project,
- Recommending appropriate personal PPE and any monitoring instrumentation to protect personnel from potential Site hazards,
- Conducting accident/incident investigations,
- Maintaining regular contact with the Site workforce to evaluate Site conditions and new information which might require modifications to the HASP.
- The SM is the individual who has the primary responsibility for issuing permits and verifying that all work activities conducted are consistent with permit requirements. Verify that all required testing, inspections and checking of the work site are completed prior to the issuing of permits and all workforce personnel are trained in “Stop-Work” procedures.
- Assuring that all personnel to whom this HASP applies have received a copy and have submitted a completed copy of the HASP sign-off form, and
- Assuring that only properly trained and qualified personnel perform work at the site.

2.5.2 Person In Charge (Varies)

The Person in Charge (PIC), appointed by the SM, will be on-site during any and all Site activities. The PIC will function as a liaison between all contractor(s) and the workforce at the Site. The PIC will identify and verify all simultaneous operations (SIMOPS), including all other potential interaction with other permits being issued. Determine if conflicts exist between permits, and after consultation with all affected parties, shall decide the order of work to be performed. The PIC will remain onsite until SIMOPS work activities have stopped, permits are closed and appropriate equipment has been secured.

2.5.3 Site Workforce

All workforce personnel and contractor personnel covered by this HASP are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the specific responsibilities of the field personnel are as follows:

- Reading the HASP in its entirety prior to the start of on-Site work;

- Submitting a completed HASP Acceptance Form and documentation of medical surveillance and training to the SM prior to the start of work;
- Attending the required pre-entry briefing prior to beginning on-Site work;
- Completing near miss incident and HASP Observation forms and discussing them;
- Bringing forth any questions or concerns regarding the content of the HASP to the SM prior to the start of work;
- Stopping work in cases where an immediate danger is perceived;
- Reporting all accidents, injuries and illnesses, regardless of their severity, to the SM; and
- Complying with the requirements of this HASP and the requests of the SM.

2.6 Daily Safe Work Practices

The following safe work practices are designed to augment the specific health and safety requirements defined in this document and must be adhered to by all field personnel working at the Site.

- All field personnel must wear the minimal level of personal protective equipment (PPE) required at the Site (Level D), which includes safety glasses with side shields, steel toed protective footwear, and long pants.

- The buddy system will be used at all times by field personnel. No one is to perform any field activities alone. In some instances, a cell phone or two-way radio may be used in lieu of the physical presence of a person in a work area.

- Eating, drinking, chewing gum or tobacco, and smoking are prohibited within work zones.

- Hands and face must be thoroughly washed upon leaving the work area and prior to eating, drinking, or any other activities which may lead to the ingestion of hazards.

- Beards and other facial hair that interfere with the respirator fit are prohibited, when working in restricted areas.

3. CHEMICAL HAZARD ASSESSMENT & CONTROLS

Persons working at this Site should be aware of the following chemical hazards.

3.1 Polychlorinated Biphenyls

PCBs have been identified in several areas of the site, including the Calender Basement Area and the storm and sanitary sewers. Polychlorinated biphenyl's (PCBs) are a group of manufactured organic chemicals that contain 209 individual chlorinated chemicals (known as congeners). PCBs are either oily liquids or solids and are colorless to light yellow in color. They have no known smell or taste. There are no known natural sources of PCBs. Some commercial PCB mixtures are known in the United States by their industrial trade name, Aroclor.

PCBs don't burn easily and are good insulating material. They have been used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. The manufacture of PCBs stopped in the United States in 1977 because of evidence that they build up in the environment and cause harmful effects. Products containing PCBs are old fluorescent lighting fixtures, electrical appliances containing PCB capacitors, old microscope oil, and hydraulic fluids.

PCBs are generally considered to be of moderate to low toxicity. The higher the chlorine content of the PCBs, the greater the toxicity is likely to be. Exposure to PCBs can cause liver damage at high concentrations. Prolonged ingestion of large doses of PCBs has been shown to cause liver cancer in laboratory rats. A few studies of workers indicate that PCBs were associated with certain kinds of cancers in humans, such as cancer of the liver and biliary tract. The Department of Health and Human Services (DHHS) has concluded that PCBs may reasonably be considered to be carcinogens. Dermal contact with liquid PCBs may produce skin irritation or a rash, often referred to as "chloracne." Eye contact with PCB fluids is likely to produce eye irritation.

Due to the low vapor pressures of PCBs, an inhalation hazard is not likely to be generated by PCB fluids at ambient temperatures. Therefore, respiratory protection is not typically required for exposure to PCB fluids, particularly in outdoor locations. However, exposure to hot PCB fluids, particularly in enclosed areas, such as a transformer vault, could produce hazardous vapor concentrations and dusts laden with PCBs may be readily inhaled and or ingested. PCBs do penetrate the skin readily. Therefore, PPE, as described in Section 6 of this HASP, will be worn during any activity where direct skin contact with PCB fluids is a possibility.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for PCB (42%) is 0.5 milligrams per cubic meter (mg/m^3) as an eight hour time weighted average (TWA). The OSHA PEL for PCB (54%) and the American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV) for PCB is 1.0 mg/m^3 as a TWA.

3.2 Lead

Lead has been detected in soil above industrial screening criteria at the Site in the former battery charging area. Lead can affect almost every organ and system in your body. The most sensitive is the central

nervous system, particularly in children. Lead also damages kidneys and the immune system. The effects are the same whether it is breathed or swallowed. Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common after exposure to high levels of lead. In adults, lead may decrease reaction time, cause weakness in fingers, wrists, or ankles, and possibly affect the memory. Lead may cause anemia, a disorder of the blood. It can cause abortion and damage the male reproductive system. The connection between these effects and exposure to low levels of lead is uncertain.

In general, the inhalation of metal dusts is irritating to the upper respiratory tract and nasal mucous membranes. Most metal dusts cause dermatitis and/or eye irritation. The early symptoms of lead poisoning, as a result of overexposure (either through ingestion or inhalation) include fatigue, sleep disturbance, headache, aching bones and muscles, digestive irregularities, abdominal pains, and decreased appetite. High levels of exposures to lead affect the central nervous system and male and female reproductive systems. High levels of exposure can severely damage the brain and kidneys in adults or children and can ultimately cause death. The Department of Health and Human Services (DHHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens. Lead has also been identified as a fetotoxin.

The OSHA PEL and ACGIH TLV for inorganic lead is 50 micrograms per cubic meter (µg/ m^3) time weighted average (TWA) and is recommended to be 40 µg/ m^3 if workers are of reproductive age. OSHA has also established an Action Level (AL) for lead of 30 ug/M^3 as a TWA.

3.3 Arsenic

Arsenic has been identified in several areas of the site. The OSHA has set limits of 10 microgram arsenic per cubic meter of workplace air (10 µg/m3) for 8 hour shifts and 40 hour work weeks. Several studies have shown that inorganic arsenic can increase the risk of lung cancer, skin cancer, bladder cancer, liver cancer, kidney cancer, and prostate cancer. The World Health Organization (WHO), the DHHS, and the EPA have determined that inorganic arsenic is a human carcinogen.

Breathing high levels of inorganic arsenic can give you a sore throat or irritated lungs. Ingesting high levels of inorganic arsenic can result in death. Lower levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, damage to blood vessels, and a sensation of "pins and needles" in hands and feet.

3.4 Semi-Volatile Organic Compounds (SVOCs) Including Pentachlorophenol

SVOCs have been identified in several areas of the site. SVOCs are organic compounds which have a boiling point higher than water and which may vaporize when exposed to temperatures above room temperature. Many are human made and are used and produced in the manufacturing industry (e.g. in plastic, pharmaceutical and pesticide manufacture). SVOCs are typically industrial plasticizers e.g. phthalates, by-products of incomplete combustion of fossil fuels e.g. benzo(a) pyrene. To name a few, household sources can include cooked foods (especially chargrilled), medicines, and disinfectants. SVOCs include a variety of chemicals, which may have short and long term adverse health effects. The health effects can vary greatly from those that are highly toxic, to those which at present, have no known health effects. Many are suspected to be cancer causing in humans and some are known to be

carcinogenic in animals and humans e.g benzo (a) pyrene. Other SVOCs have also been shown to be reproductive toxicants based on animal studies e.g. phthalates have been linked to asthma, allergies, and other bronchial irritations.

3.5 Volatile Organic Compounds (VOCs)

VOCs have been identified in several areas of the site, including storm sewers, the southern pump house and the test print finish area, including tetrachloroethene, trichloroethene, tetrahydrofurn, benzene, toluene, ethylbenzene and xylene. VOCs are a group of chemicals that contain organic carbon, and readily evaporate – changing from liquids to gases when exposed to air. VOCs are usually in such solvent as paint wastes, dry cleaning chemicals, furniture stripper, carburetor cleaners and other solvents and waste sludges. VOCs generally do not stick (absorb) to soils at low concentrations, and readily evaporatefrom water and soil when the water is used for irrigation purposes.

Human health effects are related to routes of exposure, or exposure pathways. The three primary routes of exposure for humans are:

- Ingestion (swallowing),
- Respiration (lungs), and
- Dermal absorption (through skin).

In general, long-term exposure to low concentrations of volatile organic compounds in water or air may result in liver or kidney effects. These effects may include elevation of serum enzyme levels, mild cellular changes and changes in lipid metabolism. At somewhat higher concentrations, breathing some VOCs may cause irritation of the respiratory tract.

Acute symptoms of overexposure to these VOCs include irritation of the mucous membranes of the upper respiratory tract, nose and mouth, drowsiness, headache, fatigue and drunken-like behaviors. Chronic and prolonged overexposure to the vapors of benzene may cause damage to the blood-forming organs and is known to cause leukemia in humans.

3.6 Hazardous Substances Brought On-Site

A material safety data sheet (MSDS) must be available for each hazardous substance that a contractor employee brings onto the Site.

In addition, all containers of hazardous materials must be properly labeled in accordance with OSHA's Hazard Communication Standard. Either the original manufacturer’s label or an National Fire Protection Association (NFPA) 704M label specific for the material is considered to be an acceptable label

3.7 Potential Routes of Chemical Exposure

It is anticipated that the likelihood of encountering and being overexposed to the contaminants of concern is relatively low unless very dusty conditions are generated during the subsurface work activities.

The potential routes of exposure to the contaminants of concern include:

- Ingestion via hand to mouth transfer,
- Inhalation from airborne dust/particulates and
- Dermal contact with contaminated soils, groundwater

4. PHYSICAL HAZARD ANALYSIS & CONTROLS

Persons working at this Site should be aware of the following physical hazards.

4.1 Overhead Utility Hazards

Activities within the vicinity of overhead utility hazards cannot commence until thorough inspection of the area has taken place by the SM and it is deemed safe to perform the work.

4.2 Working at Heights

Use of a scissor lift or aerial lift may be required for some general site activities. No person shall elevate beyond 6 feet above ground surface without the use of American National Standards Institute (ANSI)-approved fall protection (approved belts, lanyards and a fall protection slide rail) that meets the requirements of OSHA standards. All personnel involved in activities which require fall protection shall be trained and competent.

4.3 Hand and Power Tools

A variety of hand tools will be used during work activities at the Site. The use of each can pose serious safety hazards to the user. Hand and power tools to be used are to be inspected each day prior to use confirming that they are in proper functioning order to prevent possible serious injury. Power tools with frayed cords or missing guards are to be taken out of service until the appropriate repairs have been made and the tool is deemed safe by the SM.

4.4 Noise Exposure

Site activities in proximity to heavy equipment often expose workers to excessive noise. It is anticipated that situations may arise when noise levels may exceed the OSHA action level (AL) of 85 dBA in a TWA. If excessive noise levels occur, efforts will be made to control this by issuance of hearing protection to all personnel and by implementing a system of hand signals understood by all.

4.5 Heavy Equipment Hazards

Use of heavy equipment will require all personnel in the vicinity of the operating equipment to wear hardhats and fluorescent colored shirts/vests in addition to the Site required PPE. Personnel shall not remain in the vicinity of heavy equipment unless it is required for their work responsibilities. Before heavy equipment use, the SM will ensure an adequate safety zone around the equipment and associated operations.

4.6 Simultaneous Operations (SIMOPS)

One or more activities (e.g., tasks, jobs) or work taking place at the same time have the potential to affect one another. Specifically, multiple operations may be occurring concurrently in sufficient proximity that one operation creates a hazard for another, or new hazards are created. Before SIMOPS activities the PIC will ensure an adequate safety zone around the equipment and associated operations.

4.7 Traffic Hazards

To reduce the risk to field personnel during work activities at the site; traffic safety precautions should be implemented. Safety precautions may include establishing vehicle right-of-ways and directions of traffic flow, restricting traffic in or around certain work areas and barricading designated work areas.

4.8 Personal Heavy Lifting

Using the proper techniques to lift and move heavy objects (greater than 50-lbs) is important to reduce the potential for back injury.

The following precautions should be implemented when lifting or moving heavy objects.

- Bend at the knees, not the waist. Let your legs do the lifting.
- Do not twist while lifting
- Bring the load as close to you as possible before lifting
- Be sure the path you are taking while carrying a heavy object is free of obstructions and slip, trip and fall hazards
- Use mechanical devices to move objects, such as drums of PPE wastes or generators, that are too heavy to be moved manually
- If mechanical devices are not available, ask another person to assist you.

4.9 Slip, Trip, and Falls

Many slip, trip and fall hazards exist on the site. When carrying equipment, identify a path that is clear of any obstructions. It may be necessary to remove obstacles to create a smooth, unobstructed access point to the work areas on-site. Employees should always follow an unobstructed path when accessing outdoor work locations as well due to the irregular terrain and the potential presence of construction/demolition debris and/or vegetation.

The following procedures can be used to minimize the risk of slip, trip, and fall hazards:

- Keep work area and walking pathways clear of obstacles and debris
- Keep work surfaces dry where possible
- Stay alert and be aware of the conditions of the walking path or work area

- Use a suitable portable light source (e.g., flashlight) when working in Site buildings that lack permanent lighting
- Avoid fenced in areas, maintain 6-foot perimeter from edge of roofs, and inspect and maintain inspection records for all ladders in service.
- Keep work areas and walking paths clear of snow and ice. Use a shovel to clear areas where snow has accumulated. Apply ice melt or sand to work area and path surfaces to prevent ice accumulation.

4.10 Drum Handling

Since accidents occur frequently during drum handling, particularly during initial handling, drums should only be handled if necessary. Prior to handling, all personnel should assess the drum handling task and review ways to minimize handling as much as possible and to avoid unnecessary handling. Once a drum has material placed within it, the drum must be moved using a drum dolly or a drum grappler attached to a forklift. The following procedures can be used to maximize worker safety during drum handling and movement:

- Use proper lifting and moving techniques to prevent back injuries.
- Make sure the vehicle selected has sufficient rated load capacity to handle the anticipated loads and make sure the vehicle can operate smoothly on the available road surface.
- Supply operators with the appropriate respiratory protective equipment when needed.
- Before moving anything, determine the most appropriate sequence in which the various drums and other containers should be moved.
- Exercise extreme caution in handling drums that are not intact and tightly sealed.
- Ensure that operators have a clear view of the roadway when carrying drums.
- Pressurized drums are extremely hazardous. Do not move drums that may be under internal pressure, as evidenced by bulging or swelling.
- If a drum containing a liquid cannot be moved without rupture, immediately transfer its contents to a sound drum using a pump designed for transferring that liquid. If the liquid is combustible use proper bonding and grounding to eliminate static electricity.
- Using a drum grappler, place immediately in overpack containers: leaking drums that contain sludges or semi-solids; open drums that contain liquid or solid waste; deteriorated drums that can be moved without rupture.
- Ensure forklift operator is currently certified and trained to operate the forklift equipment.

4.11 Sun Exposure

Employees are encouraged to liberally apply sunscreen, with a minimum sun protection factor (SPF) of 15, when working outdoors to avoid sunburn and potential skin cancer, which is associated with excessive sun exposure to unprotected skin. Additionally, employees should wear safety glasses that offer ultra violet (UV) protection from UVA/UVB rays.

4.12 Heat Stress

Heat stress on hazardous waste sites or construction sites usually is a result of protective clothing decreasing natural body ventilation, although it may occur at any time work is being performed at elevated ambient temperatures. Because heat stress is one of the most common and potentially serious illnesses associated with hazardous waste site work, regular monitoring and other preventative measures are vital.

4.13 Cold Stress

Persons working outdoors in low temperatures, especially at or below freezing are subject to cold stress. Exposure to extreme cold for a short time may cause severe injury to the surface of the body, or result in profound generalized cooling, causing death.

4.14 Inclement Weather

When a severe thunderstorm is coming, employees will only have a short amount of time to make important decisions. Employees do not have access to consistent and current news information via the television or radio when working in the field. To ensure that on-site staff is alerted to the onset of severe weather, the project team should keep cell phones on them at all times.

Via the radio, the SM will be aware of any severe thunderstorm and/or tornado watches or warnings that have been issued for their work area by the National Weather Service. It is important for field team members to understand the difference between a "watch" and a "warning". If a severe thunderstorm ***watch*** is issued for your work or travel area, it means that a severe thunderstorm is ***possible***. If a severe thunderstorm ***warning*** is issued, it means that ***a severe thunderstorm has actually been spotted or is strongly indicated on radar and it is time to seek safe shelter immediately***.

If a ***severe thunderstorm watch*** is issued, employees must remain alert for approaching storms and review the procedures for seeking refuge in the event that a warning is issued. If a ***severe thunderstorm warning*** is issued, the SM will alert the project field team to stop work and seek shelter. Work will be stopped until 30-minutes after the last observed lightning strike or thunderclap and the SM declares that work can continue.

During a severe thunderstorm warning, employees will take the following measures. If you hear thunder, you are close enough to a storm to be struck by lightning.

- Cease all work and seek shelter, either a sturdy building or car, immediately.
- If you are near heavy equipment, move away from the equipment.

- Protect yourself by taking cover in the best shelter you can find. Do not take shelter in small sheds, under isolated tress or in convertible automobiles.
- Avoid trees as they are targets for lightning.
- If in a car, keep the windows up.
- If you are using conductive tools and equipment, separate yourself from them as far as practical.
- Watch for local flooding you may have to move if water begins to accumulate.

If you are caught outside during a thunderstorm and no shelter is available, find a low spot away from trees, fences and poles. Squat low to the ground on the balls of your feet; place your hands on your knees with head between them. Make yourself the smallest target possible and minimize your contact. Do not lie flat on the ground, as your fully extended body will provide a larger surface to conduct electricity. Stay in a tuck position well after the storm passes.

If you feel your hair stand on end in a storm, drop into the tuck position **immediately.** This sensation means electric charges are already rushing up your body from the ground toward an electrically charged cloud. Minimize your contact with the ground to minimize your injury.

5. BIOLOGICAL HAZARD ASSESSMENT & CONTROLS

Persons working at this site should be aware of the possible presence of poisonous plants and insects.

5.1 Poisonous Plants

Poison ivy is a climbing plant with leaves that consist of three glossy, greenish leaflets. Poison ivy has conspicuous red foliage in the fall. Small yellowish-white flowers appear in May through July at the lower leaf axils of the plant. White berries appear from August through November. Poison ivy is typically found east of the Rockies.

The stems, leaves, roots and fruit of poison ivy contains an oil called urushiol. Contact with the irritating oil causes an intensely itching skin rash and characteristic, blister-like lesions. The oil can be transmitted on soot particles when burned and may be carried on the fur of animals, equipment and apparel.

Proper identification is the key to preventing contact and subsequent dermatitis. Wear long sleeves and pants when working in wooded areas. In areas of known infestation, wear Tyvek coveralls and gloves. Oils are easily transferred from one surface to another. If you come in contact with these poisonous plants, wash all exposed areas immediately with soap and cool water to remove the oils. Some commercial products such as Fels-Naptha Laundry Soap and Tecnu's Poison Oak-n-Ivy Cleanser claim to further help with the removal of such oils.

5.2 Ticks

Ticks are bloodsuckers, attaching themselves to warm-blooded vertebrates to feed. Deer ticks, which are associated with the transmission of Lyme's Disease (ticks transmit the bacteria that causes the disease) have been observed in New England and Mid-Atlantic. Not all ticks carry the disease. Furthermore, an infected tick must attach itself for at least 24 hours before it can transmit disease. As such, personnel should carefully inspect themselves each day for the presence of ticks or any rashes. This is important since prompt removal of the tick can prevent disease transmission. Female deer ticks are about one-quarter inch in length and are black and brick red in color. Males are smaller and all black.

Removal of the tick is important in that the tick should not be crushed and care must be taken so that the head is also removed. If the head of the tick is not completely removed or if the tick is allowed to remain for days feeding on human blood, a condition known as **tick paralysis** can develop. This is due to a neurotoxin that the tick apparently injects while engorging. This neurotoxin acts upon the spinal cord causing incoordination, weakness and paralysis.

One characteristic symptom of Lyme Disease is a bulls-eye rash that develops around the bite site. The rash appears in about 60-80% of all Lyme disease cases.

Submit an Incident Report to the SM if you discover you have been bitten by any ticks, or if the tick is still attached. First aid or medical follow-up may be necessary.

Tick season lasts from April through October; peak season is May through July. Wear light-colored clothing (easier to spot ticks) with long sleeves and make sure that shirts are tucked into pants and pants are tucked into socks or boots. Ticks have a tendency to crawl upwards. These procedures will make it more difficult for a tick to reach your skin. Studies have determined that repellants containing DEET as a

main ingredient are most effective against mosquitoes and ticks. DEET can be directly applied to the exposed skin of adults and/or clothing. Permonone is another repellent however; it can only be directly applied to clothing.

5.3 Mosquito-Borne Illnesses

5.3.1 Eastern Equine Encephalitis

Eastern equine encephalitis is a rare disease that is spread to horses and humans by infected mosquitoes. It is among the most serious of a group of mosquito-borne virus diseases that can affect the central nervous system and cause severe complications and even death. Although relatively small outbreaks of human disease have occurred in the United States, the frequency of this disease is increasing with most cases reported from the eastern seaboard states, the Gulf Coast, and some inland mid-western areas.

After infection, the virus invades the central nervous system, including the spinal cord and brain. Most people have no symptoms; others get only a mild flu-like illness with fever, headache, and sore throat. For people with infection of the central nervous system, a sudden fever and severe headache can be followed quickly by seizures and coma. About half of these patients die from the disease. Of those who survive, many suffer permanent brain damage and require lifetime institutional care. Symptoms usually appear 4 to 10 days after the bite of an infected mosquito. Confirming diagnosis is based on tests of blood or spinal fluid.

Refer to section 5.3.2 for preventative measures.

5.3.2 West Nile Virus

West Nile encephalitis is an infection of the brain caused by the West Nile virus, which is transmitted by infected mosquitoes. Following transmission from an infected mosquito, West Nile virus multiplies in the person's blood system and crosses the blood-brain barrier to reach the brain. The virus interferes with normal central nervous system functioning and causes inflammation of the brain tissue. However, most infections are mild and symptoms include fever, headache and body aches. More severe infections may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis and rarely, death. Persons over the age of 50 have the highest risk of severe disease.

Take preventative measures to avoid mosquito bites. To avoid being bitten by the mosquitoes that cause disease, use the following control measures:

- If possible, stay inside between dusk and dark. This is when mosquitoes are most active.
- When outside between dusk and dark, wear long pants and long-sleeved shirts.
- Spray exposed skin with an insect repellent, preferably containing DEET.
- Where possible, eliminate places where mosquitoes can breed, such as small containers that can hold standing water.

5.4 Wasps and Bees

Wasps (hornets and yellow-jackets) and bees (honeybees and bumblebees) are common insects that may pose a potential hazard to the field team if work is performed during spring, summer or fall. Bees normally build their nests in the soil. However, they use other natural holes such as abandoned rodent

nests or tree hollows. Wasps make a football-shaped, paper-like nest either below or above the ground. Yellow-jackets tend to build their nests in the ground but hornets tend to build their nests in trees and shrubbery.

To avoid bees and wasps when working outdoors:

- Stay away from known nests whenever possible, and warn others of the hazard that exists, via signs and safety briefings.
- Avoid the use of heavily scented soaps, shampoos, perfumes, colognes, after-shaves and cosmetics.
- Avoid shiny buckles and jewelry.
- Cover exposed skin and wear gray, white or tan rather than bright colors. Flowery prints and black especially attract insects.
- Remove food sources from site that may attract bees. Social wasps thrive where humans discard food.
- Check for new nests during the warmer hours of the day during July, August and September. Bees are very active then.
- If required work areas contain bee or wasp nests, contact a qualified vendor to eradicate them.

Bees are generally more mild-mannered than wasps and are less likely to sting. Bees can only sting once while wasps sting multiple times because their stinger is barbless. Wasps and bees will sting in defense of itself or its nest. To avoid being stung:

- Slowly raise your hands to protect your face, remaining calm and stationary for a while and then move very slowly away.
- Never swing, strike or run rapidly away since quick movement often provokes attack and painful stings.
- Restrain from throwing rocks or spraying nests with water.
- Avoid creating loud noises and disturbance near the nest

Wasps and bees inject a venomous fluid under the skin when they sting. The venom causes a painful swelling that may last for several days. If the stinger is still present, carefully remove it with tweezers. Then,

- Wash the area carefully with soap and water. This should be continued several times a day until the skin is healed.
- Apply a cold or ice pack, wrapped in cloth for a few minutes.
- Apply a paste of baking soda and water and leave it on for 15 to 20 minutes.
- Take acetaminophen for pain.

Wasp stings can be life-threatening to persons who are allergic to their venom. If you develop hives, difficulty breathing or swallowing, wheezing or similar symptoms of allergic reaction, **SEEK MEDICAL ATTENTION IMMEDIATELY**. People with known allergies to insect stings should NEVER work alone.

6. TEXTILEATHER CONTROL OF WORK PROCEDURES

6.1 Daily Toolbox Meeting

A daily toolbox meeting should be held at the start of each work day, shift or task change. The daily toolbox meetings shall review the planned work activities for the day, discuss and resolve the risk and mitigations, discuss Health, Safety, Security, and Environmental concerns and raise the HASP consciousness of each worker before the start of work. The Daily Toolbox Meeting form needs to be completed before the work commences each day and covers the task to be completed in the period covered by the form and stipulates the Control of Work procedures and permits required. Another Daily Toolbox Meeting shall also be scheduled at the end of the work day and any best practices, incidents, stop work interventions, and any recommendations for improvements shall be documented. Daily Toolbox Meeting forms shall be signed off by all field personnel and the SM at the end of the day that all personnel left the job safe. When a permit for work is required, the permit can only be signed by a person authorized to do so and cannot be the person doing the work. Any work permits should be copied and attached to the Daily Toolbox Meeting forms.

The following Operating Procedure OP1033 Tailgate Safety Meetings is attached in **Appendix A** and should be reviewed prior to commencing work. A copy of the Daily Toolbox Meeting form is included in **Appendix B** of the HASP.

6.2 Management of Change

During subsurface work or excavation activities if any changes arise that could affect the health and safety of the workforce the Management of Change (MoC) process will be implemented. The following Operating Procedure OP1037 Management of Change is attached in **Appendix A** and should be reviewed prior to MOC implementation.

7. PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) will be worn by all field personnel during subsurface work or excavation activities as described in **Section 2.5**. PPE will be worn to prevent injury from the hazards posed by the Site and/or the work activities being implemented.

The minimum PPE requirements for all personnel working at the Site are as follows:

- hard hat;
- protective steel-toed boots;
- safety glasses or goggles with side shields.

7.1 Project Specific PPE Requirements

The following table lists the required PPE to be worn by field personnel for the excavation project.

Required PPE	**TASK**		
	Basement	Sewers	General Site
Hard Hat	✓	✓	✓
Safety Glasses w/Side Shields	✓	✓	✓
Protective Steel-toed Safety Shoes	✓	✓	✓
High Visibility/Fluorescent Shirt or Vest	✓	✓	✓
Long Pants	✓	✓	✓
Ear Plugs or Ear Muffs			
Nitrile Gloves	✓	✓	
QC Coated Tyvek ™ Coveralls	✓	✓	
QC Coated Tyvek ™ Boot Covers	✓	✓	
Leather Work Gloves	✓	✓	✓
PVC Gloves			
Respirator (Half Face or Full Face)			
Particulate and Organic Vapor Cartridges			
Face Shield	✓	✓	
Personal Flotation Device			

7.2 Respiratory Protection

Respiratory protection will be donned if required if working in level C PPE and above. All field personnel who are expected to don respiratory protection must have passed a respirator fit test within the last 12-months for the particular respirator that they plan to use.

7.3 Additional Safety Equipment

The following additional protective equipment shall be readily available within each work zone at the Site:

- First Aid kit/AED
- Eyewash solution bottles
- Fire extinguisher

8. SITE CONTROL

8.1 Site Access and Security

The Site is currently secured by a six-foot high, chain-linked fence. Access to the Site is controlled by Security through the main gate. Upon arrival at the Site, authorized personnel must sign-in. Upon leaving the Site, authorized personnel must sign-out and hand in any non-disposable PPE provided. The Site sign-in sheet and Daily Toolbox Form will be used to monitor the number and identify of personnel on-Site. Current site plan is shown on **Figure 2**.

8.1.1 Authorized Personnel

Only authorized personnel are allowed to access the Site without an escort. Authorized personnel must meet the training and medical requirements outlined in **Section 9**.

8.1.2 Site Visitors

Visitors to the Site must first be approved by the SM prior their arrival at the Site. Visitors at the Site shall be escorted during the duration of their visit by the SM or their designate. Upon arrival to the Site, visitors shall participate in a pre-entry Site safety briefing and sign the Daily Toolbox Form. The pre-entry Site safety briefing will include an orientation of the Site, and a review of the HASP.

8.2 Exclusion Zone

Work areas at the Site will be set up as exclusion zones. The exclusion zone will be the area that immediately surrounds the work activity and where the potential exposure by dermal or inhalation routes exists. All personnel entering the exclusion zone must be trained in accordance with the requirements defined in **Section 9** and wear the prescribed level of PPE. The exclusion zone will be marked off as designated by the Performing Authority.

9. TRAINING AND MEDICAL REQUIREMENTS

9.1 Off-Site Training Requirements

The following training requirements must be completed prior to the start of any work activities. Records certifying that these training requirements have been completed will be maintained on-Site.

9.1.1 40-Hour HAZWOPER Training

All field personnel performing work activities covered by this HASP must have completed the training requirements specified by OSHA in 29 CFR 1910.120(e). This includes the basic 40-hr hazardous waste operations and emergency response (HAZWOPER) course which provides instruction on the nature of hazardous waste work, protective measures, proper use of personal protective equipment, recognition of signs and symptoms which might indicate exposure to hazardous substances, and decontamination procedures. It is required for all personnel working on-Site, such as equipment operators, general laborers, and supervisors, who may be potentially exposed to hazardous substances, health hazards, or safety hazards consistent with 29 CFR 1926.65.

9.1.2 8-hour Annual Refresher Training

Personnel required to complete the 40-hour HAZWOPER training are subsequently required to attend an annual 8-hour refresher course to remain current in their training. All site personnel must show attendance at an 8-hr refresher training course within the past 12 months.

9.1.3 Medical Monitoring Program

All personnel performing Remediation & General Site Program work activities covered by this HASP must be active participants in a medical monitoring program which complies with 29 CFR 1910.120 (f). Each person must have completed an annual surveillance examination and/or an initial baseline examination within 12-months of performing field activities for this Site.

9.2 On-Site Training Requirements

9.2.1 Project HASP Briefing Meetings

Pre-project HASP meetings for non-recurring projects will be conducted by the SM to review the specific requirements of this HASP. Attendance to these meetings is required for personnel performing work covered by this HASP.

9.2.2 Daily Toolbox Meetings

Please refer to Section 6.2.

10. INCIDENT REPORTING GUIDELINES

All HASP incidents that occur while performing on-Site work activities must be immediately reported to the SM. HASP incidents include any accident, injury, unsafe act, or near miss. All incident reporting will follow Textileather Health & Safety Program.

10.1 Near Miss Incidents and HASP Observations

10.1.1 Near Miss

A near miss is any incident that under different circumstances could have caused an injury, property damage, an environmental release, or any detrimental loss of resources. The purpose for reporting and following up on near miss incidents is to prevent a reoccurrence of the incident. All near miss incidents must be reported to the SM as soon as possible. When reporting a near miss, the witness must describe the incident and identify the cause(s) of the incident. After reporting the near miss, the witness shall work with the SM to identify and implement an appropriate corrective action to prevent the reoccurrence of the incident.

10.1.2 Safety Observation

A safety observation is a situation when a hazard is identified and corrected before an incident occurs. The purpose of reporting safety observations is to provide opportunities for learning about and improving on ways to work safely during this project.

10.1.3 Reporting

Field team members are responsible for reporting any HASP observations, near misses, and incidents immediately to the SM. The HASP Observation Report will be reviewed jointly by the SM and the witness. The report will then be reviewed and discussed by project team members during the subsequent day's safety meeting.

10.2 Incident Investigation and Reporting

All HASP incidents that result in an injury, damage to property, an environmental release, or any detrimental loss or resources must be investigated and a report submitted to Textileather Corporation. The investigation should be conducted by the SM as soon as emergency conditions are under control. The purpose of this investigation is to collect the facts regarding the situation, determine the cause of the incident, and identify corrective measures to prevent the reoccurrence of the incident.

TABLE 1
OCCUPATIONAL EXPOSURE LIMITS (CONCENTRATIONS IN AIR)

(CIRCLE CONTAMINANTS OF CONCERN, WRITE ADDITIONAL CONTAMINANTS AND EXPOSURE ON LAST PAGE)

CHEMICAL	ROUTES OF EXPOSURE	IDLH	Ceiling	STEL	PEL	TLV	REL	PID (IP eV)	FID	ODOR THRES-HOLD	IRRITATION THRESHOLD	ODOR DESCRIPTION
VAPORS & GASES												
Acetone	R, I, C	2500	-	750 [ACGIH]	1000	500	250	9.69	60	13	-	fragrent, mint-like
Ammonia	R, I, C	300	-	35 [NIOSH, ACGIH]	50	25	25	10.18**	-	0.5-2	10	Pungent suffocating odor
Benzene	R,A,I,C	Ca [500]	-	1 [NIOSH]; 2.5 [ACGIH]	1	0.5	0.1	9.24	150	4.68	-	Solvent, aromatic
Carbon tetrachloride (Tetrachloromethane)	R,A,I,C	Ca [200]	25 [instantaneous] 200 [5 min peak in any 4 hrs]	2 [NIOSH, 60-min]; 10 [ACGIH]	2	5	Ca	11.47**	10	50	-	Sweet, pungent, ether-like
Chlorobenzene	R,I,C	1000	-	-	75	10	-	9.07	200	0.68	-	Almond-like
Chloroform	R,I,C	Ca [500]	50 [OSHA]	2 [NIOSH, 60-min]	-	10	-	11.42**	65	50	-	Sweet, pleasant
o-Dichlorobenzene	R,A,I,C	200	50 [NIOSH, OSHA]	50 [ACGIH]	-	25	-	9.06	50	0.3	E 20-30	Pleasant, aromatic
p-Dichlorobenzene	R,A,I,C	Ca [150]	-	-	75	10	Ca	8.98	-	0.18	E 80-160	Distinct, aromatic, mothball-like
Dichlorodifluoromethane (Freon 12)	R,C	15000	-	-	1000	1000	1000	11.75**	15	-	-	Ether-like when at very high concs.
1,1-Dichloroethane	R,I,C	3000	-	-	100	100	100	11.06**	80	200	-	Distinct, chloroform-like
1,2-Dichloroethane (Ethylene dichloride)	R,I,A,C	Ca [50]	100 [OSHA]	2 ppm [NIOSH]; 200 ppm [OSHA, 5-min max peak in any 3 hours]	50	10	1	11.05**	80	88	-	Chloroform-like
1,1-Dichloroethylene (1,1-DCE, Vinylidene chloride)	R,A,I,C	Ca [ND]	-	-	-	5	Ca	10.00**	40	190	-	Chloroform-like
1,2-Dichloroethylene	R,I,C	1000	-	-	200	200	200	9.65	50	0.85	-	Bitter, chloroform-like
Ethanol	R,I,C	3300	-	-	1000	1000	1000	10.47**	25	10	-	Weak, ether-like, wine-like
Ethylbenzene	R,I,C	800	-	125 [NIOSH; ACGIH]	100	100	100	8.76	100	2.3	E 200	Aromatic
Ethylene Glycol	R,I,C	ND	50 [OSHA]; 100 mg/m^3 [ACGIH]	-	-	-	-	-	-	-	-	Odorless
Formaldehyde	I,C	Ca [20]	0.1 [NIOSH, 15-min]; 0.3 [ACGIH]	2	0.75	-	Ca [0.016]	10.88**	-	0.83	-	Pungent, suffocating
Gasoline	R,I,A,C	Ca [ND]	-	500 [OSHA; ACGIH]	300	300	-	-	-	-	E 0.5	Petroleum-like
n-Hexane	R,I,C	1100	-	-	500	50	50	10.18	70	130	E.T 1400-1500	Gasoline-like
Hydrogen Cyanide	R,A,I,C	50	4.7 [ACGIH; Skin]	4.7 [NIOSH - skin]	10 [skin]		-	-	-	0.58	-	Bitter almond
Hydrogen peroxide	R,I,C	75	-	-	1	1	1	10.54**	-	-	-	Sharp
Methanol	R,I,A,C	6000	-	250 [NIOSH; ACGIH; skin]	200	200 [skin]	200	10.84**	12	1000	-	Pungent
Methyl Ethyl Ketone Peroxide	R,I,C	ND	0.2 [NIOSH; ACGIH] 0.7 [OSHA]	-	-	-	-	-	-	-	-	Characteristic odor
Methyl Chloroform (1,1,1-TCA)	R,I,C	700	350 [NIOSH, 15-min]	450 [ACGIH]	350	350	Ca	11.00**	105	20-100	-	Chloroform-like
Methylene Chloride (Dichloromethane, Methylene dichloride)	R,I,A,C	Ca [2300]	-	125	25	50	Ca	11.32**	100	25-50	E 5000	Chloroform-like
Methyl Mercaptan	R,C	150	10 [OSHA] 0.5 [NIOSH, 15-min]	-	-	0.5	-	9.44	-	-	-	Garlic, rotten cabbage
MIBK (Hexone)	R,I,C	500	-	75 [NIOSH; ACGIH]	100	50	50	9.30	-	-	-	Pleasant
Naptha (coal tar)	R,I,C	1000	-	-	100	400	100	-	-	-	-	Aromatic
Naphthalene	R,A,I,C	250	-	15 [NIOSH; ACGIH]	10	10	10	8.12	-	0.3	E 15	Mothball-like
Octane	R,I,C	1000	385 [NIOSH, 15-min]	-	500	300	75	9.82	80	48	-	Gasoline-like
Pentachlorophenol	R,A,I,C	2.5 mg/m^3	-	-	0.5 mg/m^3 [skin]	0.5 mg/m^3 [skin]	0.5 mg/m^3 [skin]	-	-	-	-	Pungent when hot, benzene-like
Phenol	R,A,I,C	250	15.6 [NIOSH, 15-min]	-	5 [skin]	5 [skin]	5 [skin]	8.50	-	0.04	E.N.T. 68	Sweet, acrid
Propane	R,C	2100	-	-	1000	1000	1000	11.07**	80	1600	-	Odorless (commonly smells foul due to additive for odor detection)
Stoddard Solvent (Mineral Sprits)	R,CI,I	20000 mg/m^3	1800 mg/m^3 [NIOSH, 15-min]	-	500	100	350 mg/m^3	-	-	1	E 400	Kerosene-like
Styrene	R,I,A,C	700	200 [OSHA]	100 [NIOSH]; 600 [OSHA, 5-min max peak in any 3 hours]; 40 [ACGIH]	100	20	50	8.40	85	0.047	E 200-400	Sweet, floral
1,1,2,2-Tetrachloroethane	R,I,A,C	Ca [100]	-	-	5 [skin]	1 [skin]	1 [skin]	11.10**	100	1.5	-	Pungent, chloroform-like
Tetrachloroethylene (Perchloroethylene, Perc, PCE)	R,I,A,C	Ca [150]	200 [OSHA]	300 [OSHA, 5-min max peak in any 3-hours]; 100 [ACGIH]	100	25	Ca	9.32	70	4.68	N.T513-690	Chloroform-like
Toluene	R,A,I,C	500	300 [OSHA]	150 [NIOSH]; 500 [OSHA, 10-min max peak]	200	50	100	8.82	110	2.14	E300-400	Sweet, pungent, benzene-like
Trichloroethylene (TCE)	R,I,A,C	Ca [1000]	200 [OSHA]	300 [OSHA, 5-min max peak in any 2-hours]; 100 [ACGIH]	100	50	Ca	9.45	70	21.4	-	Chloroform-like
1,2,3-Trimethylbenzene	R,I,C	ND	-	-	-	-	25	8.48	-	-	-	Distinctive, aromatic
1,2,4-Trimethylbenzene	R,I,C	ND	-	-	-	-	25	8.27	-	-	-	Distinctive, aromatic
1,3,5-Trimethylbenzene	R,I,C	ND	-	-	-	-	25	8.39	-	-	-	Distinctive, aromatic
Turpentine	R,A,I,C	800	-	-	100	20	100	-	-	200	E.N 200	Pine-like
Vinyl Chloride	R,C	Ca [ND]	5 [OSHA, 15-min]	-	1	1	Ca	9.99	-	3000	-	Pleasant odor at high concs.
Xylenes	R,A,I,C	900	-	150 [NIOSH, ACGIH]	100	100	100	8.56 (m- and o-) 8.44 (p-)	111/116	1.1	E.N.T. 200	Aromatic

TABLE 1
OCCUPATIONAL EXPOSURE LIMITS (CONCENTRATIONS IN AIR)

(CIRCLE CONTAMINANTS OF CONCERN, WRITE ADDITIONAL CONTAMINANTS AND EXPOSURE ON LAST PAGE)

CHEMICAL	ROUTES OF EXPOSURE	IDLH	Ceiling	STEL	PEL	TLV	REL	PID (IP eV)	FID	ODOR THRES-HOLD	IRRITATION THRESHOLD	ODOR DESCRIPTION
DUSTS, MISTS, FUMES, AND MISCELLANEOUS COMPOUNDS												
Asbestos	R	Ca (ND)	-	-	0.1 fiber/cc	0.1 fiber/cc	0.1 fiber/cc	-	-	-	-	-
PCBs-42% Chlorine	R,A,I,C	Ca [5 mg/m^3]	-	-	1 mg/m^3 [skin]	1 mg/m^3 [skin]	0.001 mg/m^3	-	-	-	-	Mild, hydrocarbon
PCBs-54% Chlorine	R,A,I,C	Ca [5 mg/m^3]	-	-	0.5 mg/m^3 [skin]	0.5 mg/m^3 [skin]	0.001 mg/m^3	-	-	-	-	Mild, hydrocarbon
Aluminum - metal dust	R,C	ND	-	-	15 mg/m^3 (total); 5 mg/m^3 (respirable)	10 mg/m^3	10 mg/m^3 (total); 5 mg/m^3 (respirable)	-	-	-	-	-
Aluminum - soluble salts	R,I,C	ND	-	-	2 mg/m^3	2 mg/m^3	2 mg/m^3	-	-	-	-	-
Arsenic- inorganic	R,A,I,C	Ca [5 mg/m^3]	0.002 mg/m^3 [NIOSH, 15-min]	-	0.01 mg/m^3	0.01 mg/m^3	Ca	-	-	-	-	-
Barium:soluble compounds	R,I,C	50 mg/m^3	-	-	0.5 mg/m^3	0.5 mg/m^3	0.5 mg/m^3	-	-	-	-	-
Beryllium	R,C	Ca [4 mg/m^3]	0.005 mg/m [OSHA]; 0.025 mg/m^3 [OSHA, 30-min max peak]; 0.0005 mg/m^3	0.01 mg/m^3 [ACGIH]	0.002 mg/m^3	0.002 mg/m^3	Ca	-	-	-	-	-
Cadmium dusts	R,I	Ca [9 mg/m^3]	-	-	0.005 mg/m^3	0.01 mg/m^3	Ca	-	-	-	-	-
Chromates (Cr(VI) Compounds) & Chromic Acid	R,I,C	Ca [15 mg/m^3]	0.1 mg/m^3 [OSHA]	-	0.001 mg/m^3	0.05 mg/m^3 [water soluble]; 0.01 mg/m^3 [insoluble]	Ca	-	-	-	-	-
Chromium (III) Compounds	R,I,C	25 mg/m^3	-	-	0.5 mg/m^3	0.5 mg/m^3	0.5 mg/m^3	-	-	-	-	-
Chromium Metal	R,I,C	250 mg/m^3	-	-	1 mg/m^3	0.5 mg/m^3	0.5 mg/m^3	-	-	-	-	-
Copper - dust & mist	R,I,C	100 mg/m^3	-	-	1 mg/m^3	1 mg/m^3	1 mg/m^3	-	-	-	-	-
Lead	R,I,C	100 mg/m^3	-	-	0.050 mg/m^3	0.05 mg/m^3	0.050 mg/m^3	-	-	-	-	-
Manganese (compounds and fume)	R,I	500 mg/m^3	5 mg/m^3 [OSHA]	3 mg/m^3 [NIOSH]	-	0.2 mg/m^3	1 mg/m^3	-	-	-	-	-
Mercury & Inorganic Mercury Compounds	R,I,A,C	10 mg/m^3	0.1 mg/m^3 [NIOSH, Skin]; 0.1 mg/m^3 [OSHA]	-	-	0.025 mg/m^3	0.05 mg/m^3 [skin]	-	-	-	-	-
Organo-Mercury Compounds	R,A,I,C	2 mg/m^3	0.04 mg/m^3 [OSHA]	0.03 mg/m^3 [NIOSH]	0.01 mg/m^3	0.01 mg/m^3 [alkyl]; 0.1 mg/m^3 [aryl]	0.01 mg/m^3	-	-	-	-	-
Nickel (metal and compounds)	R,I,C	Ca [10 mg/m^3]	-	-	1 mg/m^3	1.5 mg/m^3 [metal]; 1 mg/m^3 [soluble inorganic compounds]; 1 mg/m^3 [insoluble	0.015 mg/m^3	-	-	-	-	-
Particulate (Not otherwise regulated)	R, C	ND	-	-	15 mg/m^3 (total); 5 mg/m^3 (respirable)	10 mg/m^3 (inhalable); 3 mg/m^3 (respirable)	-	-	-	-	-	-
Portland cement	R,I,C	5000 mg/m^3	-	-	50 mppcf	10 mg/m^3	10 mg/m^3 (total); 5 mg/m^3 (respirable)	-	-	-	-	-
Selenium compounds	R,I,C	1 mg/m^3	-	-	0.2 mg/m^3	0.2 mg/m^3	0.2 mg/m^3	-	-	-	-	-
Silica, crystalline	R, C	Ca [25 mg/m^3 (cristobalie, tridymite); 50 mg/m^3 (quartz, tripoli)]	-	-	Dependent on silicon dioxide content of silica (see Appendix C of the NIOSH Pocket Guide to Chemical Hazards, 2005)	Dependent on minerology [see ACGIH 2005 TLVs and BEIs Handbook]	0.05 mg/m^3	-	-	-	-	-
Silver (metal and soluble compounds)	R,I,C	10 mg/m^3	-	-	0.01 mg/m^3	0.1 mg/m^3	0.01 mg/m^3	-	-	-	-	-
Thallium, soluble	R,A,I,C	15 mg/m^3	-	-	0.1 mg/m^3 [skin]	0.1 mg/m^3 [skin]	0.1 mg/m^3 [skin]	-	-	-	-	-
Tin (metal)	R,C	100 mg/m^3	-	-	2 mg/m^3	2	2 mg/m^3	-	-	-	-	-
Tin (organic compounds)	R,A,I,C	25 mg/m^3	-	-	0.1 mg/m^3	0.1 mg/m^3 [skin]	0.1 mg/m^3 [skin]	-	-	-	-	-
Zinc oxide dust & fume	R	500 mg/m^3	15 mg/m^3 [NIOSH, dust]	10 mg/m^3 [NIOSH; ACGIH; fume]	15 mg/m^3 (total dust); 5 mg/m^3 [respirable dust]; 5 mg/m^3 [fume]	2 mg/m^3 [respirable]	5 mg/m^3 (total dust); 5 mg/m^3 [fume]	-	-	-	-	-

NOTES & ABBREVIATIONS:

All units in parts per million (ppm) unless otherwise noted.

R = Respiratory (Inhalation)

I = Ingestion

A = Skin Absorption

C = Skin Contact

-: Not available

ND: Not detectable.

Ca = Carcinogen

** = Use 11.7 eV lamp

IP: Ionization potential

eV: Electrovolts

IDLH: Immediately dangerous to life and health

Ceiling: Highest allowable instantaneous

C = Skin and/or Eye Contact

STEL: Short-term exposure limit. Exposure period is 15 minutes unless otherwise indicated

PEL: OSHA Permissible Exposure Limit (legally-enforceable)

REL: NIOSH Recommended Exposure Limit

PID: Photoionization Detector

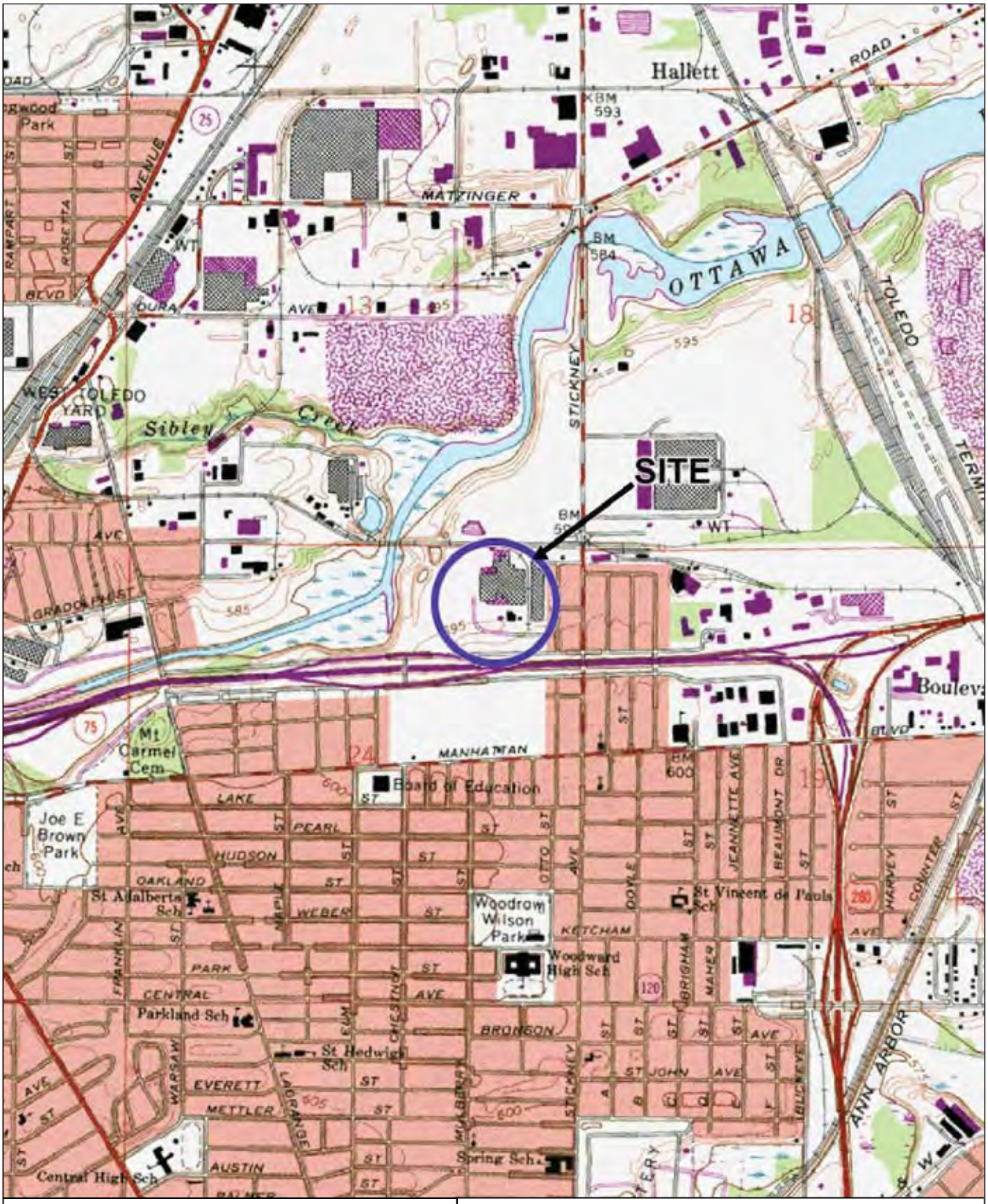
OSHA: United States Occupational Safety and Health Administration

NIOSH: National Institute of Occupational Safety and Health

TLV: ACGIH Threshold Limit Value

ACGIH: American Conference of Governmental Industrial Hygienists

Figures



SITE COORDINATES:41°41'30"N 83°31'51"W

U.S.G.S. QUADRANGLE: TOLEDO, OH

HALEY & ALDRICH

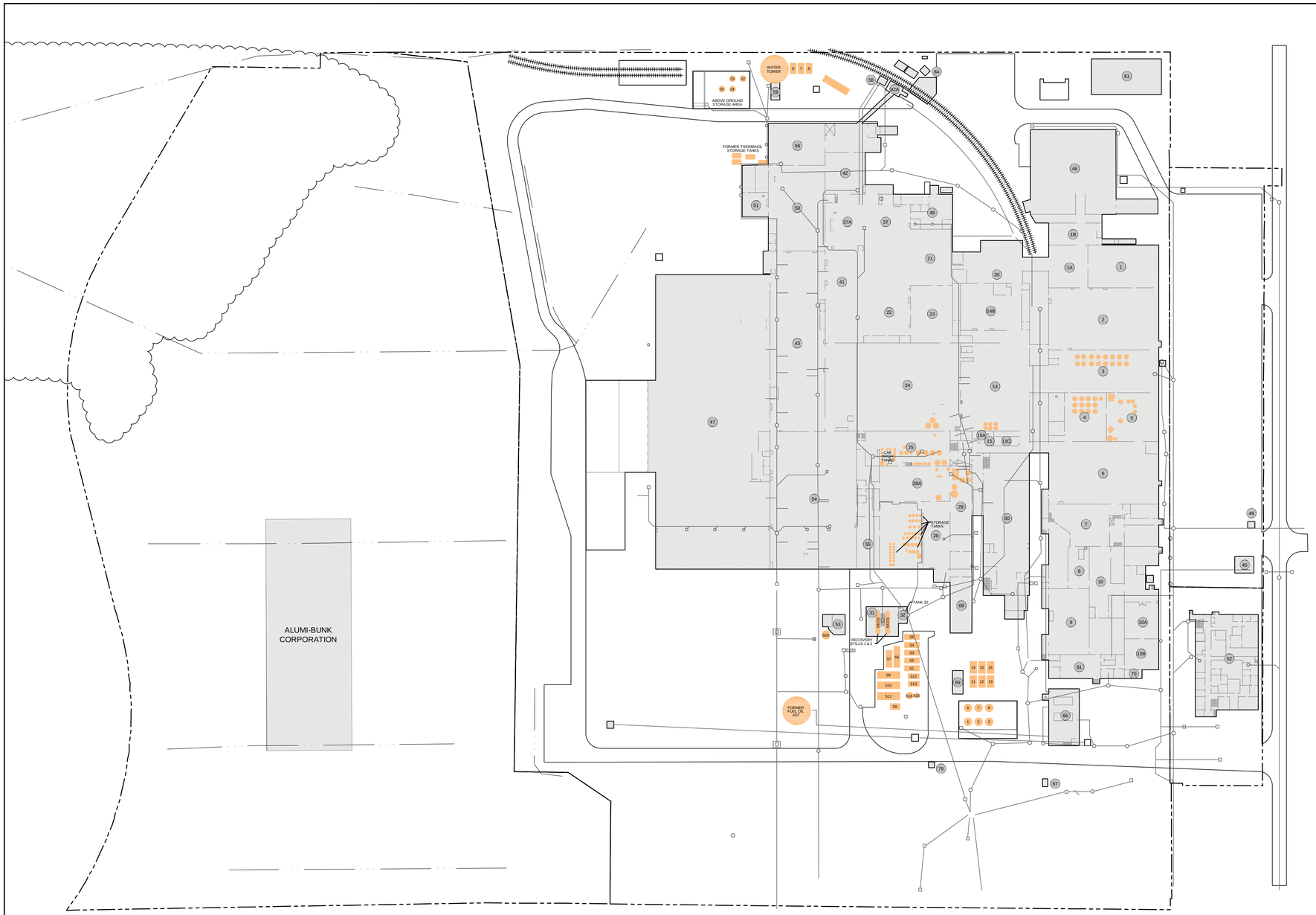
TEXTILE LEATHER CORPORATION
3729 TWINING STREET
TOLEDO, OHIO

PROJECT LOCUS

SCALE: 1:24,000
NOVEMBER 2009

FIGURE 1

36005 1.PDF



LEGEND:

- APPROXIMATE PROPERTY LINE
- RAILROAD
- DRAINAGE SWALE
- FENCE
- UTILITIES
- VEGETATION
- 14A BUILDING NUMBER

NOTES:

1. BASEPLAN PROVIDED BY CRA's eDAT DATABASE.

BLDG NO.	DEPARTMENT	TOTAL FLOOR AREA (SQ FT.)
1	WAREHOUSE	5,800
1A	WAREHOUSE	3,600
1B	WAREHOUSE	1,800
2	FRAME ROOM	13,900
3	COATING & DOPE STORAGE	9,500
4-5	DOPE MAKEUP & NAUTA MIXER	10,100
6	WAREHOUSE	14,100
7	SAMPLE ROOM	17,700
8	WAREHOUSE	3,300
9	WAREHOUSE	5,400
10	WAREHOUSE	7,900
10A & 10B	WAREHOUSE	4,800
11C	MAINT CRIB & STORAGE	750
14	WAREHOUSE & COATING	6,800
14A	WAREHOUSE & NO 3 STOCK	1,700
14B	REELING, WHSE & NO 3 STOCK	3,800
15	COATING	5,100
15A	FIRST AID	200
20	RECEIVING	5,000
21	EMBOSSING & ROLL STORAGE	3,000
22	EMBOSSING	7,800
23	ANNEALING	4,800
24	COATING & STORAGE	24,250
25	DOPE ROOM	13,100
28	DOPE ROOM	10,300
28A	CAN WASH & WAREHOUSE	4,800
29	BULK DOPE, WHSE & FK. TRK. REP.	3,100
31	SOLVENT RECOVERY	5,500
32	SOLVENT RECOVERY	300
37	CALENDER ROOM (NO 1 CAL)	4,800
37A	CALENDER ROOM (NO 2 CAL)	7,300
41	EMBOSSING & STORAGE	21,200
42	TOLEX WAREHOUSE	18,700
42A	RECEIVING DOCK	600
43	FINAL INSPECTION	18,000
45	FIRE PUMP NO 1	330
46	WAREHOUSE	14,400
47	WAREHOUSE	68,700
48	QUALITY CONTROL	3,000
49	STORAGE SHED	230
50	CALENDER ROOM (NO 3 CAL)	9,800
51	CONTROL ROOM (NO 3 CAL)	2,600
52	MAIN OFFICE BUILDING	24,000
53	SCRAP STORAGE (SOLVENT)	1,080
54	PRINT & FINISH	25,100
55	WAREHOUSE (DOPE ROOM)	3,100
56	TEXTILE WAREHOUSE	4,800
58	PLASTICIZER UNLOADING	140
59	FIRE PUMP NO 2	240
60	MAINTENANCE & RESEARCH	26,600
61	OUTPOST WAREHOUSE	4,800
62	STORAGE & BREAK ROOM	510
63	CONTROL ROOM (SOLVENT RECOVERY)	160
64	SILOS	1,030
66	POWER HOUSE	3,800
67	GAS METER HOUSE	240
68	RED LABEL ROOM	2,560
69	PUMP HOUSE	530
70	PURCHASING STORAGE	320
72	SHED BUILDING 9	300
73	SHED PILOT LINE	1,000
74	SHED BUILDING 6	400
79	GUARD HOUSE	40
81	DEVELOPMENT CENTER	3,170
	TOTAL AREA	462,060

N
W E
S

0 80 160 240 320
SCALE IN FEET

TEXTILEATHER FACILITY
3729 TWINING STREET
TOLEDO, OHIO

SITE PLAN

SCALE: AS SHOWN
11 DECEMBER 2009

FIGURE 2

APPENDIX E
Baseline Risk Assessment

APPENDIX E
BASELINE HUMAN HEALTH RISK ASSESSMENT FOR RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATION REPORT

TEXTILEATHER CORPORATION
3729 TWINING STREET
TOLEDO, OHIO

US EPA ID # OHD 980 279 376
U.S. EPA DOCKET # RCRA-05-2010-0001

by

Haley & Aldrich, Inc.
Cleveland, Ohio

for

Textileather Corporation
Toledo, Ohio

File No. 36005-007
28 September 2011
Revised 21 December 2012

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1. INTRODUCTION

This appendix presents the Baseline Human Health Risk Assessment (HHRA). The objective of the HHRA is to characterize health risks to human populations that are potentially exposed to Site-related contamination under the current and foreseeable future uses of the Site, in the absence of any remedial measures. The results of the BRA will be used in the Corrective Measures Study to identify media and areas of the Site that may require a response action.

CA725 (Current Human Exposures Under Control) and CA 750 (Current Groundwater Under Control) Environmental Indicator determinations have been made (Haley & Aldrich, 2011b, 2011c). For both Environmental Indicators, the USEPA made "YE" determinations, indicating current human exposures, and groundwater migration, at the Site, under current land use, are under control.

1.1 Regulatory Context of Human Health Risk Assessment

The applicable legal context for the HHRA is the Resource Conservation and Recovery Act (RCRA), as amended. The HHRA is being performed as a component of the RCRA Facility Investigation for the Site. The HHRA is performed using U.S. EPA guidance for risk assessment, including the U.S. EPA risk assessment guidance and directives listed below. A complete list of references that are used to complete the HHRA is provided at the end of this report; however the following were key in the risk assessment:

- Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual (Parts A, E and F) (RAGS) (USEPA, 1989; 2001; 2004; 2009a)
- Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors (USEPA, 1991)
- Guidance for Data Usability in Risk Assessments (USEPA, 1992)
- Exposure Factors Handbook (USEPA, 1997)
- Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, 2002a)
- Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites (USEPA, 2002b)
- Human Health Toxicity Values in Superfund Risk Assessments (USEPA, 2003a)
- Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (USEPA, 2002c)
- Guidelines for Carcinogen Risk Assessment, Final (USEPA, 2005a)

1.2 Report Organization

This report consists of a human health risk assessment and does not include an ecological risk assessment (ERA) because there is limited to no quality habitat for environmental receptors at the Site, and the foreseeable use of the Site will continue to offer limited to no quality habitat for environmental receptors. The remainder of Section 1 provides the Site background and the conceptual site model (CSM). Figures 1 and 2 in the RFI Report provide site location and layout.

The HHRA is completed using a four-step process, consistent with the framework for risk assessment described in *Risk Assessment Guidance for Superfund* (USEPA, 1989). The four steps include Data Evaluation, Exposure Assessment, Toxicity Assessment, and Risk Characterization. Supporting documentation of the risk assessment methods, inputs, and results are provided in tables, figures, and appendices to the document. The organization of the HHRA and content of each of the report sections is described below.

Section 2, Data Evaluation, presents the data that are used in the HHRA, including:

- Summary of media and Site areas sampled
- Summary of data quality, with an emphasis on identification of data quality limitations that could introduce uncertainty into the risk assessment
- Identification of Site data that are used in the HHRA
- Identification of data that are not used in the HHRA
- Methods used to group and summarize data for use in the risk assessment
- Methods used to select Chemicals of Potential Concern (COPCs)
- Results of the COPC selection process

Figures 6 through 25 in the RFI Report show the locations of samples collected to provide the data evaluated in the HHRA. The data included in the data sets evaluated in the HHRA are presented Tables 5 to 13 of the RFI Report and summarized in Tables 1 to 11.

Section 3, Exposure Assessment, provides information documenting the human populations that could access or use the Site under current and possible future land use conditions, how those populations could potentially be exposed to the COPCs in Site media, and quantifies how much exposure could occur. Specific components of the Exposure Assessment include descriptions of current and future land uses, exposure pathways, and exposure scenarios, and documentation of exposure point concentration (EPC) and exposure intake calculations.

Section 4, Toxicity Assessment, provides information concerning the toxicological attributes of COPCs and the dose-response relationships of the COPCs that are used to quantify health risks. .

Section 5, Risk Characterization, presents the methodology that is used to calculate and summarize risks to derive cumulative risk estimates. Included in this section is an uncertainty analysis, which provides an evaluation of the variables and assumptions in the HHRA that could have a substantial bearing on the results of the risk assessment, and an identification of the chemicals of concern (COCs), which are the chemicals that will be further evaluated in the Corrective Measures Study. .

Section 6 provides a summary and conclusions of the HHRA.

1.3 Site Description

The Site is located at 3729 Twining Street, Toledo, Ohio and covers approximately 47 acres, of which approximately 30.4 acres is currently owned by Textileather (the "Textileather Parcel").

The Site is located on the north side of North Service Road and Interstate 75 (Figure 1) in a mixed industrial, commercial, and residential area. The Site is bordered on the north by a railroad spur and the XXKEM Company (XXKEM). XXKEM was a former hazardous waste treatment, storage, and disposal (TSD) facility that was closed and capped. The Site is bordered to the west by 20 acres of land owned by the City of Toledo and Fraleigh Creek, a tributary of the Ottawa River; to the south by U.S. Interstate 75; and to the east by Twining Street and residential property. Beyond the residential property east of the Site is Stickney Avenue and the Chrysler Jeep Assembly Plant.

Former operations at the Facility involved converting a raw material combination of resins, plasticizers, pigments, and other additives into various widths and thicknesses of rolled sheets of coated fabrics, commonly known as vinyl. Between the early 1950's and October 1990, facility operations also involved solvent recovery and waste ink recycling, generated from both on-site and off-site sources. The Facility ceased operations in 2009 and is now a vacant manufacturing facility that is currently staffed with two full-time professionals and one maintenance worker.

The Facility is primarily occupied by a large manufacturing building (over 400,000 sf) that is surrounded by paved parking and staging areas. A locking security fence surrounds the Facility. Drinking water at the Facility and surrounding properties is supplied by the City of Toledo municipal system.

1.4 Conceptual Site Model

A conceptual site model (CSM) is used to describe the potential migration pathways through which Site-related contaminants may have been transported and/or trans-located from source or release areas at the Site to other environmental media where possible human and environmental exposure may occur. The CSM for the Site is described in detail in the RFI Report. This section provides a summary of the major aspects of the CSM

1.4.1 Sources

As described in Section 3 of the RFI Report, the principal sources of Site-related contamination are associated with spills and leaks from raw materials storage tanks and lines (plasticizers such as phthalates and solvents such as tetrahydrofuran), equipment associated with the Calendering process (PCBs that were historically in the Calendering heating oil), and the former solvent recovery process (BTEX and other solvents). These materials were released to the surface and subsurface soil at the Site.

PCBs in soils at the Site were remediated previously. However, residual oil containing PCBs, is present in soils that are beneath the building floor at AOI-01.

1.4.2 Migration Pathways

Some constituents have migrated through natural processes from the media that they were initially released to. Migration pathways relevant to the Site include leaching to groundwater. VOCs, SVOCs, and metals were detected in both soil and groundwater, indicating that the leaching pathway is complete, although was found not to be significant for constituents other than tetrahydrofuran and phthalates. For example, despite historical detections of elevated VOCs (primarily BTEX) in soil at AOI 2, those VOCs have not been detected at elevated concentrations in groundwater. In contrast, tetrahydrofuran and phthalates were detected in both soil and groundwater frequently and at elevated concentrations. The release of phthalates has resulted in an area of NAPL at AOI-15.

Groundwater beneath the Site flows toward, and discharges into, facility sanitary and storm water lines that run through the Site. Consequently, there is no migration of a groundwater plume off of the property. Rather, groundwater migrates into the sanitary and storm water sewer lines which flow off-site. Several constituents, but most significantly tetrahydrofuran, were detected in storm water samples collected from the storm water lines. The storm water lines discharge off-property to a main trunk line that collects storm water from other surrounding industrial properties, city streets, and the Interstate. The trunk line then discharges to Fraleigh Creek.

VOCs in groundwater can partition to soil gas, and the soil gas can then be drawn into overlying structures. This process, called vapor intrusion, has been shown to not be a significant migration pathway at the Site under current use conditions (Section 3.29 of the RFI Report), as evidenced by soil gas and indoor air samples that exhibit low concentrations of VOCs (i.e., concentrations that are below a level of concern from a health risk perspective).

VOCs in groundwater can also volatilize directly from groundwater to ambient air, if groundwater is exposed to the atmosphere, such as could be the case if deep soil excavations were performed. In addition, VOCs in soil can migrate directly to ambient air.

Soil erosion during storm events is unlikely to be a significant migration pathway at the Site because the majority of the Site is paved or covered by buildings.

1.4.3 Receiving Media

The media and areas where the Site-related constituents are located are collectively referred to as the Site. The RFI has identified constituents in the following media which together comprise the Site:

- Surface soil (defined as soil 0 – 1 ft below ground surface (bgs))
- Subsurface soil (defined as soil 1 – 10 ft bgs)
- Groundwater
- Storm water
- Soil gas
- Indoor air

1.4.4 **Exposure Pathways**

Exposure pathways describe the mechanisms by which human receptor populations could be exposed to constituents detected in the various receiving media identified above. For exposure pathways to be complete, there must be source of contaminant (which are the receiving media identified above), a point of exposure to the source (termed an exposure point), a route of exposure to the exposure point (which identifies how exposure could occur), and a human receptor population to which the exposure could occur. Figures 1 and 2 in this Appendix provide graphical representations of the CSM, as related to exposure pathways that could exist under current and future use conditions.

The potentially complete exposure pathways at the Site include:

- Direct contact with soil,
- Inhalation of VOCs and fugitive dust released from soil
- Inhalation of VOCs released from groundwater
- Inhalation of VOCs released from soil gas
- Direct contact with groundwater
- Direct contact with storm water
- Direct contact with NAPL

These pathways are discussed in greater detail in Section 3.

Use of groundwater as a source of potable water is not considered a complete exposure pathway because potable water is supplied by the City of Toledo to the Site area, and as discussed in section 3.7.3 of the RFI Report, the lacustrine silts and clays and glacial till overburden present beneath the Site are typically too fine grained to yield useable quantities of groundwater. The Site is within an Ohio EPA Voluntary Action Plan (VAP) designated Urban Setting Designation. In addition, Ohio Administrative Code related to water systems prohibits groundwater use from zones tapped by wells in shallow formations such as the shallow water found at the Site. Section 3 provides details concerning additional exposure pathways that are complete, and those that are incomplete, for the current and possible future land use conditions at the Site.

2. DATA EVALUATION

The data evaluation identifies the data available for use in HHRA and documents the selection or exclusion of particular data for use in the risk assessment, provides the rationale for the way data will be grouped for evaluation in the risk assessment, and documents the methods used to summarize data using statistical descriptors. The data evaluation section also provides the methods used to select COPCs and documents the COPC selection results.

2.1 Data Sources and Data Quality

The RFI and Risk Assessment for the Site are based on the data collected in support of the RFI program, including data collected during the Field Event #1, #2, #2A, #2B and #3 investigations, which occurred between January 2010 and August 2011, and additional groundwater and storm water data collected in May and July 2012 for CA750 monitoring purposes. In addition, soil data collected previously from investigations performed in 1990, 1995, and 1996 at AOI 2 are used in the HHRA. These data are used because the prior investigations included focused characterization of contaminant sources at AOI-02; RFI sampling at AOI-02 was intended to verify that the extent of contamination has been identified by the previous investigation. The quality of data collected during the AOI-02 investigations is acceptable for use in risk assessment.

Data collected for the RFI are selected for use in the HHRA using the criteria established by USEPA in "Guidance for Data Usability in Risk Assessment" (USEPA, 1992). The data presented in the RFI and selected for use in the HHRA are a product of sample collection and handling, laboratory analyses, and data Quality Assurance/Quality Control (QA/QC) procedures performed in accordance with USEPA methods, as described in the Quality Assurance Project Plan (QAPP) for the Site. The following bullets provide a brief summary of the types of samples that were collected in support of the RFI:

- Surface and subsurface soil samples were collected from direct push borings (e.g., Geoprobe™ or equivalent), and drilled borings. In most cases, soil samples were collected as two-foot composites (e.g., 0 – 2 ft bgs, 2 – 4 ft bgs). However, some borings were sampled over a larger interval (e.g., 0 – 4 ft bgs).
- Groundwater samples were collected using low-flow sampling techniques from monitoring wells. At least two rounds of groundwater samples have been collected from the perimeter groundwater monitoring wells and one or more from the interior groundwater monitoring wells.
- Storm water samples were collected as grab samples from various man hole access locations along the Site storm water sewer lines. Filtered surface water samples were collected at select locations by filtering the sample at the time of sample collection, using a 45-micron filter.
- Soil gas samples were collected from permanent and temporary soil gas monitoring points installed near the eastern property boundary. Three rounds of soil gas samples were collected.
- Indoor air samples were collected as eight-hour samples from canisters placed at the approximate height of the breathing zone. One round of air samples were collected from the portion of the building overlying AOI-28 and from AOI-01 (Calender

Basement).

- NAPL samples were collected from either monitoring wells or sumps using bailers.

2.1.1 Chemical Analyses

Samples collected from media at the Site were analyzed using the following analytical methods:

- TCL VOCs: Method 8260B
- TCL SVOCs: Method 8270C
- PCBs: Method 8082
- TAL Metals: Method 6020/7471A

2.1.2 **Data Quality**

As part of the QA program for the RFI, quality control samples were collected and analyzed. These included field quality control blanks (trip blanks, temperature blanks, equipment rinse blanks, and field blanks), field duplicates (at a frequency of 5% per matrix for each parameter), matrix spike/matrix spike duplicate (MS/MSD) (at a frequency of 5% per matrix for each parameter), and laboratory QC samples. All of the data collected in support of the RFI, and all of the data selected for use in the HHRA, have undergone validation or review by the Project Chemist. Data validation is systemic process of reviewing a body of data to provide assurance that the data are adequate for their intended uses. The data validation process uses the QA samples. The laboratory analytical data are assigned data validation qualifier codes during the validation process. The validation codes used are:

J – Indicates that result is an estimated concentration that was reported as positively detected at a concentration greater than the instrument detection limit, but less than the method detection limit.

U – Indicates that parameter was not positively detected at a concentration greater than the instrument detection limit.

UJ – Indicates an estimated detection limit.

R – Indicates result is unreliable and un-useable.

In accordance with USEPA data validation guidelines, values reported as positively detected were evaluated to determine if the detections could be associated with contamination of blanks. Results for constituents that are common laboratory contaminants (e.g., acetone, methyl ethyl ketone, methylene chloride) were qualified as non-detect ("U" qualified) if detections were within ten times the concentrations reported in the blanks. For all other constituents, results were qualified as non-detect ("U" qualified) if detections were within five times the concentrations reported in the blanks.

The QAPP established Project Action Levels (PALs) that were based on risk-based values that are protective for humans and the environment (USEPA Region 9 Preliminary Remediation Goals, current at the date the QAPP was published). The PALs were used in the QAPP to ensure that the analytical methods chosen to measure analytical parameters were sufficient to quantify concentrations that could be a human or environmental risk concern.

The RFI Report includes a complete data quality assessment, including data validation reports. Overall, the RFI data set provides sufficient quality of data for use in the risk assessment. Data quality limitations and uncertainties that may have a bearing on the results of the risk assessment, if any, are discussed in the Uncertainty Analysis (Section 5).

2.2 Data Used in HHRA

The following data sets are compiled for use in the HHRA. Samples included in each of the data sets, as well as the analytical data for the samples, are identified in Tables 5 through 13 of the RFI Report.

2.2.1 Soil

As discussed in Section 3, the HHRA evaluates potential exposures and health risks to soil by AOI. Soil data are used in the HHRA to evaluate potential direct contact (incidental ingestion and dermal contact) and inhalation (particulate and vapor) risks that may occur if people were to contact soil under current or future use conditions. The soil data for the Site are evaluated as surface soil (soil samples collected 0 – 1 ft bgs) and subsurface soil (soil samples collected 1 – 10 ft bgs). No soil samples were collected from depths greater than 10 ft bgs due to the presence of groundwater. For defining surface soil and subsurface soil depth intervals for samples to be included in the data sets, surface soil was considered to be any soil sample with a starting depth of less than 1 ft bgs, and subsurface soil was considered to be any soil sample with a starting depth of less than 10 ft bgs. Soil sample locations are shown in Figures 6 to 17.

Although the HHRA evaluates potential exposures and risks for soil by AOI, soil data for all AOIs are combined together for the purpose of selecting COPCs for soil. Consequently, two soil data sets are developed for use in selecting COPCs: all site surface soil, and all site subsurface soil. This approach results in a single set of COPCs selected for surface soil, and a single set of COPCs selected for shallow subsurface soil. Selecting COPCs using data sets for all Site soil has the advantage of ensuring that the same COPCs are carried through the assessment for each of the AOIs, which helps standardize the HHRA as well as facilitate a comparison of risk contributors across the various AOIs. For the analytes selected as COPCs, separate data sets are developed for each of the AOIs, and from those data sets, exposure point concentrations (EPCs) are calculated as described in Section 3. Summaries of the soil data are provided in Tables 1 and 2.

2.2.2 Storm Water

The storm water consists of water that flows from the storm water lines at the Site to a trunk line which collects storm water from the adjacent interstate highway and several other industrial properties and city streets. The trunk line then empties into Fraleigh Creek, which flows approximately ¼ mile to the Ottawa River. Storm water data are used in the HHRA to evaluate potential risks to people who may hypothetically play or wade in the storm water as it discharges to Fraleigh Creek, as well as to evaluate the significance of storm water from an aquatic risk perspective. A summary of storm water data is provided in Table 3.

2.2.3 Groundwater

This data set is comprised of data for groundwater samples collected from monitoring wells (Figure 18 of the RFI Report). Groundwater data are used in the HHRA to evaluate the vapor intrusion exposure pathway and direct contact during potential construction/re-development work. At least two rounds of groundwater samples have been collected from the perimeter groundwater monitoring wells and one or more from the interior groundwater monitoring wells. All groundwater data collected in support of the RFI are used in the HHRA. Groundwater data are summarized in Tables 4 and 5.

2.2.4 Soil Vapor

Data sets for soil vapor include those collected along the eastern property boundary and those collected in AOI 28.

The data set for soil vapor samples collected from soil vapor monitoring points along the eastern property boundary (Figure 19 of the RFI Report) is comprised ofthree rounds of soil vapor data. The soil vapor data are used in the HHRA to evaluate potential vapor intrusion exposures to residential and commercial properties adjacent to the eastern property boundary. Soil vapor data are summarized in Table 6.

A single round of soil vapor samples was collected at AOI-28. Sub-slab soil samples collected at AOI-28 are used in the HHRA to estimate potential future indoor air concentrations in the vicinity of AOI 28 (Table 7).

2.2.5 Indoor Air

This data set is comprised of data for air samples collected from within the breathing zones of AOI-01 (Calender Basement) and AOI-28. The indoor air data are used in the HHRA to evaluate potential exposures to commercial/industrial workers (for AOI 28, the indoor air data are used to evaluate exposures under current use conditions, and indoor air concentrations estimated from subslab soil gas data are used to evaluate exposures under future use conditions). A summary of the Indoor air data is presented in Tables 8 and 9.

2.2.6 NAPL

This data set is comprised of data for samples of NAPL that were collected from a sump in the Calender Basement and piezometer PZ-31 in AOI-15 Data for each of these areas is evaluated separately. A summary of the NAPL data is presented in Tables 10 and 11.

2.2.7 Data Not Used in HHRA

The following types of data were not evaluated in the HHRA:

- Data that were collected prior to the RFI (with the exception of soil data collected at AOI 2). These data represent an older dataset and have been replicated, in most part, by the RFI.
- Data for the Ottawa River and Fraleigh Creek. Fraleigh Creek, which is located approximately ¼ mile from the Site, is fed by a storm sewer that receives storm water runoff from the Site, interstate highway, city streets, and

several other industrial locations east of the Site, to the Ottawa River. We understand that the a consortium of private businesses in partnership with the City of Toledo, collectively known as the Ottawa River Group, have recently investigated the Ottawa River system, including Fraleigh Creek, under the direct oversight of the U.S. EPA. Further, we understand that the Ottawa River Group, using Great Lakes Legacy Act funding, completed a remediation of the river system sediments in 2010 to address potential human health and environmental risks from the river system. Therefore, Fraleigh Creek is not included in this BRA.

2.3 Data Summarization Methods

The analytical data for each data group that is developed in support of the HHRA is summarized into descriptors which identify:

- Frequency of detection (number of positively detected results/total number of results)
- Range of detected concentrations
- Range of non-detected results (range of sample quantitation limits)

The following procedures were applied when summarizing the analytical data for the HHRA:

- For samples in which both an original and a field duplicate result are available, both results are used.
- Xylenes in soil were reported as either total xylenes or as separate o- and m&p-isomers. For xylenes reported as separate isomers, the concentrations were summed to yield a xylene (total) concentration for each sample. These concentrations were then combined with results reported as xylenes (total), to yield summary statistics and exposure point concentrations for xylenes (total).
- Rejected data ("R" qualified results) were not used in the risk assessment.
- Results qualified as estimated ("J" qualified) were used in the risk assessment.
- For samples in which analyte concentrations are detected outside the calibration range, and the samples are diluted and reanalyzed, only the re-analysis results were used in the risk assessment.
- Constituents with data for total and dissolved concentrations were summarized separately.

2.4 Chemicals of Potential Concern

COPCs are chemicals that may pose more than a *de minimis* health risk. A concentration-toxicity screening is used to reduce the number of chemicals evaluated in the risk assessment to only those that would potentially pose more than a *de minimis* health risk (USEPA, 1989). The procedure used to select COPCs for the HHRA is summarized as follows, and is consistent with USEPA methodology:

2.4.1 Comparison to Available Criteria

- Selected as a COPC in soil if the maximum detected concentration exceeds the USEPA Regional Screening Level (RSL) for industrial soils (USEPA, 2012a).
- Selected as a COPC in storm water if the maximum detected concentration exceeds the USEPA RSL for tap water (USEPA, 2012a).
- Selected as a COPC for the groundwater vapor intrusion pathway if the maximum detected concentration exceeds the USEPA vapor intrusion screening value, derived to be protective for industrial air (USEPA, 2012b). Since the only potential exposure pathway to groundwater is associated with volatile inhalation, all non-volatile constituents detected in groundwater were excluded as COPCs.
- Selected as a COPC for the groundwater direct contact pathway if the maximum detected concentration exceeds the USEPA for tap water (USEPA, 2012a).
- Selected as a COPC in soil gas if the maximum detected concentration exceeds the USEPA vapor intrusion screening value, derived to be protective for residential air for the eastern property boundary soil vapor data set, and derived to be protective for industrial air for the AOI-28 subslab soil vapor data set (USEPA, 2012b).
- Selected as a COPC in indoor air if the maximum detected concentration exceeds the USEPA RSL for industrial-air (USEPA, 2012a).
- All constituents reported in samples of NAPL were retained as COPCs because there are no applicable screening values for NAPL.
- Chemicals for which no screening value is available are retained as COPCs unless they meet the criteria for exclusion listed.

The RSLs, based on USEPA's most recent publication of the RSL Table (November 2012) as of the writing of this HHRA, are protective for direct contact (ingestion and dermal contact) exposures, as well as for inhalation of constituents that may be released to air. The RSLs are derived for a 1 in 1 million ($1x10^{-6}$) cancer risk level or a non-cancer hazard quotient (HQ) of 1. For soil, groundwater vapor intrusion, soil gas, and indoor air, RSLs based on non-carcinogenic effects are adjusted to represent a HQ of 0.1 for the purposes of COPC selection. For storm water and groundwater direct contact, the tap water RSL values based on non-carcinogenic effects were not adjusted to a HQ of 0.1 because the use of tapwater RSL values to evaluate these exposures represents an extremely conservative approach, since storm water and groundwater are not used as drinking water.

The soil gas and groundwater screening values for vapor intrusion are the USEPA vapor intrusion screening levels (VISLs) calculated using USEPA VISL calculator with RSL values current as of May 2012 (USEPA, 2012b). VISLs are documented in Attachment A. To address the recognized degradation of petroleum-related compounds in soil gas, an attenuation factor of 0.01 (as opposed to the default factor of 0.1) was applied to the VISLs calculate din Attachment A.

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2.4.2 **Low Frequency of Detection:**

- Despite other criteria, an analyte is not selected as a COPC if the frequency of detection is 5 percent or less and the chemical is not known to be associated with historical operations at the Site (USEPA, 1989). This criterion was applied to soil using professional judgment. Specifically, analytes that were detected at less than 5% frequency in the site-wide soil data sets were reviewed to determine if they were detected at more than a 5% frequency in any single AOI. If they were, then they were retained as COPCs in the site-wide soil data set, and are carried through the risk assessment as COPCs in any soil data set in which they are detected.

2.4.3 **Additional Considerations:**

The following additional guidelines are used for COPC selection:

- Eliminated as COPCs because they are considered essential human nutrients. The following inorganic analytes are considered essential human nutrients: calcium, magnesium, potassium, and sodium.

The results of the COPC selection for each data set are provided in Tables 1 through 11. The following notes are used to denote the reasons for selection or exclusion of analytes as COPCs:

ASL: The concentration used for COPC screening (the maximum detected concentration) is greater than the risk-based screening value; the analyte is therefore selected as a COPC.

BSL: The concentration used for COPC screening (the maximum detected concentration) is less than the risk-based screening value; the analyte is therefore not selected as a COPC.

NSL: There is no screening value available; the analyte is therefore selected as a COPC. Unless eliminated based on low frequency of detection, the following analytes were retained as COPCs because no screening levels were available: carbazole, dimethylphthalate, 1,3-dichlorobenzene, methyl cyclohexane.

FOD: The frequency of detection is below 5%; the analyte is therefore not selected as a COPC.

E: The analyte is an essential nutrient, and is therefore not selected as a COPC.

The results of the COPC selection are discussed below, by medium.

- Soil: COPCs in surface soil (Table 1) and subsurface soil (Table 2) were nearly identical and include antimony, arsenic, chromium, lead, PCBs (Aroclor-1248), phthalates (bis(2-ethylhexyl)phthalate, dimethylphthalate, di-n-octylphthalate), PAHs (benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene), pentachlorophenol, BTEX, and trichloroethene. No analytes were eliminated as COPCs based low frequency of detection.

- Storm water: COPCs in storm water (Table 3) include antimony, arsenic, chromium, thallium, PCBs (Aroclor-1248, Aroclor-1254), PAHs, bromodichloromethane, chloroform, dibromochloromethane, and

tetrahydrofuran. No analytes were eliminated as COPCs based low frequency of detection.

- Groundwater – Direct Contact: For evaluation of direct contact exposures to groundwater (Table 4), COPCs include six metals, Aroclor-1242, PAHs, bis(2-ethyhexyl)phthalate, di-n-octylphthalate, and the VOCs 1,1-dichloroethane, benzene, chloroform, methyl-tert-butyl ether, tetrahydrofuran, and trichloroethene. .
- Groundwater – Vapor intrusion: For evaluation of vapor intrustion exposures to groundwater (Table 5), only vinyl chloride was retained as a COPC; all other constituents in groundwater were either detected at concentrations below the VISLs, or are not volatile and are therefore not selected as COPCs. No analytes were eliminated as COPCs based low frequency of detection.
- Soil gas – Eastern Property Boundary: Two VOCs (bromodichloromethane and chloroform) were retained as COPCs in soil gas (Table 6). No analytes were eliminated as COPCs based low frequency of detection.
- Soil gas – AOI 28: Two VOCs (tetrachloroethene and trichloroethene) were retained as COPCs in soil gas (Table 7). No analytes were eliminated as COPCs based low frequency of detection.
- Indoor air: No constituents were retained as COPCs in indoor air samples collected at AOI 28 (Table 8) or the Calendar Basement (Table 9) because the maximum detected concentrations of all constituents were below the industrial RSL values.
- NAPL: As indicated in Table 10, within the NAPL sample collected at AOI-15, elevated concentrations of Aroclor-1242, bis(2-ethylhexyl)phthalate, and di-n-octylphthalate were reported. In addition, several VOCs were detected at low concentrations. Within the NAPL sample collected at AOI-01 (Table 11), Aroclor-1242 was reported at elevated concentrations, and several inorganics and VOCs were also reported at low concentrations. All constituents reported in the NAPL samples are retained as COPCs.

3. EXPOSURE ASSESSMENT

The exposure assessment is conducted to evaluate the populations of humans that may potentially use or access the Site under the current and possible future land use conditions, the mechanisms or exposure pathways by which those humans may be potentially exposed to COPCs at the Site, and the magnitude of exposure that may occur through the potential exposure pathways. This process involves three steps:

1. Characterization of the exposure setting in terms of physical characteristics, current and future uses of the Site, and the populations that may be potentially exposed to COPCs under the current and possible future land uses;
2. Identification of potential exposure pathways and exposure points to which the populations may be exposed; and
3. Quantification of exposure for each population from all exposure pathways. Exposures are quantified by developing receptor exposure scenarios, identifying EPCs, and then calculating chemical intakes.

These components are provided in Sections 3.1 through 3.5.

3.1 Land Uses and Potentially Exposed Populations

3.1.1 Current Land Use

Under current conditions, the Facility is not operating, and there are no foreseeable plans to re-start manufacturing or other operations. Until June 2012, the Facility was staffed with one maintenance worker and two full-time office professionals. It is possible that the facility could be re-staffed with maintenance or security workers under the current land use conditions. Such employees could spend their work-days in the administrative building, which is located at the main entrance near the eastern property boundary. A maintenance or security worker would also be expected to move throughout the Facility, indoors and outdoors, attending to maintenance activities that are required to keep the Facility idle (e.g., electrical, heating, plumbing, etc.). Any workers at the facility would be required to follow the Facility's site-specific Health and Safety Plan (HASP) when entering locations where potential exposures to contamination could occur, notably the basement at AOI-01 where contaminated groundwater seeps occur, and storm and sanitary sewers that could contain Site-related contaminants, as described in subsection 3.2. The Site Management Plan, which includes the HASP, is provided in Appendix F.

The majority of the Site is surrounded by a fence with locking gates, and the majority of the ground surface is paved or covered by Site buildings. There are no on-going or planned construction activities at the Site. However, contractors working under the facility HASP could be engaged in dismantling equipment within the building.

Surrounding land uses include single or multi-family residential to the east, industrial (including a closed landfill) to the north, open space and commercial to the west, and interstate highway to the south. Although the Site is fenced with locking gates, trespassing cannot be completely ruled out.

Drinking water is supplied to the Site and surrounding properties from a municipal source (City of Toledo).

Given these land uses, receptors under current land use conditions include:

- Maintenance and security workers at the Site
- Area residents and commercial workers
- Trespassers

3.1.2 Future Land Use

The future use of the property is not known at this time. However, it is anticipated that the property will, at some point, be re-developed for commercial or industrial use. This HHRA incorporates the assumption that future use of the Site for residential development will be prohibited by a deed restriction. The HHRA also incorporates the assumption that use of the groundwater for potable or non-potable purposes will not occur in the future due to the extremely limited water yields of the aquifer and potable water sources are readily available by the City of Toledo.

The principal populations that could be associated with future land uses include:

- On-Site receptors under commercial/industrial use: office, retail, industrial, and/or maintenance and janitorial workers who work at a commercial entity constructed at the Site; patrons, visitors, and delivery personnel who support the commercial entity; construction and excavation workers who develop the Site or who may perform additional building construction (e.g., building additions) after initial development; and people associated with other service or support functions who may occasionally access the Site, such as landscape workers, utility workers, public works employees, etc.
- Off-Site receptors: Area residents, commercial workers, trespassers.

3.2 Exposure Pathways and Exposure Points

An exposure pathway describes the course a chemical takes from the source to the exposed individual. Exposure pathway analysis links the sources, locations, and types of environmental releases with population locations and activity patterns to determine the significant pathways of human exposure. Exposure pathways generally consist of four elements: (1) a source and mechanism of chemical release, (2) a retention or transport medium, (3) a point of potential human contact with the contaminated medium (known as the exposure point), and (4) an exposure route at the contact point (e.g., ingestion of soil, inhalation of volatiles) (USEPA, 1989). In order for the exposure pathway to be considered potentially complete, all four elements must be present. Exposure pathways are identified by considering the activities performed by each potential receptor (e.g., trespassing; excavating soil), the location of site-related COPCs (e.g., surface soil, groundwater), and the fate and transport characteristics of those COPCs (e.g., volatile, fixed). The CSM provided a summary of this information, resulting in identification of exposure points and exposure routes.

There are three exposure routes by which humans can be exposed to site contaminants in environmental media. The exposure routes include ingestion, dermal contact, and inhalation. More than one exposure route may be applicable to each of the exposure media evaluated in the HHRA.

Ingestion. Ingestion exposures occur when substances are swallowed. When an environmental medium such as soil or groundwater that contains chemicals is swallowed, the chemicals can be absorbed into the blood stream from the gastrointestinal tract and/or directly interact with tissues within the gastrointestinal tract. Most ingestion exposures to environmental media are incidental in nature, meaning that they are non-intentional. For example, soil can be incidentally ingested if it is touched and adheres to the hand, and the hand (fingers) is then placed into the mouth, where the soil or sediment can be transferred to the mouth and swallowed.

Dermal Contact. Dermal exposures occur when a substance is absorbed through the skin following direct contact with the substance in an environmental medium. For soil, this process requires adherence of the soil to the skin, desorption of a chemical from the soil, and subsequent absorption through the skin. For water, this process involves direct absorption of a chemical from water, through the skin. Dermal exposures to soil, storm water, and NAPL could potentially occur if these media are contacted.

Inhalation. Inhalation exposures can occur when a substance is present in an individual's breathing zone. Once inhaled, a substance can be either exhaled or retained in the pulmonary system. Retained substances can diffuse through respiratory-tract surfaces into the blood stream, interact directly with lung cells, or become entrained in airway mucous, translocate up to the pharynx, and be swallowed into the gastrointestinal tract. Inhalation exposures to COPCs can occur by inhaling dust or particulates to which the COPCs are adsorbed, and by inhaling vapors in air.

Inhalation of dust or particulars can occur if soil is disturbed by wind, vehicle traffic, or human activity, and releases dust into the breathing zone of the air. Generally, only the particulate fraction in air that is 10 micrometers or smaller, termed the PM10 fraction of particulates, is available for inhalation.

Inhalation exposures to VOCs can occur when volatiles are released from soil to ambient (outdoor) air, when VOCs migrate from groundwater or soil to air within an occupied building (this pathway is referred to as vapor intrusion), or when VOCs migrate from open groundwater to ambient air (e.g., during excavation activities that intrude the groundwater table).

Sections 3.2.1 and 3.2.2, in conjunction with Table 12, provide the rationale for the identification of exposure points and potentially complete exposure pathways. Figures 1 and 2 depict potentially complete exposure pathways under the current and future land use conditions, respectively. From the information summarized in Table 12, receptor exposure scenarios are developed based on the combinations of populations and pathways that combine to represent the Reasonable Maximum Exposure (RME) for each land use.

3.2.1 **Current Land Use Exposure Points and Exposure Pathways**

This subsection describes exposure pathways that may be potentially complete for the receptor populations identified in subsection 3.1.1.

A. *Soil*

Potential exposure pathways to soil could include direct contact (incidental ingestion and dermal contact), inhalation of dust and vapor released from the soil to ambient (outdoor) air, and inhalation of vapors released from soil beneath Site buildings to indoor air.

The majority of AOIs where contamination has been identified are covered by buildings or pavement, thereby preventing direct contact, or dust or ambient vapor inhalation exposures to surface and subsurface soil under the current land use. However, soil associated with portions of AOIs 2, 3, 15, and 17 (located at the southern portion of the Site) and AOIs 20, 21, 22, and 25 (located at the northern portion of the Site) are unpaved. Consequently, Site maintenance workers could potentially be exposed to contamination in surface soil via direct contact (incidental ingestion and dermal contact), and dust and ambient vapor inhalation exposures at the unpaved surface soil. In addition, area residents could be exposed to the unpaved surface soil by these pathways if they were to trespass at the Site. No excavation activities at this area are occurring or are planned; therefore, potential current exposure pathways to subsurface soil at the unpaved areas are incomplete.

B. *Groundwater*

Groundwater at and in the vicinity of the Site is not currently used as source of potable water. In addition, there are currently no groundwater wells that are used for extraction of groundwater for non-potable purposes, and no construction or excavation activities that could breach the groundwater table are occurring or are planned. Hydrogeological assessment of the groundwater has demonstrated that the overburden does not yield significant quantities of groundwater. Further, the hydrogeological assessment has demonstrated that there is no migration of contaminated groundwater to the east or west of the Site (where residences and other commercial properties are located), indicating that contaminated groundwater would not migrate to basement sumps within those structures. Although contaminated groundwater, including NAPL, migrates to the basement of the Facility building at AOI-01 through the basement floor/wall seam and is collected in a groundwater sump, the Site Management Plan (Appendix F) requires that any persons entering the sub-basement follow the provisions of the HASP. By following the HASP, potential exposure pathways to contaminated groundwater and oil are not complete for the maintenance worker. In addition, no COPCs were retained in an indoor air sample collected from the Calender Basement, since maximum

reported concentrations in indoor air were below industrial air RSL values, indicating that indoor air is not an exposure medium of potential concern.

The only potential exposure pathway to groundwater under current land use conditions would be associated with vapor intrusion. Only vinyl chloride was detected in groundwater at a concentration greater than VI screening values. However, the detections of vinyl chloride are at locations that are more than 100 ft from the nearest occupied building (specifically, they are associated with well MW-1TL, which is located at the northern portion of the property, adjacent to a former off-site landfill. In accordance with U.S. EPA VI guidance, the VI pathway is considered to be insignificant for VOCs that are located more than 100 feet from the nearest building (U.S. EPA, 2002). In addition, the office building where Facility professionals work is located more than 100 feet from any VOC detections in groundwater.

VOCs detected in groundwater monitoring wells near the eastern property boundary of the Site, were reported at concentrations below the U.S. EPA VI screening values protective for residential exposures, indicating that the VI pathway for off-property residences to the east of the Site is insignificant (Haley&Aldrich, 2010).

In summary, under current land use conditions, there are no direct contact exposure pathways to contaminated groundwater, and any vapor intrusion exposures are insignificant because VOCs detected in groundwater near any occupied buildings are below the U.S. EPA generic residential VI screening values. Consequently, there are no complete exposure pathways to groundwater under the current land use conditions.

C. Storm Water

Storm water consists of water that flows from the storm water lines at the Site to a trunk line which collects storm water from the adjacent interstate highway and several other industrial properties and city streets. The trunk line then empties into Fraleigh Creek, which flows approximately ¼ mile to the Ottawa River.

Site maintenance workers may be required to clean storm drain catch basins, or unclog blocks in the line (if such block were to occur). However, maintenance workers are required to follow the Site Management Plan, including Facility HASP. By following the HASP, potential exposure pathways to contaminated storm water are not complete.

To evaluate the significance of the constituents detected in storm water relative to contaminant migration to Fraleigh Creek, the storm water data were compared to Ohio EPA water quality standards (Lake Erie Basin). The evaluation, presented in Table 13, is based on the maximum detected

constituent concentrations in on-Site storm water, compared to both average and maximum aquatic (ecological) water quality standards for outside the mixing zone, as well as the human health non-drinking water quality standards. This represents an extremely conservative approach for evaluating the storm water data, because the on-Site storm water is diluted approximately 70-fold when it discharges to the main storm water trunk line prior to discharge to Fraleigh Creek. Additional mixing and dilution then occurs with discharge to and migration within Fraleigh Creek.

As indicated in Table 13, with the exception of the human health-based standard for PCBs, the maximum detected constituent concentrations in storm water do not exceed the Ohio EPA water quality standards. This indicates that constituents detected in storm water do represent an ecological exposure concern in Fraleigh Creek.

With respect to human health, the evaluation indicates that constituents in storm water should not represent a human health exposure concern. We understand that the a consortium of private businesses in partnership with the City of Toledo, collectively known as the Ottawa River Group, have recently investigated the Ottawa River system, including Fraleigh Creek, under the direct oversight of the U.S. EPA. Further, we understand that the Ottawa River Group, using Great Lakes Legacy Act funding, completed a remediation of the river system sediments in 2010 to address potential human health and environmental risks from the river system including surface water and sediment exposures, and ingestion of fish. Therefore, Fraleigh Creek is not included in the RFI or HHRA. However, the storm water data are evaluated in this HHRA for the storm water COPCs identified in Table 3 (which were selected as such based on RSLs for drinking water).

Trespassers onto the property that abuts the main storm water trunk line outfall (approximately ¼ mile from the Site) could, hypothetically, play or wade in the storm water and potentially be exposed to constituents that were detected in the storm water lines at the Site. Exposure pathways associated with wading are potentially complete, but are limited to dermal contact with the water, because the water is too shallow to permit swimming or activities that could result in incidental ingestion of surface water. Storm water data representing samples collected from storm water lines at the Site, at the down-stream most sampling points (ST-105 and ST-111), were used to represent the exposure point to which a trespasser may be exposed.

D. Soil Gas – Eastern Property Boundary

Two VOCs (bromodichloromethane and chloroform) were detected in soil gas samples collected from locations along the eastern property boundary at concentrations greater than the residential soil gas screening values (Table 6). However, these constituents were detected in groundwater at concentrations

more than one order of magnitude lower than the vapor intrusion screening values, and were not detected in any subsurface soil samples. As discussed in the RFI Report, these constituents were only detected in groundwater at concentrations over one order of magnitude lower than the vapor intrusion screening values, and were not detected in any subsurface soil samples. These two constituents were not identified as Site-related and there have been no known releases of these VOCs. Further, the groundwater flow patterns at the site indicate that the Eastern Property Boundary lies on the upgradient side of the Site. Overall, the lines of evidence indicate that the presence of chloroform and dibromochlormethane in soil gas samples collected from locations along the eastern property boundary is not related to the Site. Since no other constituents were detected in soil gas samples at concentrations greater than vapor intrusion screening values, which are protective for residential exposures, it is concluded that the vapor intrusion exposure pathway for off-property receptors is insignificant. Consequently, no quantitative evaluation of this exposure pathway is completed.

E. Soil Gas – AOI 28

At AOI-28, chlorinated solvents were reported in soil samples collected from beneath the floor of the building. Although the direct contact exposure pathway to that soil is incomplete, the VOCs in the soil could migrate to indoor air, where a maintenance worker performing activities in that part of the building could be exposed via inhalation of the indoor air. To evaluate this exposure pathway, sub-slab soil gas samples and indoor air samples were collected at AOI 28. A comparison of the VOCs detected in soil gas and indoor air (Table 14) shows that indoor air concentrations were orders of magnitude lower than soil gas concentrations. Specifically, two VOCs (tetrachloroethene and trichloroethene) were retained as COPCs in sub-slab soil gas because they were reported in soil gas samples at concentrations greater than VISLs. The detection of VOCs in sub-slab soil gas at concentrations greater than VISLs, is an indication that the vapor intrusion exposure pathway could be complete. However, no COPCs were retained in the indoor air data because maximum reported concentrations in indoor air were below industrial air RSL values. This finding indicates that the vapor intrusion exposure pathway at AOI 28 is insignificant for the existing conditions. The indoor air data, as opposed to the soil gas data, more appropriately represents the *current* exposure conditions within the building. Therefore, based on the indoor air data, the vapor intrusion exposure pathway at AOI-28 is not quantitatively evaluated for current land use conditions.

F. NAPL

Workers, who may have reason to access areas where NAPL is located, at AOI-01 (Calender Basement) and AOI-15, are protected from exposure by means of the Site Management Plan. As noted above, no COPCs were retained

in an indoor air sample collected from the Calender Basement, since maximum reported concentrations in indoor air were below industrial air RSL values, indicating that indoor air is not an exposure medium of potential concern. Therefore, there are no complete exposure pathways to NAPL under the current land use conditions.

G. Summary

In summary, potentially complete exposure pathways under the current land use at the Site include:

- Direct contact and inhalation exposure to unpaved surface soil: Site maintenance worker and area resident (trespasser);
- Dermal contact exposure to storm water: area resident (trespasser)

3.2.2 Future Land Use Exposure Points and Exposure Pathways

This subsection describes exposure pathways that may be potentially complete for the receptor populations identified in subsection 3.1.2.

A. Soil

Under future land use conditions, the HHRA assumes that existing pavement and buildings could be removed, thereby allowing direct contact (and inhalation) exposure pathways to soil to be potentially complete. In addition, the HHRA assumes that subsurface soil could be excavated and placed on the ground surface (i.e., becoming surface soil).

Each AOI is evaluated as a separate exposure point, and surface and subsurface soil are evaluated as separate exposure media within each AOI. Because the future use of the Site will remain commercial/industrial, the receptors evaluated are a full-time outdoor commercial/industrial worker and a construction worker, each assumed to be exposed to soil by direct contact, and dust and ambient vapor inhalation. As explained in subsection 3.3, these receptor scenarios are protective for other populations that may occur at the Site under future land use conditions.

B. Groundwater

Groundwater at and in the vicinity of the Site is not used as source of potable water, and is reasonably anticipated to not be used in the future for potable or non-potable purposes based on the following:

- Potable water supplies are readily available in the area,
- The shallow groundwater, where contamination is present, does not yield significant quantities of groundwater because of the low permeability lacustrine silts and clays,
- The Site is within an Ohio EPA Voluntary Action Plan (VAP) Urban Setting Designation , and

- Ohio Administrative Code, related to water systems, prohibits groundwater use from the shallow groundwater in which contamination is present at the Site.

If excavations were advanced into the groundwater table in areas of the Site where groundwater occurs at more shallow elevations, construction workers would not likely contact the groundwater. This is due to the normal work practice of wearing boots and gloves to avoid getting wet, and the normal work practice of de-watering excavations so as to permit construction activities to proceed. In addition, the low permeability soils at the Site substantially inhibit groundwater pooling in open excavations. However, it is hypothetically possible that if a trench-type excavation was advanced into the groundwater table and left open, groundwater could accumulate in the bottom of the trench. Therefore, the HHRA evaluates incidental ingestion and dermal contact pathways to groundwater for a construction/excavation worker under future use conditions.

The only other potential exposure pathway to groundwater under future land use conditions would be associated with inhalation of vapors, either by vapor intrusion or by trench type excavations that breach the groundwater table. Only vinyl chloride was retained as a COPC in groundwater. The HHRA evaluates vapor intrusion under the assumption that a commercial/industrial use building is constructed at the Site over groundwater containing vinyl chloride, and a full-time employee is exposed to the indoor air. The HHRA also evaluates migration of vapor from groundwater into ambient air within an excavation trench under the assumption that a deep excavation breaches the groundwater table in the area where vinyl chloride was detected and construction/excavation workers in the trench could be expsed (note that even if the excavation is de-watered, migration of vapors from groundwater to ambient air could still occur).

C. Storm Water

Potential exposures to storm water under future use conditions are not different from potential exposures associated with current use conditions.

D. Soil Gas – Eastern Property Boundary

As discussed in subsection 3.2.1, there are no significant exposures to soil gas. Therefore, no exposures to soil gas are quantified for future land use.

E. Soil Gas – AOI 28

At AOI-28, chlorinated solvents were reported in soil samples collected from beneath the floor of the building, and two VOCs (tetrachloroethene and trichloroethene) were retained as COPCs because they were reported in soil gas samples at concentrations greater than VISLs. The detection of VOCs in sub-slab soil gas at concentrations greater than VISLs, is an indication that the

vapor intrusion exposure pathway could be complete. Although no COPCs were retained in indoor air samples collected at AOI 28, the VOC concentrations detected in indoor air are representative of the current building configuration/conditions, and not necessarily of a future building configuration (e.g., if the event that the interior layout of the building in the vicinity of AOI 28 is modified, HVAC system is altered, etc). Therefore, soil gas data are used to estimate future indoor air concentrations, as described in Section 3.3, to evaluate inhalation exposures to future commercial/industrial workers within the building at AOI 28.

F. Indoor Air – Calender Basement

As discussed in subsection 3.2.1, no COPCs were retained in indoor air data for the Calender Basement, indicating that under future use of the existing building, potential exposures to constituents in indoor air would be insignificant.

G. NAPL

Employees such as maintenance workers may have reason to access the Calender Basement (AOI-01). As described previously, NAPL which contains PCBs is located in the soil outside of the basement foundation walls. The NAPL seeps through seems and cracks in the basement walls, and is collected in floor sumps. As the NAPL seeps through the foundation walls and flows toward the sump, it contaminates the floor and walls. Wipe samples collected from the floor and walls of the Calender Basement confirm that PCBs are present on the interior building surfaces. Maintenance or industrial workers who may access the Calender Basement in the future could contact the walls and floor with their hands, thus incurring dermal exposure to the NAPL. In addition, maintenance workers who manage the floor sump could be exposed to the NAPL via dermal contact. In this HHRA, the analytical data for the NAPL sample collected from the floor sump are used to characterize potential risks associated with hypothetical maintenance worker exposures to the NAPL in the Calender Basement.

Construction workers performing excavation activities at AOI-15 could encounter NAPL. The HHRA evaluates construction worker dermal exposure to NAPL assuming that it is contacted in the course of subsurface soil excavation activities.

H. Summary

In summary, potentially complete exposure pathways under the future land use at the Site include:

- Direct contact and dust and ambient vapor inhalation exposure to surface soil and subsurface soil at each AOI: Full-time outdoor commercial/industrial worker and construction worker;
- Dermal contact exposure to storm water: area resident (trespasser)

- Incidental ingestion and dermal contact with groundwater: construction worker;
- Vapor inhalation exposure to VOCs in groundwater: full-time indoor commercial/industrial worker (new building); construction worker;
- Vapor inhalation exposure to VOCs in sub-slab soil gas at AOI 28: full-time commercial/industrial worker (existing building);
- Dermal contact with NAPL: indoor maintenance and commercial/industrial worker (AOI-01); construction worker (AOI-15)

3.3 Exposure Quantification

The process for calculating health risks requires quantifying exposure, or intake, of COPCs and then combining the quantified intake with a toxicity value that relates the intake to a measure of health risk. Exposures to COPCs are quantified by calculating intakes for representative receptor populations that may use or access the Site under the various current and possible future land use conditions. This section describes the process that is used to quantify COPC exposure in each of the media evaluated in the HHRA.

The process for calculating intakes involves two principal components:

1. Quantifying the concentration of COPCs in each medium that a receptor population is exposed to. This term is called the exposure point concentration (EPC). EPCs are derived for each exposure point and exposure route for which potentially complete exposure pathways may exist, as described in Section 3.2. The methods used to derive EPCs are provided in Section 3.3.1.

2. Quantifying the amount of each medium that a receptor population is exposed to. This is derived by considering the types of activities that a receptor population would be engaged in (e.g., excavation work vs. working indoors) and the ages of the receptor population (e.g., children vs. adults). From this information, receptor exposure scenarios are developed that relate the activities that could result in exposure to values that can be used to quantify exposure. The quantitative values are called exposure parameters. The types of exposure parameters and descriptions of the exposure scenarios used to quantify exposure are provided in Section 3.3.2.

Fundamentally, intake is thus a function of EPC and exposure parameters:

$$Intake = (EPC) \times (Exposure\ Parameters)$$

For ingestion and dermal exposure routes, the general equation for calculating intake is as follows:

$$Intake = \frac{EPC \times CR \times EF \times ED}{AT \times BW}$$

Where:

Intake	=	Average daily intake of COPC from soil at the exposure point during the period of exposure (mg/kg/day)
EPC	=	Exposure Point Concentration (mg/kg or mg/L)
CR	=	Contact Rate (mg/day) Ingestion: Ingestion rate (mg/day) Dermal absorption: Skin surface area (cm^2/day) x adherence factor (mg/cm^2) [soil and sediment only] x absorption factor (unitless)
EF	=	Exposure Frequency (days/year)
ED	=	Exposure Duration (years)
AT	=	Averaging Time (days) (equal to ED for non-cancer evaluation; equal to 70 years for cancer evaluation)
BW	=	Body Weight (kg)

The intake is calculated as an average daily intake or an average daily lifetime intake. The average daily intake represents the total intake that occurs over the period of exposure, divided by duration of exposure. This intake term is used to quantify intakes for evaluating non-carcinogenic effects. The average daily lifetime intake represents the total intake that occurs over the period of exposure, divided by the length of a lifetime (defined by USEPA as 70 years). This intake term is used to quantify intakes for evaluating carcinogenic effects. In the absence of algorithms that are specifically developed for evaluating dermal exposure to NAPL, dermal exposures to NAPL are evaluated using the algorithms that USEPA has developed to evaluate dermal exposure to water (USEPA, 2004).

The methodology for evaluating inhalation exposures differs from that used for other exposure pathways in that the toxicity values used are reference concentrations (RfCs) and unit risks (URs) instead of reference doses (RfDs) and cancer slope factors (CSFs). Because concentration and not dose is the basis for these toxicity values, body weight, and respiration rate are not directly used in calculating risk estimates for carcinogenic and non-carcinogenic chemicals. The general equation for calculating chemical exposure via inhalation is as follows:

$$\textit{Exposure Concentration} = \frac{CA \times ET \times EF \times ED}{CF \times AT}$$

Where:
Exposure Concentration = representative concentration of COPC in the air at the exposure point during the period of exposure (mg/m^3)

CA	=	concentration of the COPC in air (mg/m^3),
EF	=	exposure frequency (days/year),
ED	=	exposure duration (years),
ET	=	exposure time (hours/day)
CF	=	conversion factor (24 hours/day)
AT	=	averaging time (for carcinogens, AT = 70 years times 365 days per year; for noncarcinogens, AT = ED times 365 days per year).

The specific equations used to calculate intake and exposure are those presented in USEPA guidance (USEPA, 1989; 2004; 2009c), and are provided in Tables 21 through 26.

3.3.1 Exposure Point Concentrations

The USEPA defines the EPC as the representative chemical concentration a receptor may contact in an exposure area over the exposure period (USEPA, 1989). Separate EPCs are calculated for each exposure pathway at each point. The typical concept of human exposure within a defined exposure point is that an individual contacts the contaminated medium on a periodic and random basis. Because of the repeated nature of such contact, the human exposure does not really occur at a fixed point but rather at a variety of points with equal likelihood that any given point within the exposure area will be the contact location on any given day. Thus, the EPCs should be the arithmetic averages of the chemical concentrations within the exposure area. However, to account for uncertainty in estimating the arithmetic mean concentration, the USEPA recommends that an upper confidence limit (UCL) be used to represent the EPC (USEPA, 2002b).

In accordance with USEPA guidance, RME EPCs may be based on the lesser of the 95 percent UCL on the arithmetic mean concentration (95% UCL value) or the maximum detected concentration in the data set (USEPA, 2002b). However, in this HHRA, the maximum detected concentrations are used as EPCs in all media to provide a conservative and streamlined evaluation. If risks associated with maximum concentrations are likely to be excessive, then 95 UCL values are used as EPCs.

The 95% UCL values are calculated using the ProUCL software (V. 4.1; USEPA, 2011). The ProUCL software performs a goodness-of-fit test that accounts for data sets without any non-detect observations, as well as data sets with non-detect observations. The software then determines the distribution of the data set for which the EPC is being derived (e.g., normal, lognormal, gamma, or non-discernable), and then calculates a conservative and stable 95 percent UCL value in accordance with the framework described in "Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites" (USEPA, 2002b). The software includes numerous algorithms for calculating 95% UCL values, and provides a recommended UCL value based on the algorithm that is most applicable to the statistical nature of the data set. The 95% UCL calculations are documented in Attachment B.

For storm water, data are available for total (unfiltered) samples and dissolved (filtered) samples. Data for total analyses were used as the basis of the EPCs. Implications on the use of dissolved concentrations as EPCs are discussed in the Uncertainty Analysis.

EPCs may be based on COPC concentrations that are directly measured, or on COPC concentrations that are modeled. EPCs that are used to quantify ingestion and dermal contact exposures are based on measured concentration data. Since the true exposure medium for evaluation of inhalation exposures is air, and the only analyses of air samples was to evaluate the possible effects of NAPL (at AOI-01) and chlorinated VOCs in subsurface soil (at AOI-28) on indoor air quality, EPCs that are used to evaluate inhalation exposures must be modeled from source media concentrations. The source media include soil as a source of dust and vapors in air, and groundwater and sub-slab soil gas as sources of vapors in air. The basis of modeled EPCs used in the HHRA is described below; modeling documentation is provided in Attachment C.

- Soil – Dust in Ambient Air: The Jury model, as presented in USEPA guidance (USEPA, 2002a), is used to estimate a particulate emission factor (PEF) that can then be used to derive dust concentrations in ambient air. The Q/C parameter that is used in the model is based on a source size of 0.5 acres. This value was selected as being representative of the typical size of an AOI. This value provides a conservative assessment of PEF, resulting in a PEF value that is approximately two times more conservative than the PEF that would be associated with the USEPA default assumption of a one-half acre source size. Other parameters used in the model are USEPA default values.

- Soil – Vapors in Ambient Air: The Jury model, as presented in USEPA guidance (USEPA, 2002a), is used to estimate ambient air concentrations that may exist above soil that contains VOCs. A site-specific Q/C parameter value that is based on a 1/2-acre site size is used; this size corresponds to the size of AOI 2, which is the primary area of the Site with appreciable VOCs detected in soil. Other parameters used in the model are USEPA default values. These EPCs are used to evaluate ambient vapor inhalation from soil for all outdoor receptor exposure scenarios.

- Groundwater – Vapor Migration to Indoor Air: To evaluate the potential concentrations of vinyl chloride that could exist in indoor air if a building was constructed over the area of groundwater where the highest detected concentration was reported, the Johnson-Ettinger model was used (USEPA, 2002). Site-specific inputs to the model included soil type (silt), slab-on-grade construction, depth to groundwater (10 ft bgs), and an assumed building size of 40 ft by 40 ft with eight foot ceilings. All other model parameters, including the indoor air exchange rate (0.25 changes per hour), were maintained at the default values. The output of the model, an estimated indoor air EPC, was used to evaluate risks to future full-time indoor workers.

- Groundwater – Vapor Migration to Excavation Air: To evaluate the potential concentrations of vinyl chloride that could exist in a deep excavation that intersects the groundwater table, the trench model published by the Virginia Department of Environmental Quality is used. The model was used with default values and a groundwater source EPC based on the maximum detected tetrahydrofuran concentration in groundwater. The model output, therefore, is conservative for all areas at the Site.

- Soil Gas – Future Vapor Migration to Indoor Air (AOI 28): To evaluate the potential concentrations of COPCs that could migrate from sub-slab soil gas (tetrachloroethene and trichloroethene) to indoor air under future building conditions, indoor air EPCs were calculated from sub-slab soil gas concentration using an attenuation factor of 0.01 (USEPA, 2012c). The

maximum detected sub-slab soil gas concentrations were used in the calculations (Table 20).

EPCs, including the statistical basis of the values used as EPCs (i.e., maximum of 95 UCL concentrations), are provided in Tables 15 through 20.

3.3.2 Exposure Scenarios

Exposure scenarios are used to quantitatively describe the COPC exposures that could theoretically occur for each land use and exposure pathway evaluated. The exposure scenarios are used in conjunction with EPCs to derive quantitative estimates of COPC intake or exposure. The ultimate goal of developing exposure scenarios, as defined in USEPA guidance, is to identify the combination of exposure parameters that results in the most intense level of exposure that may "reasonably" be expected to occur under the current and future site conditions (USEPA, 1989). As such, a single exposure scenario is often selected to provide a conservative evaluation for the range of possible receptors and populations that could be exposed at the Site under a given land use. For example, when evaluating commercial/industrial land use, a worker that is modeled to be protective for full-time outdoor work is protective for all other receptor populations (such as patrons, trespassers, and landscaper workers) and, therefore, it unnecessary to also evaluate those other, less-exposed, receptor populations. The exposure scenarios that are used to evaluate health risks associated with the potentially complete exposure pathways under current and possible future land use conditions are described in detail below.

Exposures to COPCs are quantified by using numerical parameters that include ingestion rates, dermal contact areas, body weights, exposure times, exposure frequencies, and exposure durations. These parameters and the sources of their values are described below. The specific numerical values for each of these parameters are selected in consideration of the receptor activities and ages that the exposure scenarios are modeling, and are generally selected as the upper-end (generally 95th percentile) values for each quantitative parameter. Using receptor scenarios that are protective for all potentially exposed populations associated with a given land use, with numerical parameters that are generally based on the upper-end distributions, result in exposure scenarios are referred to as the Reasonable Maximum Exposure (RME). Exposure parameters are developed from USEPA national guidance (USEPA, 1997; 2002a; 2004). The exposure parameters used to quantify exposures for each of the scenarios described in this section are provided in Tables 21 through 26.

A. Exposure durations:

Exposure duration refers to the total amount of time in years that a receptor population is assumed to be exposed to the media that are being evaluated. USEPA has established standard exposure durations of 25 years for commercial/industrial land use, and 1 year for construction work. These values are based on upper percentile values for the length of time that people stay at the same place of employment (25 years). The duration for construction work is based on an assumption that the earth moving and excavation portions of a construction project would generally not continue for more than one year. This

is a conservative assumption that would be protective for re-development workers as well.

For other receptor scenarios (e.g., trespasser), the exposure duration is based on the age range of the receptor evaluated. For example, the exposure duration for a 7 through 18 year old is 12 years, based on the premise that an individual begins the exposure activity at age 7 and continues to age 18.

B. *Ingestion rates:*
Ingestion rates quantify the amount of media that is ingested. For soil, USEPA default values are 100 mg/day for outdoor workers and older child/adult trespassers, and 330 mg/day for construction workers. To evaluate incidental ingestion of groundwater by construction workers, a value of 10 ml/day is used. This value is one-fifth the incidental ingestion rate that USEPA recommends for swimming exposures.

C. *Dermal contact rates:*
Dermal contact rates quantify the amount of media that contacts the skin and is therefore a potential source for absorption of COPCs through the skin. Soil dermal contact rates are based on the skin surface area assumed to contact the soil, and the adherence of the soil to the skin. Skin surface area and adherence factors for commercial/industrial and construction work scenarios are specified by USEPA (USEPA, 2004). The surface area values used to evaluate trespasser wading exposures to storm water, potential worker exposures to NAPL, and construction worker exposures to groundwater, were calculated as the average of 50th percentile body surface areas, for the body parts assumed to be exposed to surface water, for males and females within the age range evaluated (Tables 21, 24, and 25). Body surface area values are obtained from USEPA references (USEPA, 1997).

D. *Body weights:*
Body weights are specified by USEPA for children ages 1 through 6 (15 kg) and adults (70 kg). Body weights for other age groups were calculated using body weight data provided in USEPA references (USEPA, 1997), as the average of 50th percentile weights for males and females within the age range evaluated.

E. *Exposure times:*
The exposure time quantifies the amount of time that is spent at the Site during each day that exposure takes place. The exposure time parameter is used to quantify inhalation exposures and dermal exposures to aqueous media. Exposure time parameters used in this HHRA are based on USEPA-recommended exposure times for time spent indoors and time spent outdoors. Exposure time parameters for commercial/industrial worker and construction worker scenarios are based on an assumed 8-hour work day.

F. *Exposure frequencies:*

Exposure frequency describes the number of days per year (or number of events per year) in which exposure to a medium at an EA occurs. Exposure frequency parameters are based on USEPA default values for commercial/industrial worker and construction worker scenarios, and exposure scenarios for wading scenarios are based on professional judgment as explained in the scenario descriptions below.

1. Current Maintenance Worker

Exposures to the soil were evaluated for direct contact (incidental ingestion and dermal contact) pathways, as well as vapor and dust inhalation exposures. The maintenance worker scenario uses U.S. EPA default parameter values for full time outdoor workers (8 hours per day, 219 days per year, for 25 years).

2. Current Trespasser

The trespasser scenario considers an adolescent (ages 13 to18) exposed to unpaved soil one day per week March through November, over a five year period). Soil ingestion rates and dermal surface area and adherence factors were based on the approach used by U.S. EPA to evaluate residential land use. The scenario also considers exposure to storm water discharging to Fraleigh Creek, under the assumption that an adolescent may access the area where storm water discharges and wade in the water. Water depth is fairly shallow (less than a few feet). Therefore, swimming cannot occur, and the incidental ingestion exposure pathway for storm water was therefore considered to be incomplete. Exposures to the storm water were evaluated for dermal contact exposures assuming that the surface area of the feet, lower legs, hands, and forearms were exposed to the storm water 1 hour per day, 13 days per year, over a five-year period. The exposure frequency of 13 days per year is based on an assumption that wading in the water would occur one day per week, June through August.

3. Future Land Use – Commercial/Industrial

Commercial/industrial land use refers use of Site for non-residential, non-recreational or open space purposes. Commercial land uses include retail development (e.g., stores or shopping centers) and office space. Industrial uses may include manufacturing and warehousing. Commercial/industrial exposure scenarios model media exposures to adult employees who are assumed to be at the property full-time over a long period of years. Although under commercial development, patrons (e.g., shoppers) that could include children may access the property, such access would be short-term compared to the occupancy by full-time employees. The commercial/industrial worker exposure

scenarios are protective for other people who may access the commercial/industrial property, including children who accompany adult patrons.

Two separate commercial/industrial worker scenarios are evaluated: an indoor worker scenario to represent an office worker or maintenance employee at an indoor manufacturing facility; and an outdoor worker scenario to represent an employee at an outdoor nursery/greenhouse, or outdoor storage/warehousing facility. The scenarios consider the following exposures:

- For indoor workers, it is assumed that exposure to indoor air occurs 8 hours per day 250 days per year indoors.
- For workers who may potentially be exposed to NAPL in the Calender Basement, it is assumed that contact with the NAPL occurs via dermal absorption one day per month over a 25-year period. Dermal exposure is assumed to occur over the area of the hands, and it is further assumed that NAPL remains on the hands for a one-half of the work-day (4 hours).
- For outdoor workers, it is assumed that exposure to soil occurs 8 hours per day 219 days per year.

4. Future Land Use – Construction Worker

The construction worker scenario is evaluated to characterize risks associated with high intensity, short duration exposures to soil. Exposures are characterized using USEPA national standardized parameters for construction worker scenarios. An exposure frequency and duration of 5 days per week for 1 year (250 days) are used to accommodate the assumption that a large-scale development project could take up to a year to complete.

In addition, construction workers are evaluated for potential direct contact exposures to groundwater, and inhalation exposures to vapors that may migrate from groundwater, during deep excavation activities. It was assumed that activities that could result in this type of exposure would occur 20 days per year, each for 8 hours per day.

Finally, construction workers are evaluated for dermal contact with NAPL at AOI-15, under the assumption that the NAPL is contacted during excavation activities. The scenario assumes that NAPL is contacted on 20 days over the course of the construction project, and that NAPL remains on the skin of a construction worker for one hour each exposure event.

4. TOXICITY ASSESSMENT

The objective of the toxicity assessment is to quantify the relationship between the intake, or dose, of COPCs and the likelihood that adverse health effects may result from exposure to the COPCs. There are two major types of adverse health effects evaluated in the HHRA: non-carcinogenic, and carcinogenic. Non-carcinogenic health effects refer to toxicological effects other than cancer which may result from exposure to a substance, such as toxicity to the liver, skin, or central nervous system. Carcinogenic health effects refer to the development of cancer which may result from exposure to a substance. Following USEPA guidance (USEPA, 1989), these two effects (non-carcinogenic and carcinogenic) are evaluated separately.

There are two types of toxicity values, or dose-response values, for evaluating health risks: cancer slope factors (CSFs) and unit risk (UR) values for carcinogens; and RfDs and RfCs for non-carcinogens. For potentially carcinogenic COPCs, both types of values have been developed by USEPA because these COPCs may elicit both carcinogenic and non-carcinogenic (systemic) effects. In addition, because toxicity and/or carcinogenicity can depend on the route of exposure (i.e., oral or inhalation), unique dose-response values have been developed for the oral, dermal, and inhalation exposure routes.

4.1 Toxicity Assessment for Carcinogenic Effects

USEPA uses a two-part evaluation to characterize the carcinogenicity of a chemical. The first part involves assigning a weight-of-evidence classification to a chemical, which describes the strength of available information in determining the likelihood of a chemical actually causing cancer in humans. The second part involves calculation of a CSF or UR to reflect the carcinogenic potency.

4.1.1 Weight-of-Evidence

Historically, USEPA has used an alphanumeric system to describe the weight-of-evidence:

Group A - Human Carcinogen. This category indicates there is sufficient evidence from epidemiological studies to support a causal association between an agent and human cancer.

Group B - Probable Human Carcinogen. This category generally indicates there is at least limited evidence from epidemiologic studies of carcinogenicity to humans (Group B1) or that, in the absence of data on humans, there is sufficient evidence of carcinogenicity in animals (Group B2).

Group C - Possible Human Carcinogen. This category indicates that there is limited evidence of carcinogenicity in animals in the absence of data on humans.

Group D - Not Classified. This category indicates that the evidence for carcinogenicity in animals is inadequate.

Group E - No Evidence of Carcinogenicity to Humans. This category indicates that there is evidence of noncarcinogenicity in at least two adequate animal tests in different species or in both epidemiologic and animal studies.

In the revised Guidelines for Carcinogenic Risk Assessment (USEPA, 2005a), USEPA revised the approach to describing the carcinogenic potential of an agent from an alphanumeric system to a weight-of-evidence-based descriptive narrative. Descriptors are as follows:

Carcinogenic to Humans. This descriptor indicates strong evidence of human carcinogenicity, and is appropriate A) when there is convincing epidemiologic evidence of a causal association between human exposure and cancer; or B) when all of the following conditions are met: (a) there is strong evidence of an association between human exposure and either cancer or the key precursor events of the agent's mode of action but not enough for a causal association, and (b) there is extensive evidence of carcinogenicity in animals, and (c) the mode(s) of carcinogenic action and associated key precursor events have been identified in animals, and (d) there is strong evidence that the key precursor events that precede the cancer response in animals are anticipated to occur in humans and progress to tumors, based on available biological information

Likely to Be Carcinogenic to Humans. This descriptor is appropriate when the weight of the evidence is adequate to demonstrate carcinogenic potential to humans but does not reach the weight of evidence for the descriptor "Carcinogenic to Humans." The use of the term "likely" as a weight of evidence descriptor does not correspond to a quantifiable probability. Supporting data for this descriptor may include: an agent demonstrating a plausible (but not definitively causal) association between human exposure and cancer, in most cases with some supporting biological, experimental evidence, though not necessarily carcinogenicity data from animal experiments; an agent that has tested positive in animal experiments in more than one species, sex, strain, site, or exposure route, with or without evidence of carcinogenicity in humans; a positive tumor study that raises additional biological concerns beyond that of a statistically significant result, for example, a high degree of malignancy, or an early age at onset; a rare animal tumor response in a single experiment that is assumed to be relevant to humans; or a positive tumor study that is strengthened by other lines of evidence, for example, either plausible (but not definitively causal) association between human exposure and cancer or evidence that the agent or an important metabolite causes events generally known to be associated with tumor formation (such as DNA reactivity or effects on cell growth control) likely to be related to the tumor response in this case.

Suggestive Evidence of Carcinogenic Potential. This descriptor is appropriate when the weight of evidence is suggestive of carcinogenicity; a concern for potential carcinogenic effects in humans is raised, but the data are judged not sufficient for a stronger conclusion. This descriptor covers a spectrum of evidence associated with varying levels of concern for carcinogenicity, ranging from a positive cancer result in the only

study on an agent to a single positive cancer result in an extensive database that includes negative studies in other species.

Data Inadequate for an Assessment of Human Carcinogenic Potential. This descriptor of the database is appropriate when available data are judged inadequate for applying one of the other descriptors.

Not Likely to be Carcinogenic in Humans. This descriptor is appropriate when the available data are considered robust for deciding that there is no basis for human hazard concern. In some instances, there can be positive results in experimental animals when there is strong, consistent evidence that each mode of action in experimental animals does not operate in humans. In other cases, there can be convincing evidence in both humans and animals that the agent is not carcinogenic

The weight of evidence classification for a given chemical may reflect either of the two classification schemes identified above, depending on when USEPA most recently reviewed and revised the carcinogenicity assessment for any given chemical.

4.1.2 Carcinogenic Potency

It has been generally assumed historically that carcinogenic effects are non-threshold effects. This means that any dose, no matter how small, has been assumed to pose a finite probability of generating a response. Thus, no dose of a carcinogen has been thought to be risk-free. More contemporary evaluations that focus on the mechanisms of action by which a chemical may cause cancer have, for some chemicals, identified threshold doses below which carcinogenesis does not occur. In consideration of the nature of the toxicological data that are available for a given chemical, USEPA uses one or more of several different models to identify the relationship between the dose of the chemical and a carcinogenic response.

The toxicological data that are used to evaluate carcinogenic potency generally come from cancer bioassays that are performed using laboratory animals such as specific strains of rats and mice. An advantage of using laboratory animals to identify dose-response relationships is that the substances and doses that the animals are exposed to are controlled, such that if a carcinogenic response occurs, there is more confidence that the response occurred as a result of exposure to a specific substance, and the doses that caused the response are known. Disadvantages of using animal studies include uncertainties with extrapolating a carcinogenic response in animals to a carcinogenic response in humans. This uncertainty is addressed, in part, through the use of relatively high doses of chemicals in cancer bioassays. Generally, laboratory animals are given maximum tolerated doses (i.e., the highest dose that the animal con tolerate without suffering adverse effects that would otherwise compromise the study) and fractions of the maximum tolerated dose. These doses are typically much higher than any dose that would be experienced by human populations. If a positive dose-response relationship is not identified in animal studies that use these high doses, then there is more confidence that the substance would not cause cancer at the much lower exposure levels potentially experienced by human populations. In contrast, if a positive dose-response relationship is identified in animal studies that use high doses, there is uncertainty in extrapolating the dose-response relationship

from high doses to the much lower exposure levels potentially experienced by human populations.

Consequently, human epidemiologic data are a preferred basis for developing estimates of carcinogenic potency. However, the majority of chemicals studied to do not have sufficient epidemiological study data to allow for derivation of dose-response relationships. Many epidemiology studies find causal relationships between exposure to a chemical and a toxicological response, but are confounded by the fact that human populations are exposed to many substances over a lifetime, as well as by the uncertainty inherent in measuring actual human exposures to specific substances (e.g., actual concentrations in workplace air that a population may have been exposed to over a period of many years). These uncertainties often preclude establishing a dose-response relationship that is sufficient to use as the basis of carcinogenic potency estimates. Since laboratory bioassays avoid these uncertainties, they are often used as basis for the derivation of dose-response profiles, despite the availability of human epidemiological data.

The ultimate product of the cancer potency assessment is the derivation of a CSF or a UR. These values represent the upper-bound excess lifetime cancer risk (ELCR) estimated to result from continuous lifetime exposure to an agent at a concentration of 1 mg/kg/day (for the CSF) or 1 microgram per cubic meter ($\mu g/m^3$) in air (for the UR) (USEPA, 2008). CSF values are expressed as risk per mg/kg/day [$(mg/kg/day)^{-1}$] and UR values are expressed as risk per ($\mu g/m^3$) [$(ug/m^3)^{-1}$]. CSF and UR values are typically calculated for chemicals in Groups A, B1, B2, and "Carcinogenic to humans" and "Likely to be carcinogenic to humans." Cancer dose-response values for chemicals in Group C are calculated on a case-by-case basis.

In this HHRA, CSFs are used to estimate the risks associated with ingestion and dermal exposures, and URs are used to estimate the risks associated with inhalation of carcinogenic COPCs in vapor and dust emissions. The CSF and UR values and supporting documentation for the chemicals selected as COPCs in the risk assessment are provided in Tables 27 and 28.

4.2 Toxicity Assessment for Non-Carcinogenic Effects

Unlike carcinogenic effects, non-carcinogenic effects are threshold effects. This means that at some level of exposure there is a threshold below which adverse effects would not be expected, and above which adverse effects could potentially occur. Examples of non-carcinogenic (i.e., threshold) effects include liver toxicity, kidney toxicity, reproductive effects, neurotoxicity, and teratogenicity. The same process that is used to identify toxicity data to support carcinogenic potency assessment is also used to identify toxicity data to support the identification of dose-response relationships for non-carcinogenic effects.

The outcome of the dose-response assessment for non-carcinogenic health effects is the derivation of an RfD or RfC. The RfD, expressed in units of mg/kg/day, is defined as an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects

during a lifetime (USEPA, 1989). Unlike a CSF or UR, which represents a probability of incurring a carcinogenic effect following exposure to a substance, the RfD represents a threshold dose below which adverse health effects are unlikely to occur, and above which the potential for adverse health effects exists. The RfD is derived from the following equation:

$$RfD\ (mg/kg/day) = \frac{NOAEL\ or\ LOAEL}{UF\ and/or\ MF}$$

The No Observed Adverse Effect Level (NOAEL) represents the dose of a chemical at which there are no statistically or biologically significant differences in the frequency of an adverse effect between the exposed population and its appropriate control. The Lowest Observed Adverse Effect Level (LOAEL) represents the lowest dose at which a statistically significant difference in the frequency of an effect is noted. Both the NOAEL and the LOAEL are reported in terms of mg/kg/day. An uncertainty factor (UF) is used to account for inter-species and intra-species differences, whether the dose was an NOAEL or an LOAEL, and the adequacy of the data. The magnitude of the UF will therefore vary from chemical to chemical, ranging from 3 to 3,000. A modifying factor (MF), ranging from 1 to 10 may also be included to reflect qualitative uncertainties not explicitly addressed in the UFs. The toxicity endpoint upon which the RfD is derived and the UF and/or MF used in the calculation are presented in the dose-response tables provided in Tables 29 and 30.

The RfC, in units of mg/m^3, is analogous to the RfD and is developed through a similar process. However, unlike RfDs, which represent a dose (in mg/kg/day) at which adverse or deleterious effects are unlikely, RfCs represent air concentrations (in mg/m^3) at which adverse or deleterious effects are unlikely (i.e., an air concentration corresponding to a Hazard Index (HI) = 1.0). In this HHRA, inhalation RfCs are used to estimate the non-cancer risks associated with inhaling COPCs.

The use of chronic RfDs and RfCs to evaluate the potential for adverse health effects resulting from substantially less-than-lifetime exposures may be overly protective. Subchronic Reference Doses and Subchronic Reference Concentrations (RfD_ss/RfC_ss) have been developed for some chemicals to evaluate the potential non-carcinogenic effects of limited duration exposures. RfD_ss/RfC_ss are similar to chronic RfDs/RfCs; the distinction is the length of exposure duration. The construction worker scenario is the only scenario evaluated in this risk assessment that is associated with subchronic exposures. Therefore, when available, subchronic RfDs and RfCs are used to evaluate potential non-cancer risks for the construction worker. When subchronic values are not available, chronic RfDs and RfCs are used. Chronic RfDs and RfCs are used for all other receptor scenarios.

The RfDs and RfCs and supporting documentation for the chemicals selected as COPCs are provided in Tables 34 and 35.

4.3 Adjustment for Dermal Exposure

Cancer CSFs and non-cancer RfDs were developed to evaluate risk associated with the ingestion exposure route. In accordance with USEPA guidance (USEPA, 2004), dermal dose-response values are calculated from oral dose-response values using an oral absorption factor. The oral absorption factor represents the amount of substance that is absorbed from the gastrointestinal tract following oral

administration of a substance. The absorbed dose represents the amount of substance that is potentially available for biological interaction; it is by this dose-response relationship that the toxicity of a dermally absorbed substance must be evaluated.

Thus, for potentially carcinogenic substances, the dermal dose-response value is calculated as follows:

$$CSF_d = CSF_o / Oral\ ABS$$

The dermal dose-response value for evaluating non-carcinogenic effects is calculated as follows:

$$RfD_d = RfD_o\ X\ Oral\ ABS$$

Chemical-specific oral ABS values are published by USEPA (USEPA, 2004). In accordance with USEPA guidance (USEPA, 2004), oral dose-response values are only adjusted using an oral ABS value if the COPC has an oral ABS value less than 50 percent. Otherwise, the oral dose-response value is used as the dermal dose-response value. Dermal CSFs and RfDs are presented in Tables 27 and 29.

4.4 Adjustment for Early Life Exposures to Carcinogens with a Mutagenic Mode of Action

USEPA has developed guidance for characterizing cancer susceptibility associated with early life exposures (e.g., young children) to potentially carcinogenic chemicals (USEPA, 2005b; 2008). The approach developed by USEPA to characterize cancer risks for early life stages includes consideration of differences in physiology and exposure potential between children and adults, as well as differences in susceptibility to tumor development between children and adults. Physiological and behavioral differences are accounted for in the exposure assessment, whereby age-specific exposure parameters (e.g., body weights, ingestion rates, inhalation rates, contact frequencies) are applied to the various age groups evaluated in the risk assessment. Differences in susceptibility to tumor development are accounted for by considering the carcinogenic mode of action (MOA) in accordance with the MOA framework developed by USEPA (USEPA, 2005b).

In accordance with the MOA framework, for chemicals that initiate carcinogenesis by a mutagenic MOA and for which data concerning differential susceptibility for early life stages is available, USEPA may develop CSFs that are applicable to specific ages (e.g., infants and young children, adults). This approach has been used by USEPA to develop CSFs for vinyl chloride. If chemical-specific data are not available to differentiate susceptibility among various life stages, the MOA framework recommends application of age-dependant adjustment factors (ADAFs) to develop risk estimates. The ADAFs reflect USEPA's conclusion that cancer risks for chemicals that act by a mutagenic MOA are generally higher from early-life exposure than from similar exposures later in life; the ADAFs developed by USEPA are as follows (USEPA, 2005b; 2008):

- For exposure before 2 years of age (i.e., spanning a 2-year time interval from the first day of birth of until a child's second birthday), the ADAF = 10;
- For exposure between 2 and <16 years of age (i.e., spanning a 14-year time interval from a child's second birthday up until their sixteenth birthday), the ADAF = 3;
- For exposures after turning 16 years of age, no adjustment is required (i.e., ADAF = 1).

USEPA has initially identified 12 chemicals for which the MOA framework should be applied (USEPA, 2008). Potentially carcinogenic PAHs are among the chemicals included on the list; some of those PAHs were retained as COPCs in this risk assessment (e.g., benzo(a)anthracene, benzo(a)pyrene). USEPA has also identified trichloroethene as a compound to which the MOA framework should be applied. USEPA indicates that the ADAFs should be applied to evaluate cancer risks associated with potential exposures to the PAH compounds and trichloroethene. Therefore, the ADAFs identified above are used to characterize cancer risks in this risk assessment.

The trespasser exposure scenario evaluated in this HHRA includes children between the ages of 13 and 18 (5 year exposure duration). In accordance with EPA guidance, an ADAF of 3 is applicable to evaluation of the 13 – 16 portion of this age group. Therefore, to evaluate risks for COPCs that have a mutagenic mode of action, an ADAF value of 2.6 is applied to the intake dose equations for the trespasser scenario. The ADAF of 2.6 is derived as an age-weighted value for ages 6 < 16 (ADAF = 3) and ages 16 < 30 (ADAF = 1) as follows: (4 yrs x 3) + (1 yr x 1)/5 yrs = 2.6. This value was used to quantify exposures and risks for PAHs and TCE in the exposure points to which a trespasser could be exposed (unpaved surface soil and storm water).

For adults (e.g., commercial/industrial workers and construction workers), no ADAF is required.

4.5 Chemical-Specific Considerations

For some constituents, RfD values differ by exposure medium and/or chemical speciation or form. These attributes apply to the following COPCs in this HHRA:

Chromium. USEPA publishes separate RfD values for hexavalent chromium and trivalent chromium; hexavalent chromium is associated with a higher order of toxicity than trivalent chromium. Hexavalent chromium is normally only present in environmental media at notable concentrations if released as hexavalent chromium (often from an industrial source such as metal plating). There is no historical evidence at the Site to suggest that chromium in Site media would be present as hexavalent chromium. However, in the absence of chromium speciation data, risk assessments are typically performed using the RfD for hexavalent chromium to evaluate risks for potential exposures to chromium, in order to maintain a level of conservatism in the face of the uncertainty posed by a lack of speciation data. Therefore, chromium is evaluated in the risk assessment as hexavalent chromium. The unit risk value for hexavalent chromium was obtained from IRIS.

Lead. In accordance with CERCLA risk assessment procedures, risks associated with potential exposures to lead in soil are characterized using lead biokinetic uptake models (USEPA, 2002d; 2003c). Lead uptake models provide estimates of blood lead levels that may result from multi-media exposures to lead. The blood lead levels are then compared to threshold blood lead levels established by USEPA. Section 5 discusses the risk characterization for lead.

Screening Dose-Response Values. RfD values for di-methyl-phthalate and thallium have been published as PPRTV screening RfD values. USEPA indicates that screening RfD values are associated with more uncertainty and should generally only be used to establish screening levels, and not necessarily to make risk management decisions. Therefore, the screening RfDs for dimethylphthalate and thallium are not used to quantify risks in this HHRA. Implications are discussed in the Uncertainty Analysis.

4.6 Sources of Dose-Response Values

The following hierarchy of sources for dose-response values has been utilized in identifying dose-response values for this HHRA (USEPA, 2003a).

Tier 1- IRIS (http://www.epa.gov/iris/). In accordance with USEPA guidance, the main source of dose-response values is Integrated Risk Information System (IRIS), which is a database established by USEPA containing all validated data on many toxic substances found at hazardous waste sites. This database (USEPA, 2012d), current as of October 2012, was used to identify the CSFs, URs, RfDs, and RfCs applied in this risk assessment.

Tier 2- National Center for Environmental Assessment (NCEA) provisional peer reviewed toxicity values (PPRTVs) (http://hhpprtv.ornl.gov/). NCEA's PPRTVs are developed by the Superfund Technical Support Center (STSC) for the USEPA Superfund program. STSC's reassessment of USEPA Health Effects Assessment Summary Tables (HEAST) toxicity values, as well as development of PPRTVs in response to Regional or Headquarters Superfund program requests, are consistent with Agency practices on toxicity value development, use the most recent scientific literature, and are supported by both internal and external peer review, providing a high level of confidence in the use of these values in the Superfund Program. The PPRTVs used in this HHRA were obtained from the USEPA Regional Screening Values Table and are current as of November 2012.

Tier 3 - Other toxicity values:

California Environmental Protection Agency (CALEPA's) toxicity values (CALEPA, 2009). CALEPA develops toxicity values for both cancer and non-cancer effects. CALEPA toxicity values are obtained on the CALEPA website at http://www.oehha.ca.gov/risk/chemicalDB//index.asp. The CALEPA toxicity values used in this Baseline Risk Assessment (BRA) are current as of July 2009.

Agency for Toxic Substances and Disease Registry (ATSDR's) Minimal Risk Levels (MRLs) (ATSDR, 2012) address noncancer effects only, and are available on the ATSDR website at http://www.atsdr.cdc.gov/mrls.html. MRL values for intermediate exposure were used as subchronic RfD and RfC values, and MRL values for chronic exposure were used as chronic RfD and RfC values. The MRL values used in this HHRA are current as of December 2012.

Toxicity values remaining in current versions of HEAST.

5. HHRA RISK CHARACTERIZATION

Risk characterization, including uncertainty analysis, is the final step in the risk assessment process. The risk characterization integrates the exposure and toxicity information generated in previous sections to qualitatively or quantitatively evaluate the potential health risks associated with exposure to chemicals at the Site. Risk estimates are then evaluated through a comparison to risk threshold criteria. Section 5.1 provides the methodology used to calculate risks for each COPC and sum risk estimates among COPCs, exposure pathways, and exposure media to derive cumulative receptor risks. Section 5.2 provides the risk assessment results for each of the land use scenarios evaluated in the HHRA by EA. Section 5.3 provides an assessment of uncertainties in the HHRA.

5.1 Risk Characterization Methods

Quantitative estimates of both carcinogenic and non-carcinogenic risks are calculated for each exposure scenario selected for evaluation in the exposure assessment, in accordance with USEPA (1989) guidance.

Cancer risks associated with exposure to each COPC are calculated by multiplying the exposure route pathway-specific intake (e.g., oral exposure to groundwater) or exposure concentration (e.g., inhalation of dust) by its exposure route-specific CSF (e.g., oral CSF) or UR.

$$Intake\ (mg/kg/day\ or\ ug/m^3)\ x\ CSF\ (mg/kg/day)^{-1}\ or\ (ug/m^3)^{-1} = ELCR$$

The calculated value is an Excess Lifetime Cancer Risk (ELCR) and represents an upper bound of the probability of an individual developing cancer over a lifetime as the result of exposure to a COPC. This process is repeated for all exposure pathways for each receptor at each EA.

Non-cancer risks associated with exposure to each COPC are calculated by dividing the exposure route pathway-specific intake (e.g., oral exposure to groundwater) or exposure concentration (e.g., inhalation of dust) by its exposure route-specific RfD or RfC.

$$Intake\ (mg/kg/day\ or\ ug/m^3)\ /\ RfD\ (mg/kg/day)\ or\ (ug/m^3) = HQ$$

The calculated value is a hazard quotient (HQ). Chemical-specific HQs are then summed among all exposure pathways for each receptor at each EA to produce a hazard index (HI). An HI less than 1 indicates that non-carcinogenic toxic effects are unlikely to occur as a result of COPC exposure. HIs greater than 1 may be indicative of a possible non-carcinogenic toxic effect. As the HI increases, so does the likelihood that adverse effects might be associated with exposure. The text discussions in the Risk Characterization identify HI values based on the child receptor for residential and recreational scenarios because the HI values for the child receptor are higher than HI values for the adult receptor.

Risk calculations are presented in Attachments D through H.

The risk estimates calculated for each receptor scenario are summarized in risk summary tables according to receptor exposure scenario. Tables 31 through 34 provide a summary of calculated risks. Risks are summarized as follows:

- By exposure point: Risks are summed across all COPCs for each exposure route, for each exposure medium, at each exposure point, to yield a cumulative risk for each EA (e.g., future outdoor commercial worker – surface soil at AOI-01).
- By multiple media: Risks across multiple exposure media (i.e., soil, air, storm water) are summed to yield cumulative cancer and non-cancer risk estimates for each receptor population. This provides an estimate of potential receptor risk associated with multi-media exposures.

Risks for each COPC, at each exposure point, are also provided in summary tables (Tables 35 through 40). The information provided in these tables aides in identifying the specific COPCs that contribute risks.

Within the risk characterization for each receptor scenario, the relative significance of the calculated risks is evaluated in terms of a comparison with acceptable risk levels established by. Accordingly, cancer risk estimates for a site are compared to an ELCR range of 10^{-6} (one in a million) to 10^{-4} (one in ten-thousand). Risks at or below 10^{-6} do not warrant a response action, risks greater than 10^{-4} generally warrant a response action. Non-cancer risks are compared to a HI value of 1, which corresponds to levels of exposure that people (including sensitive individuals such as children) could experience without expected adverse effects.

The HI that is calculated by summing the HQs for all COPCs generally provides an overestimation of potential non-cancer risk. This is because the HI for each COPC represents the ratio of the estimated COPC intake to the threshold dose for a *specific* adverse health effect, where the adverse health effect is determined by the basis of the RfD and RfC. Summing HQs that are based on risks for different adverse health effects does not provide an estimate of total risk for a specific adverse health effect. Therefore, according to USEPA guidance (USEPA, 1989), a total HI that is above one and is based on exposures to multiple COPCs does not necessarily indicate that the potential for adverse health effects is unacceptable <u>if</u> the risks for the COPCs are not additive. Consequently, in the HHRA, separate HI values for specific target organ effects may be calculated by summing the HQ values for COPCs that affect the same target organ(s). This approach is generally only used when there are no COPCs with HQs greater than one, but the sum of HQs results in an HI greater than one.

5.2 Exposure Point Risks

Tables 31 through 34 provide summaries of risks calculated for the current and future land use exposure scenarios for each exposure point. The sections that follow identify the relative significance of the risks relative to the cancer risk range and hazard index of 1, and identify principal contributors to risks for scenarios which have a calculated cancer risk greater than $1x10^{-5}$ and a hazard index of 1 or greater. Calculations are presented by exposure medium in Appendices G through J.

5.2.1 Current Maintenance Worker

The current maintenance worker scenario evaluates potential exposures to the unpaved surface soil at the Site. As indicated in Table 31, risks for the current maintenance worker are a cancer risk of $2x10^{-5}$ and a hazard index of 0.6. The cancer risks are within the USEPA risk range of 10^{-6} to 10^{-4} and the HI does not exceed 1.

5.2.2 Current Trespasser

The current trespasser scenario evaluates potential exposures to the unpaved surface soil at the Site, as well as storm water that may discharge at the outfall at Fraleigh Creek. As indicated in Table 31, the cancer risk and hazard index values are as follows:

- $5x10^{-7}$ and 0.04, respectively, for soil; and
- $5x10^{-6}$ and 0.4, respectively, for storm water.

The cancer risks are within the USEPA risk range of 10^{-6} to 10^{-4} and the HI do not exceed 1. When soil and storm water risk are added together, risks remain within the risk range and below a HI of 1.

5.2.3 Future Commercial/Industrial Worker

Under future use conditions that assume that part or all of the Site could be used for commercial/industrial purposes, and that existing pavement and buildings are removed (thereby exposing soil), commercial workers are evaluated for potential exposures to soil at each of the AOIs at the Site. Two types of commercial/industrial scenarios are evaluated:

1. Full-time indoor workers who are assumed to work inside buildings, where potential exposures to indoor air could occur, as well as potential exposures to NAPL at AOI-01 (Calender Basement).
2. Full-time outdoor workers who are assumed to work outdoors, where potential exposures to soil could occur at the AOIs.

Risks are presented in Tables 32 and 33, and are summarized as follows:

- For indoor workers, the cancer risk for potential exposure to indoor air, based on the assumption that new buildings are constructed over the area of groundwater containing the highest vinyl chloride concentrations, is $3\ x10^{-7}$ and the HI is 0.002. These values are below the risk range of 10^{-6} to 10^{-4} and the HI is below 1.

- For indoor workers at the existing building in the vicinity of AOI-28 who may be exposed to sub-slab soil gas that is assumed to migrate to indoor air under future building conditions, the cancer risk is $3x10^{-4}$ and the HI is 90. These risks exceed the risk range of 10^{-6} to 10^{-4} and are greater than an HI of 1. Risks are due to trichloroethene and tetrachloroethene.
- For indoor workers potentially exposed to NAPL in the Calender Basement, the cancer risk is greater than 1 $x10^{-1}$ and the HI is 37,000.
- For outdoor workers, cancer risks for all areas evaluated except AOI-01, subsurface soil, are below or within the risk range of 10^{-6} to 10^{-4} and HI values do not exceed 1.
- The outdoor worker cancer risk for subsurface soil at AOI-01 is 5 $x10^{-4}$ and the HI is 35. These values, which exceed the risk range and threshold HI of 1, are due primarily to Aroclor-1242. No other COPCs in AOI-01 subsurface soil are associated with risks in excess of 1 $x10^{-6}$ or a HI of 1.

In summary, cancer risks are within the risk range of 10^{-6} to 10^{-4} and HI values do not exceed a value of 1 for potential future commercial/industrial use of the Site, with the following exceptions:

- indoor air at AOI 28 (based on estimated future indoor air EPCs) where risks are in excess of $1x10^{-4}$ and a HI of 1 due to trichloroethene and tetrachloroethene;
- subsurface soil at AOI-01, where risks are in excess of $1x10^{-4}$ and a HI of 1 due to Aroclor-1242; and
- NAPL at AOI-01, where cancer risk and HI are substantially higher than EPA thresholds due to Aroclor-1242.

5.2.4 **Future Construction Worker**

Under future use conditions, it is possible that part or all of the Site could be re-developed. Under these conditions, construction workers would be assumed to potentially be exposed to soil at each of the AOIs at the Site, to NAPL at AOI-15, and to groundwater, as well as VOCs that may volatilize from groundwater, within deep excavations. Risks are presented in Table 34 and are summarized as follows:

- Cancer risks for potential exposures to soil and groundwater at all AOIs are below or within the risk range of 10^{-6} to 10^{-4}.
- HI values for potential exposures to soil and groundwater at all AOIs except subsurface soil at AOI-01 are below a HI of 1.
- The HI associated with construction worker exposure to subsurface soil at AOI-01 is 65, due to Aroclor-1242.
- The cancer risk associated with dermal exposure to NAPL at AOI-15 is 4 $x10^{-3}$ and the HI is 680. These elevated risks are due to Aroclor-1242, di-n-octylphthalate, and bis(2-ethyhexyl)phthalate.

In summary, cancer risks are within the risk range of 10^{-6} to 10^{-4} and HI values do not exceed a value of 1 for potential future construction worker exposures to surface or subsurface soil at the Site, with the exception of surface soil at AOI-01, where HI values exceed 1 due to Aroclor-1242, and NAPL at AOI-15, where the cancer risk and HI both exceed EPA thresholds due to Aroclor-1242 and bis(2-ethylhexyl)phthalate.

5.2.5 **Risk Characterization for Lead**

In accordance with CERCLA risk assessment procedures, risks associated with potential exposures to lead are characterized using lead biokinetic uptake models (USEPA, 2002d; 2003c). These models provide estimates of blood lead levels that may result from chronic exposures to lead in various exposure media. To evaluate the significance of the estimated blood lead concentrations, the blood lead concentrations are compared to a threshold blood lead level of 10 micrograms per deciliter (μg/dL). This threshold blood lead level is a multi-agency goal that has been designated by the U.S. Centers for Disease Control (CDC) and the ATSDR as a level of concern to protect sensitive populations, including neonates, infants, and children. The protection of sensitive populations is assumed to also provide protection for adults. USEPA indicates that 95% of the exposed population should have a geometric mean blood lead level that does not exceed 10 μg/dL.

To aid in screening sites for the purposes of determining whether lead concentrations in soil may pose more than a *de minimis* risk and, therefore, require quantitative risk analysis (using the aforementioned biokinetic models), USEPA developed screening values for lead in soil of 400 mg/kg for residential populations, and 800 mg/kg for adult-only (i.e., commercial/industrial) populations. In the COPC selection process, maximum detected concentrations of lead in Site soil were screened against the USEPA soil lead screening value of 800 mg/kg. Lead was only retained as a COPC in surface soil; maximum concentrations of lead in the other media did not exceed the screening values. The maximum concentration of lead in surface soil is 3140 mg/kg, and was detected in a sample associated with AOI-19. In accordance with USEPA guidance concerning the identification of EPCs for evaluating health risks associated with lead exposures, the arithmetic mean lead concentration at the exposure point should be used as the EPC (USEPA, 2007). USEPA recommends use of the arithmetic mean as the EPC because the biokinetic models that are used to characterize lead exposure risks were specifically calibrated to characterize the central tendency (CT) estimate of blood lead exposures. The EPC for lead at AOI-19 (i.e., the arithmetic mean lead concentration) is 790 mg/kg, which is below the USEPA commercial/industrial screening level for lead in soil. This indicates that blood lead levels in full-time adult workers who are assumed to be exposed to soil at this area under future land use conditions would not exceed the threshold criteria described above. Based on this evaluation, lead does not pose any unacceptable risks in media at the Site.

5.3 Multi-Media Risks

Under future use conditions, it is assumed that exposures to more than one medium could occur for commercial/industrial workers and construction workers. The risk estimate that considers all of the exposure media to which a receptor could be exposed is called the cumulative receptor risk. This

section provides an evaluation of cumulative receptor risks associated with potential exposures to multiple exposure media.

The exposure scenarios characterized exposure to each AOI under the premise that exposure to the Site only occurs at that AOI. For example, the commercial worker scenario considers soil exposures at the Site to occur 219 days per year, and that all soil exposure on the days of exposure would occur at a single AOI and, more specifically, to just the surface soil at the AOI, or to just the subsurface soil at the AOI. Therefore, summing receptor risks across multiple AOIs would result in double (or triple or quadruple) counting of risks. For example, summing commercial worker risks across two soil AOIs would effectively result in a risk estimate based on >365 days per year of exposure, or alternatively, an risk estimate based on twice the exposure intensity that is applicable to the scenario. To gauge risks associated with receptor exposures to multiple AOIs of the same medium, an average of the risks for the AOIs under consideration for exposure, weighted by the amount of time spent at each AOI, could be used. However, when considering exposures to multiple AOIs of the same medium, risks would never be greater than the highest ELCR and HI values calculated for any of the AOI considered in the multi-AOI exposures. For these reasons, risk estimates are not summed across AOIs of the same media (for the same reasons, risks are also not summed between surface soil and subsurface soil).

However, the HHRA does consider cumulative receptor risks associated with exposures to more than one type of exposure media, as discussed below.

- As noted in Section 5.2, the trespasser could be exposed to unpaved surface soil and storm water. Cumulative risks for these combined exposures were within the risk range and below a HI of 1.
- Future construction workers could be exposed to soil, NAPL at AOI-15, and to groundwater and vapors that may migrate from groundwater to air within deep excavations. The cancer risk (1×10^{-6}) associated with groundwater exposures do not add appreciably to the risks for any of the soil AOIs, indicating that cumulative risks for these exposures would not result in risks that exceed the risk range. The HI of 1 for groundwater, when added to the highest soil HI among all AOIs (HI of 0.4 for subsurface soil at AOI 2) does not result in a HI greater than 1. Risks for potential exposures to NAPL at AOI-15 were above EPA risk limits; summing risks for any soil AOIs and/or groundwater with risks for NAPL would yield cumulative risks in excess of USEPA risk limits.
- Future commercial workers would primarily work indoors or outdoors, such that full-time contact with soil, and full-time contact with indoor air, would not occur to the same receptor. However, the cancer risk cancer risk (3×10^{-7}) and HI (0.002) associated with vapor intrusion inhalation exposures in future buildings (constructed over groundwater VOC sources) do not add appreciably to the risks for any of the soil AOIs, indicating that cumulative risks for these exposures would not result in risks that exceed the risk range of a HI of 1. Risks for potential exposures to indoor air at AOI 28 and/or NAPL at AOI-01 were above EPA risk limits; summing risks for any soil AOIs and/or vapors from groundwater with risks for AOI 28 indoor air or NAPL would yield cumulative risks in excess of USEPA risk limits.

Risk management decisions pertaining to response actions are often made on an AOI and medium-specific basis, by considering the risks posed by specific AOIs and media. At many sites, one or two exposure media often contribute the majority of cumulative receptor risks, and response actions are therefore focused on those media. At this Site, risks in excess of the risk range of 10^{-6} to 10^{-4} or in excess of an HI of 1, are associated with the following AOIs/media:

- AOI-01 subsurface soil
- AOI-28 sub-slab soil gas (evaluated as a future source of vapors to indoor air at AOI 28)
- NAPL at AOI-01 that exists on interior surfaces of the Calender Basement
- NAPL at AOI-15

Response actions will likely be required for these AOIs regardless of additional risks associated with cumulative multi-media exposures.

5.4 Uncertainty Analysis

This section identifies and discusses uncertainties in the risk assessment. These uncertainties are identified in order to place the results in context or perspective. Unlike some other assessments, risk assessments rely not just on measured or certain facts, but also on assumptions and estimates, and also policy decisions, in the face of limited or nonexistent data. Historically, risk assessments have used highly conservative assumptions in the place of unavailable data, with the net result often being a substantial overestimation of potential risks. Consequently, the interpretation of risk estimates should be performed with the understanding that risk estimates are conservative values resulting from multiple layers of assumptions inherent in the risk assessment process, with the objective of erring on the side of overestimating risks, rather than underestimating risks, in the interest of protecting public health.

The following types of uncertainties should be considered in any human-health risk evaluation:

- Uncertainties in the nature and extent of the release of a COPC;
- Uncertainties associated with estimating the frequency, duration, and magnitude of possible exposure;
- Uncertainties associated with assigning exposure parameters to a heterogeneous population that includes both men and women and young and old (e.g., BW and ingestion rates);
- Uncertainties in estimating CSFs and URs and/or non-carcinogenic measures of toxicity (e.g., RfDs or RfCs); and
- Uncertainties about possible synergistic or antagonistic chemical interactions of a chemical mixture.

These generic uncertainties, which are applicable to all risk assessments, are not evaluated in this uncertainty analysis. Rather, this uncertainty analysis evaluates site-specific uncertainties that could have a bearing on the interpretation of the risk assessment results. These include the following:

Groundwater Vapor Intrusion COPC Selection

COPCs identified in groundwater to evaluate vapor intrusion were selected using VISLs that are protective for migration to indoor air. The same COPCs were also evaluated for migration of vapors to ambient air in an excavation trench. These two migration processes are different. However, a comparison of EPCs for the groundwater to indoor air and groundwater to excavation trench air scenarios (Table 18) shows that EPCs for vapor migration to indoor air are approximately one order of magnitude more conservative than those associated with migration of vapor to trench air. Therefore, the use of VISLs to select COPCs is protective for both of these vapor migration exposure pathways.

Use of Maximum Concentration as EPC

For the majority of AOIs, the maximum concentrations were used at the EPCs. Although risks for those AOIs do not exceed EPA risk limits, it is important to recognize that the risks based on maximum concentrations are overestimates of potential risk. Exposures do not occur at discrete locations, as is represented by using the maximum concentration as the EPC. The 95% UCL values provide more representative estimates of potential exposure; risks associated with EPCs based on 95% UCL values would be lower than those reported in this HHRA.

Lack of Dose-Response Values

Inhalation RfC values are lacking for the majority of COPCs. However, dust and vapor inhalation exposure pathways contribute negligible risks compared to ingestion and dermal contact pathways. In addition, for VOCs that were generally detected at the highest concentrations in soil (BTEX; trichloroethene, tetrachloroethene), RfC values are available. Consequently, lack of inhalation RfC values is not likely to result in an underestimation of potential risks that would change the conclusions of the HHRA.

No dose-response values were available for carbazole,1,3-dichlorobenzene,and methyl cyclohexane. These constituents were detected at low frequency and low concentration, and were retained as COPCs due to lack of RSL values. Given their low detection frequency and concentration, it is unlikely that these constituents would appreciably add to risks that were quantified for other COPCs.

Future Vapor Intrusion

The soil gas data for samples collected at AOI-28 were used to evaluate the potential for health risks associated with future full-time worker exposure to the indoor air. Sub-slab soil gas concentrations were combined with an attenuation factor of 0.01 to estimate potential future indoor air concentrations. This attenuation factor is likely to be conservative, as actual indoor air concentrations and sub-slab soil gas concentrations suggest an attenuation factor one to four orders of magnitude lower.

Dose-response Values for Di-methyl-phthalate and Thallium

USEPA publishes a chronic screening RfD for dimethylphthalate of 0.1 mg/kg/day as a PPRTV, and a screening RfD for thallium of 0.00001 mg/kg for thallium. These RfDs

are not intended to be used to quantify risks in support of risk management decisions. Dimethylphthalate was not detected in subsurface soil, and was detected in surface soil infrequently and at a concentration of only 0.07 mg/kg. A industrial use screening level associated with a hazard index of 0.1, using this RfD, would be over 1,000 mg/kg, indicating that dimethylphthalate is not an exposure concern at the Site. Thallium was retained as a COPC in storm water. The maximum detected concentration of thallium (0.56 ug/L) was only slightly higher than the tapwater RSL that was derived using this screening RfD (0.16 ug/L). Given that potential exposures to storm water are associated with intakes orders of magnitude lower than those upon which tapwater RSLs are derived, thallium would not represent an exposure concern in storm water.

6. BASELINE RISK ASSESSMENT SUMMARY AND CONCLUSIONS

The HHRA characterized cancer and non-cancer risks associated with potential exposures to soil, storm water, and groundwater under current and possible future commercial/industrial land uses.

Under current land use conditions, the results of the HHRA indicate that for adolescent trespassers who may contact unpaved soil and storm water, and for adult maintenance workers who may contact unpaved soil, cancer risks are within the cancer risk range of 10^{-6} to 10^{-4} and non-cancer HI values do not exceed 1. In addition, under the current and continuing use conditions, there are no complete vapor intrusion exposure pathways associated with the Site.

Future use of the Site will be commercial/industrial; the use will be stipulated in a deed restriction that prevents residential development of the Site to occur.

The HHRA evaluated health risks associated with future land use under the assumption that:

- Existing pavement and buildings are removed, thereby making soil accessible for exposure;
- Subsurface soil could be excavated and placed on the ground surface (i.e., becoming surface soil), thereby making is accessible for exposure; and
- Commercial/industrial buildings could be constructed over groundwater containing elevated concentrations of VOCs, thereby making the vapor intrusion exposure pathway potentially complete for future on-property buildings;

The HHRA characterized future land use cancer and non-cancer risks for:

- Future full-time outdoor commercial workers under the assumption that exposure to surface soil and subsurface soil by direct contact and dust and vapor inhalation pathways are complete,
- Future construction workers under the assumption that exposure to surface soil and subsurface soil by direct contact and dust and vapor inhalation exposure pathways are complete, as well direct contact and inhalation exposures to groundwater under the assumption that deep excavation activities are performed, and dermal exposure to NAPL that could be encountered during excavation activities; and
- Future full-time indoor commercial workers under the assumption that: 1) inhalation exposure to vapor in indoor air occurs in new buildings are constructed over groundwater with VOCs, 2) sub-slab soil gas at AOI 28 migrates into the existing building, and 3) contact with NAPL in the Calender Basement occurs.

The results of the HHRA indicate that cancer risks are below or within the excess lifetime cancer risk range of 10^{-6} to 10^{-4} and non-cancer hazard index values are below 1, for all future land use receptor scenarios evaluated, with the exception of:

- Subsurface soils associated with AOI-01,
- Soil gas associated with AOI 28,

- NAPL in the Calender Basement associated with AOI-01, and
- NAPL associated with AOI-15.

The risks associated with AOI-01 subsurface soils and NAPL in the Calender Basement at AOI-01 are attributable to Aroclor-1242. The risks associated with NAPL at AOI-15 are attributable to Aroclor-1242 and bis(2-ethyhexyl)phthalate. The risks associated with soil gas at AOI 28 are attributable to tetrachloroethene and trichloroethene under the assumption that soil gas migrates to indoor air. This indicates that, aside from soil gas associated with AOI 28, subsurface soil and NAPL associated with AOI-01, and NAPL associated with AOI-15, commercial/industrial use of the Site can occur without restriction.

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TABLE 1
SUMMARY OF SURFACE SOIL DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Industrial RSL (2)		Selected as	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Inorganic Compounds													
Antimony	7440-36-0	mg/kg	36	41	53%	0.5	0.5	0.03	**92.5**	41	nc	yes	ASL
Arsenic	7440-38-2	mg/kg	-	77	100%	0.1	0.1	0.19	**15.9**	1.6	c	yes	ASL
Barium	7440-39-3	mg/kg	-	77	100%	1	5	2.43	399	19000	nc	no	BSL
Beryllium	7440-41-7	mg/kg	4	73	95%	0.2	0.2	0.02	1.48	200	nc	no	BSL
Cadmium	7440-43-9	mg/kg	1	76	99%	0.2	0.2	0.03	21.5	80	nc	no	BSL
Chromium Total	7440-47-3	mg/kg	1	174	99%	0.5	2	0.62	**810**	5.6	c	yes	ASL
Cobalt	7440-48-4	mg/kg	-	77	100%	0.5	0.5	0.42	10.6	30	nc	no	BSL
Copper	7440-50-8	mg/kg	-	77	100%	1	1	0.46	215	4100	nc	no	BSL
Cyanide Total	57-12-5	mg/kg	70	7	9%	0.1	0.1	0.3	0.8	14	nc	no	BSL
Lead	7439-92-1	mg/kg	1	174	99%	0.3	3	1.01	**3140**	** 800	nc	yes	ASL
Manganese	7439-96-5	mg/kg	-	77	100%	0.5	5	20.9	1040	2300	nc	no	BSL
Mercury	7439-97-6	mg/kg	14	63	82%	0.05	0.05	0.01	2.664	31	nc	no	BSL
Nickel	7440-02-0	mg/kg	-	77	100%	0.5	0.5	0.66	63.7	2000	nc	no	BSL
Selenium	7782-49-2	mg/kg	23	54	70%	0.5	0.5	0.11	3.19	510	nc	no	BSL
Silver	7440-22-4	mg/kg	54	23	30%	0.2	0.2	0.03	0.45	510	nc	no	BSL
Thallium	7440-28-0	mg/kg	56	21	27%	0.5	0.5	0.05	0.35	1.0	nc	no	BSL
Vanadium	7440-62-2	mg/kg	1	76	99%	0.5	0.5	0.68	17.3	520	nc	no	BSL
Zinc	7440-66-6	mg/kg	-	77	100%	1	1	1.92	391	31000	nc	no	BSL
Other													
Total Solids	TSOLIDS	%	-	150	100%	1	100	70	99	-	-	-	-
PCBs													
Aroclor-1016 (PCB-1016)	12674-11-2	mg/kg	47	-	0%	0.33	1	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	11104-28-2	mg/kg	47	-	0%	0.33	1	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	11141-16-5	mg/kg	47	-	0%	0.33	1	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	46	1	2%	0.3	1	0.03	0.03	0.74	c	no	BSL
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	35	12	26%	0.3	1	0.02	**4.7**	0.74	c	yes	ASL
Aroclor-1254 (PCB-1254)	11097-69-1	mg/kg	47	-	0%	0.33	1	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	11096-82-5	mg/kg	47	-	0%	0.33	1	-	-	-	-	-	-
Semi-Volatile Organic Compounds													
2,2'-oxybis(1-Chloropropane)	108-60-1	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
2,4,5-Trichlorophenol	95-95-4	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
2,4,6-Trichlorophenol	88-06-2	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
2,4-Dichlorophenol	120-83-2	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
2,4-Dimethylphenol	105-67-9	mg/kg	140	1	1%	0.33	9.26	0.4	0.4	1200	nc	no	BSL
2,4-Dinitrophenol	51-28-5	mg/kg	141	-	0%	0.67	9.26	-	-	-	-	-	-
2,4-Dinitrotoluene	121-14-2	mg/kg	140	1	1%	0.3	9.26	0.2	0.2	5.5	c	no	BSL
2,6-Dinitrotoluene	606-20-2	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
2-Chloronaphthalene	91-58-7	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
2-Chlorophenol	95-57-8	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
2-Methylnaphthalene	91-57-6	mg/kg	123	18	13%	0.3	9.26	0.03	1.65	220	nc	no	BSL
2-Methylphenol	95-48-7	mg/kg	140	1	1%	0.33	9.26	4.49	4.49	3100	nc	no	BSL
2-Nitroaniline	88-74-4	mg/kg	140	1	1%	0.43	9.26	0.06	0.06	600	nc	no	BSL
2-Nitrophenol	88-75-5	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
3&4-Methylphenol	3/4-CRESOL	mg/kg	138	2	1%	0.3	9.26	0.03	3.12	3100	nc	no	BSL
3,3'-Dichlorobenzidine	91-94-1	mg/kg	140	1	1%	0.3	9.26	0.2	0.2	3.8	c	no	BSL
3-Nitroaniline	99-09-2	mg/kg	141	-	0%	0.43	9.26	-	-	-	-	-	-

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Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Industrial RSL (2)		Selected as	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Semi-Volatile Organic Compounds (con't.)													
4,6-Dinitro-2-methylphenol	534-52-1	mg/kg	141	-	0%	0.43	9.26	-	-	-	-	-	-
4-Bromophenyl phenyl ether	101-55-3	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
4-Chloro-3-methylphenol	59-50-7	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
4-Chloroaniline	106-47-8	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
4-Methylphenol	106-44-5	mg/kg	1	-	0%	0.38	0.38	-	-	-	-	-	-
4-Nitroaniline	100-01-6	mg/kg	141	-	0%	0.43	9.26	-	-	-	-	-	-
4-Nitrophenol	100-02-7	mg/kg	141	-	0%	0.43	9.26	-	-	-	-	-	-
Acenaphthene	83-32-9	mg/kg	132	9	6%	0.3	9.26	0.014	0.2	3300	nc	no	BSL
Acenaphthylene	208-96-8	mg/kg	139	2	1%	0.3	9.26	0.05	0.06	1700	nc	no	BSL
Acetophenone	98-86-2	mg/kg	141	-	0%	0.076	9.26	-	-	-	-	-	-
Anthracene	120-12-7	mg/kg	124	17	12%	0.3	9.26	0.03	1	17000	nc	no	BSL
Atrazine	1912-24-9	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Benzaldehyde	100-52-7	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Benzo(a)anthracene	56-55-3	mg/kg	96	45	32%	0.3	9.26	0.02	**6.09**	2.1	c	yes	ASL
Benzo(a)pyrene	50-32-8	mg/kg	88	53	38%	0.3	9.26	0.022	**5.94**	0.21	c	yes	ASL
Benzo(b)fluoranthene	205-99-2	mg/kg	87	54	38%	0.3	9.26	0.03	**6.15**	2.1	c	yes	ASL
Benzo(g,h,i)perylene	191-24-2	mg/kg	99	42	30%	0.3	9.26	0.02	1.82	1700	nc	no	BSL
Benzo(k)fluoranthene	207-08-9	mg/kg	90	51	36%	0.3	9.26	0.014	5.61	21	c	no	BSL
Biphenyl	92-52-4	mg/kg	138	3	2%	0.3	9.26	0.06	0.1	21	nc	no	BSL
bis(2-Chloroethoxy)methane	111-91-1	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
bis(2-Chloroethyl)ether	111-44-4	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	114	27	19%	0.33	9.26	0.33	**160**	120	c	yes	ASL
Butyl benzylphthalate	85-68-7	mg/kg	131	10	7%	0.3	9.26	0.02	1.1	910	c	no	BSL
Caprolactam	105-60-2	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Carbazole	86-74-8	mg/kg	134	7	5%	0.3	9.26	0.04	**0.3**	NA	-	yes	NSL
Chrysene	218-01-9	mg/kg	86	55	39%	0.3	9.26	0.02	6.09	210	c	no	BSL
Dibenz(a,h)anthracene	53-70-3	mg/kg	137	4	3%	0.3	9.26	0.04	0.04	0.21	c	no	BSL
Dibenzofuran	132-64-9	mg/kg	134	7	5%	0.3	9.26	0.03	0.1	100	nc	no	BSL
Diethyl phthalate	84-66-2	mg/kg	138	3	2%	0.3	9.26	0.06	0.1	49000	nc	no	BSL
Dimethyl phthalate	131-11-3	mg/kg	137	4	3%	0.3	9.26	0.04	**0.07**	NA	-	yes	NSL
Dimethylformamide	68-12-2	mg/kg	20	2	9%	0.3	5.26	0.05	0.062	6200	nc	no	BSL
Di-n-butylphthalate	84-74-2	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Di-n-octyl phthalate	117-84-0	mg/kg	76	65	46%	0.3	9.26	0.02	**918**	740	nc	yes	ASL
Fluoranthene	206-44-0	mg/kg	65	76	54%	0.3	9	0.02	12.4	2200	nc	no	BSL
Fluorene	86-73-7	mg/kg	133	8	6%	0.3	9.26	0.03	0.3	2200	nc	no	BSL
Hexachlorobenzene	118-74-1	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Hexachlorobutadiene	87-68-3	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Hexachlorocyclopentadiene	77-47-4	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Hexachloroethane	67-72-1	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	104	37	26%	0.3	9.26	0.019	1.82	2.1	c	no	BSL
Isophorone	78-59-1	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Naphthalene	91-20-3	mg/kg	128	13	9%	0.3	9.26	0.04	0.4	18	c	no	BSL
Nitrobenzene	98-95-3	mg/kg	141	-	0%	0.2	9.26	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	621-64-7	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
N-Nitrosodiphenylamine	86-30-6	mg/kg	141	-	0%	0.33	9.26	-	-	-	-	-	-
Pentachlorophenol	87-86-5	mg/kg	139	2	1%	0.33	9.26	**3.98**	**30.3**	2.7	c	yes	ASL
Phenanthrene	85-01-8	mg/kg	88	53	38%	0.3	9.26	0.02	4.64	1700	nc	no	BSL
Phenol	108-95-2	mg/kg	137	4	3%	0.3	9.26	0.05	0.3	18000	nc	no	BSL
Pyrene	129-00-0	mg/kg	72	69	49%	0.3	9	0.02	11	1700	nc	no	BSL

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Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	mg/kg	102	1	1%	0.005	0.08	0.0005	0.0005	3800	nc	no	BSL
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	103	-	0%	0.005	0.16	-	-	-	-	-	-
1,1,2-Trichloroethane	79-00-5	mg/kg	103	-	0%	0.005	1.4	-	-	-	-	-	-
1,1-Dichloroethane	75-34-3	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
1,1-Dichloroethene	75-35-4	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	mg/kg	103	-	0%	0.005	0.2	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/kg	103	-	0%	0.01	0.08	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
1,2-Dichlorobenzene	95-50-1	mg/kg	102	1	1%	0.005	0.08	0.004	0.004	980	nc	no	BSL
1,2-Dichloroethane	107-06-2	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
1,2-Dichloropropane	78-87-5	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
1,3-Dichlorobenzene	541-73-1	mg/kg	102	1	1%	0.005	0.08	0.0004	0.0004	NA	-	yes	NSL
1,4-Dichlorobenzene	106-46-7	mg/kg	100	3	3%	0.005	0.08	0.0006	0.003	12	c	no	BSL
2-Butanone (Methyl Ethyl Ketone)	78-93-3	mg/kg	157	33	17%	0.01	9	0.002	1.8	20000	nc	no	BSL
2-Hexanone	591-78-6	mg/kg	103	-	0%	0.01	4	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	108-10-1	mg/kg	101	2	2%	0.01	4	0.001	0.002	5300	nc	no	BSL
Acetone	67-64-1	mg/kg	93	12	11%	0.01	400	0.007	0.2	63000	nc	no	BSL
Benzene	71-43-2	mg/kg	148	33	18%	0.002	40	0.0003	**20**	5.4	c	yes	ASL
Bromodichloromethane	75-27-4	mg/kg	103	-	0%	0.005	0.15	-	-	-	-	-	-
Bromoform	75-25-2	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	74-83-9	mg/kg	103	-	0%	0.005	0.4	-	-	-	-	-	-
Carbon disulfide	75-15-0	mg/kg	91	12	12%	0.005	0.4	0.0003	0.013	370	nc	no	BSL
Carbon tetrachloride	56-23-5	mg/kg	176	3	2%	0.0003	40	0.006	0.018	3	c	no	BSL
Chlorobenzene	108-90-7	mg/kg	102	1	1%	0.005	0.08	0.0009	0.0009	140	nc	no	BSL
Chlorobromomethane	74-97-5	mg/kg	103	-	0%	0.005	0.7	-	-	-	-	-	-
Chloroethane	75-00-3	mg/kg	103	-	0%	0.005	0.4	-	-	-	-	-	-
Chloroform (Trichloromethane)	67-66-3	mg/kg	170	9	5%	0.002	40	0.002	0.006	1.5	c	no	BSL
Chloromethane (Methyl Chloride)	74-87-3	mg/kg	103	-	0%	0.005	0.4	-	-	-	-	-	-
cis-1,2-Dichloroethene	156-59-2	mg/kg	102	1	1%	0.005	0.08	0.004	0.004	200	nc	no	BSL
cis-1,3-Dichloropropene	10061-01-5	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
Cyclohexane	110-82-7	mg/kg	102	1	1%	0.01	0.14	0.48	0.48	2900	nc	no	BSL
Cyclohexanone	108-94-1	mg/kg	71	3	4%	0.02	80	0.067	0.2	310000	nc	no	BSL
Dibromochloromethane	124-48-1	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	75-71-8	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
Dimethylformamide	68-12-2	mg/kg	59	18	23%	0.6	3	27	2900	6200	nc	no	BSL
Ethylbenzene	100-41-4	mg/kg	122	59	33%	0.002	4	0.0004	**200**	27	c	yes	ASL
Ethylene glycol	107-21-1	mg/kg	3	-	0%	11	13	-	-	-	-	-	-
Isopropylbenzene	98-82-8	mg/kg	95	8	8%	0.005	0.08	0.0006	0.255	1100	nc	no	BSL
m&p-Xylene	M/P-XYLENE	mg/kg	58	47	45%	0.005	4	0.0002	**661**	250	nc	yes	ASL
Methyl acetate	79-20-9	mg/kg	95	8	8%	0.01	4	0.002	0.3	100000	nc	no	BSL
Methyl cyclohexane	108-87-2	mg/kg	74	29	28%	0.01	4	0.0003	**18**	NA	-	yes	NSL
Methyl Tert Butyl Ether	1634-04-4	mg/kg	101	2	2%	0.005	0.4	0.03	0.1	220	c	no	BSL
Methylene chloride	75-09-2	mg/kg	171	8	4%	0.005	40	0.008	0.098	310	nc	no	BSL

TABLE 1
SUMMARY OF SURFACE SOIL DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Industrial RSL (2)		Selected as	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Volatile Organic Compounds (con't.)													
Naphthalene	91-20-3	mg/kg	1	1	50%	40	40	0.004	0.004	18	c	no	BSL
n-Propylbenzene	103-65-1	mg/kg	93	10	10%	0.005	0.7	0.0006	0.319	2100	nc	no	BSL
o-Xylene	95-47-6	mg/kg	78	27	26%	0.005	4	0.0002	**302**	300	nc	yes	ASL
Styrene	100-42-5	mg/kg	103	-	0%	0.005	0.09	-	-	-	-	-	-
Tetrachloroethene	127-18-4	mg/kg	159	20	11%	0.002	40	0.0006	12.1	41	nc	no	BSL
Tetrahydrofuran	109-99-9	mg/kg	165	14	8%	0.005	9	0.001	29.4	9500	nc	no	BSL
Toluene	108-88-3	mg/kg	82	99	55%	0.002	4	0.0004	**5190**	4500	nc	yes	ASL
trans-1,2-Dichloroethene	156-60-5	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
trans-1,3-Dichloropropene	10061-02-6	mg/kg	103	-	0%	0.005	0.08	-	-	-	-	-	-
Trichloroethene	79-01-6	mg/kg	166	13	7%	0.002	40	0.0009	5.28	2	nc	yes	ASL
Trichlorofluoromethane (CFC-11)	75-69-4	mg/kg	103	-	0%	0.005	0.2	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	76-13-1	mg/kg	103	-	0%	0.001	0.2	-	-	-	-	-	-
Vinyl chloride	75-01-4	mg/kg	103	-	0%	0.005	0.2	-	-	-	-	-	-
Xylene (total)	1330-20-7	mg/kg	21	57	73%	0.005	0.6	0.004	**963**	270	nc	yes	ASL

Notes and Abbreviations:

(1) Soil samples included in this data summary are identified in Appendix A and represent soil samples collected at depths between 0 and 2 feet below ground surface.

(2) Values are the Regional Screening Levels (RSLs) for USEPA Regions 3, 6, and 9: *Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2012.*
(http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
Values used for screening are the industrial soil RSLs based on the the lesser value for cancer risks equal to 1E-06, or non-cancer risks equal to a hazard index of 0.1 unless noted otherwise.
Inorganic Compounds
Value for antimony is based on the RSL for antimony (metallic).
Value for chromium (total) is based on the RSL for chromium VI.
Value for cyanide (total) is based on the RSL for the cyanide ion CN^-.
**Value for lead is based on the RSL for lead and compounds (non-cancer HI = 1).
Value for mercury is based on the RSL for mercuric chloride (and other mercury salts).
Value for thallium is based on the RSL for thallium (soluble salts).
Semi-Volatile Organic Compounds
Value for 3&4-Methylphenol is based on RSL for o-cresol; this RSL is the low range RSL value identified for cresol isomers.
Value for pyrene is used as a surrogate RSL value for acenaphthylene, benzo(g,h,i)perylene, and phenanthrene.
Volatile Organic Compounds
Value for m&p-Xylene is based on the RSL value for m-xylene; this RSL is the lesser of the RSL values identified for the m- and p-xylene isomers.
Basis
nc - RSL is based on a non-cancer hazard quotient of 0.1.
c - RSL is based on an excess lifetime cancer risk of 1 in 1 million.

(3) Analyte is selected as a COPC if the maximum detected concentration exceeds the RSL or if no screening value is available.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
NSL = No screening value available ; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
FOD = Compound was reported at a very low frequency of detection (less than 5%) and at a very low concentration (e.g., below reporting limits): the analyte was not selected as a COPC.

mg/kg = Milligram per kilogram
COPC = Chemical of potential concern
NA = Not available.
" - " = Not detected/ Not applicable.

TABLE 2
SUMMARY OF SUBSURFACE SOIL DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Industrial RSL (2)		Selected as	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Inorganic Compounds													
Antimony	7440-36-0	mg/kg	85	8	9%	0.5	0.5	0.03	0.37	41	nc	no	BSL
Arsenic	7440-38-2	mg/kg	1	92	100%	0.1	0.1	0.36	**8.41**	1.6	c	yes	ASL
Barium	7440-39-3	mg/kg	-	93	100%	1	1	3.69	122	19000	nc	no	BSL
Beryllium	7440-41-7	mg/kg	3	90	97%	0.2	0.2	0.03	0.7	200	nc	no	BSL
Cadmium	7440-43-9	mg/kg	-	93	100%	0.2	0.2	0.04	0.75	80	nc	no	BSL
Chromium Total	7440-47-3	mg/kg	-	98	100%	0.5	0.5	1.27	**45**	5.6	c	yes	ASL
Cobalt	7440-48-4	mg/kg	-	93	100%	0.5	0.5	0.48	17.7	30	nc	no	BSL
Copper	7440-50-8	mg/kg	-	93	100%	1	1	0.78	25.1	4100	nc	no	BSL
Cyanide Total	57-12-5	mg/kg	91	2	2%	0.1	0.1	0.2	0.2	14	nc	no	BSL
Lead	7439-92-1	mg/kg	-	98	100%	0.3	0.3	1.69	170	** 800	nc	no	BSL
Manganese	7439-96-5	mg/kg	-	93	100%	0.5	0.5	42.9	1460	2300	nc	no	BSL
Mercury	7439-97-6	mg/kg	7	86	92%	0.05	0.05	0.01	0.188	31	nc	no	BSL
Nickel	7440-02-0	mg/kg	-	93	100%	0.5	0.5	1.77	31.8	2000	nc	no	BSL
Selenium	7782-49-2	mg/kg	37	56	60%	0.5	0.5	0.11	1.99	510	nc	no	BSL
Silver	7440-22-4	mg/kg	65	28	30%	0.2	0.2	0.03	0.11	510	nc	no	BSL
Thallium	7440-28-0	mg/kg	32	61	66%	0.5	0.5	0.03	0.28	1	nc	no	BSL
Vanadium	7440-62-2	mg/kg	-	93	100%	0.5	0.5	0.76	18.5	520	nc	no	BSL
Zinc	7440-66-6	mg/kg	-	93	100%	1	1	9.06	91.6	31000	nc	no	BSL
Other													
Total Solids	TSOLIDS	%	-	199	100%	1	100	63	95	-	-	-	-
PCBs													
Aroclor-1016 (PCB-1016)	12674-11-2	mg/kg	64	-	0%	0.043	333	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	11104-28-2	mg/kg	64	-	0%	0.043	333	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	11141-16-5	mg/kg	64	-	0%	0.043	333	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	56	8	13%	0.043	333	0.01	**2167**	0.74	c	yes	ASL
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	61	3	5%	0.043	333	0.01	0.1	0.74	c	no	BSL
Aroclor-1254 (PCB-1254)	11097-69-1	mg/kg	64	-	0%	0.043	333	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	11096-82-5	mg/kg	64	-	0%	0.043	333	-	-	-	-	-	-
Semi-Volatile Organic Compounds													
2,2'-oxybis(1-Chloropropane)	108-60-1	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2,4,5-Trichlorophenol	95-95-4	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2,4,6-Trichlorophenol	88-06-2	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2,4-Dichlorophenol	120-83-2	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2,4-Dimethylphenol	105-67-9	mg/kg	181	3	2%	0.3	6.49	0.04	0.2	1200	nc	no	BSL
2,4-Dinitrophenol	51-28-5	mg/kg	184	-	0%	0.67	8.03	-	-	-	-	-	-
2,4-Dinitrotoluene	121-14-2	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2,6-Dinitrotoluene	606-20-2	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2-Chloronaphthalene	91-58-7	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2-Chlorophenol	95-57-8	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
2-Methylnaphthalene	91-57-6	mg/kg	177	7	4%	0.3	6.49	0.03	8.85	220	nc	no	BSL
2-Methylphenol	95-48-7	mg/kg	178	6	3%	0.3	6.49	0.1	2.83	3100	nc	no	BSL
2-Nitroaniline	88-74-4	mg/kg	184	-	0%	0.64	6.49	-	-	-	-	-	-
2-Nitrophenol	88-75-5	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
3&4-Methylphenol	3/4-CRESOL	mg/kg	176	6	3%	0.3	6.49	0.04	2.79	3100	nc	no	BSL
3,3'-Dichlorobenzidine	91-94-1	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
3-Nitroaniline	99-09-2	mg/kg	184	-	0%	0.64	6.49	-	-	-	-	-	-

TABLE 2
SUMMARY OF SUBSURFACE SOIL DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Industrial RSL (2)		Selected as	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Semi-Volatile Organic Compounds (contined)													
4,6-Dinitro-2-methylphenol	534-52-1	mg/kg	184	-	0%	0.64	6.49	-	-	-	-	-	-
4-Bromophenyl phenyl ether	101-55-3	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
4-Chloro-3-methylphenol	59-50-7	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
4-Chloroaniline	106-47-8	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
4-Methylphenol	106-44-5	mg/kg	2	-	0%	0.42	0.43	-	-	-	-	-	-
4-Nitroaniline	100-01-6	mg/kg	184	-	0%	0.64	6.49	-	-	-	-	-	-
4-Nitrophenol	100-02-7	mg/kg	184	-	0%	0.64	6.49	-	-	-	-	-	-
Acenaphthene	83-32-9	mg/kg	183	1	1%	0.33	6.49	0.42	0.42	3300	nc	no	BSL
Acenaphthylene	208-96-8	mg/kg	183	1	1%	0.3	6.49	0.03	0.03	1700	nc	no	BSL
Acetophenone	98-86-2	mg/kg	184	-	0%	0.084	6.49	-	-	-	-	-	-
Anthracene	120-12-7	mg/kg	183	1	1%	0.33	6.49	1.53	1.53	17000	nc	no	BSL
Atrazine	1912-24-9	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Benzaldehyde	100-52-7	mg/kg	177	7	4%	0.3	6.49	0.06	1	100000	-	no	BSL
Benzo(a)anthracene	56-55-3	mg/kg	182	2	1%	0.3	6.49	0.02	**2.78**	2.1	c	yes	ASL
Benzo(a)pyrene	50-32-8	mg/kg	180	4	2%	0.3	6.49	0.03	**2.45**	0.21	c	yes	ASL
Benzo(b)fluoranthene	205-99-2	mg/kg	183	1	1%	0.33	6.49	**2.9**	**2.9**	2.1	c	yes	ASL
Benzo(g,h,i)perylene	191-24-2	mg/kg	183	1	1%	0.3	6.49	1	1	1700	nc	no	BSL
Benzo(k)fluoranthene	207-08-9	mg/kg	183	1	1%	0.33	6.49	2.23	2.23	21	c	no	BSL
Biphenyl	92-52-4	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	111-91-1	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
bis(2-Chloroethyl)ether	111-44-4	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	167	17	9%	0.33	6.49	0.061	**598**	120	c	yes	ASL
Butyl benzylphthalate	85-68-7	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Caprolactam	105-60-2	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Carbazole	86-74-8	mg/kg	183	1	1%	0.3	6.49	0.3	0.3	NA	-	yes	NSL
Chrysene	218-01-9	mg/kg	179	5	3%	0.3	6.49	0.03	3.99	210	c	no	BSL
Dibenz(a,h)anthracene	53-70-3	mg/kg	183	1	1%	0.3	6.49	0.1	0.1	0.21	c	no	BSL
Dibenzofuran	132-64-9	mg/kg	183	1	1%	0.3	6.49	0.3	0.3	100	nc	no	BSL
Diethyl phthalate	84-66-2	mg/kg	177	7	4%	0.3	6.49	0.03	3.33	49000	nc	no	BSL
Dimethyl phthalate	131-11-3	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Dimethylformamide	68-12-2	mg/kg	39	4	9%	0.33	6.76	0.55	89.9	6200	nc	no	BSL
Di-n-butylphthalate	84-74-2	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Di-n-octyl phthalate	117-84-0	mg/kg	109	75	41%	0.3	6.49	0.03	**2900**	740	nc	yes	ASL
Fluoranthene	206-44-0	mg/kg	180	4	2%	0.3	6.49	0.03	10.1	2200	nc	no	BSL
Fluorene	86-73-7	mg/kg	181	3	2%	0.33	6.49	0.75	1	2200	nc	no	BSL
Hexachlorobenzene	118-74-1	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Hexachlorobutadiene	87-68-3	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Hexachlorocyclopentadiene	77-47-4	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Hexachloroethane	67-72-1	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	183	1	1%	0.33	6.49	1.06	1.06	2.1	c	no	BSL
Isophorone	78-59-1	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Naphthalene	91-20-3	mg/kg	183	1	1%	0.3	6.49	0.09	0.09	18	c	no	BSL
Nitrobenzene	98-95-3	mg/kg	184	-	0%	0.2	6.49	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	621-64-7	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
N-Nitrosodiphenylamine	86-30-6	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Pentachlorophenol	87-86-5	mg/kg	184	-	0%	0.33	6.49	-	-	-	-	-	-
Phenanthrene	85-01-8	mg/kg	177	7	4%	0.3	6.49	0.02	7.33	1700	nc	no	BSL
Phenol	108-95-2	mg/kg	183	1	1%	0.3	6.49	0.08	0.08	18000	nc	no	BSL
Pyrene	129-00-0	mg/kg	179	5	3%	0.3	6.49	0.03	6.13	1700	nc	no	BSL

TABLE 2
SUMMARY OF SUBSURFACE SOIL DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Industrial RSL (2)		Selected as	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
1,1,2-Trichloroethane	79-00-5	mg/kg	147	-	0%	0.005	9	-	-	-	-	-	-
1,1-Dichloroethane	75-34-3	mg/kg	146	1	1%	0.005	80	0.002	0.002	17	-	no	BSL
1,1-Dichloroethene	75-35-4	mg/kg	146	1	1%	0.005	80	0.001	0.001	1100	-	no	BSL
1,2,4-Trichlorobenzene	120-82-1	mg/kg	146	1	1%	0.005	70	0.15	0.15	99	-	no	BSL
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	mg/kg	147	-	0%	0.01	80	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
1,2-Dichlorobenzene	95-50-1	mg/kg	146	1	1%	0.005	80	0.002	0.002	980	nc	no	BSL
1,2-Dichloroethane	107-06-2	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
1,2-Dichloropropane	78-87-5	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
1,3-Dichlorobenzene	541-73-1	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
1,4-Dichlorobenzene	106-46-7	mg/kg	145	2	1%	0.005	80	0.0005	0.001	12	c	no	BSL
2-Butanone (Methyl Ethyl Ketone)	78-93-3	mg/kg	123	24	16%	0.01	600	0.002	0.09	20000	nc	no	BSL
2-Hexanone	591-78-6	mg/kg	147	-	0%	0.007	70	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	108-10-1	mg/kg	145	2	1%	0.01	70	0.0007	0.01	5300	nc	no	BSL
Acetone	67-64-1	mg/kg	132	15	10%	0.01	600	0.01	8	63000	nc	no	BSL
Benzene	71-43-2	mg/kg	133	22	14%	0.005	80	0.001	**6.8**	5.4	c	yes	ASL
Bromodichloromethane	75-27-4	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Bromoform	75-25-2	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	74-83-9	mg/kg	147	-	0%	0.005	7.5	-	-	-	-	-	-
Carbon disulfide	75-15-0	mg/kg	133	14	10%	0.005	7.5	0.0003	0.004	370	nc	no	BSL
Carbon tetrachloride	56-23-5	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Chlorobenzene	108-90-7	mg/kg	144	3	2%	0.005	80	0.0004	0.0008	140	nc	no	BSL
Chlorobromomethane	74-97-5	mg/kg	145	-	0%	0.005	80	-	-	-	-	-	-
Chloroethane	75-00-3	mg/kg	147	-	0%	0.005	7.5	-	-	-	-	-	-
Chloroform (Trichloromethane)	67-66-3	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Chloromethane (Methyl Chloride)	74-87-3	mg/kg	147	-	0%	0.005	7.5	-	-	-	-	-	-
cis-1,2-Dichloroethene	156-59-2	mg/kg	146	1	1%	0.005	80	0.002	0.002	200	nc	no	BSL
cis-1,3-Dichloropropene	10061-01-5	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Cyclohexane	110-82-7	mg/kg	140	7	5%	0.01	80	0.02	24.6	2900	nc	no	BSL
Dibromochloromethane	124-48-1	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	75-71-8	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Dimethylformamide	68-12-2	mg/kg	1	2	67%	1	1	1.9	2.8	6200	nc	no	BSL
Ethylbenzene	100-41-4	mg/kg	123	32	21%	0.005	80	0.0003	**2200**	27	c	yes	ASL
Ethylene glycol	107-21-1	mg/kg	3	-	0%	12	13	-	-	-	-	-	-
Isopropylbenzene	98-82-8	mg/kg	99	48	33%	0.005	80	0.0006	3.9	1100	nc	no	BSL
Methyl acetate	79-20-9	mg/kg	146	1	1%	0.01	70	0.03	0.03	100000	nc	no	BSL
Methyl cyclohexane	108-87-2	mg/kg	96	51	35%	0.01	80	0.0005	**56.6**	NA	-	yes	NSL
Methyl Tert Butyl Ether	1634-04-4	mg/kg	135	12	8%	0.005	7	0.001	0.2	220	c	no	BSL
Methylene chloride	75-09-2	mg/kg	147	-	0%	0.005	7.5	-	-	-	-	-	-

TABLE 2
SUMMARY OF SUBSURFACE SOIL DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Industrial RSL (2)		Selected as	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	a COPC? (3)	
Volatile Organic Compounds (continued)													
m-xylene	108-38-3	mg/kg	-	5	100%	0.005	80	8	**5600**	250	nc	yes	ASL
n-Propylbenzene	103-65-1	mg/kg	97	48	33%	0.005	80	0.0004	5	2100	nc	no	BSL
o-Xylene	95-47-6	mg/kg	133	29	18%	0.005	80	0.0003	**2900**	300	nc	yes	ASL
p-Xylene	106-42-3	mg/kg	-	5	100%	0.005	80	0.306	**2300**	260	nc	yes	ASL
Styrene	100-42-5	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Tetrachloroethene	127-18-4	mg/kg	138	9	6%	0.005	80	0.0006	0.12	41	nc	no	BSL
Tetrahydrofuran	109-99-9	mg/kg	128	17	12%	0.005	800	0.007	5500	9500	nc	no	BSL
Toluene	108-88-3	mg/kg	119	36	23%	0.005	80	0.0003	**56800**	4500	nc	yes	ASL
trans-1,2-Dichloroethene	156-60-5	mg/kg	146	1	1%	0.005	80	0.0008	0.0008	690	-	no	BSL
trans-1,3-Dichloropropene	10061-02-6	mg/kg	147	-	0%	0.005	80	-	-	-	-	-	-
Trichloroethene	79-01-6	mg/kg	141	6	4%	0.005	80	0.001	0.208	2	nc	no	BSL
Trichlorofluoromethane (CFC-11)	75-69-4	mg/kg	147	-	0%	0.005	70	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	76-13-1	mg/kg	147	-	0%	0.001	70	-	-	-	-	-	-
Vinyl chloride	75-01-4	mg/kg	147	-	0%	0.005	70	-	-	-	-	-	-
Xylene (total)	1330-20-7	mg/kg	1	9	90%	15	5.7	12.1	**10800**	270	nc	yes	ASL

Notes and Abbreviations:
(1) Soil samples included in this data summary are identified in Appendix A and represent soil samples collected at depths between 0 and 2 feet below ground surface.
(2) Values are the Regional Screening Levels (RSLs) for USEPA Regions 3, 6, and 9: *Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2012.*
(http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
Values used for screening are the industrial soil RSLs based on the the lesser value for cancer risks equal to 1E-06, or non-cancer risks equal to a hazard index of 0.1 unless noted otherwise.
Inorganic Compounds
Value for antimony is based on the RSL for antimony (metallic).
Value for chromium (total) is based on the RSL for chromium VI.
Value for cyanide (total) is based on the RSL for the cyanide ion CN^-.
**Value for lead is based on the RSL for lead and compounds (non-cancer HI = 1).
Value for mercury is based on the RSL for mercuric chloride (and other mercury salts).
Value for thallium is based on the RSL for thallium (soluble salts).
Semi-Volatile Organic Compounds
Value for 3&4-Methylphenol is based on the RSL value for o-cresol; this RSL represents the low range of the RSL values identified for cresol isomers.
Value for pyrene is used as a surrogate RSL value for acenaphthylene, benzo(g,h,i)perylene, and phenanthrene.
Volatile Organic Compounds
Value for m&p-Xylene is based on the RSL value for m-xylene; this RSL is the lesser of the RSL values identified for the m- and p-xylene isomers.
Basis
nc - RSL is based on a non-cancer hazard quotient of 0.1.
c - RSL is based on an excess lifetime cancer risk of 1 in 1 million.
(3) Analyte is selected as a COPC if the maximum detected concentration exceeds the RSL or if no screening value is available.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
NSL = No screening value available ; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
FOD = Compound was reported at a very low frequency of detection (less than 5%) and at a very low concentration (e.g., below reporting limits): the analyte was not selected as a COPC.

mg/kg = Milligram per kilogram.
COPC = Chemical of potential concern
NA = Not available.
" - " = Not detected/ Not applicable.

TABLE 3
SUMMARY OF STORM WATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Inorganic Compounds													
Antimony	7440-36-0	ug/L	0	8	100%	-	-	2	**23**	6	nc	yes	ASL
Arsenic	7440-38-2	ug/L	2	6	75%	**2**	**2**	**1.3**	**4.2**	0.045	c	yes	ASL
Barium	7440-39-3	ug/L	0	8	100%	-	-	37	348	2900	nc	no	BSL
Beryllium	7440-41-7	ug/L	8	0	0%	1	1	-	-	-	-	-	-
Cadmium	7440-43-9	ug/L	7	1	13%	0.5	1	5	5	6.9	nc	no	BSL
Chromium Total	7440-47-3	ug/L	3	5	63%	**2**	**2**	**1.2**	**6**	0.031	c	yes	ASL
Cobalt	7440-48-4	ug/L	5	3	38%	1	**5**	0.12	0.46	4.7	nc	no	BSL
Copper	7440-50-8	ug/L	0	8	100%	-	-	1.5	5	620	nc	no	BSL
Cyanide Total	57-12-5	ug/L	8	0	0%	5	**10**	-	-	-	-	-	-
Lead	7439-92-1	ug/L	4	4	50%	1	3	0.22	9	** 15	nc	no	BSL
Manganese	7439-96-5	ug/L	0	8	100%	-	-	7.6	206	320	nc	no	BSL
Mercury	7439-97-6	ug/L	8	0	0%	0.1	0.2	-	-	-	-	-	-
Nickel	7440-02-0	ug/L	0	8	100%	-	-	0.4	6	300	nc	no	BSL
Selenium	7782-49-2	ug/L	2	6	75%	5	5	0.58	4	78	nc	no	BSL
Silver	7440-22-4	ug/L	8	0	0%	0.5	1	-	-	-	-	-	-
Thallium	7440-28-0	ug/L	5	3	38%	**1**	**1**	**0.2**	**0.56**	0.16	nc	yes	ASL
Vanadium	7440-62-2	ug/L	1	7	88%	4	4	0.61	3	78	nc	no	BSL
Zinc	7440-66-6	ug/L	4	4	50%	20	20	11	449	4700	nc	no	BSL
PCB Aroclors													
Aroclor-1016 (PCB-1016)	12674-11-2	ug/L	12	0	0%	0.1	0.5	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	11104-28-2	ug/L	12	0	0%	**0.1**	**0.5**	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	11141-16-5	ug/L	12	0	0%	**0.1**	**0.5**	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	53469-21-9	ug/L	9	3	25%	**0.1**	**0.5**	**0.2**	**2**	0.034	c	yes	ASL
Aroclor-1248 (PCB-1248)	12672-29-6	ug/L	9	3	25%	**0.1**	**0.48**	**1.3**	**5**	0.034	c	yes	ASL
Aroclor-1254 (PCB-1254)	11097-69-1	ug/L	12	0	0%	**0.1**	**0.5**	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	11096-82-5	ug/L	12	0	0%	**0.1**	**0.5**	-	-	-	-	-	-
PCB Homologs													
Monochlorobiphenyls C12H9Cl	27323-18-8	ug/L	4	0	0%	0.094	0.1	-	-	-	-	-	-
Dichlorobiphenyls C12H8Cl2	25512-42-9	ug/L	3	1	25%	0.094	0.1	0.088	0.088	0.17	c	no	BSL
Trichlorobiphenyls C12H7Cl3	25323-68-6	ug/L	3	1	25%	0.094	0.1	0.25	0.25	0.17	c	yes	ASL
Tetrachlorobiphenyls C12H6Cl4	26914-33-0	ug/L	3	1	25%	0.19	0.2	0.44	0.44	0.0017	c	yes	ASL
Pentachlorobiphenyls C12H5Cl5	25429-29-2	ug/L	3	1	25%	0.19	0.2	0.034	0.034	0.017	c	yes	ASL
Hexachlorobiphenyls C12 H4 Cl6	26601-64-9	ug/L	4	0	0%	0.19	0.2	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	28655-71-2	ug/L	4	0	0%	0.28	0.3	-	-	-	-	-	-
Octachlorobiphenyls C12H2Cl8	55722-26-4	ug/L	4	0	0%	0.28	0.3	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	53742-07-7	ug/L	4	0	0%	0.47	0.5	-	-	-	-	-	-
Decachlorobiphenyls C12Cl10	2051-24-3	ug/L	4	0	0%	0.47	0.5	-	-	-	-	-	-
Semi-Volatile Organic Compounds													
2,2'-oxybis(1-Chloropropane)	108-60-1	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
2,4,5-Trichlorophenol	95-95-4	ug/L	8	0	0%	4.8	10	-	-	-	-	-	-
2,4,6-Trichlorophenol	88-06-2	ug/L	8	0	0%	**4.8**	**10**	-	-	-	-	-	-
2,4-Dichlorophenol	120-83-2	ug/L	8	0	0%	1.9	10	-	-	-	-	-	-
2,4-Dimethylphenol	105-67-9	ug/L	8	0	0%	1.9	10	-	-	-	-	-	-
2,4-Dinitrophenol	51-28-5	ug/L	8	0	0%	4.8	20	-	-	-	-	-	-
2,4-Dinitrotoluene	121-14-2	ug/L	8	0	0%	**4.8**	**10**	-	-	-	-	-	-
2,6-Dinitrotoluene	606-20-2	ug/L	8	0	0%	4.8	10	-	-	-	-	-	-
2-Chloronaphthalene	91-58-7	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
2-Chlorophenol	95-57-8	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
2-Methylnaphthalene	91-57-6	ug/L	8	0	0%	0.19	10	-	-	-	-	-	-
2-Methylphenol	95-48-7	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
2-Nitroaniline	88-74-4	ug/L	8	0	0%	1.9	20	-	-	-	-	-	-

TABLE 3
SUMMARY OF STORM WATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Semi-Volatile Organic Compounds (continued)													
2-Nitrophenol	88-75-5	ug/L	8	0	0%	1.9	10	-	-	-	-	-	-
3&4-Methylphenol	3/4-CRESOL	ug/L	8	0	0%	1.9	10	-	-	-	-	-	-
3,3'-Dichlorobenzidine	91-94-1	ug/L	8	0	0%	**4.8**	**10**	-	-	-	-	-	-
3-Nitroaniline	99-09-2	ug/L	8	0	0%	1.9	20	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	534-52-1	ug/L	8	0	0%	**4.8**	**20**	-	-	-	-	-	-
4-Bromophenyl phenyl ether	101-55-3	ug/L	8	0	0%	1.9	10	-	-	-	-	-	-
4-Chloro-3-methylphenol	59-50-7	ug/L	8	0	0%	1.9	10	-	-	-	-	-	-
4-Chloroaniline	106-47-8	ug/L	8	0	0%	**1.9**	**10**	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	7005-72-3	ug/L	8	0	0%	1.9	10	-	-	-	-	-	-
4-Nitroaniline	100-01-6	ug/L	8	0	0%	1.9	**20**	-	-	-	-	-	-
4-Nitrophenol	100-02-7	ug/L	8	0	0%	4.8	20	-	-	-	-	-	-
Acenaphthene	83-32-9	ug/L	7	1	13%	0.19	3	6	6	400	nc	no	BSL
Acenaphthylene	208-96-8	ug/L	8	0	0%	0.19	10	-	-	-	-	-	-
Acetophenone	98-86-2	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
Anthracene	120-12-7	ug/L	7	1	13%	0.19	3	6	6	1300	nc	no	BSL
Atrazine	1912-24-9	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
Benzaldehyde	100-52-7	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
Benzo(a)anthracene	56-55-3	ug/L	6	2	25%	**0.19**	**3**	**0.18**	**27**	0.029	c	yes	ASL
Benzo(a)pyrene	50-32-8	ug/L	6	2	25%	**0.19**	**3**	**0.19**	**35**	0.0029	c	yes	ASL
Benzo(b)fluoranthene	205-99-2	ug/L	6	2	25%	**0.19**	**3**	**0.35**	**35**	0.029	c	yes	ASL
Benzo(g,h,i)perylene	191-24-2	ug/L	6	2	25%	0.19	3	0.17	21	87	nc	no	BSL
Benzo(k)fluoranthene	207-08-9	ug/L	6	2	25%	0.19	**3**	0.16	**35**	0.29	c	yes	ASL
Biphenyl	92-52-4	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	111-91-1	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
bis(2-Chloroethyl)ether	111-44-4	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	117-81-7	ug/L	8	0	0%	**1.9**	**10**	-	-	-	-	-	-
Butyl benzylphthalate	85-68-7	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
Caprolactam	105-60-2	ug/L	6	2	25%	4.8	10	0.6	0.7	7700	nc	no	BSL
Carbazole	86-74-8	ug/L	7	1	13%	0.95	10	9	9	NA	-	yes	NSL
Chrysene	218-01-9	ug/L	6	2	25%	0.19	**3**	0.27	**45**	2.9	c	yes	ASL
Di-n-butylphthalate	84-74-2	ug/L	7	1	13%	0.95	10	0.66	0.66	670	nc	no	BSL
Di-n-octyl phthalate	117-84-0	ug/L	5	3	38%	0.95	10	1.3	4	190	nc	no	BSL
Dibenz(a,h)anthracene	53-70-3	ug/L	8	0	0%	**0.19**	**10**	-	-	-	-	-	-
Dibenzofuran	132-64-9	ug/L	7	1	13%	0.95	5	4	4	5.8	nc	no	BSL
Diethyl phthalate	84-66-2	ug/L	7	1	13%	0.95	10	1	1	11000	nc	no	BSL
Dimethyl phthalate	131-11-3	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
Dimethylformamide	68-12-2	ug/L	7	1	13%	5	10	779	779	1600	nc	no	BSL
Fluoranthene	206-44-0	ug/L	6	2	25%	0.19	3	0.4	87	630	nc	no	BSL
Fluorene	86-73-7	ug/L	7	1	13%	0.19	3	6	6	220	nc	no	BSL
Hexachlorobenzene	118-74-1	ug/L	8	0	0%	**0.19**	**10**	-	-	-	-	-	-
Hexachlorobutadiene	87-68-3	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
Hexachlorocyclopentadiene	77-47-4	ug/L	8	0	0%	5	10	-	-	-	-	-	-
Hexachloroethane	67-72-1	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	193-39-5	ug/L	6	2	25%	**0.19**	**3**	**0.13**	**19**	0.029	c	yes	ASL
Isophorone	78-59-1	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	621-64-7	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
N-Nitrosodiphenylamine	86-30-6	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
Naphthalene	91-20-3	ug/L	7	1	13%	**0.19**	**3**	**2**	**2**	0.14	c	yes	ASL
Nitrobenzene	98-95-3	ug/L	8	0	0%	**0.95**	**10**	-	-	-	-	-	-
Pentachlorophenol	87-86-5	ug/L	8	0	0%	**4.8**	**10**	-	-	-	-	-	-
Phenanthrene	85-01-8	ug/L	6	2	25%	0.19	3	0.19	57	87	nc	no	BSL
Phenol	108-95-2	ug/L	8	0	0%	0.95	10	-	-	-	-	-	-
Pyrene	129-00-0	ug/L	6	2	25%	0.19	3	0.34	69	87	nc	no	BSL

TABLE 3
SUMMARY OF STORM WATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/L	8	0	0%	1	250	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
1,1,2-Trichloroethane	79-00-5	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
1,1-Dichloroethane	75-34-3	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
1,1-Dichloroethene	75-35-4	ug/L	8	0	0%	1	250	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	ug/L	8	0	0%	**1**	**400**	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	ug/L	8	0	0%	**1**	**500**	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
1,2-Dichlorobenzene	95-50-1	ug/L	8	0	0%	1	250	-	-	-	-	-	-
1,2-Dichloroethane	107-06-2	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
1,2-Dichloropropane	78-87-5	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
1,3-Dichlorobenzene	541-73-1	ug/L	8	0	0%	1	250	-	-	-	-	-	-
1,4-Dichlorobenzene	106-46-7	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	78-93-3	ug/L	8	0	0%	10	2500	-	-	-	-	-	-
2-Hexanone	591-78-6	ug/L	8	0	0%	10	**2500**	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	108-10-1	ug/L	8	0	0%	10	**2500**	-	-	-	-	-	-
Acetone	67-64-1	ug/L	8	0	0%	10	2500	-	-	-	-	-	-
Benzene	71-43-2	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
Bromodichloromethane	75-27-4	ug/L	7	1	13%	**1**	**250**	**2**	**2**	0.12	c	yes	ASL
Bromoform	75-25-2	ug/L	7	1	13%	1	**250**	0.2	0.2	7.9	c	no	BSL
Bromomethane (Methyl Bromide)	74-83-9	ug/L	8	0	0%	1	**400**	-	-	-	-	-	-
Carbon disulfide	75-15-0	ug/L	8	0	0%	1	**1000**	-	-	-	-	-	-
Carbon tetrachloride	56-23-5	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
Chlorobenzene	108-90-7	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
Chlorobromomethane	74-97-5	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
Chloroethane	75-00-3	ug/L	8	0	0%	1	250	-	-	-	-	-	-
Chloroform (Trichloromethane)	67-66-3	ug/L	7	1	13%	**1**	**250**	**6**	**6**	0.19	c	yes	ASL
Chloromethane (Methyl Chloride)	74-87-3	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
cis-1,2-Dichloroethene	156-59-2	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
cis-1,3-Dichloropropene	10061-01-5	ug/L	8	0	0%	1	250	-	-	-	-	-	-
Cyclohexane	110-82-7	ug/L	8	0	0%	1	250	-	-	-	-	-	-
Dibromochloromethane	124-48-1	ug/L	7	1	13%	**1**	**250**	**1**	**1**	0.15	c	yes	ASL
Dichlorodifluoromethane (CFC-12)	75-71-8	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
Ethylbenzene	100-41-4	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
Isopropylbenzene	98-82-8	ug/L	8	0	0%	1	250	-	-	-	-	-	-
m&p-Xylene	M/P-XYLENE	ug/L	4	0	0%	1	200	-	-	-	-	-	-
Methyl acetate	79-20-9	ug/L	8	0	0%	10	2500	-	-	-	-	-	-
Methyl cyclohexane	108-87-2	ug/L	8	0	0%	1	2000	-	-	-	-	-	-
Methyl Tert Butyl Ether	1634-04-4	ug/L	8	0	0%	5	**1300**	-	-	-	-	-	-
Methylene chloride	75-09-2	ug/L	8	0	0%	1	**1000**	-	-	-	-	-	-

TABLE 3
SUMMARY OF STORM WATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Volatile Organic Compounds (continued)													
n-Propylbenzene	103-65-1	ug/L	8	0	0%	1	250	-	-	-	-	-	-
o-Xylene	95-47-6	ug/L	4	0	0%	1	**200**	-	-	-	-	-	-
Styrene	100-42-5	ug/L	8	0	0%	1	250	-	-	-	-	-	-
Tetrachloroethene	127-18-4	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
Tetrahydrofuran	109-99-9	ug/L	4	4	50%	5	5	0.51	**33000**	3200	nc	yes	ASL
Toluene	108-88-3	ug/L	7	1	13%	1	250	0.3	0.3	860	nc	no	BSL
trans-1,2-Dichloroethene	156-60-5	ug/L	8	0	0%	1	**250**	-	-	-	-	-	-
trans-1,3-Dichloropropene	10061-02-6	ug/L	8	0	0%	1	250	-	-	-	-	-	-
Trichloroethene	79-01-6	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
Trichlorofluoromethane (CFC-11)	75-69-4	ug/L	8	0	0%	1	250	-	-	-	-	-	-
Trifluorotrichloroethane (Freon 113)	76-13-1	ug/L	8	0	0%	1	1000	-	-	-	-	-	-
Vinyl chloride	75-01-4	ug/L	8	0	0%	**1**	**250**	-	-	-	-	-	-
Xylene (total)	1330-20-7	ug/L	4	0	0%	2	**500**	-	-	-	-	-	-

Notes and Abbreviations:
(1) Samples included in data set are identified in Appendix A and represent samples collected from storm sewers.
(2) Values are the Regional Screening Levels (RSLs) for USEPA Regions 3, 6, and 9: *Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2012.*
(http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
Values used for screening are the tapwater RSLs for the lesser of cancer risks equal to 1E-06 or non-cancer risks equal to a hazard index of 1 unless noted otherwise.
Inorganic compounds
Value for antimony is based on the RSL for antimony (metallic).
Value for chromium (total) is based on the RSL value for hexavalent chromium.
Value for cyanide (total) is based on the RSL for the cyanide ion CN^-.
**Value for lead is the federal drinking water standard (MCL).
Value for nickel is based on the RSL value for nickel (soluble salts).
Value for thallium is based on the RSL value for thallium (soluble salts).
Value for vanadium is bssed on the RSL value for vanadium and compounds.
Value for zinc is based on the RSL value for zinc and compounds.
PCBs
Value for dichlorobiphenyls C12 H8 Cl2 is based on the RSL value for polychlorinated biphenyls (low risk). Dichlorobiphenyl homologues are identified as non-dioxin-like PCB homologues.
Value for pentachlorobiphenyl is based on the common RSL value for pentachlorobiphenyl, 2',3,4,4',5- (PCB 123); pentachlorobiphenyl, 2,3',4,4',5- (PCB 118); pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105), and; pentachlorobiphenyl, 2,3,4,4',5- (PCB 114).
Value for tetrachlorobiphenyl is based on the RSL value for tetrachlorobiphenyl, 3,4,4',5- (PCB 81).
Value for trichlorobiphenyl is based on the RSL value for polychlorinated biphenyls (low risk). Trichlorobiphenyl homologues are identified as non-dioxin-like PCB homologues.
Semi-Volatile Organic Compounds
Value for pyrene is used as a surrogate RSL value for benzo(g,h,i)perylene and phenanthrene.
Basis
nc - RSL is based on a non-cancer hazard quotient of 1.
c - RSL is based on an excess lifetime cancer risk of 1 in 1 million.
(3) Analyte is selected as a COPC if the maximum detected concentration exceeds the RSL or if no screening value is available.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
NSL = No screening value available; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
FOD = Compound was reported at a very low frequency of detection (less than 5%) and at a very low concentration (e.g., below reporting limits): the analyte was not selected as a COPC.

ug/L = Microgram per liter.
COPC = Chemical of potential concern
NA = Not available.
" - " = Not detected/ Not applicable.

TABLE 4
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Inorganic Compounds													
Antimony	7440-36-0	ug/L	32	22	41%	5	5	1	**41**	6	nc	yes	ASL
Arsenic	7440-38-2	ug/L	9	45	83%	**2**	**2**	**1**	**56**	0.045	c	yes	ASL
Barium	7440-39-3	ug/L	2	52	96%	5	5	30	523	2900	nc	no	BSL
Beryllium	7440-41-7	ug/L	54	0	0%	1	1	-	-	-	-	-	-
Cadmium	7440-43-9	ug/L	41	13	24%	0.5	0.5	0.2	**8.9**	6.9	nc	yes	ASL
Chromium Total	7440-47-3	ug/L	13	41	76%	**5**	**5**	**3**	**24**	0.031	c	yes	ASL
Cobalt	7440-48-4	ug/L	35	19	35%	**5**	**5**	1	**53**	4.7	nc	yes	ASL
Copper	7440-50-8	ug/L	11	43	80%	4	4	1	57	620	nc	no	BSL
Cyanide Total	57-12-5	ug/L	54	0	0%	5	5	-	-	-	-	-	-
Lead	7439-92-1	ug/L	24	30	56%	3	3	1	12	** 15	nc	no	BSL
Manganese	7439-96-5	ug/L	0	54	100%	-	-	1	**3370**	320	nc	yes	ASL
Mercury	7439-97-6	ug/L	54	0	0%	0.1	0.1	-	-	-	-	-	-
Nickel	7440-02-0	ug/L	1	53	98%	5	5	1	39	300	nc	no	BSL
Selenium	7782-49-2	ug/L	37	17	31%	5	5	1	17	78	nc	no	BSL
Silver	7440-22-4	ug/L	48	6	11%	0.5	0.5	0.1	0.9	71	nc	no	BSL
Thallium	7440-28-0	ug/L	54	0	0%	**1**	**1**	-	-	-	-	-	-
Vanadium	7440-62-2	ug/L	7	47	87%	4	4	1	25	78	nc	no	BSL
Zinc	7440-66-6	ug/L	7	47	87%	5	5	1	200	4700	nc	no	BSL
PCBs													
Aroclor-1016 (PCB-1016)	12674-11-2	ug/L	7	0	0%	0.1	0.6	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	11104-28-2	ug/L	7	0	0%	**0.1**	**0.6**	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	11141-16-5	ug/L	7	0	0%	**0.1**	**0.6**	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	53469-21-9	ug/L	5	2	29%	**0.1**	**0.6**	**0.6**	**2.9**	0.034	c	yes	ASL
Aroclor-1248 (PCB-1248)	12672-29-6	ug/L	7	0	0%	**0.1**	**0.6**	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	11097-69-1	ug/L	7	0	0%	**0.1**	**0.6**	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	11096-82-5	ug/L	7	0	0%	**0.1**	**0.6**	-	-	-	-	-	-
PCB Homologs													
Monochlorobiphenyls C12H9Cl	27323-18-8	ug/L	1	1	50%	0.095	0.095	0.38	0.38	0.17	c	yes	ASL
Dichlorobiphenyls C12H8Cl2	25512-42-9	ug/L	0	2	100%	-	-	0.024	2.3	0.17	c	yes	ASL
Trichlorobiphenyls C12H7Cl3	25323-68-6	ug/L	1	1	50%	0.095	0.095	0.79	0.79	0.17	c	yes	ASL
Tetrachlorobiphenyls C12H6Cl4	26914-33-0	ug/L	2	0	0%	0.19	2	-	-	-	-	-	-
Pentachlorobiphenyls C12H5Cl5	25429-29-2	ug/L	2	0	0%	0.19	2	-	-	-	-	-	-
Hexachlorobiphenyls C12 H4 Cl6	26601-64-9	ug/L	2	0	0%	0.19	2	-	-	-	-	-	-
Heptachlorobiphenyls C12 H3 Cl7	28655-71-2	ug/L	2	0	0%	0.28	2.9	-	-	-	-	-	-
Octachlorobiphenyls C12H2Cl8	55722-26-4	ug/L	2	0	0%	0.28	2.9	-	-	-	-	-	-
Nonachlorobiphenyls C12 HCl9	53742-07-7	ug/L	2	0	0%	0.47	4.9	-	-	-	-	-	-
Decachlorobiphenyls C12Cl10	2051-24-3	ug/L	2	0	0%	0.47	4.9	-	-	-	-	-	-
Semi-Volatile Organic Compounds													
2,2'-oxybis(1-Chloropropane)	108-60-1	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
2,4,5-Trichlorophenol	95-95-4	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2,4,6-Trichlorophenol	88-06-2	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
2,4-Dichlorophenol	120-83-2	ug/L	65	0	0%	10	**77**	-	-	-	-	-	-
2,4-Dimethylphenol	105-67-9	ug/L	64	1	2%	5	77	0.3	0.3	270	nc	no	BSL
2,4-Dinitrophenol	51-28-5	ug/L	65	0	0%	20	**77**	-	-	-	-	-	-
2,4-Dinitrotoluene	121-14-2	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
2,6-Dinitrotoluene	606-20-2	ug/L	65	0	0%	5	**77**	-	-	-	-	-	-
2-Chloronaphthalene	91-58-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2-Chlorophenol	95-57-8	ug/L	65	0	0%	5	**77**	-	-	-	-	-	-
2-Methylnaphthalene	91-57-6	ug/L	64	1	2%	2	**77**	0.3	0.3	27	nc	no	BSL

TABLE 4
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Semi-Volatile Organic Compounds (continued)													
2-Methylphenol	95-48-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2-Nitroaniline	88-74-4	ug/L	65	0	0%	20	77	-	-	-	-	-	-
2-Nitrophenol	88-75-5	ug/L	65	0	0%	5	77	-	-	-	-	-	-
3&4-Methylphenol	3/4-CRESOL	ug/L	65	0	0%	5	77	-	-	-	-	-	-
3,3'-Dichlorobenzidine	91-94-1	ug/L	65	0	0%	**10**	**77**	-	-	-	-	-	-
3-Nitroaniline	99-09-2	ug/L	65	0	0%	20	77	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	534-52-1	ug/L	65	0	0%	**20**	**77**	-	-	-	-	-	-
4-Bromophenyl phenyl ether	101-55-3	ug/L	65	0	0%	5	77	-	-	-	-	-	-
4-Chloro-3-methylphenol	59-50-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
4-Chloroaniline	106-47-8	ug/L	65	0	0%	**10**	**77**	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	7005-72-3	ug/L	65	0	0%	5	77	-	-	-	-	-	-
4-Nitroaniline	100-01-6	ug/L	65	0	0%	**20**	**77**	-	-	-	-	-	-
4-Nitrophenol	100-02-7	ug/L	63	2	3%	20	77	0.6	1	NA	-	no	FOD
Acenaphthene	83-32-9	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Acenaphthylene	208-96-8	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Acetophenone	98-86-2	ug/L	64	1	2%	5	77	0.3	0.3	1500	nc	no	BSL
Anthracene	120-12-7	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Atrazine	1912-24-9	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
Benzaldehyde	100-52-7	ug/L	62	3	5%	5	77	0.3	0.7	1500	nc	no	BSL
Benzo(a)anthracene	56-55-3	ug/L	65	0	0%	**1**	**77**	-	-	-	-	-	-
Benzo(a)pyrene	50-32-8	ug/L	65	0	0%	**2**	**77**	-	-	-	-	-	-
Benzo(b)fluoranthene	205-99-2	ug/L	65	0	0%	**2**	**77**	-	-	-	-	-	-
Benzo(g,h,i)perylene	191-24-2	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Benzo(k)fluoranthene	207-08-9	ug/L	65	0	0%	**2**	**77**	-	-	-	-	-	-
Biphenyl	92-52-4	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	111-91-1	ug/L	65	0	0%	5	**77**	-	-	-	-	-	-
bis(2-Chloroethyl)ether	111-44-4	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	117-81-7	ug/L	56	12	18%	**1.9**	**77**	**7**	**1410**	4.8	c	yes	ASL
Butyl benzylphthalate	85-68-7	ug/L	68	0	0%	0.95	**77**	-	-	-	-	-	-
Caprolactam	105-60-2	ug/L	50	15	23%	10	77	0.8	2	7700	nc	no	BSL
Carbazole	86-74-8	ug/L	65	0	0%	10	77	-	-	-	-	-	-
Chrysene	218-01-9	ug/L	65	0	0%	1	**77**	-	-	-	-	-	-
Di-n-butylphthalate	84-74-2	ug/L	68	0	0%	0.95	77	-	-	-	-	-	-
Di-n-octyl phthalate	117-84-0	ug/L	49	19	28%	0.95	5	0.2	12500	190	nc	yes	ASL
Dibenz(a,h)anthracene	53-70-3	ug/L	65	0	0%	**2**	**77**	-	-	-	-	-	-
Dibenzofuran	132-64-9	ug/L	64	1	2%	5	**77**	0.3	0.3	5.8	nc	no	BSL
Diethyl phthalate	84-66-2	ug/L	47	21	31%	0.95	77	0.2	1	11000	nc	no	BSL
Dimethyl phthalate	131-11-3	ug/L	68	0	0%	0.95	77	-	-	-	-	-	-
Dimethylformamide	68-12-2	ug/L	51	0	0%	5	5	-	-	-	-	-	-
Fluoranthene	206-44-0	ug/L	64	1	2%	2	77	0.2	0.2	630	nc	no	BSL
Fluorene	86-73-7	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Hexachlorobenzene	118-74-1	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
Hexachlorobutadiene	87-68-3	ug/L	64	1	2%	**5**	**77**	0.2	0.2	0.26	c	no	BSL
Hexachlorocyclopentadiene	77-47-4	ug/L	65	0	0%	5	**77**	-	-	-	-	-	-
Hexachloroethane	67-72-1	ug/L	64	1	2%	**5**	**77**	0.3	0.3	0.79	c	no	BSL
Indeno(1,2,3-cd)pyrene	193-39-5	ug/L	65	0	0%	**2**	**77**	-	-	-	-	-	-
Isophorone	78-59-1	ug/L	65	0	0%	5	**77**	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	621-64-7	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
N-Nitrosodiphenylamine	86-30-6	ug/L	65	0	0%	5	**77**	-	-	-	-	-	-
Naphthalene	91-20-3	ug/L	64	1	2%	**2**	**77**	**0.3**	**0.3**	0.14	c	no	FOD
Nitrobenzene	98-95-3	ug/L	65	0	0%	**5**	**77**	-	-	-	-	-	-
Pentachlorophenol	87-86-5	ug/L	65	0	0%	**10**	**77**	-	-	-	-	-	-
Phenanthrene	85-01-8	ug/L	62	3	5%	2	77	0.2	0.5	87	nc	no	BSL
Phenol	108-95-2	ug/L	64	1	2%	5	77	21.9	21.9	4500	nc	no	BSL
Pyrene	129-00-0	ug/L	64	1	2%	2	77	0.2	0.2	87	nc	no	BSL

TABLE 4
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/L	72	0	0%	1	500	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
1,1,2-Trichloroethane	79-00-5	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
1,1-Dichloroethane	75-34-3	ug/L	66	6	8%	1	**500**	0.6	**5**	2.4	c	yes	ASL
1,1-Dichloroethene	75-35-4	ug/L	72	0	0%	1	**500**	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	ug/L	72	0	0%	**2**	**1000**	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
1,2-Dichlorobenzene	95-50-1	ug/L	70	2	3%	1	**500**	0.5	0.9	280	nc	no	BSL
1,2-Dichloroethane	107-06-2	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
1,2-Dichloropropane	78-87-5	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
1,3-Dichlorobenzene	541-73-1	ug/L	72	0	0%	1	500	-	-	-	-	-	-
1,4-Dichlorobenzene	106-46-7	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	78-93-3	ug/L	67	5	7%	10	**5000**	1	8	4900	nc	no	BSL
2-Hexanone	591-78-6	ug/L	72	0	0%	10	**5000**	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	108-10-1	ug/L	67	5	7%	10	**5000**	2	3	1000	nc	no	BSL
Acetone	67-64-1	ug/L	70	2	3%	10	5000	7	50	12000	nc	no	BSL
Benzene	71-43-2	ug/L	62	10	14%	**1**	**500**	0.1	**0.5**	0.39	c	yes	ASL
Bromodichloromethane	75-27-4	ug/L	70	2	3%	**1**	**500**	**0.2**	**0.2**	0.12	c	no	FOD
Bromoform	75-25-2	ug/L	72	0	0%	1	**500**	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	74-83-9	ug/L	72	0	0%	2	**1000**	-	-	-	-	-	-
Carbon disulfide	75-15-0	ug/L	62	10	14%	5	**3000**	0.3	1	720	nc	no	BSL
Carbon tetrachloride	56-23-5	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
Chlorobenzene	108-90-7	ug/L	70	2	3%	1	**500**	0.3	0.7	72	nc	no	BSL
Chlorobromomethane	74-97-5	ug/L	72	0	0%	1	**5000**	-	-	-	-	-	-
Chloroethane	75-00-3	ug/L	71	1	1%	1	500	1	1	21000	nc	no	BSL
Chloroform (Trichloromethane)	67-66-3	ug/L	61	11	15%	**1**	**500**	**0.2**	**2**	0.19	c	yes	ASL
Chloromethane (Methyl Chloride)	74-87-3	ug/L	72	0	0%	1	**500**	-	-	-	-	-	-
cis-1,2-Dichloroethene	156-59-2	ug/L	67	5	7%	1	**500**	1	6	28	nc	no	BSL
cis-1,3-Dichloropropene	10061-01-5	ug/L	72	0	0%	1	500	-	-	-	-	-	-
Cyclohexane	110-82-7	ug/L	71	1	1%	1	500	7	7	13000	nc	no	BSL
Dibromochloromethane	124-48-1	ug/L	72	0	0%	**1**	**500**	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	75-71-8	ug/L	72	0	0%	1	**500**	-	-	-	-	-	-
Ethylbenzene	100-41-4	ug/L	68	4	6%	1	**500**	0.1	0.3	1.3	c	no	BSL
Isopropylbenzene	98-82-8	ug/L	71	1	1%	1	**500**	0.4	0.4	390	nc	no	BSL
m&p-Xylene	M/P-XYLENE	ug/L	68	4	6%	1	500	0.2	0.4	190	nc	no	BSL
Methyl acetate	79-20-9	ug/L	71	1	1%	10	5000	3	3	16000	nc	no	BSL
Methyl cyclohexane	108-87-2	ug/L	70	2	3%	10	5000	0.1	0.2	NA	-	no	FOD
Methyl Tert Butyl Ether	1634-04-4	ug/L	66	6	8%	5	**100**	2	**210**	12	c	yes	ASL
Methylene chloride	75-09-2	ug/L	67	5	7%	5	**3000**	0.4	0.9	9.9	c	no	BSL
n-Propylbenzene	103-65-1	ug/L	71	1	1%	1	**5000**	0.2	0.2	530	nc	no	BSL
o-Xylene	95-47-6	ug/L	68	4	6%	1	**500**	0.1	0.2	190	nc	no	BSL
Styrene	100-42-5	ug/L	72	0	0%	1	500	-	-	-	-	-	-

TABLE 4
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - DIRECT CONTACT
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		Tapwater RSL (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 1	basis	COPC? (3)	
Volatile Organic Compounds (continued)													
Tetrachloroethene	127-18-4	ug/L	66	6	8%	1	**500**	0.2	1.64	9.7	c	no	BSL
Tetrahydrofuran	109-99-9	ug/L	63	15	19%	5	**5000**	0.52	**180000**	3200	nc	yes	ASL
Toluene	108-88-3	ug/L	60	12	17%	1	500	0.1	0.6	860	nc	no	BSL
trans-1,2-Dichloroethene	156-60-5	ug/L	70	2	3%	1	**500**	0.3	0.4	86	nc	no	BSL
trans-1,3-Dichloropropene	10061-02-6	ug/L	72	0	0%	1	500	-	-	-	-	-	-
Trichloroethene	79-01-6	ug/L	59	13	18%	**1**	**500**	0.2	**5.93**	0.44	c	yes	ASL
Trichlorofluoromethane (CFC-11)	75-69-4	ug/L	70	2	3%	1	500	51	70	1100	nc	no	BSL
Trifluorotrichloroethane (Freon 113)	76-13-1	ug/L	69	3	4%	5	3000	0.4	0.5	53000	nc	no	BSL
Vinyl chloride	75-01-4	ug/L	70	2	3%	**1**	**500**	**5**	**17**	0.015	c	yes	ASL

Notes and Abbreviations:
(1) Samples included in data set are identified in Appendix A.
(2) Values are the Regional Screening Levels (RSLs) for USEPA Regions 3, 6, and 9: *Regional Screening Levels for Chemical Contaminants at Superfund Sites, November 2012.*
(http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
Values used for screening are the tapwater RSLs for the lesser of cancer risks equal to 1E-06 or non-cancer risks equal to a hazard index of 1 unless noted otherwise.
Inorganic compounds
Value for antimony is based on the RSL for antimony (metallic).
Value for chromium (total) is based on the RSL value for hexavalent chromium.
Value for cyanide (total) is based on the RSL for the cyanide ion CN^-.
**Value for lead is the federal drinking water standard (MCL).
Value for nickel is based on the RSL value for nickel (soluble salts).
Value for vanadium is bssed on the RSL value for vanadium and compounds.
Value for zinc is based on the RSL value for zinc and compounds.
PCBs
Value for monochlorobiphenyls C12 H9 Cl, dichlorobiphenyls C12 H8 Cl2, and trichlorobiphenyl is based on the RSL value for polychlorinated biphenyls (low risk).
PCBs within these homologue groups are identified as non-dioxin-like PCBs.
Semi-Volatile Organic Compounds
Value for pyrene is used as a surrogate RSL value for phenanthrene.
Basis
nc - RSL is based on a non-cancer hazard quotient of 1.
c - RSL is based on an excess lifetime cancer risk of 1 in 1 million.
(3) Analyte is selected as a COPC if the maximum detected concentration exceeds the RSL or if no screening value is available.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
NSL = No screening value available; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
FOD = Compound was reported at a very low frequency of detection (less than 5%) and at a very low concentration (e.g., below reporting limits): the analyte was not selected as a COPC.

ug/L = Microgram per liter.
COPC = Chemical of potential concern
NA = Not available.
" - " = Not detected/ Not applicable.

TABLE 5
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - VAPOR INTRUSION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group / Target Analyte	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		VISLs - Industrial Groundwater (2) HI = 0.1	basis	Selected as a COPC? (3)	Rationale
			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum				
Inorganic Compounds													
Antimony	7440-36-0	ug/L	32	22	41%	5	5	1	41	-	-	no	NV
Arsenic	7440-38-2	ug/L	9	45	83%	2	2	1	56	-	-	no	NV
Barium	7440-39-3	ug/L	2	52	96%	5	5	30	523	-	-	no	NV
Beryllium	7440-41-7	ug/L	54	0	0%	1	1	-	-	-	-	-	-
Cadmium	7440-43-9	ug/L	41	13	24%	0.5	0.5	0.2	8.9	-	-	no	NV
Chromium Total	7440-47-3	ug/L	13	41	76%	5	5	3	24	-	-	no	NV
Cobalt	7440-48-4	ug/L	35	19	35%	5	5	1	53	-	-	no	NV
Copper	7440-50-8	ug/L	11	43	80%	4	4	1	57	-	-	no	NV
Cyanide Total	57-12-5	ug/L	54	0	0%	5	5	-	-	-	-	-	-
Lead	7439-92-1	ug/L	24	30	56%	3	3	1	12	-	-	no	NV
Manganese	7439-96-5	ug/L	0	54	100%	-	-	1	3370	-	-	no	NV
Mercury	7439-97-6	ug/L	54	0	0%	0.1	0.1	-	-	-	-	-	-
Nickel	7440-02-0	ug/L	1	53	98%	5	5	1	39	-	-	no	NV
Selenium	7782-49-2	ug/L	37	17	31%	5	5	1	17	-	-	no	NV
Silver	7440-22-4	ug/L	48	6	11%	0.5	0.5	0.1	0.9	-	-	no	NV
Thallium	7440-28-0	ug/L	54	0	0%	1	1	-	-	-	-	-	-
Vanadium	7440-62-2	ug/L	7	47	87%	4	4	1	25	-	-	no	NV
Zinc	7440-66-6	ug/L	7	47	87%	5	5	1	200	-	-	no	NV
PCBs													
Aroclor-1016 (PCB-1016)	12674-11-2	ug/L	5	0	0%	0.1	0.1	-	-	-	-	-	-
Aroclor-1221 (PCB-1221)	11104-28-2	ug/L	5	0	0%	0.1	0.1	-	-	-	-	-	-
Aroclor-1232 (PCB-1232)	11141-16-5	ug/L	5	0	0%	0.1	0.1	-	-	-	-	-	-
Aroclor-1242 (PCB-1242)	53469-21-9	ug/L	4	1	20%	0.1	0.1	0.6	0.6	-	-	no	NV
Aroclor-1248 (PCB-1248)	12672-29-6	ug/L	5	0	0%	0.1	0.1	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	11097-69-1	ug/L	5	0	0%	0.1	0.1	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	11096-82-5	ug/L	5	0	0%	0.1	0.1	-	-	-	-	-	-
Semi-Volatile Organic Compounds													
2,2'-oxybis(1-Chloropropane)	108-60-1	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2,4,5-Trichlorophenol	95-95-4	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2,4,6-Trichlorophenol	88-06-2	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2,4-Dichlorophenol	120-83-2	ug/L	65	0	0%	10	77	-	-	-	-	-	-
2,4-Dimethylphenol	105-67-9	ug/L	64	1	2%	5	77	0.3	0.3	-	-	no	NV
2,4-Dinitrophenol	51-28-5	ug/L	65	0	0%	20	77	-	-	-	-	-	-
2,4-Dinitrotoluene	121-14-2	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2,6-Dinitrotoluene	606-20-2	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2-Chloronaphthalene	91-58-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2-Chlorophenol	95-57-8	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2-Methylnaphthalene	91-57-6	ug/L	64	1	2%	2	77	0.3	0.3	NA	NA	no	NA
2-Methylphenol	95-48-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
2-Nitroaniline	88-74-4	ug/L	65	0	0%	20	77	-	-	-	-	-	-
2-Nitrophenol	88-75-5	ug/L	65	0	0%	5	77	-	-	-	-	-	-
3&4-Methylphenol	3/4-CRESOL	ug/L	65	0	0%	5	77	-	-	-	-	-	-
3,3'-Dichlorobenzidine	91-94-1	ug/L	65	0	0%	10	77	-	-	-	-	-	-
3-Nitroaniline	99-09-2	ug/L	65	0	0%	20	77	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	534-52-1	ug/L	65	0	0%	20	77	-	-	-	-	-	-
4-Bromophenyl phenyl ether	101-55-3	ug/L	65	0	0%	5	77	-	-	-	-	-	-

TABLE 5
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - VAPOR INTRUSION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group / Target Analyte	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		VISLs - Industrial Groundwater (2) HI = 0.1	basis	Selected as a COPC? (3)	Rationale
			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum				
Semi-Volatile Organic Compounds (continued)													
4-Chloro-3-methylphenol	59-50-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
4-Chloroaniline	106-47-8	ug/L	65	0	0%	10	77	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	7005-72-3	ug/L	65	0	0%	5	77	-	-	-	-	-	-
4-Nitroaniline	100-01-6	ug/L	65	0	0%	20	77	-	-	-	-	-	-
4-Nitrophenol	100-02-7	ug/L	63	2	3%	20	77	0.6	1	-	-	no	NV
Acenaphthene	83-32-9	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Acenaphthylene	208-96-8	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Acetophenone	98-86-2	ug/L	64	1	2%	5	77	0.3	0.3	NA	NA	no	NA
Anthracene	120-12-7	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Atrazine	1912-24-9	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Benzaldehyde	100-52-7	ug/L	62	3	5%	5	77	0.3	0.7	NA	NA	no	NA
Benzo(a)anthracene	56-55-3	ug/L	65	0	0%	1	77	-	-	-	-	-	-
Benzo(a)pyrene	50-32-8	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Benzo(b)fluoranthene	205-99-2	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Benzo(g,h,i)perylene	191-24-2	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Benzo(k)fluoranthene	207-08-9	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Biphenyl	92-52-4	ug/L	65	0	0%	5	77	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	111-91-1	ug/L	65	0	0%	5	77	-	-	-	-	-	-
bis(2-Chloroethyl)ether	111-44-4	ug/L	65	0	0%	5	77	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	117-81-7	ug/L	54	11	17%	5	77	7	1410	-	-	no	NV
Butyl benzylphthalate	85-68-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Caprolactam	105-60-2	ug/L	50	15	23%	10	77	0.8	2	-	-	no	NV
Carbazole	86-74-8	ug/L	65	0	0%	10	77	-	-	-	-	-	-
Chrysene	218-01-9	ug/L	65	0	0%	1	77	-	-	-	-	-	-
Di-n-butylphthalate	84-74-2	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Di-n-octyl phthalate	117-84-0	ug/L	48	17	26%	5	5	0.2	12500	-	-	no	NV
Dibenz(a,h)anthracene	53-70-3	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Dibenzofuran	132-64-9	ug/L	64	1	2%	5	77	0.3	0.3	-	-	no	NV
Diethyl phthalate	84-66-2	ug/L	44	21	32%	5	77	0.2	1	-	-	no	NV
Dimethyl phthalate	131-11-3	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Dimethylformamide	68-12-2	ug/L	51	0	0%	5	5	-	-	-	-	-	-
Fluoranthene	206-44-0	ug/L	64	1	2%	2	77	0.2	0.2	-	-	no	NV
Fluorene	86-73-7	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Hexachlorobenzene	118-74-1	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Hexachlorobutadiene	87-68-3	ug/L	64	1	2%	5	77	0.2	0.2	NA	NA	no	NA
Hexachlorocyclopentadiene	77-47-4	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Hexachloroethane	67-72-1	ug/L	64	1	2%	5	77	0.3	0.3	NA	NA	no	NA
Indeno(1,2,3-cd)pyrene	193-39-5	ug/L	65	0	0%	2	77	-	-	-	-	-	-
Isophorone	78-59-1	ug/L	65	0	0%	5	77	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	621-64-7	ug/L	65	0	0%	5	77	-	-	-	-	-	-
N-Nitrosodiphenylamine	86-30-6	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Naphthalene	91-20-3	ug/L	64	1	2%	2	77	0.3	0.3	4.3E+01	c	no	BSL
Nitrobenzene	98-95-3	ug/L	65	0	0%	5	77	-	-	-	-	-	-
Pentachlorophenol	87-86-5	ug/L	65	0	0%	10	77	-	-	-	-	-	-
Phenanthrene	85-01-8	ug/L	62	3	5%	2	77	0.2	0.5	-	-	no	NV
Phenol	108-95-2	ug/L	64	1	2%	5	77	21.9	21.9	-	-	no	NV
Pyrene	129-00-0	ug/L	64	1	2%	2	77	0.2	0.2	-	-	no	NV

TABLE 5
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - VAPOR INTRUSION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		VISLs - Industrial Groundwater (2)		Selected as a	Rationale
Target Analyte			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum	HI = 0.1	basis	COPC? (3)	
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,1,2-Trichloroethane	79-00-5	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,1-Dichloroethane	75-34-3	ug/L	54	5	8%	1	500	0.6	5	5.1E+01	c	no	BSL
1,1-Dichloroethene	75-35-4	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	ug/L	59	0	0%	2	1000	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,2-Dichlorobenzene	95-50-1	ug/L	57	2	3%	1	500	0.5	0.9	2.2E+03	nc	no	BSL
1,2-Dichloroethane	107-06-2	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,2-Dichloropropane	78-87-5	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,3-Dichlorobenzene	541-73-1	ug/L	59	0	0%	1	500	-	-	-	-	-	-
1,4-Dichlorobenzene	106-46-7	ug/L	59	0	0%	1	500	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	78-93-3	ug/L	54	5	8%	10	5000	1	8	1.5E+06	nc	no	BSL
2-Hexanone	591-78-6	ug/L	59	0	0%	10	5000	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	108-10-1	ug/L	54	5	8%	10	5000	2	3	4.1E+05	nc	no	BSL
Acetone	67-64-1	ug/L	57	2	3%	10	5000	7	50	1.5E+07	nc	no	BSL
Benzene	71-43-2	ug/L	49	10	17%	1	500	0.1	0.5	1.1E+01	c	no	BSL
Bromodichloromethane	75-27-4	ug/L	57	2	3%	1	500	0.2	0.2	6.3E+00	c	no	BSL
Bromoform	75-25-2	ug/L	59	0	0%	1	500	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	74-83-9	ug/L	59	0	0%	2	1000	-	-	-	-	-	-
Carbon disulfide	75-15-0	ug/L	49	10	17%	5	3000	0.3	1	7.7E+02	nc	no	BSL
Carbon tetrachloride	56-23-5	ug/L	59	0	0%	1	500	-	-	-	-	-	-
Chlorobenzene	108-90-7	ug/L	57	2	3%	1	500	0.3	0.7	3.1E+02	nc	no	BSL
Chlorobromomethane	74-97-5	ug/L	59	0	0%	1	5000	-	-	-	-	-	-
Chloroethane	75-00-3	ug/L	58	1	2%	1	500	1	1	1.4E+04	nc	no	BSL
Chloroform (Trichloromethane)	67-66-3	ug/L	48	11	19%	1	500	0.2	2	5.5E+00	c	no	BSL
Chloromethane (Methyl Chloride)	74-87-3	ug/L	59	0	0%	1	500	-	-	-	-	-	-
cis-1,2-Dichloroethene	156-59-2	ug/L	54	5	8%	1	500	1	6	2.4E+02	nc	no	BSL
cis-1,3-Dichloropropene	10061-01-5	ug/L	59	0	0%	1	500	-	-	-	-	-	-
Cyclohexane	110-82-7	ug/L	58	1	2%	1	500	7	7	6.8E+02	nc	no	BSL
Dibromochloromethane	124-48-1	ug/L	59	0	0%	1	500	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	75-71-8	ug/L	59	0	0%	1	500	-	-	-	-	-	-
Ethylbenzene	100-41-4	ug/L	55	4	7%	1	500	0.1	0.3	2.8E+01	c	no	BSL
Isopropylbenzene	98-82-8	ug/L	58	1	2%	1	500	0.4	0.4	7.8E+02	nc	no	BSL
m&p-Xylene	M/P-XYLENE	ug/L	55	4	7%	1	500	0.2	0.4	2.7E+02	nc	no	BSL
Methyl acetate	79-20-9	ug/L	58	1	2%	10	5000	3	3	NA	NA	no	NA
Methyl cyclohexane	108-87-2	ug/L	57	2	3%	10	5000	0.1	0.2	NA	NA	no	NA
Methyl Tert Butyl Ether	1634-04-4	ug/L	53	6	10%	5	100	2	210	3.0E+03	c	no	BSL
Methylene chloride	75-09-2	ug/L	54	5	8%	5	3000	0.4	0.9	3.0E+03	nc	no	BSL
n-Propylbenzene	103-65-1	ug/L	58	1	2%	1	5000	0.2	0.2	2.0E+03	nc	no	BSL
o-Xylene	95-47-6	ug/L	55	4	7%	1	500	0.1	0.2	3.8E+02	nc	no	BSL
Styrene	100-42-5	ug/L	59	0	0%	1	500	-	-	-	-	-	-

TABLE 5
SUMMARY OF GROUNDWATER DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - VAPOR INTRUSION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group / Target Analyte	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		VISLs - Industrial Groundwater (2) HI = 0.1	basis	Selected as a COPC? (3)	Rationale
			#Not Detected	#Detected	%Detected	Minimum	Maximum	Minimum	Maximum				
Volatile Organic Compounds (continued)													
Tetrachloroethene	127-18-4	ug/L	54	5	8%	1	500	0.2	0.5	4.2E+01	nc	no	BSL
Tetrahydrofuran	109-99-9	ug/L	50	9	15%	5	5000	1	180000	4.8E+05	nc	no	BSL
Toluene	108-88-3	ug/L	47	12	20%	1	500	0.1	0.6	1.4E+04	nc	no	BSL
trans-1,2-Dichloroethene	156-60-5	ug/L	57	2	3%	1	500	0.3	0.4	2.4E+02	nc	no	BSL
trans-1,3-Dichloropropene	10061-02-6	ug/L	59	0	0%	1	500	-	-	-	-	-	-
Trichloroethene	79-01-6	ug/L	47	12	20%	1	500	0.2	1	3.6E+00	nc	no	BSL
Trichlorofluoromethane (CFC-11)	75-69-4	ug/L	57	2	3%	1	500	51	70	1.1E+02	nc	no	BSL
Trifluorotrichloroethane (Freon 113)	76-13-1	ug/L	56	3	5%	5	3000	0.4	0.5	9.2E+02	nc	no	BSL
Vinyl chloride	75-01-4	ug/L	57	2	3%	1	500	5	17	3.3E+00	c	yes	ASL

Notes and Abbreviations:
(1) Samples included in data set are identified in Appendix A.
(2) The values identified are the groundwater to indoor air vapor intrusion screening levels (VISLs) based on commercial/industrial exposure factors, and toxicity values current as of May 2012.
EPA OSWER VISL Calculator Version 2.0, May 2012 RSLs. Calculations are presented in Attachment A.
Volatile Organic Compounds
Value for cis-1,2-dichloroethene is based on the value for the trans-1,2-dichloroethene isomer (CASRN 156-60-5). No inhalation toxicity data are available for the cis-isomer.
Basis
nc - screening value is based on a non-cancer hazard quotient of 0.1.
c - screening value is based on an excess lifetime cancer risk of 1 in 1 million.
(3) Analyte is selected as a COPC if the maximum detected concentration exceeds the screening value. Analytes that are not volatile are not selected as COPCs.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
NV = The analyte is not volatile and is therefore not selected as a COPC.
NA = No inhalation toxicity data are available and, therefore, no VISL is calculated

VISL = Vapor Intrusion Screening Level
COPC = Chemical of potential concern.
ug/L = Microgram per liter.
" - " = Not detected/ Not applicable.

TABLE 6
SUMMARY OF EASTERN PROPERTY BOUNDARY SOIL GAS DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group / Target Analyte	CASRN	Units	Max. Detected Result	VISLs - Residential Sub-Slab Soil Gas (1) HI = 1	basis	Selected as a COPC? (2)	Rationale
Location Name:							
Sample Date:							
Sample Depth (feet bgs):							
Sample Matrix:							
Volatile Organic Compounds							
1,1,1-Trichloroethane	71-55-6	ug/m3	0.87	52000	nc	no	BSL
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	-	-	-	-	-
1,1,2-Trichloroethane	79-00-5	ug/m3	-	-	-	-	-
1,1-Dichloroethane	75-34-3	ug/m3	0.1	15	nc	no	BSL
1,1-Dichloroethene	75-35-4	ug/m3	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	ug/m3	-	-	-	-	-
1,2-Dibromoethane (EDB)	106-93-4	ug/m3	-	-	-	-	-
1,2-Dichlorobenzene	95-50-1	ug/m3	0.46	2100	nc	no	BSL
1,2-Dichloroethane	107-06-2	ug/m3	0.49	0.94	c	no	BSL
1,2-Dichloropropane	78-87-5	ug/m3	-	-	-	-	-
1,3-Dichlorobenzene	541-73-1	ug/m3	23	-	-	-	-
1,4-Dichlorobenzene	106-46-7	ug/m3	0.25	2.2	c	no	BSL
2-Butanone (MEK)	78-93-3	ug/m3	21	52000	nc	no	BSL
2-Hexanone	591-78-6	ug/m3	1.4	310	nc	no	BSL
4-Methyl-2-Pentanone (MIBK)	108-10-1	ug/m3	2.3	31000	nc	no	BSL
Acetone	67-64-1	ug/m3	120	320000	nc	no	BSL
Benzene	71-43-2	ug/m3	9.6	31	c	no	BSL
Bromodichloromethane	75-27-4	ug/m3	5.6	0.66	c	yes	ASL
Bromoform	75-25-2	ug/m3	-	-	-	-	-
Bromomethane (Methyl Bromide)	74-83-9	ug/m3	0.85	52	nc	no	BSL
Carbon disulfide	75-15-0	ug/m3	18	7300	nc	no	BSL
Carbon tetrachloride	56-23-5	ug/m3	0.62	4.1	c	no	BSL
Chlorobenzene	108-90-7	ug/m3	1.3	520	nc	no	BSL
Chloroethane	75-00-3	ug/m3	3.7	100000	nc	no	BSL
Chloroform (Trichloromethane)	67-66-3	ug/m3	49	1.1	c	yes	ASL
Chloromethane (Methyl Chloride)	74-87-3	ug/m3	3.9	940	nc	no	BSL
cis-1,2-Dichloroethene	156-59-2	ug/m3	-	-	-	-	-
cis-1,3-Dichloropropene	10061-01-5	ug/m3	-	-	-	-	-
Cyclohexane	110-82-7	ug/m3	24	63000	nc	no	BSL
Dibromochloromethane	124-48-1	ug/m3	0.29	0.90	c	no	BSL
Dichlorodifluoromethane (CFC-12)	75-71-8	ug/m3	3.7	1000	nc	no	BSL
Ethylbenzene	100-41-4	ug/m3	6.1	97	c	no	BSL
m&p-Xylene	M/P-XYLENE	ug/m3	22	10000	nc	no	BSL
Methyl Tert Butyl Ether	1634-04-4	ug/m3	-	-	-	-	-
Methylene chloride	75-09-2	ug/m3	5.6	960	c	no	BSL
o-Xylene	95-47-6	ug/m3	9.6	10000	nc	no	BSL
Styrene	100-42-5	ug/m3	0.81	10000	nc	no	BSL
Tetrachloroethene	127-18-4	ug/m3	3.1	94	c	no	BSL
Tetrahydrofuran	109-99-9	ug/m3	2.2	21000	nc	no	BSL
Toluene	108-88-3	ug/m3	18	520000	nc	no	BSL
trans-1,2-Dichloroethene	156-60-5	ug/m3	2.1	630	nc	no	BSL
trans-1,3-Dichloropropene	10061-02-6	ug/m3	-	-	-	-	-
Trichloroethene	79-01-6	ug/m3	0.097	4.3	c	no	BSL
Trichlorofluoromethane (CFC-11)	75-69-4	ug/m3	6.2	7300	nc	no	BSL
Trifluorotrichloroethane (Freon 113)	76-13-1	ug/m3	2.1	310000	nc	no	BSL
Vinyl chloride	75-01-4	ug/m3	0.23	1.6	c	no	BSL

Analytical Group / Target Analyte	SV-1	SV-1	SV-1	SV-1A	SV-2	SV-2	SV-2	SV-2A	SV-3A	SV-3B	SV-3B	SV-4	SV-4	SV-4	SV-4
Sample Date:	3/31/2010	6/2/2011	6/2/2011	2/24/2011	3/31/2010	6/2/2011	6/2/2011	2/24/2011	2/22/2011	6/2/2011	6/2/2011	2/22/2011	3/31/2010	6/2/2011	6/2/2011
Sample Depth (feet bgs):	1.5 - 2	1.5 - 2	1.5 - 2	0.7 - 1.2	1.5 - 2	1.5 - 2	1.5 - 2	0.7 - 1.2	0.7 - 1.2	0.7 - 1.2	0.7 - 1.2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2
Sample Matrix:	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Volatile Organic Compounds															
1,1,1-Trichloroethane	< 4.4	< 0.44	< 11	< 0.44	< 4.4	**0.23 J**	< 4.4	< 0.44	**0.17 J**	**0.87**	< 1.1	< 0.44	< 4.4	**0.14 J**	< 1.1
1,1,2,2-Tetrachloroethane	< 5.5	< 0.55	< 14	< 0.55	< 5.5	< 0.55	< 5.5	< 0.55	< 0.55	< 0.55	< 1.4	< 0.55	< 5.5	< 0.55	< 1.4
1,1,2-Trichloroethane	< 4.4	< 0.44	< 11	< 0.44	< 4.4	< 0.44	< 4.4	< 0.44	< 0.44	< 0.44	< 1.1	< 0.44	< 4.4	< 0.44	< 1.1
1,1-Dichloroethane	< 3.2	< 0.32	< 8	< 0.32	< 3.2	< 0.32	< 3.2	< 0.32	< 0.32	**0.1 J**	< 0.8	< 0.32	< 3.2	< 0.32	< 0.8
1,1-Dichloroethene	< 3.2	< 0.32	< 7.9	< 0.32	< 3.2	< 0.32	< 3.2	< 0.32	< 0.32	< 0.32	< 0.79	< 0.32	< 3.2	< 0.32	< 0.79
1,2,4-Trichlorobenzene	< 30	< 3	< 47	< 3 J	< 30	< 3	< 19	< 3 J	< 3 J	< 3	< 4.7	< 3 J	< 30	< 3	< 4.7
1,2-Dibromoethane (EDB)	< 6.1	< 0.61	< 15	< 0.61	< 6.1	< 0.61	< 6.2	< 0.61	< 0.61	< 0.61	< 1.5	< 0.61	< 6.1	< 0.61	< 1.5
1,2-Dichlorobenzene	< 4.8	< 0.48	< 12	< 0.48	< 4.8	**0.46 J**	< 4.8	< 0.48	< 0.48	< 0.48	< 1.2	< 0.48	< 4.8	< 0.48	< 1.2
1,2-Dichloroethane	< 3.2	< 0.32	< 8.1	< 0.32	< 3.2	**0.49**	< 3.2	< 0.32	< 0.32	< 0.32	< 0.81	< 0.32	< 3.2	< 0.32	< 0.81
1,2-Dichloropropane	< 3.7	< 0.37	< 9.2	< 0.37	< 3.7	< 0.37	< 3.7	< 0.37	< 0.37	< 0.37	< 0.92	< 0.37	< 3.7	< 0.37	< 0.92
1,3-Dichlorobenzene	< 4.8	**23**	**18**	**1.1**	< 4.8	**13**	**9**	**0.54**	**0.66**	**10**	**6.6**	**0.41 J**	< 4.8	**17**	**11**
1,4-Dichlorobenzene	< 4.8	**0.16 J**	< 12	**0.24 J**	< 4.8	**0.43 J**	< 4.8	< 0.48	**0.25 J**	< 0.48	< 1.2	< 0.48	< 4.8	**0.25 J**	< 1.2
2-Butanone (MEK)	**3.8 J**	**4.1**	< 37	**4.1**	**5.3 J**	**5**	< 15	**3.8**	**2.7**	**21**	**16**	**1.1 J**	**6.5 J**	**4.1**	< 3.7
2-Hexanone	< 8.2	**0.86**	< 51	**0.78 J**	< 8.2	**1.4**	< 20	**0.18 J**	**0.24 J**	**1.1**	< 5.1	**0.2 J**	< 8.2	**1.3**	< 5.1
4-Methyl-2-Pentanone (MIBK)	< 8.2	**0.94**	< 51	**2.3**	< 8.2	**1.6**	< 20	**1.4**	**1**	**0.74 J**	< 5.1	**0.29 J**	< 8.2	**1.3**	< 5.1
Acetone	**110**	**31**	**38**	**26**	**100**	**36**	**36**	**18**	**18**	**67**	**88**	**6.9**	**120**	**29**	**11**
Benzene	**0.93 J**	**1.1**	< 6.4	**9.6**	**0.99 J**	**1.2**	< 2.6	**7.7**	**4.8**	**3.5**	**1.9**	**1.9**	**0.86 J**	**1**	< 0.64
Bromodichloromethane	< 5.4	< 0.54	< 13	< 0.54	< 5.4	**5.6**	< 5.4	**0.87**	< 0.54	< 0.54	< 1.3	< 0.54	< 5.4	< 0.54	< 1.3
Bromoform	< 8.3	< 0.83	< 62	< 0.83	< 8.3	< 0.83	< 25	< 0.83	< 0.83	< 0.83	< 6.2	< 0.83	< 8.3	< 0.83	< 6.2
Bromomethane (Methyl Bromide)	< 3.1	< 0.31	< 7.8	< 0.31	< 3.1	**0.85**	< 3.1	< 0.31	< 0.31	**0.12 J**	< 0.78	< 0.31	< 3.1	**0.1 J**	< 0.78
Carbon disulfide	**1.1 J**	**0.4 J**	< 6.2	**6.2**	**2.4 J**	**3.4**	< 2.5	**5.3**	**6.5**	**18**	**12**	**0.087 J**	**1.7 J**	**0.37 J**	< 0.62
Carbon tetrachloride	< 5	**0.11 J**	< 12	**0.26 J**	< 5	**0.62**	< 5	**0.19 J**	**0.2 J**	**0.27 J**	< 1.2	**0.29 J**	< 5	**0.31 J**	< 1.2
Chlorobenzene	< 3.7	**0.37**	< 9.2	< 0.37	< 3.7	**1.3**	< 3.7	< 0.37	< 0.37	< 0.37	< 0.92	< 0.37	< 3.7	**0.24 J**	< 0.92
Chloroethane	< 2.1	**0.29**	< 5.3	**0.17 J**	< 2.1	**3.7**	< 2.1	**0.058 J**	**0.37**	**1.2**	< 0.53	**0.05 J**	< 2.1	**0.13 J**	< 0.53
Chloroform (Trichloromethane)	< 3.9	**0.83**	< 9.7	**0.1 J**	< 3.9	**49**	**30**	**12**	**0.088 J**	**1.7**	**1.3**	**0.12 J**	< 3.9	**0.19 J**	< 0.97
Chloromethane (Methyl Chloride)	< 4.1	**1.1**	< 4.1	**0.23 J**	< 4.1	**3.9**	< 1.6	**0.27 J**	**0.29 J**	**1.4**	< 0.41	**0.35 J**	< 4.1	**0.62**	**3.3**
cis-1,2-Dichloroethene	< 3.2	< 0.32	< 7.9	< 0.32	< 3.2	< 0.32	< 3.2	< 0.32	< 0.32	< 0.32	< 0.79	< 0.32	< 3.2	< 0.32	< 0.79
cis-1,3-Dichloropropene	< 3.6	< 0.36	< 9.1	< 0.36	< 3.6	< 0.36	< 3.6	< 0.36	< 0.36	< 0.36	< 0.91	< 0.36	< 3.6	< 0.36	< 0.91
Cyclohexane	< 6.9	**0.69**	< 6.9	**14**	**1.4 J**	**0.96**	< 2.8	**24**	**6.9**	**3.8**	**3.2**	**0.41 J**	< 6.9	**0.55 J**	< 0.69
Dibromochloromethane	< 6.8	< 0.68	< 17	< 0.68	< 6.8	**0.29 J**	< 6.8	< 0.68	< 0.68	< 0.68	< 1.7	< 0.68	< 6.8	< 0.68	< 1.7
Dichlorodifluoromethane (CFC-12)	< 4	**2.1**	< 9.9	**2.2**	**2.6 J**	**3.7**	< 4	**1.9**	**2.5**	**3.6**	**2.4**	**2.4**	**2.7 J**	**2.6**	**1.9**
Ethylbenzene	**2 J**	**4.8**	< 8.7	**2**	**2.6 J**	**6.1**	**3.6**	**1.8**	**1.7**	**4.8**	**2.8**	**1.2**	**3.1 J**	**4.3**	**2.6**
m&p-Xylene	**4.3**	**19**	< 17	**6.5**	**6.5**	**22**	**13**	**5.6**	**4.8**	**12**	**6.9**	**4**	**6.1**	**16**	**10**
Methyl Tert Butyl Ether	< 14	< 1.4	< 7.2	< 1.4	< 14	< 1.4	< 2.9	< 1.4	< 1.4	< 1.4	< 0.72	< 1.4	< 14	< 1.4	< 0.72
Methylene chloride	< 6.9	< 0.69	< 6.9	**1.9**	< 6.9	< 0.69	< 2.8	**5.6**	< 0.69	< 0.69	< 0.69	< 0.69	< 6.9	< 0.69	< 0.69
o-Xylene	**1.3 J**	**8.7**	< 8.7	**2.3**	**2.1 J**	**9.6**	**6.5**	**2**	**1.7**	**5.6**	**3.5**	**1.4**	**1.4 J**	**7.4**	**4.3**
Styrene	**1.4 J**	**0.33 J**	< 8.5	**0.47**	**2.2 J**	**0.36**	< 3.4	**0.22 J**	**0.81**	**0.32 J**	< 0.85	**0.77**	< 3.4	**0.31 J**	< 0.85
Tetrachloroethene	< 5.4	**0.3 J**	< 14	**0.39 J**	< 5.4	**3.1**	< 5.4	**0.39 J**	< 0.54	**2.5**	**3**	< 0.54	< 5.4	**2.2**	**2**
Tetrahydrofuran	**1.4 J**	**0.59 J**	< 5.9	< 1.2	**2.2 J**	**0.8 J**	< 2.4	< 1.2	< 1.2	**0.83 J**	< 0.59	< 1.2	**2.3 J**	**0.71 J**	< 0.59
Toluene	**17**	**12**	**14**	**15**	**17**	**15**	**7.5**	**12**	**9.8**	**14**	**8.7**	**6.8**	**18**	**8.3**	**4.9**
trans-1,2-Dichloroethene	< 3.2	< 0.32	< 7.9	< 0.32	< 3.2	< 0.32	< 3.2	< 0.32	**0.71**	< 0.32	< 0.79	**2.1**	< 3.2	< 0.32	< 0.79
trans-1,3-Dichloropropene	< 3.6	< 0.36	< 9.1	< 0.36	< 3.6	< 0.36	< 3.6	< 0.36	< 0.36	< 0.36	< 0.91	< 0.36	< 3.6	< 0.36	< 0.91
Trichloroethene	< 2.1	< 0.21	< 11	< 0.21	< 2.1	**0.11 J**	< 4.3	< 0.21	< 0.21	**0.097 J**	< 1.1	< 0.21	< 2.1	**0.081 J**	< 1.1
Trichlorofluoromethane (CFC-11)	**0.79 J**	**3.7**	< 11	**1.2**	**1.6 J**	**4.7**	< 4.5	**1.5**	**1.2**	**6.2**	**4.3**	**1.6**	**1.6 J**	**2.6**	**1.8**
Trifluorotrichloroethane (Freon 113)	< 6.1	**1.1**	< 15	**0.48 J**	< 6.1	**1.5**	< 6.1	**0.46 J**	**0.48 J**	**2.1**	**1.5**	**0.53 J**	< 6.1	**0.92**	< 1.5
Vinyl chloride	< 2	**0.087 J**	< 5.1	**0.16 J**	< 2	**0.23**	< 2	< 0.2	< 0.2	< 0.2	< 0.51	< 0.2	< 2	**0.12 J**	< 0.51

Notes and Abbreviations:
(1). The values identified are target sub-slab soil gas vapor intrusion screening levels (VISLs) based on residential exposure factors, and toxicity values current as of May 2012.
EPA OSWER VISL Calculator Version 2.0, May 2012 RSLs. Calculations are presented in Attachment A. Values for benzene, toluene, ethylbenzene, and xylenes (BTEX) incorporate a 100-fold attenuation factor as directed by EPA Region 5.
Basis
nc - screening value is based on a non-cancer hazard quotient of 0.1.
c - screening value is based on an excess lifetime cancer risk of 1 in 1 million.
(2). Analyte is selected as a COPC if the maximum detected result exceeds the vapor intrusion screening value, or if no screening value is available.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
NSL = No screening value available ; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
(3). Sample analytical results shown in **bold** are detected results greater than the reporting limit. " < " indicates the analyte was not detected above the reporting limit identified. " J " indicates the result is an estimated value based on the data useability review performed.

COPC = Chemical of potential concern.
ug/m3 = Microgram per cubic meter.
" - " = Not detected/ Not applicable.

TABLE 7
SUMMARY OF SOIL GAS DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - AOI 28
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group / Target Analyte	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		VISLs - Industrial Sub-Slab Soil Gas (2) HI = 0.1	basis	Selected as a COPC? (3)	Rationale
			#Not Detected	#Detected	% Detected	Minimum	Maximum	Minimum	Maximum				
Volatile Organic Compounds													
1,1,1-Trichloroethane	71-55-6	ug/m3	2	1	33%	2000	2100	11	11	22000	nc	no	BSL
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	3	0	0%	1.4	2600	-	-	-	-	-	-
1,1,2-Trichloroethane	79-00-5	ug/m3	3	0	0%	1.1	2100	-	-	-	-	-	-
1,1-Dichloroethane	75-34-3	ug/m3	3	0	0%	0.81	1500	-	-	-	-	-	-
1,1-Dichloroethene	75-35-4	ug/m3	3	0	0%	0.79	1500	-	-	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	ug/m3	3	0	0%	7.4	14000	-	-	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	3	0	0%	1.5	2900	-	-	-	-	-	-
1,2-Dichlorobenzene	95-50-1	ug/m3	3	0	0%	1.2	2300	-	-	-	-	-	-
1,2-Dichloroethane	107-06-2	ug/m3	3	0	0%	0.81	1500	-	-	-	-	-	-
1,2-Dichloropropane	78-87-5	ug/m3	3	0	0%	0.92	1800	-	-	-	-	-	-
1,3-Dichlorobenzene	541-73-1	ug/m3	3	0	0%	1.2	2300	-	-	-	-	-	-
1,4-Dichlorobenzene	106-46-7	ug/m3	3	0	0%	1.2	2300	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	78-93-3	ug/m3	2	1	33%	5300	5600	16	16	22000	nc	no	BSL
2-Hexanone	591-78-6	ug/m3	3	0	0%	2	3900	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	108-10-1	ug/m3	2	1	33%	3800	3900	0.57	0.57	13000	nc	no	BSL
Acetone	67-64-1	ug/m3	2	1	33%	22000	23000	36	36	140000	nc	no	BSL
Benzene	71-43-2	ug/m3	2	1	33%	1200	1200	1.9	1.9	16	c	no	BSL
Bromodichloromethane	75-27-4	ug/m3	3	0	0%	1.3	2500	-	-	-	-	-	-
Bromoform	75-25-2	ug/m3	3	0	0%	2.1	3900	-	-	-	-	-	-
Bromomethane (Methyl Bromide)	74-83-9	ug/m3	3	0	0%	0.78	1500	-	-	-	-	-	-
Carbon disulfide	75-15-0	ug/m3	2	1	33%	2900	3000	87	87	3100	nc	no	BSL
Carbon tetrachloride	56-23-5	ug/m3	2	1	33%	2300	2400	0.46	0.46	20	c	no	BSL
Chlorobenzene	108-90-7	ug/m3	3	0	0%	0.92	1700	-	-	-	-	-	-
Chloroethane	75-00-3	ug/m3	3	0	0%	0.53	1000	-	-	-	-	-	-
Chloroform (Trichloromethane)	67-66-3	ug/m3	2	1	33%	1800	1900	3.8	3.8	5.3	c	no	BSL
Chloromethane (Methyl Chloride)	74-87-3	ug/m3	2	1	33%	1900	2000	0.35	0.35	390	nc	no	BSL
cis-1,2-Dichloroethene	156-59-2	ug/m3	3	0	0%	0.79	1500	-	-	-	-	-	-
cis-1,3-Dichloropropene	10061-01-5	ug/m3	3	0	0%	0.91	1700	-	-	-	-	-	-
Cyclohexane	110-82-7	ug/m3	2	1	33%	3200	3300	2.9	2.9	26000	nc	no	BSL
Dibromochloromethane	124-48-1	ug/m3	3	0	0%	1.7	3200	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	75-71-8	ug/m3	2	1	33%	1800	1900	3.6	3.6	440	nc	no	BSL
Ethylbenzene	100-41-4	ug/m3	2	1	33%	1600	1700	1.5	1.5	49	c	no	BSL
m&p-Xylene	M/P-XYLENE	ug/m3	2	1	33%	1600	1700	5.6	5.6	270	nc	no	BSL
Methyl Tert Butyl Ether	1634-04-4	ug/m3	3	0	0%	3.6	6900	-	-	-	-	-	-
Methylene chloride	75-09-2	ug/m3	3	0	0%	1.7	3300	-	-	-	-	-	-
o-Xylene	95-47-6	ug/m3	2	1	33%	1600	1700	2.6	2.6	380	nc	no	BSL
Styrene	100-42-5	ug/m3	3	0	0%	0.85	1600	-	-	-	-	-	-

TABLE 7
SUMMARY OF SOIL GAS DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - AOI 28
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Analytical Group / Target Analyte	CASRN	Units	Frequency of Detection (1)			Reporting Limit (1)		Detected Result (1)		VISLs - Industrial Sub-Slab Soil Gas (2) HI = 0.1	basis	Selected as a COPC? (3)	Rationale
			#Not Detected	#Detected	% Detected	Minimum	Maximum	Minimum	Maximum				
Volatile Organic Compounds (continued)													
Tetrachloroethene	127-18-4	ug/m3	0	3	100%	-	-	250	310000	180	nc	yes	ASL
Tetrahydrofuran	109-99-9	ug/m3	2	1	33%	5300	5600	38	38	8800	nc	no	BSL
Toluene	108-88-3	ug/m3	2	1	33%	1400	1400	13	13	22000	nc	no	BSL
trans-1,2-Dichloroethene	156-60-5	ug/m3	3	0	0%	0.79	1500	-	-	-	-	-	-
trans-1,3-Dichloropropene	10061-02-6	ug/m3	3	0	0%	0.91	1700	-	-	-	-	-	-
Trichloroethene	79-01-6	ug/m3	0	3	100%	-	-	130	64000	8.8	nc	yes	ASL
Trichlorofluoromethane (CFC-11)	75-69-4	ug/m3	2	1	33%	2100	2100	16	16	3100	nc	no	BSL
Trifluorotrichloroethane (Freon 113)	76-13-1	ug/m3	2	1	33%	2800	2900	0.84	0.84	130000	nc	no	BSL
Vinyl chloride	75-01-4	ug/m3	3	0	0%	0.51	970	-	-	-	-	-	-

Notes and Abbreviations:
(1) Samples included in data set are identified in Appendix A.
(2) The values identified are target sub-slab soil gas vapor intrusion screening levels (VISLs) based on commercial/industrial exposure factors, and toxicity values current as of May 2012.
EPA OSWER VISL Calculator Version 2.0, May 2012 RSLs. Calculations are presented in Attachment A.
Volatile Organic Compounds
Value for m&p-xylene is based on the industrial sub-slab VISL value for m-xylene; which is the lesser of the two sub-slab VISLs calculated for the m- and p-xylene isomers.
Basis
nc - screening value is based on a non-cancer hazard quotient of 0.1.
c - screening value is based on an excess lifetime cancer risk of 1 in 1 million.
(3) Analyte is selected as a COPC if the maximum detected concentration exceeds the screening value. Analytes that are not volatile are not selected as COPCs.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.

VISL = Vapor Intrusion Screening Level
COPC = Chemical of potential concern.
ug/m3 = Microgram per cubic meter.
" - " = Not detected/ Not applicable.

TABLE 8
SUMMARY OF INDOOR AIR DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - CALENDAR BASEMENT
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

		Location Name:	Calendar Basement				
		Sample Name:	1318-072511-1045				
		Sample Date:	7/25/2011				
		Sample Matrix:	Indoor Air				
Analytical Group Target Analyte	CASRN	Units		Industrial Air RSL HI = 0.1 (1)	basis	Selected as a COPC? (2)	Rationale
Volatile Organic Compounds							
1,1,1-Trichloroethane	71-55-6	ug/m3	< 0.44	-	-	-	-
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	< 0.55	-	-	-	-
1,1,2-Trichloroethane	79-00-5	ug/m3	< 0.44	-	-	-	-
1,1-Dichloroethane	75-34-3	ug/m3	< 0.32	-	-	-	-
1,1-Dichloroethene	75-35-4	ug/m3	< 0.32	-	-	-	-
1,2,4-Trichlorobenzene	120-82-1	ug/m3	< 3	-	-	-	-
1,2-Dibromoethane (EDB)	106-93-4	ug/m3	< 0.61	-	-	-	-
1,2-Dichlorobenzene	95-50-1	ug/m3	< 0.48	-	-	-	-
1,2-Dichloroethane	107-06-2	ug/m3	< 0.32	-	-	-	-
1,2-Dichloropropane	78-87-5	ug/m3	< 0.37	-	-	-	-
1,3-Dichlorobenzene	541-73-1	ug/m3	< 0.48	-	-	-	-
1,4-Dichlorobenzene	106-46-7	ug/m3	< 0.48	-	-	-	-
2-Butanone (MEK)	78-93-3	ug/m3	**4.7**	2200	nc	no	BSL
2-Hexanone	591-78-6	ug/m3	**0.53** J	13	nc	no	BSL
4-Methyl-2-Pentanone (MIBK)	108-10-1	ug/m3	**1.1**	1300	nc	no	BSL
Acetone	67-64-1	ug/m3	**18**	14000	nc	no	BSL
Benzene	71-43-2	ug/m3	**0.3**	1.6	c	no	BSL
Bromodichloromethane	75-27-4	ug/m3	< 0.54	-	-	-	-
Bromoform	75-25-2	ug/m3	< 0.83	-	-	-	-
Bromomethane (Methyl Bromide)	74-83-9	ug/m3	**0.054** J	2.2	nc	no	BSL
Carbon disulfide	75-15-0	ug/m3	**0.19** J	310	nc	no	BSL
Carbon tetrachloride	56-23-5	ug/m3	**0.47** J	2	c	no	BSL
Chlorobenzene	108-90-7	ug/m3	< 0.37	-	-	-	-
Chloroethane	75-00-3	ug/m3	**0.077** J	4400	nc	no	BSL
Chloroform (Trichloromethane)	67-66-3	ug/m3	**0.093** J	0.53	c	no	BSL
Chloromethane (Methyl Chloride)	74-87-3	ug/m3	**1**	39	nc	no	BSL
cis-1,2-Dichloroethene	156-59-2	ug/m3	< 0.32	-	-	-	-
cis-1,3-Dichloropropene	10061-01-5	ug/m3	< 0.36	-	-	-	-
Cyclohexane	110-82-7	ug/m3	**0.23** J	2600	nc	no	BSL
Dibromochloromethane	124-48-1	ug/m3	< 0.68	-	-	-	-
Dichlorodifluoromethane (CFC-12)	75-71-8	ug/m3	**2**	44	nc	no	BSL
Ethylbenzene	100-41-4	ug/m3	**1.2**	4.9	c	no	BSL
m&p-Xylene	M/P-XYLENE	ug/m3	**3**	44	nc	no	BSL
Methyl Tert Butyl Ether	1634-04-4	ug/m3	< 1.4	-	-	-	-
Methylene chloride	75-09-2	ug/m3	**8**	120	nc	no	BSL
o-Xylene	95-47-6	ug/m3	**1.2**	44	nc	no	BSL
Styrene	100-42-5	ug/m3	**0.98**	440	nc	no	BSL
Tetrachloroethene	127-18-4	ug/m3	**0.32** J	18	nc	no	BSL
Tetrahydrofuran	109-99-9	ug/m3	**1** J	880	nc	no	BSL
Toluene	108-88-3	ug/m3	**2.3**	2200	nc	no	BSL
trans-1,2-Dichloroethene	156-60-5	ug/m3	< 0.32	-	-	-	-
trans-1,3-Dichloropropene	10061-02-6	ug/m3	< 0.36	-	-	-	-
Trichloroethene	79-01-6	ug/m3	**0.16** J	0.88	nc	no	BSL
Trichlorofluoromethane (CFC-11)	75-69-4	ug/m3	**1.5**	310	nc	no	BSL
Trifluorotrichloroethane (Freon 113)	76-13-1	ug/m3	**0.48** J	13000	nc	no	BSL
Vinyl chloride	75-01-4	ug/m3	< 0.2	-	-	-	-

Notes and Abbreviations:
(1) Values are the Regional Screening Levels (RSLs) for USEPA Regions 3, 6, and 9: *Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2012.*
(http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
Values used for screening are the industrial indoor air RSLs for the lesser of cancer risks equal to 1E-06 or non-cancer risks equal to a hazard index of 0.1.
Value for cis-1,2-dichloroethene is based on the value for the trans-1,2,-dichloroethene isomer (CASRN 156-60-5). No inhalation toxicity values are available for the cis-isomer.
Basis
nc - screening value is based on a non-cancer hazard quotient of 0.1.
c - screening value is based on an excess lifetime cancer risk of 1 in 1 million.
(2) Analyte is selected as a COPC if the maximum detected concentration exceeds the RSL or if no screening value is available.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
(3). Sample analytical results shown in **bold** are detected results greater than the reporting limit. " < " indicates the analyte was not detected above the reporting limit identified.
" J " indicates the result is an estimated value based on the data useability review performed.

COPC = Chemical of potential concern
ug/m3 = Micrograms per cubic meter.
" - " = Not detected/ Not applicable.

TABLE 9
SUMMARY OF INDOOR AIR DATA AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - AOI 28
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

							Area of Interest:	AOI-28	AOI-28
							Location Name:	IA-28-01	IA-28-02
							Sample Name:	1318-072511-1057	1318-072511-1059
							Sample Date:	7/25/2011	7/25/2011
							Sample Matrix:	IA	IA
Analytical Group Target Analyte	CASRN	Units	Max. Detected Result	Industrial RSL (1) HI = 0.1	basis	Selected as a COPC? (2)	Rationale		
Volatile Organic Compounds									
1,1-Dichloroethene	75-35-4	ug/m3	0.052	88	nc	no	BSL	< 0.32	**0.052 J**
cis-1,2-Dichloroethene	156-59-2	ug/m3	0.19	26	nc	no	BSL	< 0.32	**0.19 J**
Tetrachloroethene	127-18-4	ug/m3	0.75	18	nc	no	BSL	**0.61**	**0.75**
trans-1,2-Dichloroethene	156-60-5	ug/m3	-	26	nc	-	-	< 0.32	< 0.32
Trichloroethene	79-01-6	ug/m3	0.31	0.88	nc	no	BSL	**0.24**	**0.31**
Vinyl chloride	75-01-4	ug/m3	-	2.8	c	-	-	< 0.2	< 0.2

Notes and Abbreviations:
(1) Values are the Regional Screening Levels (RSLs) for USEPA Regions 3, 6, and 9: *Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2012.*
(http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
Values used for screening are the industrial indoor air RSLs for the lesser of cancer risks equal to 1E-06 or non-cancer risks equal to a hazard index of 0.1.
Value for cis-1,2-dichloroethene is based on the value for the trans-1,2,-dichloroethene isomer (CASRN 156-60-5). No inhalation toxicity values are available for the cis-isomer.
nc - RSL is based on a non-cancer hazard quotient of 0.1.
c - RSL is based on an excess lifetime cancer risk of 1 in 1 million.
(2) Analyte is selected as a COPC if the maximum detected concentration exceeds the RSL or if no screening value is available.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
(3). Sample analytical results shown in **bold** are detected results greater than the reporting limit. " < " indicates the analyte was not detected above the reporting limit identified.
" J " indicates the result is an estimated value based on the data useability review performed.
RSL = Regional Screening Value
COPC = Chemical of potential concern.
ug/m^3 = Micrograms per cubic meter.
" - " = Not applicable. The analyte was tested for and was not detected above the reporting limit identified.

TABLE 10
SUMMARY OF NAPL DATA - AOI 15
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	PZ-31	PZ-31
Sample Name	1318-072110-1225	1318-072110-1225
Sample Date	7/21/2010	7/21/2010
Sample Type	N	N
Result Units (unless indicated otherwise)	mg/kg	mg/L
Other (cst)		
Viscosity	**47.1**	**47.1**
Other (g/cm3)		
Specific gravity	**0.97**	**0.97**
PCBs		
Aroclor-1016 (PCB-1016)	< 1	< 0.97
Aroclor-1221 (PCB-1221)	< 1	< 0.97
Aroclor-1232 (PCB-1232)	< 1	< 0.97
Aroclor-1242 (PCB-1242)	**2.2**	**2.134**
Aroclor-1248 (PCB-1248)	< 1	< 0.97
Aroclor-1254 (PCB-1254)	< 1	< 0.97
Aroclor-1260 (PCB-1260)	< 1	< 0.97
Semi-Volatile Organic Compounds		
2,2'-oxybis(1-Chloropropane)	< 4000	< 3880
2,4,5-Trichlorophenol	< 4000	< 3880
2,4,6-Trichlorophenol	< 4000	< 3880
2,4-Dichlorophenol	< 4000	< 3880
2,4-Dimethylphenol	< 4000	< 3880
2,4-Dinitrophenol	< 19000	< 18430
2,4-Dinitrotoluene	< 4000	< 3880
2,6-Dinitrotoluene	< 4000	< 3880
2-Chloronaphthalene	< 4000	< 3880
2-Chlorophenol	< 4000	< 3880
2-Methylnaphthalene	< 4000	< 3880
2-Methylphenol	< 4000	< 3880
2-Nitroaniline	< 19000	< 18430
2-Nitrophenol	< 4000	< 3880
3,3'-Dichlorobenzidine	< 19000	< 18430
3-Nitroaniline	< 19000	< 18430
4,6-Dinitro-2-methylphenol	< 19000	< 18430
4-Bromophenyl phenyl ether	< 4000	< 3880
4-Chloro-3-methylphenol	< 4000	< 3880
4-Chloroaniline	< 4000	< 3880
4-Chlorophenyl phenyl ether	< 4000	< 3880
4-Methylphenol	< 4000	< 3880
4-Nitroaniline	< 19000	< 18430
4-Nitrophenol	< 19000	< 18430
Acenaphthene	< 4000	< 3880
Acenaphthylene	< 4000	< 3880
Acetophenone	< 4000	< 3880

TABLE 10
SUMMARY OF NAPL DATA - AOI 15
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	PZ-31	PZ-31
Sample Name	1318-072110-1225	1318-072110-1225
Sample Date	7/21/2010	7/21/2010
Sample Type	N	N
Result Units (unless indicated otherwise)	mg/kg	mg/L
Anthracene	< 4000	< 3880
Atrazine	< 4000	< 3880
Benzaldehyde	< 4000	< 3880
Benzo(a)anthracene	< 4000	< 3880
Benzo(a)pyrene	< 4000	< 3880
Benzo(b)fluoranthene	< 4000	< 3880
Benzo(g,h,i)perylene	< 4000	< 3880
Benzo(k)fluoranthene	< 4000	< 3880
Biphenyl	< 4000	< 3880
bis(2-Chloroethoxy)methane	< 4000	< 3880
bis(2-Chloroethyl)ether	< 4000	< 3880
bis(2-Ethylhexyl)phthalate	**34000**	**32980**
Butyl benzylphthalate	< 4000	< 3880
Caprolactam	< 4000	< 3880
Carbazole	< 4000	< 3880
Chrysene	< 4000	< 3880
Dibenz(a,h)anthracene	< 4000	< 3880
Dibenzofuran	< 4000	< 3880
Diethyl phthalate	< 4000	< 3880
Dimethyl phthalate	< 4000	< 3880
Dimethylformamide	< 4000	< 3880
Di-n-butylphthalate	< 4000	< 3880
Di-n-octyl phthalate	**110000**	**106700**
Fluoranthene	< 4000	< 3880
Fluorene	< 4000	< 3880
Hexachlorobenzene	< 4000	< 3880
Hexachlorobutadiene	< 4000	< 3880
Hexachlorocyclopentadiene	< 19000	< 18430
Hexachloroethane	< 4000	< 3880
Indeno(1,2,3-cd)pyrene	< 4000	< 3880
Isophorone	< 4000	< 3880
Naphthalene	< 4000	< 3880
Nitrobenzene	< 4000	< 3880
N-Nitrosodi-n-propylamine	< 4000	< 3880
N-Nitrosodiphenylamine	< 4000	< 3880
Pentachlorophenol	< 4000	< 3880
Phenanthrene	< 4000	< 3880
Phenol	< 4000	< 3880
Pyrene	< 4000	< 3880

TABLE 10
SUMMARY OF NAPL DATA - AOI 15
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	PZ-31	PZ-31
Sample Name	1318-072110-1225	1318-072110-1225
Sample Date	7/21/2010	7/21/2010
Sample Type	N	N
Result Units (unless indicated otherwise)	mg/kg	mg/L
Volatile Organic Compounds		
1,1,1-Trichloroethane	< 1	< 0.97
1,1,2,2-Tetrachloroethane	< 1 J	< 0.97 J
1,1,2-Trichloroethane	< 1	< 0.97
1,1-Dichloroethane	< 1	< 0.97
1,1-Dichloroethene	< 1	< 0.97
1,2,4-Trichlorobenzene	**0.048 J**	**0.04656 J**
1,2-Dibromo-3-chloropropane (DBCP)	< 2 J	< 1.94 J
1,2-Dibromoethane (Ethylene Dibromide)	< 1	< 0.97
1,2-Dichlorobenzene	< 2 J	< 1.94 J
1,2-Dichloroethane	< 1	< 0.97
1,2-Dichloropropane	< 1	< 0.97
1,3-Dichlorobenzene	< 2 J	< 1.94 J
1,4-Dichlorobenzene	**0.039 J**	**0.03783 J**
2-Butanone (Methyl Ethyl Ketone)	**0.14 J**	**0.1358 J**
2-Hexanone	< 4.1	< 3.977
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 4.1	< 3.977
Acetone	< 4.1	< 3.977
Benzene	< 1	< 0.97
Bromodichloromethane	R	R
Bromoform	< 1	< 0.97
Bromomethane (Methyl Bromide)	< 2	< 1.94
Carbon disulfide	< 1	< 0.97
Carbon tetrachloride	< 1	< 0.97
Chlorobenzene	< 1	< 0.97
Chlorobromomethane	< 1	< 0.97
Chloroethane	< 2	< 1.94
Chloroform (Trichloromethane)	< 1	< 0.97
Chloromethane (Methyl Chloride)	< 2	< 1.94
cis-1,2-Dichloroethene	< 0.51	< 0.4947
cis-1,3-Dichloropropene	R	R
Cyclohexane	**11**	**10.67**
Dibromochloromethane	< 1	< 0.97
Dichlorodifluoromethane (CFC-12)	**0.027 J**	**0.02619 J**
Ethylbenzene	**0.052 J**	**0.05044 J**
Isopropylbenzene	**1.4 J**	**1.358 J**
Methyl acetate	< 2	< 1.94
Methyl cyclohexane	**26**	**25.22**
Methyl Tert Butyl Ether	**1 J**	**0.97 J**
Methylene chloride	< 1	< 0.97
n-Propylbenzene	**1.6 J**	**1.552 J**
Styrene	< 1	< 0.97
Tetrachloroethene	< 1	< 0.97

TABLE 10
SUMMARY OF NAPL DATA - AOI 15
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	PZ-31	PZ-31
Sample Name	1318-072110-1225	1318-072110-1225
Sample Date	7/21/2010	7/21/2010
Sample Type	N	N
Result Units (unless indicated otherwise)	mg/kg	mg/L
Tetrahydrofuran	< 4.1	< 3.977
Toluene	< 1	< 0.97
trans-1,2-Dichloroethene	< 0.51	< 0.4947
trans-1,3-Dichloropropene	< 1	< 0.97
Trichloroethene	< 1	< 0.97
Trichlorofluoromethane (CFC-11)	< 2	< 1.94
Trifluorotrichloroethane (Freon 113)	< 4.1	< 3.977
Vinyl chloride	< 2	< 1.94
Xylene (total)	**0.39 J**	**0.3783 J**

Notes and Abbreviations:
1. Results were converted from mg/kg to mg/l using the specific gravity.
2. <: Result is less than indicated reporting limit.
   J: Estimated result
   R: Rejected
3. Results in **bold** are detected.

TABLE 11
SUMMARY OF NAPL DATA - CALENDER SUMP
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	Calender Sump 2
Sample Name	4413-060911-1130
Sample Date	6/9/2011
Sample Type	N
Specific Gravity	1
Inorganic Compounds (mg/L)	
Antimony, Total	**0.15 J**
Arsenic, Total	< 0.2
Barium, Total	**0.89 J**
Beryllium, Total	< 0.2
Cadmium, Total	**0.25**
Chromium Total, Total	**0.36 J**
Cobalt, Total	< 0.5
Copper, Total	**1.33**
Cyanide (total)	< 3
Lead, Total	**1.53**
Manganese, Total	**2.17**
Mercury, Total	< 0.05
Nickel, Total	**0.24 J**
Selenium, Total	< 0.5
Silver, Total	< 0.2
Thallium, Total	< 0.5
Vanadium, Total	< 0.5
Zinc, Total	**14.3**
PCBs (mg/L)	
Aroclor-1016 (PCB-1016)	< 33
Aroclor-1221 (PCB-1221)	< 33
Aroclor-1232 (PCB-1232)	< 33
Aroclor-1242 (PCB-1242)	**300**
Aroclor-1248 (PCB-1248)	< 33
Aroclor-1254 (PCB-1254)	< 33
Aroclor-1260 (PCB-1260)	< 33
Volatile Organic Compounds (mg/L)	
1,1,1-Trichloroethane	< 3
1,1,2,2-Tetrachloroethane	< 3
1,1,2-Trichloroethane	< 3
1,1-Dichloroethane	< 3
1,1-Dichloroethene	< 3
1,2,4-Trichlorobenzene	**0.13 J**
1,2-Dibromo-3-chloropropane (DBCP)	< 5
1,2-Dibromoethane (Ethylene Dibromide)	< 3
1,2-Dichlorobenzene	< 3
1,2-Dichloroethane	< 3
1,2-Dichloropropane	< 3
1,3-Dichlorobenzene	< 3
1,4-Dichlorobenzene	< 3
2-Butanone (Methyl Ethyl Ketone)	< 5
2-Hexanone	< 5
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	< 5
Acetone	< 5
Benzene	< 3
Bromodichloromethane	< 3
Bromoform	< 3

TABLE 11
SUMMARY OF NAPL DATA - CALENDER SUMP
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Location Name	Calender Sump 2
Sample Name	4413-060911-1130
Sample Date	6/9/2011
Sample Type	N
Specific Gravity	1
Bromomethane (Methyl Bromide)	< 3 J
Carbon disulfide	< 3
Carbon tetrachloride	< 3
Chlorobenzene	< 3
Chlorobromomethane	< 3
Chloroethane	< 3
Chloroform (Trichloromethane)	< 3
Chloromethane (Methyl Chloride)	< 3 J
cis-1,2-Dichloroethene	< 3
cis-1,3-Dichloropropene	< 3
Cyclohexane	< 5
Dibromochloromethane	< 3
Dichlorodifluoromethane (CFC-12)	< 3
Ethylbenzene	**0.695 J**
Isopropylbenzene	**0.34 J**
m&p-Xylene	**0.26 J**
Methyl acetate	**0.63 J**
Methyl cyclohexane	< 5
Methyl Tert Butyl Ether	< 3
Methylene chloride	< 3
n-Propylbenzene	**0.705 J**
o-Xylene	**0.34 J**
Styrene	**0.12 J**
Tetrachloroethene	< 3
Tetrahydrofuran	< 3
Toluene	**0.15 J**
trans-1,2-Dichloroethene	< 3
trans-1,3-Dichloropropene	< 3
Trichloroethene	< 3
Trichlorofluoromethane (CFC-11)	< 3
Trifluorotrichloroethane (Freon 113)	< 3
Vinyl chloride	< 3

Notes and Abbreviations:
1. Result units were converted to mg/L by multiplying the result by the specific gravity.
2. <: Result is below indicated reporting limit.
   J: Estimated result.
3. Results in **bold** are detected.

TABLE 12
SUMMARY OF POTENTIAL EXPOSURE PATHWAYS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Medium	Exposure Point	Receptor	Exposure Routes	Pathway Complete?	Rationale
Current Land Use					
Surface Soil	Unpaved soil	Maintenance worker	DC	Yes	One maintenance worker is employed at the facility. Worker may perform activities outdoors at areas where pavement does not exist.
		Trespasser	DC	Yes	Although the facility is fenced, trespassing may occur; exposures to soil could occur where pavement does not exist.
	Paved soil	Maintenance worker	DC	No	Pavement prevents exposure to soil
		Trespasser	DC	No	Pavement prevents exposure to soil
Subsurface Soil	All AOIs	Maintenance worker	DC, dust, ambient vapor	No	No excavation activities occurring and, therefore, no direct contact exposures to subsurface soil exist.
			Inhalation (VI)	No	No VOCs detected in soil at AOIs that are beneath the existing building (except AOI 28, which is evaluated under 'indoor air'); no excavation activities occurring and, therefore, no direct contact exposures to subsurface soil exist.
Storm water	Outfall at Fraleigh Creek (1)	Trespasser	Dermal (wading)	Yes	If trespassers access Fraleigh Creek, they could be exposed to COPCs in stormwater from the Site. The water in the creek is not deep enough to permit swimming.
Indoor Air	Eastern property boundary	Full time worker (indoor)	Inhalation	No	Soil vapor data indicate that exposure would be insignificant, and is therefore not quantified in risk assessment. The only VOCs detected in soil gas at concentrations greter than screening levels are not Site-related.
		Off-property resident	Inhalation	No	
	AOI 28	Maintenance worker	inhalation (VI)	Yes	One maintenance worker is employed at the facility. Worker may be exposed to volatile COPCs in soil beneath the floor if migration of vapors to indoor air occurs. However, no VOCs were detected in indoor air samples at concentrations greater than COPC screening levels, indicating that no indoor air COPCs were selected and, therefore, the pathway is complete, but insignificant.
Groundwater	Site-wide	Maintenance worker	Potable use	No	There are no uses of groundwater beneath the Site and groundwater beneath buildings does not contain COPCs at concentrations that exceed vapor intrusion screening levels, therefore, no complete exposure pathways.
			Inhalation (VI)	No	
		Off-Site resident or worker	Potable use	No	Public drinking water is supplied, and the groundwater at the east property boundary does not contain COPCs at concentrations that exceed vapor intrusion screening levels, therefore, no complete exposure pathways.
			Inhalation (VI)	No	
NAPL	AOI 1 (calender basement)	Maintenance worker	DC	No	The maintenance worker performs activities in accordance with the facility's health and safety plan, which requires that appropriate personal protective equipment be used to prevent exposure to NAPL. The NAPL at AOI 15 is not volatile. However, the NAPL at AOI 1 contain VOCs which could migrate to the indoor air. The maintenance worker may be exposed to VOCs in NAPL. However, no VOCs were detected in NAPL at concentrations greater than COPC screening levels, indicating that the inhalation pathway for NAPL at AOI 1 is complete, but insignificant.
			Indoor Air	Yes	
	AOI 15	Maintenance worker	DC, ambient vapor	No	

TABLE 12
SUMMARY OF POTENTIAL EXPOSURE PATHWAYS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Medium	Exposure Point	Receptor	Exposure Routes	Pathway Complete?	Rationale
Future Land Use					
Surface Soil	All AOIs	Full time worker (outdoor)	DC, dust, ambient vapor	Yes	It is assumed that pavement and the existing buildings could be removed in the future, thereby exposing soil.
		Construction worker	DC, dust, ambient vapor	Yes	
Subsurface Soil	All AOIs	Full time worker (outdoor)	DC, dust, ambient vapor	Yes	It is assumed that subsurface soil could be excavated in the future and re-placed as surface soil, thereby making subsurface soil potentially accessible.
		Construction worker	DC, dust, ambient vapor	Yes	
Storm water	Outfall at Fraleigh Creek (1)	Trespasser	DC (wading)	Yes	If trespassers access Fraleigh Creek, they could be exposed to COPCs in stormwater from the Site. The water in the creek is not deep enough to permit swimming.
Indoor Air	East property boundary	Full time worker (indoor)	Inhalation	No	Soil vapor data indicate that exposure would be insignificant, and is therefore not quantified in risk assessment. The only VOCs detected in soil gas at concentrations greter than screening levels are not Site-related.
		Off-property resident	Inhalation	No	
	AOI 28	Full time worker (indoor)	inhalation (VI)	Yes	If building is re-occupied, workers could be exposed to vapors that may migrate from soil gas to indoor air, based on VOCs detected in soil gas at concentrations greater than COPC screening levels.
Groundwater	Site-wide	Full-time worker	Potable use	No	There are no uses of groundwater beneath the Site and groundwater beneath buildings does not contain COPCs at concentrations that exceed vapor intrusion screening levels, therefore, no complete exposure pathways. However, groundwater on-site, at locations where buildings do not presently exist, could be a potential source of vapors to indoor air if buildings were constructed at the areas where VOCs were detected in groundwater at concentrations greater than VI screening values. Construction workers performing excavation activities could be exposed directly to groundwater, although normal work gear (e.g., boots) and de-watering would likley preclude direct contact exposure. VOCs in groundwater could migrate to ambient air, where construction workers could be exposed.
			Inhalation (VI)	Yes	
		Construction worker	Dermal contact	Yes	
			Incidental ingestion	Yes	
			Ambient vapor	Yes	
		Off-Site resident or worker	Potable use	No	
			Inhalation (VI)	No	
NAPL	AOI 1 (calender basement)	Full time worker (indoor)	Dermal	Yes	In the absence of a health and safety plan requiring that appropriate personal protective equipment be used to prevent exposure to NAPL, it is assumed that full time workers could contact NAPL on interior building surfaces in the basement area.
			Inhalation	Yes	It is assumed that full time workers could be exposed to vapors released from NAPL in the basement area. However, no VOCs were detected in NAPL at concentrations greater than COPC screening levels, indicating that the inhalation pathway for NAPL at AOI 1 is complete, but insignificant.
	AOI 15	Construction worker	Dermal	Yes	Incidental dermal exposure to NAPL could occur during excavation activities, and is therefore evaluated.

(1) - Sediment is not evaluated in the risk assessment because it is part of Fraleigh Creek, which was evaluated as a component of the Ottawa River System in the Ottawa River RI.
Ingestion of fish was also evaluated as a component of the Ottawa River System in the Ottawa River RI, and is therefore not evaluated in this risk assessment.
DC - Direct contact (incidental ingestion, dermal contact)
VI - vapor intrusion

TABLE 13
COMPARISON OF STORM WATER DATA TO WATER QUALITY STANDARDS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern		Location Name:	ST-105DG	ST-111	Maximum	Ohio Water Quality Standards	
		Sample Name:	4125-052112-1730	4125-052112-1630	Detected		
		Sample Date & Time:	5/21/2012 17:30	5/21/2012 16:30	Concentration	OMZM	OMZA
		Sample Type:	N	N			
Inorganic Compounds	CASRN	UNITS					
Antimony	7440-36-0	ug/L	2.7	15	15	900	190
Arsenic	7440-38-2	ug/L	1.7 J	4.2 J	4.2	340	150
Barium, Total	7440-39-3	ug/L	63	270	270	2000	220
Cobalt, Total	7440-48-4	ug/L	0.12 J	0.46 J	0.46	220	24
Copper, Total	7440-50-8	ug/L	1.5 J	2.9	2.9	13	9
Lead, Total	7439-92-1	ug/L	0.34 J	0.22 J	0.34	120	6.4
Manganese, Total	7439-96-5	ug/L	39	170	170	61000	61000
Nickel, Total	7440-02-0	ug/L	0.92 J	2.1	2.1	470	52
Selenium, Total	7782-49-2	ug/L	1.9 J	3.2 J	3.2	NA	4.6
Thallium, Total	7440-28-0	ug/L	0.2 J	0.56 J	0.56	79	17
Vanadium	7440-62-2	ug/L	0.61 J	1.1 J	1.1	150	44
PCB Aroclors							
Aroclor-1248 (PCB-1248)	12672-29-6	ug/L	1.3	< 0.48	1.3	See below [1]	See below [1]
Semi-Volatile Organic Compounds							
Benzo(a)anthracene	56-55-3	ug/L	0.18 J	< 0.19	0.18	42	4.7
Benzo(a)pyrene	50-32-8	ug/L	0.19	< 0.19	0.19	0.54	0.06
Benzo(b)fluoranthene	205-99-2	ug/L	0.35	< 0.19	0.35	23	2.6
Benzo(k)fluoranthene	207-08-9	ug/L	0.16 J	< 0.19	0.16	NA	NA
Chrysene	218-01-9	ug/L	0.27	< 0.19	0.27	4.7	42
Di-n-octyl phthalate	117-84-0	ug/L	1.3	< 0.95	1.3	NA	NA
Indeno(1,2,3-cd)pyrene	193-39-5	ug/L	0.13 J	< 0.19	0.13	NA	NA
Volatile Organic Compounds							
Tetrahydrofuran	109-99-9	ug/L	0.51 J	6600	6800	74000	11000

Notes and Abbreviations:
Ohio Water Quality Standards for Lake Erie Basion. OAC 3745-1. The lower of the aquatic and human health non-drinking water values are presented.
OMZM - Outside the Mixing Zone - Maximum
OMZA - Outside the Mixing Zone - Average
Water quality standards for copper, lead, and nickel are based on a hardness of 100 mg/L.
ug/L = micrograms per liter.
J = Estimated result.
< = The analyte was tested for and was not detected (ND) at a concentration greater than the reporting limit identified.
N = Normal sample.

[1] Evaluation for PCBs

	Maximum Detected Concentration	Mixed Concentration	Wildlife Criterion	Human Health Water Quality Standard
Aroclor-1248 (PCB-1248)	1.3	0.019	0.12	0.000026

The mixed concentration represents the concentration within the stormwater conveyance system after the confluence with other off-site stormwater discharge.
The dilution factor for discharge and mixing of the stormwater from the Site with the off-site stormwater is 70.
The mixed concentration was calculated by dividing the maximum detected concentation in storm water samples from the Site storm water system by 70.
OAC 3745-1 refers to Table 33-2 'Wildlife Criteria' for PCBs

TABLE 14
COMPARISON OIL GAS DATA AND INDOOR AIR DATA - AOI 28
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

			Sub-slab Soil Gas						Indoor Air					
Analytical Group / Target Analyte	CASRN	Units	Detected Result (1) Minimum	Detected Result (1) Maximum	VISLs - Industrial (2) Sub-Slab Soil Gas HI = 0.1	basis	Selected as a COPC? (3)	Rationale	Detected Result (4) Minimum	Detected Result (4) Maximum	RSLs - Industrial (5) HI = 0.1	basis	Selected as a COPC? (3)	Rationale
Volatile Organic Compounds														
1,1,1-Trichloroethane	71-55-6	ug/m3	11	11	22000	nc	no	BSL						
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	-	-	-	-	-	-						
1,1,2-Trichloroethane	79-00-5	ug/m3	-	-	-	-	-	-						
1,1-Dichloroethane	75-34-3	ug/m3	-	-	-	-	-	-						
1,1-Dichloroethene	75-35-4	ug/m3	-	-	-	-	-	-	0.052	0.052	88	nc	no	BSL
1,2,4-Trichlorobenzene	120-82-1	ug/m3	-	-	-	-	-	-						
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	-	-	-	-	-	-						
1,2-Dichlorobenzene	95-50-1	ug/m3	-	-	-	-	-	-						
1,2-Dichloroethane	107-06-2	ug/m3	-	-	-	-	-	-						
1,2-Dichloropropane	78-87-5	ug/m3	-	-	-	-	-	-						
1,3-Dichlorobenzene	541-73-1	ug/m3	-	-	-	-	-	-						
1,4-Dichlorobenzene	106-46-7	ug/m3	-	-	-	-	-	-						
2-Butanone (Methyl Ethyl Ketone)	78-93-3	ug/m3	16	16	22000	nc	no	BSL						
2-Hexanone	591-78-6	ug/m3	-	-	-	-	-	-						
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	108-10-1	ug/m3	0.57	0.57	13000	nc	no	BSL						
Acetone	67-64-1	ug/m3	36	36	140000	nc	no	BSL						
Benzene	71-43-2	ug/m3	1.9	1.9	16	c	no	BSL						
Bromodichloromethane	75-27-4	ug/m3	-	-	-	-	-	-						
Bromoform	75-25-2	ug/m3	-	-	-	-	-	-						
Bromomethane (Methyl Bromide)	74-83-9	ug/m3	-	-	-	-	-	-						
Carbon disulfide	75-15-0	ug/m3	87	87	3100	nc	no	BSL						
Carbon tetrachloride	56-23-5	ug/m3	0.46	0.46	20	c	no	BSL						
Chlorobenzene	108-90-7	ug/m3	-	-	-	-	-	-						
Chloroethane	75-00-3	ug/m3	-	-	-	-	-	-						
Chloroform (Trichloromethane)	67-66-3	ug/m3	3.8	3.8	5.3	c	no	BSL						
Chloromethane (Methyl Chloride)	74-87-3	ug/m3	0.35	0.35	390	nc	no	BSL						
cis-1,2-Dichloroethene	156-59-2	ug/m3	-	-	-	-	-	-	0.19	0.19	26	nc	no	BSL
cis-1,3-Dichloropropene	10061-01-5	ug/m3	-	-	-	-	-	-						
Cyclohexane	110-82-7	ug/m3	2.9	2.9	26000	nc	no	BSL						
Dibromochloromethane	124-48-1	ug/m3	-	-	-	-	-	-						
Dichlorodifluoromethane (CFC-12)	75-71-8	ug/m3	3.6	3.6	440	nc	no	BSL						
Ethylbenzene	100-41-4	ug/m3	1.5	1.5	49	c	no	BSL						
m&p-Xylene	M/P-XYLENE	ug/m3	5.6	5.6	270	nc	no	BSL						
Methyl Tert Butyl Ether	1634-04-4	ug/m3	-	-	-	-	-	-						
Methylene chloride	75-09-2	ug/m3	-	-	-	-	-	-						
o-Xylene	95-47-6	ug/m3	2.6	2.6	380	nc	no	BSL						
Styrene	100-42-5	ug/m3	-	-	-	-	-	-						
Tetrachloroethene	127-18-4	ug/m3	250	310000	180	nc	yes	ASL	0.61	0.75	18	nc	no	BSL
Tetrahydrofuran	109-99-9	ug/m3	38	38	8800	nc	no	BSL						
Toluene	108-88-3	ug/m3	13	13	22000	nc	no	BSL						
trans-1,2-Dichloroethene	156-60-5	ug/m3	-	-	-	-	-	-	--	--	--	--	--	--
trans-1,3-Dichloropropene	10061-02-6	ug/m3	-	-	-	-	-	-						
Trichloroethene	79-01-6	ug/m3	130	64000	8.8	nc	yes	ASL	0.24	0.31	0.88	nc	no	BSL
Trichlorofluoromethane (CFC-11)	75-69-4	ug/m3	16	16	3100	nc	no	BSL						
Trifluorotrichloroethane (Freon 113)	76-13-1	ug/m3	0.84	0.84	130000	nc	no	BSL						
Vinyl chloride	75-01-4	ug/m3	-	-	-	-	-	-	--	--	--	--	--	--

TABLE 14
COMPARISON OIL GAS DATA AND INDOOR AIR DATA - AOI 28
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

			Sub-slab Soil Gas					Indoor Air					
Analytical Group / Target Analyte	CASRN	Units	Detected Result (1) Minimum	Detected Result (1) Maximum	VISLs - Industrial (2) Sub-Slab Soil Gas HI = 0.1	basis	Selected as a COPC? (3)	Rationale	Detected Result (4) Minimum	Detected Result (4) Maximum	RSLs - Industrial (5) HI = 0.1	basis	Selected as a COPC? (3)	Rationale

Notes and Abbreviations:
(1) Samples included in data set are identified in Appendix A.
(2) The values identified are target sub-slab soil gas vapor intrusion screening levels (VISLs) based on commercial/industrial exposure factors, and toxicity values current as of May 2012.
EPA OSWER VISL Calculator Version 2.0, May 2012 RSLs. Calculations are presented in Attachment A.
Volatile Organic Compounds
Value for m&p-xylene is based on the industrial sub-slab VISL value for m-xylene; which is the lesser of the two sub-slab VISLs calculated for the m- and p-xylene isomers.
Basis
nc - screening value is based on a non-cancer hazard quotient of 0.1.
c - screening value is based on an excess lifetime cancer risk of 1 in 1 million.
(3) Analyte is selected as a COPC if the maximum detected concentration exceeds the screening value. Analytes that are not volatile are not selected as COPCs.
ASL = Concentration used for screening is greater than the screening toxicity value; the analyte was selected as a COPC.
BSL = Concentration used for screening is less than the screening toxicity value; the analyte was not selected as a COPC.
(3) Samples IA-28-01 and IA-28-02, collected 7/25/2011.
(5) Values are the Regional Screening Levels (RSLs) for USEPA Regions 3, 6, and 9: *Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 2012.*
(http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)
Values used for screening are the industrial indoor air RSLs for the lesser of cancer risks equal to 1E-06 or non-cancer risks equal to a hazard index of 0.1.
Value for cis-1,2-dichloroethene is based on the value for the trans-1,2,-dichloroethene isomer (CASRN 1506-60-5). No inhalation toxicity values are available for the cis-isomer.
nc - RSL is based on a non-cancer hazard quotient of 0.1.
c - RSL is based on an excess lifetime cancer risk of 1 in 1 million.

VISL = Vapor Intrusion Screening Level
RSL = Regional Screening Value
COPC = Chemical of potential concern.
ug/m3 = Microgram per cubic meter.
" - " = Not detected/ Not applicable.

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
Unpaved Soil (Current Land Use)								
Inorganic Compounds (mg/kg)								
Antimony	4	14	0.16	7.93	NC	-	7.9	Max
Arsenic	0	18	0.58	4.33	NC	-	4.3	Max
Chromium Total	0	18	0.62	474	NC	-	474	Max
Lead	0	18	4.22	157	NC	-	157	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	9	8	0.03	4.7	NC	-	4.7	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	20	11	0.03	0.2	NC	-	0.2	Max
Benzo(a)pyrene	18	13	0.03	0.35	NC	-	0.35	Max
bis(2-Ethylhexyl)phthalate	24	7	0.54	160	NC	-	160	Max
Dimethyl phthalate	29	2	0.05	0.06	NC	-	0.06	Max
Di-n-octyl phthalate	11	20	0.07	20.4	NC	-	20	Max
Pentachlorophenol	29	2	3.98	30.3	NC	-	30	Max
Volatile Organic Compounds (mg/kg)								
Benzene	25	2	0.0005	0.076	NC	-	0.076	Max
Ethylbenzene	22	5	0.0006	7	NC	-	7	Max
Methyl cyclohexane	18	9	0.0003	18	NC	-	18	Max
Toluene	19	8	0.0006	306	NC	-	306	Max
Trichloroethene	26	1	0.063	0.063	NC	-	0.063	Max
Xylene (total)	15	12	0.0004	52	NC	-	52	Max
AOI-01								
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	12	1	0.030	0.030	NC	-	0.030	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	9	4	0.03	0.41	NC	-	0.41	Max
Benzo(a)pyrene	8	5	0.04	0.34	NC	-	0.34	Max
Benzo(b)fluoranthene	7	6	0.04	0.3	NC	-	0.3	Max
bis(2-Ethylhexyl)phthalate	7	6	0.59	12.5	NC	-	13	Max
Carbazole	12	1	0.090	0.090	NC	-	0.090	Max
Dimethyl phthalate	13	0	-	-	NC	-	-	-
Di-n-octyl phthalate	10	3	0.060	0.080	NC	-	0.080	Max
Pentachlorophenol	13	0	-	-	NC	-	-	-
AOI-02								
Inorganic Compounds (mg/kg)								
Antimony	5	7	0.22	7.93	3.38	NP [e]	3.4	UCL
Arsenic	0	12	0.58	4.4	2.54	N [g]	2.5	UCL
Chromium Total	0	108	1.67	164	42.4	NP [f]	42	UCL
Lead	0	108	3.7	899	178	NP [f]	178	UCL
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	12	2	0.04	0.9	1.00	NP [d]	0.9	Max
Benzo(a)pyrene	12	2	0.05	1.17	1.30	NP [d]	1.2	Max
Benzo(b)fluoranthene	12	2	0.06	1.1	1.20	NP [d]	1.1	Max
bis(2-Ethylhexyl)phthalate	10	4	0.33	24.6	6.26	NP [e]	6.3	UCL
Carbazole	13	1	0.05	0.05	NC [a]	-	0.05	Max
Dimethyl phthalate	14	0	-	-	-	-	-	-
Di-n-octyl phthalate	3	11	0.06	66.9	29.9		30	UCL
Pentachlorophenol	14	0	-	-	-	-	-	-
Volatile Organic Compounds (mg/kg)								
1,3-Dichlorobenzene	16	1	0.0004	0.0004	NC [a]	-	0.0004	Max
Benzene	67	28	0.0003	20	2.26	NP [c]	2.3	UCL
Ethylbenzene	46	49	0.0005	200	38.4	NP [c]	38	UCL
Methyl cyclohexane	6	11	0.0003	18	11.8	NP [d]	12	UCL
Toluene	21	74	0.001	5190	543	NP [c]	543	UCL
Trichloroethene	85	8	0.007	3	NC	-	3	Max
Xylene (total)	21	70	0.0004	963	205	NP [c]	205	UCL
AOI-03								
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	2	1	0.08	0.08	NC	-	0.08	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	4	0.04	6.09	NC	-	6.1	Max
Benzo(a)pyrene	3	4	0.05	5.94	NC	-	5.9	Max
Benzo(b)fluoranthene	3	4	0.05	6.15	NC	-	6.2	Max
bis(2-Ethylhexyl)phthalate	4	3	5.43	12.2	NC	-	12	Max
Carbazole	7	0	-	-	NC	-	-	-
Dimethyl phthalate	7	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	4	0.3	1.73	NC	-	1.7	Max
Pentachlorophenol	7	0	-	-	NC	-	-	-

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
Volatile Organic Compounds (mg/kg)								
Benzene	2	1	0.0005	0.0005	NC	-	0.0005	Max
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	2	1	0.0006	0.0006	NC	-	0.0006	Max
Toluene	3	0	-	-	NC	-	-	-
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	2	1	0.0005	0.0005	NC	-	0.0005	Max
AOI-04								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	0	3	0.06	0.1	NC	-	0.1	Max
Benzo(a)pyrene	0	3	0.06	0.08	NC	-	0.08	Max
Benzo(b)fluoranthene	0	3	0.05	0.08	NC	-	0.08	Max
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Carbazole	3	0	-	-	NC	-	-	-
Dimethyl phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	1	2	0.09	0.1	NC	-	0.1	Max
Pentachlorophenol	3	0	-	-	NC	-	-	-
AOI-05								
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	4	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	4	0	-	-	NC	-	-	-
Benzo(a)pyrene	4	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	4	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	1	2.58	2.58	NC	-	2.6	Max
Carbazole	4	0	-	-	NC	-	-	-
Dimethyl phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	1	12.3	12.3	NC	-	12	Max
Pentachlorophenol	4	0	-	-	NC	-	-	-
AOI-08								
Inorganic Compounds (mg/kg)								
Antimony	6	2	0.13	0.15	NC	-	0.15	Max
Arsenic	0	8	0.21	1.37	NC	-	1.4	Max
Chromium Total	0	8	0.69	13.8	NC	-	14	Max
Lead	0	8	1.24	15.3	NC	-	15	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	7	3	0.04	0.45	NC	-	0.45	Max
Benzo(a)pyrene	7	3	0.06	0.68	NC	-	0.68	Max
Benzo(b)fluoranthene	7	3	0.06	0.61	NC	-	0.61	Max
bis(2-Ethylhexyl)phthalate	10	0	-	-	NC	-	-	-
Carbazole	9	1	0.07	0.07	NC	-	0.07	Max
Dimethyl phthalate	10	0	-	-	NC	-	-	-
Di-n-octyl phthalate	5	5	0.03	0.2	NC	-	0.2	Max
Pentachlorophenol	10	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	8	0	-	-	NC	-	-	-
Ethylbenzene	8	0	-	-	NC	-	-	-
Methyl cyclohexane	8	0	-	-	NC	-	-	-
Toluene	7	1	0.0004	0.0004	NC	-	0.0004	Max
Trichloroethene	6	2	0.002	0.004	NC	-	0.004	Max
Xylene (total)	7	1	0.0003	0.0003	NC	-	0.0003	Max
AOI-09								
Inorganic Compounds (mg/kg)								
Antimony	3	1	0.15	0.15	NC	-	0.15	Max
Arsenic	0	4	0.19	8.91	NC	-	8.9	Max
Chromium Total	0	4	0.97	58.1	NC	-	58	Max
Lead	0	4	1.01	197	NC	-	197	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	1	0	-	-	NC	-	-	-

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	4	0	-	-	NC	-	-	-
Benzo(a)pyrene	4	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	4	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	1	145	145	NC	-	145	Max
Carbazole	4	0	-	-	NC	-	-	-
Dimethyl phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	2	2	0.2	0.59	NC	-	0.59	Max
Pentachlorophenol	4	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	4	0	-	-	NC	-	-	-
Ethylbenzene	3	1	0.004	0.004	NC	-	0.004	Max
Methyl cyclohexane	4	0	-	-	NC	-	-	-
Tetrachloroethene	4	0	-	-	NC	-	-	-
Tetrahydrofuran	4	0	-	-	NC	-	-	-
Toluene	4	0	-	-	NC	-	-	-
Trichloroethene	4	0	-	-	NC	-	-	-
Xylene (total)	4	0	0.0003	0.022	NC	-	0.022	Max
AOI-10								
Inorganic Compounds (mg/kg)								
Antimony	4	2	0.17	0.51	NC	-	0.51	Max
Arsenic	0	6	1.36	15.9	NC	-	16	Max
Chromium Total	0	6	4.76	31.9	NC	-	32	Max
Lead	0	6	10.6	57.6	NC	-	58	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	4	2	0.2	0.35	NC	-	0.35	Max
Benzo(a)pyrene	4	2	0.2	0.44	NC	-	0.44	Max
Benzo(b)fluoranthene	4	2	0.2	0.41	NC	-	0.41	Max
bis(2-Ethylhexyl)phthalate	6	0	-	-	NC	-	-	-
Carbazole	6	0	-	-	NC	-	-	-
Dimethyl phthalate	6	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	3	0.08	3.18	NC	-	3.2	Max
Pentachlorophenol	6	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	5	1	0.002	0.002	NC	-	0.002	Max
Ethylbenzene	5	1	0.0005	0.0005	NC	-	0.0005	Max
Methyl cyclohexane	6	0	-	-	NC	-	-	-
Toluene	2	4	0.0004	0.014	NC	-	0.014	Max
Trichloroethene	6	0	-	-	NC	-	-	-
Xylene (total)	4	2	0.0003	0.0026	NC	-	0.0026	Max
AOI-11								
Inorganic Compounds (mg/kg)								
Antimony	1	2	0.1	0.38	NC	-	0.38	Max
Arsenic	0	3	0.89	1.32	NC	-	1.3	Max
Chromium Total	0	3	2.41	2.47	NC	-	2.5	Max
Lead	0	3	1.82	4.89	NC	-	4.9	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	1	2	0.02	0.08	NC	-	0.08	Max
Benzo(a)pyrene	1	2	0.03	0.08	NC	-	0.08	Max
Benzo(b)fluoranthene	1	2	0.03	0.08	NC	-	0.08	Max
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Carbazole	3	0	-	-	NC	-	-	-
Dimethyl phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	0	-	-	NC	-	-	-
Pentachlorophenol	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	2	1	0.0004	0.0004	NC	-	0.0004	Max
Methyl cyclohexane	3	0	-	-	NC	-	-	-
Toluene	1	2	0.0008	0.002	NC	-	0.002	Max
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	1	2	0.0003	0.0014	NC	-	0.0014	Max

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-13								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	2	3	0.03	0.6	NC	-	0.6	Max
Benzo(a)pyrene	1	4	0.05	0.2	NC	-	0.2	Max
Benzo(b)fluoranthene	2	3	0.06	0.2	NC	-	0.2	Max
bis(2-Ethylhexyl)phthalate	3	2	1.88	3.03	NC	-	3.0	Max
Carbazole	5	0	-	-	NC	-	-	-
Dimethyl phthalate	5	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	2	0.1	1.4	NC	-	1.4	Max
Pentachlorophenol	5	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	4	1	0.01	0.01	NC	-	0.01	Max
Ethylbenzene	5	0	-	-	NC	-	-	-
Methyl cyclohexane	3	2	0.0006	0.13	NC	-	0.13	Max
Toluene	4	1	0.03	0.03	NC	-	0.03	Max
Trichloroethene	5	0	-	-	NC	-	-	-
Xylene (total)	2	3	0.0003	0.05	NC	-	0.05	Max
AOI-14								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	2	1	0.4	0.4	NC	-	0.4	Max
Benzo(a)pyrene	2	1	0.5	0.5	NC	-	0.5	Max
Benzo(b)fluoranthene	2	1	0.6	0.6	NC	-	0.6	Max
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Carbazole	3	0	-	-	NC	-	-	-
Dimethyl phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	0	3	0.02	7.81	NC	-	7.8	Max
Pentachlorophenol	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	2	1	0.02	0.02	NC	-	0.02	Max
Ethylbenzene	2	1	0.07	0.07	NC	-	0.07	Max
Methyl cyclohexane	2	1	0.0003	0.0003	NC	-	0.0003	Max
Toluene	3	0	-	-	NC	-	-	-
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	2	1	0.13	0.13	NC	-	0.13	Max
AOI-15								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	5	0	-	-	NC	-	-	-
Benzo(a)pyrene	5	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	5	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	5	0	-	-	NC	-	-	-
Carbazole	5	0	-	-	NC	-	-	-
Dimethyl phthalate	5	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	2	0.03	0.2	NC	-	0.2	Max
Pentachlorophenol	5	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	5	0	-	-	NC	-	-	-
Ethylbenzene	5	0	-	-	NC	-	-	-
Methyl cyclohexane	4	1	0.0008	0.0008	NC	-	0.0008	Max
Toluene	5	0	-	-	NC	-	-	-
Trichloroethene	5	0	-	-	NC	-	-	-
Xylene (total)	5	0	-	-	NC	-	-	-
AOI-16								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	4	2	0.1	0.79	NC	-	0.79	Max
Benzo(a)pyrene	3	3	0.022	0.89	NC	-	0.89	Max
Benzo(b)fluoranthene	3	3	0.042	0.98	NC	-	0.98	Max
bis(2-Ethylhexyl)phthalate	4	2	0.72	1.4	NC	-	1.4	Max
Carbazole	6	0	-	-	NC	-	-	-
Dimethyl phthalate	6	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	3	0.37	918	NC	-	918	Max
Pentachlorophenol	6	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	1	2	0.0006	0.001	NC	-	0.001	Max
Toluene	3	0	-	-	NC	-	-	-
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	1	2	0.001	0.0012	NC	-	0.0012	Max

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-17								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	2	2	0.05	0.09	NC	-	0.09	Max
Benzo(a)pyrene	2	2	0.05	0.08	NC	-	0.08	Max
Benzo(b)fluoranthene	2	2	0.05	0.1	NC	-	0.1	Max
bis(2-Ethylhexyl)phthalate	4	0	-	-	NC	-	-	-
Carbazole	4	0	-	-	NC	-	-	-
Dimethyl phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	2	2	0.08	0.43	NC	-	0.43	Max
Pentachlorophenol	2	2	3.98	30.3	NC	-	30	Max
Volatile Organic Compounds (mg/kg)								
Benzene	4	0	-	-	NC	-	-	-
Ethylbenzene	4	0	-	-	NC	-	-	-
Methyl cyclohexane	3	1	0.0006	0.0006	NC	-	0.0006	Max
Toluene	4	0	-	-	NC	-	-	-
Trichloroethene	4	0	-	-	NC	-	-	-
Xylene (total)	3	1	0.0009	0.0009	NC	-	0.0009	Max
AOI-19								
Inorganic Compounds (mg/kg)								
Antimony	1	3	0.29	92.5	NC	-	93	Max
Arsenic	0	4	1.38	3.69	NC	-	3.7	Max
Chromium Total	0	4	4.07	810	NC	-	810	Max
Lead	0	4	4.99	3140	NC	-	3140	Max
AOI-20								
Inorganic Compounds (mg/kg)								
Antimony	0	3	0.2	1.62	NC	-	1.6	Max
Arsenic	0	3	2.81	5.46	NC	-	5.5	Max
Chromium Total	0	3	4.08	81.3	NC	-	81	Max
Lead	0	3	28.3	45.3	NC	-	45	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	1	2	0.02	0.19	NC	-	0.19	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	0	5	0.1	1.03	NC	-	1.0	Max
Benzo(a)pyrene	0	5	0.1	1.17	NC	-	1.2	Max
Benzo(b)fluoranthene	0	5	0.1	1.22	NC	-	1.2	Max
bis(2-Ethylhexyl)phthalate	1	4	1.9	6.96	NC	-	7.0	Max
Carbazole	1	4	0.04	0.3	NC	-	0.3	Max
Dimethyl phthalate	3	2	0.04	0.07	NC	-	0.07	Max
Di-n-octyl phthalate	2	3	0.97	12.5	NC	-	13	Max
Pentachlorophenol	5	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	3	0	-	-	NC	-	-	-
Toluene	3	0	-	-	NC	-	-	-
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	3	0	-	-	NC	-	-	-
AOI-21								
Inorganic Compounds (mg/kg)								
Antimony	1	2	0.44	1.11	NC	-	1.1	Max
Arsenic	0	3	0.59	2.3	NC	-	2.3	Max
Chromium Total	0	3	1.04	474	NC	-	474	Max
Lead	0	3	1.68	25.9	NC	-	26	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	2	2	0.03	0.1	NC	-	0.1	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	1	0.08	0.08	NC	-	0.08	Max
Benzo(a)pyrene	2	2	0.04	0.1	NC	-	0.1	Max
Benzo(b)fluoranthene	2	2	0.03	0.1	NC	-	0.1	Max
bis(2-Ethylhexyl)phthalate	4	0	-	-	NC	-	-	-
Carbazole	4	0	-	-	NC	-	-	-
Dimethyl phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	1	3	0.07	5.15	NC	-	5.2	Max
Pentachlorophenol	4	0	-	-	NC	-	-	-

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	2	1	0.002	0.002	NC	-	0.002	Max
Toluene	3	0	-	-	NC	-	-	-
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	2	1	0.001	0.001	NC	-	0.001	Max
AOI-22								
Inorganic Compounds (mg/kg)								
Antimony	1	5	0.21	2.04	NC	-	2.0	Max
Arsenic	0	6	1.06	4.33	NC	-	4.3	Max
Chromium Total	0	6	0.64	48.7	NC	-	49	Max
Lead	0	6	4.22	157	NC	-	157	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	4	6	0.08	4.7	NC	-	4.7	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	7	3	0.03	0.07	NC	-	0.07	Max
Benzo(a)pyrene	6	4	0.03	0.09	NC	-	0.09	Max
Benzo(b)fluoranthene	6	4	0.03	0.1	NC	-	0.1	Max
bis(2-Ethylhexyl)phthalate	6	4	0.54	160	NC	-	160	Max
Carbazole	10	-	-	-	NC	-	-	-
Dimethyl phthalate	8	2	0.05	0.06	NC	-	0.06	Max
Di-n-octyl phthalate	1	9	0.3	9.83	NC	-	9.8	Max
Pentachlorophenol	10	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	6	0	-	-	NC	-	-	-
Ethylbenzene	5	1	0.0006	0.0006	NC	-	0.0006	Max
Methyl cyclohexane	5	1	0.0009	0.0009	NC	-	0.0009	Max
Toluene	3	3	0.0006	0.017	NC	-	0.017	Max
Trichloroethene	6	0	-	-	NC	-	-	-
Xylene (total)	5	1	0.0024	0.0024	NC	-	0.0024	Max
AOI-23								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	7	0	-	-	NC	-	-	-
Benzo(a)pyrene	6	1	0.03	0.03	NC	-	0.03	Max
Benzo(b)fluoranthene	5	2	0.03	0.03	NC	-	0.03	Max
bis(2-Ethylhexyl)phthalate	7	0	-	-	NC	-	-	-
Carbazole	7	0	-	-	NC	-	-	-
Dimethyl phthalate	7	0	-	-	NC	-	-	-
Di-n-octyl phthalate	2	5	0.09	21.3	NC	-	21	Max
Pentachlorophenol	7	0	-	-	NC	-	-	-
AOI-24								
Inorganic Compounds (mg/kg)								
Antimony	3	1	0.1	0.1	NC	-	0.1	Max
Arsenic	0	4	0.43	2.33	NC	-	2.3	Max
Chromium Total	0	4	1.67	5.57	NC	-	5.6	Max
Lead	0	4	3.56	56.5	NC	-	57	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	1	0.02	0.02	NC	-	0.02	Max
Benzo(a)pyrene	3	1	0.04	0.04	NC	-	0.04	Max
Benzo(b)fluoranthene	3	1	0.04	0.04	NC	-	0.04	Max
bis(2-Ethylhexyl)phthalate	4	0	-	-	NC	-	-	-
Carbazole	4	0	-	-	NC	-	-	-
Dimethyl phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	4	0	-	-	NC	-	-	-
Pentachlorophenol	4	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	4	0	-	-	NC	-	-	-
Ethylbenzene	1	3	0.0006	0.001	NC	-	0.001	Max
Methyl cyclohexane	0	4	0.0008	0.003	NC	-	0.003	Max
Toluene	0	4	0.011	0.046	NC	-	0.046	Max
Trichloroethene	4	0	-	-	NC	-	-	-
Xylene (total)	0	4	0.002	0.0049	NC	-	0.0049	Max

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-25								
Inorganic Compounds (mg/kg)								
Antimony	0	3	0.24	0.93	NC	-	0.93	Max
Arsenic	0	3	0.96	3.65	NC	-	3.7	Max
Chromium Total	0	3	0.62	5.97	NC	-	6.0	Max
Lead	0	3	4.83	37.7	NC	-	38	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	2	1	0.05	0.05	NC	-	0.05	Max
Benzo(a)pyrene	1	2	0.03	0.06	NC	-	0.06	Max
Benzo(b)fluoranthene	1	2	0.03	0.06	NC	-	0.06	Max
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Carbazole	3	0	-	-	NC	-	-	-
Dimethyl phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	0	-	-	NC	-	-	-
Pentachlorophenol	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	3	0	-	-	NC	-	-	-
Toluene	3	0	-	-	NC	-	-	-
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	2	1	0.0003	0.0003	NC	-	0.0003	Max
AOI-26								
Inorganic Compounds (mg/kg)								
Antimony	3	0	-	-	NC	-	-	-
Arsenic	0	3	2.24	4.4	NC	-	4.4	Max
Chromium Total	0	3	12.2	62.3	NC	-	62	Max
Lead	0	3	13	58.2	NC	-	58	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	2	1	0.03	0.03	NC	-	0.03	Max
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Carbazole	3	0	-	-	NC	-	-	-
Dimethyl phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	2	1	0.08	0.08	NC	-	0.08	Max
Pentachlorophenol	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	3	0	-	-	NC	-	-	-
Toluene	0	3	0.005	0.006	NC	-	0.006	Max
Trichloroethene	3	0	-	-	NC	-	-	-
Xylene (total)	0	3	0.0007	0.0009	NC	-	0.0009	Max
AOI-27								
Inorganic Compounds (mg/kg)								
Antimony	2	7	0.03	0.46	NC	-	0.46	Max
Arsenic	0	9	0.79	6.85	NC	-	6.9	Max
Chromium Total	0	9	4	12.7	NC	-	13	Max
Lead	0	9	4.09	57.1	NC	-	57	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	5	4	0.04	0.79	NC	-	0.79	Max
Benzo(a)pyrene	5	4	0.07	1.05	NC	-	1.1	Max
Benzo(b)fluoranthene	4	5	0.04	1.24	NC	-	1.2	Max
bis(2-Ethylhexyl)phthalate	9	0	-	-	NC	-	-	-
Carbazole	9	0	-	-	NC	-	-	-
Dimethyl phthalate	9	0	-	-	NC	-	-	-
Di-n-octyl phthalate	9	0	-	-	NC	-	-	-
Pentachlorophenol	9	0	-	-	NC	-	-	-

TABLE 15
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SURFACE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
Volatile Organic Compounds (mg/kg)								
Benzene	9	0	-	-	NC	-	-	-
Ethylbenzene	8	1	0.01	0.01	NC	-	0.01	Max
Methyl cyclohexane	5	4	0.01	0.07	NC	-	0.07	Max
Toluene	5	4	0.009	0.06	NC	-	0.06	Max
Trichloroethene	9	0	-	-	NC	-	-	-
Xylene (total)	4	5	0.009	0.14	NC	-	0.14	Max
AOI-28								
Inorganic Compounds (mg/kg)								
Antimony	3	0	-	-	NC	-	-	-
Arsenic	0	3	1.34	3.92	NC	-	3.9	Max
Chromium Total	0	3	5.83	7.16	NC	-	7.2	Max
Lead	0	3	14.1	16.1	NC	-	16	Max
PCBs (mg/kg)								
Aroclor-1248 (PCB-1248)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	3	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Carbazole	3	0	-	-	NC	-	-	-
Dimethyl phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	2	1	0.1	0.1	NC	-	0.1	Max
Pentachlorophenol	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	4	1	0.0004	0.0004	NC	-	0.0004	Max
Ethylbenzene	4	1	0.002	0.002	NC	-	0.002	Max
Methyl cyclohexane	5	0	-	-	NC	-	-	-
Toluene	2	3	0.0006	0.032	NC	-	0.032	Max
Trichloroethene	2	3	0.0009	5.28	NC	-	5.3	Max
Xylene (total)	4	1	0.011	0.011	NC	-	0.011	Max

Notes and Abbreviations:
(1) Chemicals of potential concern (COPCs) are identified in Table 1.
(2) The %UCL is calculated using ProUCL Software (Version 4.1.00). Documentation for the percentile UCL identified is contained in Attachment B.

NC - Not Calculated
[a] Only one distinct data value was detected.

NP - Non-Parametric distribution
[b] 95% KM (Chebyshev) UCL
[c] 97.5% KM (Chebyshev) UCL
[d] 99% KM (Chebyshev) UCL
[e] 95% KM (t) UCL
[f] 95% Chebyshev (Mean, Sd) UCL

N - Normal distribution
[g] 95% Student's-t UCL

(3) The maximum detected concentration is identified as the EPC in cases where the maximum detetcted concentration is lower than the calculated UCL concentration, or when no UCL value was calculated.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
mg/kg = milligrams per kilogram.

TABLE 16
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SUBSURFACE SOILS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-01								
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	18	5	4.3	2167	424	NP [e]	424	UCL
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	23	0	-	-	NC	-	-	-
Benzo(a)pyrene	23	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	23	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	21	2	0.11	3.78	2.47	NP [d]	2.5	UCL
Di-n-octyl phthalate	17	6	0.05	8.89	1.63	NP [e]	1.6	UCL
AOI-02								
Inorganic Compounds (mg/kg)								
Arsenic	1	33	0.36	40	22.9	NP [c]	23	UCL
Chromium Total	10	29	2.87	45	9.99	NP [f]	10	UCL
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	27	0	-	-	-	-	-	-
Benzo(a)pyrene	27	0	-	-	-	-	-	-
Benzo(b)fluoranthene	27	0	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	32	8	3	598	72.6	NP [e]	73	UCL
Di-n-octyl phthalate	18	22	0.04	884	425	NP [d]	425	UCL
Volatile Organic Compounds (mg/kg)								
Benzene	38	18	0.001	6.8	0.645	NP [e]	0.64	UCL
Ethylbenzene	30	23	0.002	2200	426	NP [d]	426	UCL
Methyl cyclohexane	6	29	0.001	56.6	29.6	NP [d]	30	UCL
Toluene	33	23	0.0005	56800	3025	NP [e]	3025	UCL
Xylene (total)	11	32	0.0007	10800	2777	NP [d]	2777	UCL
AOI-03								
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	6	1	2.78	2.78	NC	-	2.8	Max
Benzo(a)pyrene	6	1	2.45	2.45	NC	-	2.5	Max
Benzo(b)fluoranthene	6	1	2.9	2.9	NC	-	2.9	Max
bis(2-Ethylhexyl)phthalate	7	0	-	-	NC	-	-	-
Carbazole	6	1	0.3	0.3	NC	-	0.3	Max
Di-n-octyl phthalate	7	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	2	1	0.0005	0.0005	NC	-	0.0005	Max
Toluene	3	0	-	-	NC	-	-	-
Xylene (total)	3	0	-	-	NC	-	-	-
AOI-04								
AOI-04 Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	3	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	0	-	-	NC	-	-	-
AOI-05								
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	7	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	7	0	-	-	NC	-	-	-
Benzo(a)pyrene	7	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	7	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	2	5	0.37	30.2	NC	-	30	Max
Di-n-octyl phthalate	5	2	0.1	0.2	NC	-	0.2	Max

TABLE 16
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SUBSURFACE SOILS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-08								
Inorganic Compounds (mg/kg)								
Arsenic	0	5	0.78	4.26	NC	-	4.3	Max
Chromium Total	0	5	3.86	45	NC	-	45	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	5	0	-	-	NC	-	-	-
Benzo(a)pyrene	5	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	5	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	4	1	0.77	0.77	NC	-	0.77	Max
Di-n-octyl phthalate	5	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	5	0	-	-	NC	-	-	-
Ethylbenzene	5	0	-	-	NC	-	-	-
Methyl cyclohexane	5	0	-	-	NC	-	-	-
Toluene	4	1	0.0005	0.0005	NC	-	0.0005	Max
Xylene (total)	5	0	-	-	NC	-	-	-
AOI-09								
Inorganic Compounds (mg/kg)								
Arsenic	0	4	0.4	3.45	NC	-	3.5	Max
Chromium Total	0	4	7.21	9.11	NC	-	9.1	Max
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	1	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	4	0	-	-	NC	-	-	-
Benzo(a)pyrene	4	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	4	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	1	0.06	0.06	NC	-	0.06	Max
Volatile Organic Compounds (mg/kg)								
Benzene	4	0	-	-	NC	-	-	-
Ethylbenzene	3	1	0.0003	0.0003	NC	-	0.0003	Max
Methyl cyclohexane	4	0	-	-	NC	-	-	-
Toluene	4	0	-	-	NC	-	-	-
Xylene (total)	2	2	0.001	0.0014	NC	-	0.0014	Max
AOI-10								
Inorganic Compounds (mg/kg)								
Arsenic	0	7	0.66	2.6	NC	-	2.6	Max
Chromium Total	0	7	3.04	7.94	NC	-	7.9	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	7	0	-	-	NC	-	-	-
Benzo(a)pyrene	7	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	7	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	7	0	-	-	NC	-	-	-
Di-n-octyl phthalate	7	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	7	0	-	-	NC	-	-	-
Ethylbenzene	7	0	-	-	NC	-	-	-
Methyl cyclohexane	7	0	-	-	NC	-	-	-
Toluene	4	3	0.0004	0.017	NC	-	0.017	Max
Xylene (total)	6	1	0.0004	0.0004	NC	-	0.0004	Max

TABLE 16
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SUBSURFACE SOILS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-11								
Inorganic Compounds (mg/kg)								
Arsenic	0	3	1.09	2.13	NC	-	2.1	Max
Chromium Total	0	3	2.9	4.88	NC	-	4.9	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	3	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	2	1	0.05	0.05	NC	-	0.05	Max
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	3	0	-	-	NC	-	-	-
Toluene	2	1	0.0004	0.0004	NC	-	0.0004	Max
Xylene (total)	2	1	0.0003	0.0003	NC	-	0.0003	Max
AOI-13								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	12	0	-	-	NC	-	-	-
Benzo(a)pyrene	12	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	12	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	10	2	0.061	15	NC	-	15	Max
Di-n-octyl phthalate	3	9	0.2	2900	NC	-	2900	Max
Volatile Organic Compounds (mg/kg)								
Benzene	10	2	1.4	5	NC	-	5	Max
Ethylbenzene	6	6	0.001	4	NC	-	4	Max
Methyl cyclohexane	5	7	0.02	1.2	NC	-	1.2	Max
Toluene	9	3	188	1060	NC	-	1060	Max
Xylene (total)	2	10	0.0008	12	NC	-	12	Max
AOI-14								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	5	0	-	-	NC	-	-	-
Benzo(a)pyrene	5	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	5	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	5	0	-	-	NC	-	-	-
Di-n-octyl phthalate	0	5	0.04	36.2	NC	-	36	Max
Volatile Organic Compounds (mg/kg)								
Benzene	3	2	0.01	0.5	NC	-	0.5	Max
Ethylbenzene	4	1	0.04	0.04	NC	-	0.04	Max
Methyl cyclohexane	5	0	-	-	NC	-	-	-
Toluene	5	0	-	-	NC	-	-	-
Xylene (total)	4	1	0.01	0.01	NC	-	0.01	Max
AOI-15								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	9	0	-	-	NC	-	-	-
Benzo(a)pyrene	9	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	9	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	9	0	-	-	NC	-	-	-
Di-n-octyl phthalate	5	4	0.06	2800	NC	-	2800	Max
Volatile Organic Compounds (mg/kg)								
Benzene	9	0	-	-	NC	-	-	-
Ethylbenzene	9	0	-	-	NC	-	-	-
Methyl cyclohexane	7	2	0.004	0.006	NC	-	0.006	Max
Toluene	8	1	0.006	0.006	NC	-	0.006	Max
Xylene (total)	5	4	0.0007	0.007	NC	-	0.007	Max

TABLE 16
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SUBSURFACE SOILS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-16								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	5	0	-	-	NC	-	-	-
Benzo(a)pyrene	5	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	5	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	5	0	-	-	NC	-	-	-
Di-n-octyl phthalate	1	4	0.04	16.2	NC	-	16	Max
Volatile Organic Compounds (mg/kg)								
Benzene	5	0	-	-	NC	-	-	-
Ethylbenzene	5	0	-	-	NC	-	-	-
Methyl cyclohexane	1	4	0.0009	41.2	NC	-	41	Max
Toluene	5	0	-	-	NC	-	-	-
Xylene (total)	5	0	-	-	NC	-	-	-
AOI-17								
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	4	0	-	-	NC	-	-	-
Benzo(a)pyrene	4	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	4	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	1	0.05	0.05	NC	-	0.05	Max
Volatile Organic Compounds (mg/kg)								
Benzene	4	0	-	-	NC	-	-	-
Ethylbenzene	4	0	-	-	NC	-	-	-
Methyl cyclohexane	4	0	-	-	NC	-	-	-
Toluene	4	0	-	-	NC	-	-	-
Xylene (total)	4	0	-	-	NC	-	-	-
AOI-19								
Inorganic Compounds (mg/kg)								
Arsenic	0	2	1.38	2.68	NC	-	2.7	Max
Chromium Total	0	2	3.48	4.04	NC	-	4.0	Max
AO1-20								
Inorganic Compounds (mg/kg)								
Arsenic	0	3	1.13	2.75	NC	-	2.8	Max
Chromium Total	0	3	2.79	3.49	NC	-	3.5	Max
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	3	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	3	0	-	-	NC	-	-	-
Toluene	3	0	-	-	NC	-	-	-
Xylene (total)	3	0	-	-	NC	-	-	-

TABLE 16
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SUBSURFACE SOILS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-21								
Inorganic Compounds (mg/kg)								
Arsenic	0	4	0.88	6.52	NC	-	6.5	Max
Chromium Total	0	4	1.27	4.58	NC	-	4.6	Max
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	5	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	5	0	-	-	NC	-	-	-
Benzo(a)pyrene	4	1	0.03	0.03	NC	-	0.03	Max
Benzo(b)fluoranthene	5	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	5	0	-	-	NC	-	-	-
Di-n-octyl phthalate	1	4	0.1	1010	NC	-	1010	Max
Volatile Organic Compounds (mg/kg)								
Benzene	4	0	-	-	NC	-	-	-
Ethylbenzene	3	1	0.01	0.01	NC	-	0.01	Max
Methyl cyclohexane	3	1	0.005	0.005	NC	-	0.005	Max
Toluene	4	0	-	-	NC	-	-	-
Xylene (total)	3	1	0.0008	0.0008	NC	-	0.0008	Max
AOI-22								
Inorganic Compounds (mg/kg)								
Arsenic	0	9	0.38	3.55	NC	-	3.6	Max
Chromium Total	0	9	1.35	4.1	NC	-	4.1	Max
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	8	3	0.01	0.03	NC	-	0.03	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	11	0	-	-	NC	-	-	-
Benzo(a)pyrene	10	1	0.03	0.03	NC	-	0.03	Max
Benzo(b)fluoranthene	11	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	10	1	147	147	NC	-	147	Max
Di-n-octyl phthalate	4	7	0.05	36.6	NC	-	37	Max
Volatile Organic Compounds (mg/kg)								
Benzene	9	0	-	-	NC	-	-	-
Ethylbenzene	8	1	0.0005	0.0005	NC	-	0.0005	Max
Methyl cyclohexane	6	3	0.0009	0.04	NC	-	0.04	Max
Toluene	7	2	0.0003	0.0004	NC	-	0.0004	Max
Xylene (total)	7	2	0.0004	0.002	NC	-	0.002	Max
AOI-23								
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	2	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	9	1	0.02	0.02	NC	-	0.02	Max
Benzo(a)pyrene	10	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	10	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	10	0	-	-	NC	-	-	-
Di-n-octyl phthalate	5	5	0.03	1.25	NC	-	1.3	Max
AOI-24								
Inorganic Compounds (mg/kg)								
Arsenic	0	4	0.98	2.25	NC	-	2.3	Max
Chromium Total	0	4	4.34	4.99	NC	-	5.0	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	4	0	-	-	NC	-	-	-
Benzo(a)pyrene	4	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	4	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	4	0	-	-	NC	-	-	-
Di-n-octyl phthalate	4	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	4	0	-	-	NC	-	-	-
Ethylbenzene	3	1	0.0008	0.0008	NC	-	0.0008	Max
Methyl cyclohexane	2	2	0.13	36.8	NC	-	37	Max
Toluene	3	1	0.016	0.016	NC	-	0.016	Max
Xylene (total)	3	1	0.0029	0.0029	NC	-	0.0029	Max

TABLE 16
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SUBSURFACE SOILS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-25								
Inorganic Compounds (mg/kg)								
Arsenic	0	3	1.24	1.35	NC	-	1.4	Max
Chromium Total	0	3	2.29	5.67	NC	-	5.7	Max
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	3	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	2	1	0.0009	0.0009	NC	-	0.0009	Max
Toluene	3	0	-	-	NC	-	-	-
Xylene (total)	2	1	0.001	0.001	NC	-	0.001	Max
AOI-26								
Inorganic Compounds (mg/kg)								
Arsenic	0	3	2.47	4.22	NC	-	4.2	Max
Chromium Total	0	3	6.77	11.9	NC	-	12	Max
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	3	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	1	2	0.03	0.1	NC	-	0.1	Max
Volatile Organic Compounds (mg/kg)								
Benzene	3	0	-	-	NC	-	-	-
Ethylbenzene	3	0	-	-	NC	-	-	-
Methyl cyclohexane	3	0	-	-	NC	-	-	-
Toluene	2	1	0.005	0.005	NC	-	0.005	Max
Xylene (total)	3	0	-	-	NC	-	-	-
AOI-27								
Inorganic Compounds (mg/kg)								
Arsenic	0	15	1.01	2.06	NC	-	2.1	Max
Chromium Total	0	15	3.24	6.85	NC	-	6.9	Max
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	15	0	-	-	NC	-	-	-
Benzo(a)pyrene	14	1	0.04	0.04	NC	-	0.04	Max
Benzo(b)fluoranthene	15	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	15	0	-	-	NC	-	-	-
Di-n-octyl phthalate	12	3	0.03	0.07	NC	-	0.07	Max
Volatile Organic Compounds (mg/kg)								
Benzene	15	0	-	-	NC	-	-	-
Ethylbenzene	15	0	-	-	NC	-	-	-
Methyl cyclohexane	15	0	-	-	NC	-	-	-
Toluene	15	0	-	-	NC	-	-	-
Xylene (total)	15	0	-	-	NC	-	-	-

TABLE 16
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN SUBSURFACE SOILS
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
AOI-28								
Inorganic Compounds (mg/kg)								
Arsenic	0	3	1.17	2.71	NC	-	2.7	Max
Chromium Total	0	3	7.06	8.59	NC	-	8.6	Max
PCBs (mg/kg)								
Aroclor-1242 (PCB-1242)	3	0	-	-	NC	-	-	-
Semi-Volatile Organic Compounds (mg/kg)								
Benzo(a)anthracene	3	0	-	-	NC	-	-	-
Benzo(a)pyrene	3	0	-	-	NC	-	-	-
Benzo(b)fluoranthene	3	0	-	-	NC	-	-	-
bis(2-Ethylhexyl)phthalate	3	0	-	-	NC	-	-	-
Di-n-octyl phthalate	3	0	-	-	NC	-	-	-
Volatile Organic Compounds (mg/kg)								
Benzene	8	0	-	-	NC	-	-	-
Ethylbenzene	8	0	-	-	NC	-	-	-
Methyl cyclohexane	8	0	-	-	NC	-	-	-
Toluene	6	2	0.0008	0.001	NC	-	0.001	Max
Xylene (total)	7	1	0.0004	0.0004	NC	-	0.0004	Max

Notes and Abbreviations:
(1) Chemicals of potential concern (COPCs) are identified in Table 2.
(2) The %UCL is calculated using ProUCL Software (Version 4.1.00). Documentation for the percentile UCL identified is contained in Attachment B.

NC - Not Calculated
[a] Only one distinct data value was detected.

NP - Non-Parametric distribution
[b] 95% KM (Chebyshev) UCL
[c] 97.5% KM (Chebyshev) UCL
[d] 99% KM (Chebyshev) UCL
[e] 95% KM (t) UCL
[f] 95% KM (BCA) UCL

N - Normal distribution
[g] 95% Student's-t UCL

(3) The maximum detected concentration is identified as the EPC in cases where the maximum detetcted concentration is lower than the calculated UCL concentration, or when no UCL value was calculated.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
mg/kg = milligrams per kilogram.
" - " = no data or not applicable.

TABLE 17
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN GROUNDWATER - DIRECT CONTACT
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern[1]	Frequency of Detection		Detected Results		Upper Conc. Limits		Exposure Point Conc.	
	# Not Detected	# Detected	Minimum	Maximum	Calculated UCL	Statistic[2]	Value	Basis[3]
GROUNDWATER - DIRECT CONTACT								
Inorganic Compounds (ug/L)								
Antimony	32	22	1	41	NC	-	41	Max
Arsenic	9	45	1	56	NC	-	56	Max
Cadmium	41	13	0.2	8.9	NC	-	8.9	Max
Chromium Total	13	41	3	24	NC	-	24	Max
Cobalt	35	19	1	53	NC	-	53	Max
Manganese	0	54	1	3370	NC	-	3370	Max
PCB Aroclors (ug/L)								
Aroclor-1242 (PCB-1242)	5	2	0.6	2.9	1.7	NP [e]	1.7	UCL
Semi-Volatile Organic Compounds (ug/L)								
bis(2-Ethylhexyl)phthalate	56	12	7	1410	NC	-	1410	Max
Di-n-octyl phthalate	49	19	0.2	12500	NC	-	12500	Max
Volatile Organic Compounds (ug/L)								
1,1-Dichloroethane	66	6	0.6	5	NC	-	5	Max
Benzene	62	10	0.1	0.5	NC	-	0.5	Max
Chloroform (Trichloromethane)	61	11	0.2	2	NC	-	2	Max
Methyl Tert Butyl Ether	66	6	2	210	NC	-	210	Max
Tetrahydrofuran	63	15	0.52	180000	NC	-	180000	Max
Trichloroethene	59	13	0.2	5.93	NC	-	5.9	Max
Vinyl chloride	70	2	5	17	NC	-	17	Max

Notes and Abbreviations:
(1) Chemicals of potential concern (COPCs) are identified in Table 4.
(2) The %UCL is calculated using ProUCL Software (Version 4.1.00). Documentation for the percentile UCL identified is contained in Attachment B.

NC - Not Calculated
[a] Only one distinct data value was detected.

NP - Non-Parametric distribution
[b] 95% KM (Chebyshev) UCL
[c] 97.5% KM (Chebyshev) UCL
[d] 99% KM (Chebyshev) UCL
[e] 95% KM (t) UCL
[f] 95% KM (BCA) UCL

N - Normal distribution
[g] 95% Student's-t UCL

(3) The maximum detected concentration is identified as the EPC in cases where the maximum detetcted concentration is lower than the calculated UCL concentration, or when no UCL value was calculated.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
ug/L = micrograms per liter.
" - " = no data or not applicable.

TABLE 18
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN GROUNDWATER - VAPOR INTRUSION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern (1)	CASRN	Groundwater EPC (2) (ug/L)	Indoor Air EPC (3) (ug/m^3)	Excavation Air EPC (4) (ug/m^3)
Volatile Organic Compounds				
Vinyl Chloride	75-01-4	17	0.88	0.052

Notes and Abbreviations:
(1) Chemicals of potential concern (COPCs) are identified in Table 5.
(2) Groundwater EPC is the maximum detected concentration in groundawter
(3) Indoor Air EPC calculated using Johnson-Ettinger Model (Attachment C)
(4) Excavation Air EPC calculated using Trench Model (Attachment C)

TABLE 19
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN STORM WATER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern		Location Name:	ST-105DG	ST-111	ST-111	**Maximum Detected Concentration**	**Exposure Point Concentration**
		Sample Name:	4125-052112-1730	4125-052112-1630	4125-052112-0002		
		Sample Date & Time:	5/21/2012 17:30	5/21/2012 16:30	5/21/2012 16:30		
		Sample Type:	N	N	FD		
Inorganic Compounds	CASRN	UNITS					
Antimony	7440-36-0	ug/L	2.7	15	15	15	15
Arsenic	7440-38-2	ug/L	1.7 J	4.2 J	4 J	4.2	4.2
Chromium, Total	7440-47-3	ug/L	< 2	< 2	< 2	-	-
Vanadium	7440-62-2	ug/L	0.61 J	1.1 J	1.1 J	1.1	1.1
PCB Aroclors							
Aroclor-1242 (PCB-1242)	53469-21-9	ug/L	< 0.48	< 0.48	< 0.48	-	-
Aroclor-1248 (PCB-1248)	12672-29-6	ug/L	1.3	< 0.48	< 0.48	1.3	1.3
Semi-Volatile Organic Compounds							
Benzo(a)anthracene	56-55-3	ug/L	0.18 J	< 0.19	< 0.19	0.18	0.18
Benzo(a)pyrene	50-32-8	ug/L	0.19	< 0.19	< 0.19	0.19	0.19
Benzo(b)fluoranthene	205-99-2	ug/L	0.35	< 0.19	< 0.19	0.35	0.35
Benzo(k)fluoranthene	207-08-9	ug/L	0.16 J	< 0.19	< 0.19	0.16	0.16
Carbazole	86-74-8	ug/L	< 0.95	< 0.95	< 0.95	-	-
Chrysene	218-01-9	ug/L	0.27	< 0.19	< 0.19	0.27	0.27
Indeno(1,2,3-cd)pyrene	193-39-5	ug/L	0.13 J	< 0.19	< 0.19	0.13	0.13
Naphthalene	91-20-3	ug/L	< 0.19	< 0.19	< 0.19	-	-
Volatile Organic Compounds							
Bromodichloromethane	75-27-4	ug/L	< 1	< 250	< 250	-	-
Chloroform (Trichloromethane)	67-66-3	ug/L	< 1	< 250	< 250	-	-
Dibromochloromethane	124-48-1	ug/L	< 1	< 250	< 250	-	-
Tetrahydrofuran	109-99-9	ug/L	0.51 J	6600	6800	6800	6800

Notes and Abbreviations:
(1) Chemicals of potential concern (COPCs) are identified in Table 3.
(2) The exposure point concentration is the maximum detected concentration.
EPC = Exposure Point Concentration.
ug/L = micrograms per liter.
J = Estimated result.
< = The analyte was tested for and was not detected (ND) at a concentration greater than the reporting limit identified.
N = Normal sample.
FD = Field duplicate sample.

TABLE 20
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND EXPOSURE POINT CONCENTRATIONS IN FUTURE (AOI-28) INDOOR AIR
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern (1)	CASRN	Units	Soil Gas EPC (2)	Indoor Air EPC (3)
Volatile Organic Compounds				
Tetrachloroethene	127-18-4	ug/m3	310000	3100
Trichloroethene	79-01-6	ug/m3	64000	640

Notes and Abbreviations:
(1) Chemicals of potential concern (COPCs) are identified in Table 9.
(2) Soil Gas EPC is the maximum detected concentration in soil gas.
(3) Indoor Air EPC calculated using a subslab soil gas to indoor air attenuation factor equal to 0.01.

TABLE 21
RECEPTOR EXPOSURE PARAMETERS - CURRENT LAND USE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Current Land Use
Medium: Soil
Exposure Medium: Unpaved Soil (0 - 2 ft bgs)

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
Ingestion	Maintenance Worker	Adult	Unpaved Soil	CS-c	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	CHEMICAL INTAKE-INGESTION (mg/kg-day)=
				IR-S	Ingestion Rate of Soil	100	mg/day	USEPA, 1991	CS-c x IR-S x FI x EF x ED x CF1 x 1/BW x 1/AT
				FI	Fraction Ingested	1	unitless	Assumption	
				EF	Exposure Frequency	219	day/yr	USEPA, 2003	
				ED	Exposure Duration	25	yr	USEPA, 2002	
				BW	Body Weight	70	kg	USEPA, 2002	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	day	USEPA, 1989 / equal to ED	
				CF1	Conversion Factor	1.0.E-06	kg/mg		
				CF2	Conversion Factor	1.0E-03	g/mg		
	Trespasser	Adolescent (ages 13 - 18)	Unpaved Soil	CS-c	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	CHEMICAL INTAKE-INGESTION (mg/kg-day)=
				IR-S	Ingestion Rate of Soil	100	mg/day	USEPA, 1991	CS-c x IR-S x FI x EF x ED x CF1 x 1/BW x 1/AT
				FI	Fraction Ingested	1	unitless	Assumption	
				EF	Exposure Frequency	39	day/yr	Assumption [1]	
				ED	Exposure Duration	5	yr	Ages 13 to 18	
				BW	Body Weight	56	kg	USEPA, 1997 [2]	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1825	day	USEPA, 1989 / equal to ED	
				CF1	Conversion Factor	1.0.E-06	kg/mg		
				CF2	Conversion Factor	1.0E-03	g/mg		
Dermal	Maintenance Worker	Adult	Unpaved Soil	CS	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	INTAKE-DERMAL (mg/kg-day) =
				DAevent	Dose Absorbed Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
				SA	Skin Surface Area Available for Contact	3300	cm^2	USEPA, 2002	
				EF	Exposure Frequency	219	day/yr	USEPA, 2003	Where DAevent =
				ED	Exposure Duration	25	yr	USEPA, 2002	CS x AF x ABSd x CF
				EV	Events per Day	1	event/day	USEPA, 2004	
				AF	Adherence Factor	0.2	mg/cm^2-event	USEPA, 2002	
				ABSd	Dermal Absorption Factor	chemical-specific	unitless	USEPA, 2004	
				BW	Body Weight	70	kg	USEPA, 2002	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	day	USEPA, 1989 / equal to ED	
				CF	Conversion Factor	1.0E-06	kg/mg		

TABLE 21
RECEPTOR EXPOSURE PARAMETERS - CURRENT LAND USE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Current Land Use
Medium: Soil
Exposure Medium: Unpaved Soil (0 - 2 ft bgs)

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
	Trespasser	Adolescent	Unpaved	CS	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	INTAKE-DERMAL (mg/kg-day) =
		(ages 13 - 18)	Soil	DAevent	Dose Absorbed Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
				SA	Skin Surface Area Available for Contact	5340	cm^2	USEPA, 1997; 2004 [3]	
				EF	Exposure Frequency	39	day/yr	Assumption [1]	Where DAevent =
				ED	Exposure Duration	5	yr	Ages 13 to 18	CS x AF x ABSd x CF
				EV	Events per Day	1	event/day	USEPA, 2004	
				AF	Adherence Factor	0.04	mg/cm^2-event	USEPA, 2004 [4]	
				ABSd	Dermal Absorption Factor	chemical-specific	unitless	USEPA, 2004	
				BW	Body Weight	56	kg	USEPA, 1997 [2]	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1825	day	USEPA, 1989 / equal to ED	
				CF	Conversion Factor	1.0E-06	kg/mg		

USEPA, 1989. "Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A)"; Office of Emergency and Remedial Response; EPA-540/1-89/002 (interim final); Washington, D.C., December.
USEPA, 1997. "Exposure Factors Handbook, Volume 1"; Office of Research and Development; EPA-600/P-95/002Fa; Washington, D.C.; August.
USEPA, 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. December.
USEPA, 2003. "Recommendations of the Technical Review Workgroup for Lead for an Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil" EPA-540-R-03-001. January.
USEPA, 2004. "Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.
[1] - One day per week, March through November.
[2] - Average of 50th percentile body weights for males and females ages 13 to 18.
[3] - Average of 50th percentile body surface areas (hands, forearms, lower legs, head) for males and females ages 13 to 18. Body parts are the same body parts that the default surface area for residential adults is based on.
[4] - Geometric mean value for kids playing in dry soil.
NA - Not Applicable
kg - kilograms
mg - milligrams
UCL - upper confidence limit
cm^2 - square centimeters
yr - year

TABLE 22
RECEPTOR EXPOSURE PARAMETERS - CURRENT LAND USE STORM WATER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Current and Future Land Use
Medium: Water
Exposure Medium: Storm Water

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
Dermal	Trespasser	Adolescent	Storm Water	CW	Chemical Concentration in Water	95% UCL	mg/l	USEPA, 1991	INTAKE-DERMAL (mg/kg-day)=
		(ages 13 - 18)	Point of Discharge	DAevent	Permeability Constant Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
			(wading)	SA	Skin Surface Area Available for Contact - Wading	5240	cm^2	USEPA, 1997 [3]	DAevent = CW x CF x PCevent
				tevent	Exposure Time	1	hr/event	Assumption [1]	
				EF	Exposure Frequency - Wading	13	day/yr	Assumption [1]	where:
				ED	Exposure Duration	5	yr	Ages 13 to 18	PCevent is tevent multiplied by chemical-specific parameters
				EV	Event Frequency	1	event/day	Assumption [1]	B, t*, Tevent, and Kp, using the algorithm that is appropriate
				BW	Body Weight	56	kg	USEPA, 1997 [2]	for the relationship between tevent and t*, per USEPA (2004)
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	and as described in the risk assessment text.
				AT-N	Averaging Time (Non-Cancer)	1825	day	USEPA, 1989 / equal to ED	Calculations are documented in the risk calculations appendix.
				CF	Conversion Factor	0.001	l/cm^3		

USEPA, 1989. "Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A)"; Office of Emergency and Remedial Response; EPA-540/1-89/002 (interim final); Washington, D.C., December.
USEPA, 1997. "Exposure Factors Handbook, Volume 1"; Office of Research and Development; EPA-600/P-95/002Fa; Washington, D.C.; August.
USEPA, 2004. "Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

[1] - Assumes 1 event per week June through August; 1 hour per event.
[2] - Average of 50th percentile body weights for males and females ages 13 to 18.
[3] - Average of 50th percentile body surface areas (hands, forearms, feet, lower legs) for males and females ages 13 to 18.

mg - milligrams
cm^2 - square centimeters
cm^3 - cubic centimeters
yr - year
hr - hour
l - liter
UCL - upper confidence limit
kg - kilograms

TABLE 23
RECEPTOR EXPOSURE PARAMETERS - FUTURE LAND USE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Future Land Use
Medium: Soil
Exposure Medium: Surface Soil / Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
Ingestion	Full-time Worker (outdoor)	Adult	Unpaved Soil	CS-c	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	CHEMICAL INTAKE-INGESTION (mg/kg-day)=
				IR-S	Ingestion Rate of Soil	100	mg/day	USEPA, 1991	CS-c x IR-S x FI x EF x ED x CF1 x 1/BW x 1/AT
				FI	Fraction Ingested	1	unitless	Assumption	
				EF	Exposure Frequency	219	day/yr	USEPA, 2003	
				ED	Exposure Duration	25	yr	USEPA, 2002	
				BW	Body Weight	70	kg	USEPA, 2002	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	day	USEPA, 1989 / equal to ED	
				CF1	Conversion Factor	1.0.E-06	kg/mg		
	Construction Worker	Adult	Soil	CS-c	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	CHEMICAL INTAKE-INGESTION (mg/kg-day)=
				IR-S	Ingestion Rate of Soil	330	mg/day	USEPA, 2002	CS-c x IR-S x FI x EF x ED x CF1 x 1/BW x 1/AT
				FI	Fraction Ingested	1	unitless	Assumption	
				EF	Exposure Frequency	250	day/yr	Assumption [1]	
				ED	Exposure Duration	1	yr	Assumption [1]	
				BW	Body Weight	70	kg	USEPA, 2002	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	day	USEPA, 1989 / equal to ED	
				CF1	Conversion Factor	1.0.E-06	kg/mg		
Dermal	Full-time Worker (outdoor)	Adult	Unpaved Soil	CS	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	INTAKE-DERMAL (mg/kg-day) =
				DAevent	Dose Absorbed Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
				SA	Skin Surface Area Available for Contact	3300	cm^2	USEPA, 2002	
				EF	Exposure Frequency	219	day/yr	USEPA, 2003	Where DAevent =
				ED	Exposure Duration	25	yr	USEPA, 2002	CS x AF x ABSd x CF
				EV	Events per Day	1	event/day	USEPA, 2004	
				AF	Adherence Factor	0.2	mg/cm^2-event	USEPA, 2002	
				ABSd	Dermal Absorption Factor	chemical-specific	unitless	USEPA, 2004	
				BW	Body Weight	70	kg	USEPA, 2002	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	day	USEPA, 1989 / equal to ED	
				CF	Conversion Factor	1.0E-06	kg/mg		
	Construction Worker	Adult	Soil	CS	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	INTAKE-DERMAL (mg/kg-day) =
				DAevent	Dose Absorbed Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
				SA	Skin Surface Area Available for Contact	3300	cm^2	USEPA, 2002	
				EF	Exposure Frequency	250	day/yr	Assumption [1]	Where DAevent =
				ED	Exposure Duration	1	yr	Assumption [1]	CS x AF x ABSd x CF
				EV	Events per Day	1	event/day	Assumption	
				AF	Adherence Factor	0.3	mg/cm^2-event	USEPA, 2002	
				ABSd	Dermal Absorption Factor	chemical-specific	unitless	USEPA, 2004	
				BW	Body Weight	70	kg	USEPA, 2002	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	day	USEPA, 1989 / equal to ED	
				CF	Conversion Factor	1.0E-06	kg/mg		

TABLE 23
RECEPTOR EXPOSURE PARAMETERS - FUTURE LAND USE SOIL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Future Land Use
Medium: Soil
Exposure Medium: Surface Soil / Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
Inhalation	Full-time Worker (outdoor)	Adult	Unpaved Soil	CS-c	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	INTAKE-INHALATION (ug/m³) =
				CAair	Concentration in Air	95% UCL	ug/m^3	Modeled from soil	CAair x ED x EFo x ETo x 1/AT
				EFo	Exposure Frequency - outdoor	219	day/yr	USEPA, 2003	CAair =
				ED	Exposure Duration	25	yr	USEPA, 2002	CS-c x 1/PEF x 1000 ug/mg
				ETo	Exposure Time - outdoors	0.33	hr/hr	USEPA, 2002	CS-c x 1/VF x 1000 ug/mg
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	day	USEPA, 1989 / equal to ED	
				VF	Volatilization Factor	chemical-specific	m^3/kg	per USEPA, 2002 [2]	
				PEF	Particulate Emission Factor	1.41E+09	m^3/kg	per USEPA, 2002 [2]	
	Construction Worker	Adult	Soil	CS-c	Chemical Concentration in Soil	95% UCL	mg/kg	USEPA, 1991	INTAKE-INHALATION (ug/m³) =
				CAair	Concentration in Air	95% UCL	ug/m^3	Modeled from soil	CAair x ED x EFo x ETo x 1/AT
				EFo	Exposure Frequency - outdoor	250	day/yr	USEPA, 2003	CAair =
				ED	Exposure Duration	1	yr	USEPA, 2002	CS-c x 1/PEF x 1000 ug/mg
				ETo	Exposure Time - outdoors	0.33	hr/hr	USEPA, 2002	CS-c x 1/VF x 1000 ug/mg
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	day	USEPA, 1989 / equal to ED	
				VF	Volatilization Factor	chemical-specific	m^3/kg	per USEPA, 2002 [2]	
				PEF	Particulate Emission Factor	1.41E+09	m^3/kg	per USEPA, 2002 [2]	

USEPA, 1989. “Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A)”; Office of Emergency and Remedial Response; EPA-540/1-89/002 (interim final); Washington, D.C., December.
USEPA, 1997. "Exposure Factors Handbook, Volume 1"; Office of Research and Development; EPA-600/P-95/002Fa; Washington, D.C.; August.
USEPA, 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. December.
USEPA, 2003. "Recommendations of the Technical Review Workgroup for Lead for an Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil" EPA-540-R-03-001. January.
USEPA, 2004. "Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

[1] - Assumes a one-year duration construction project.
[2] - Calculations are provided in Appendix C.
NA - Not Applicable
kg - kilograms
mg - milligrams
UCL - upper confidence limit
cm^2 - square centimeters
yr - year

TABLE 24
RECEPTOR EXPOSURE PARAMETERS - FUTURE LAND USE INDOOR AIR
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Future Land Use
Medium: Air
Exposure Medium: Indoor Air

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
Inhalation	Commercial /	Adult	AOI 28	CAair	Concentration in Air	Arithmetic mean	ug/m^3	Modeled or measured	CHEMICAL INTAKE-INHALATION (ug/m^3)=
	Industrial		AOI 1	EF	Exposure Frequency	250	day/yr	USEPA, 2002	CAair x ED x EF x ET x 1/AT x 1/CF
	Worker		Groundwater (future	ED	Exposure Duration	25	yr	USEPA, 2002	
	Indoor		buildings)	ET	Exposure Time	8	hr/day	USEPA, 2002	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	day	USEPA, 1989 / equal to ED	
				CF	Conversion Factor	24	hr/day		

USEPA, 1989. "Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A)"; Office of Emergency and Remedial Response; EPA-540/1-89/002 (interim final); Washington, D.C., December.
USEPA, 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. December.

ug - micrograms
m^3 - cubic meters
yr - year
hr - hour

TABLE 25
RECEPTOR EXPOSURE PARAMETERS - FUTURE LAND USE GROUNDWATER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Future Land Use
Medium: Groundwater
Exposure Medium: Groundwater and Ambient Air in Trench

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
Dermal	Construction Worker	Adult	Groundwater - Standing Water in Trench	CW	Chemical Concentration in Water	95% UCL	mg/l	USEPA, 1991	INTAKE-DERMAL (mg/kg-day)=
				DAevent	Permeability Constant Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
				SA	Skin Surface Area Available for Contact - W	2265	cm^2	USEPA, 2011 [3]	DAevent = CW x CF x PCevent
				tevent	Exposure Time	8	hr/event	Assumption (1)	
				EF	Exposure Frequency	20	day/yr	Assumption (1)	where:
				ED	Exposure Duration	1	yr	USEPA, 2002	PCevent is tevent multiplied by chemical-specific parameters
				EV	Event Frequency	1	event/day	Assumption (1)	B, t*, Tevent, and Kp, using the algorithm that is appropriate
				BW	Body Weight	70	kg	USEPA, 2002	for the relationship between tevent and t*, per USEPA (2004)
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	and as described in the risk assessment text.
				AT-N	Averaging Time (Non-Cancer)	365	day	USEPA, 1989 / equal to ED	Calculations are documented in the risk calculations appendix.
				CF	Conversion Factor	0.001	l/cm^3		
Inhalation	Construction Worker	Adult	Groundwater - Air in Excavation Trench	CAair	Concentration in Air	Arithmetic mean	ug/m^3	Modeled	CHEMICAL INTAKE-INHALATION (ug/m^3)=
				EF	Exposure Frequency	20	day/yr	Assumption (1)	CAair x ED x EF x ET x 1/AT x 1/CF
				ED	Exposure Duration	1	yr	USEPA, 2002	
				ET	Exposure Time	8	hr/day	Assumption (1)	
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	day	USEPA, 1989 / equal to ED	
				CF	Conversion Factor	24	hr/day		

USEPA, 1989. "Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A)"; Office of Emergency and Remedial Response; EPA-540/1-89/002 (interim final); Washington, D.C., December.
USEPA, 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. December.
USEPA, 2011. Exposure Factors Handbook. EPA/660/R-09/052F. September

(1) - Assumes that excavation activities that expose groundwater, which is located approximately 8 ft bgs, would only occur during trenching activities, which would represent a minor component of the overall construction project. but assumed to occur 8 hours per day, for 20 days of construction project.
(2) - Incidental ingestion of shallow standing groundwater in an excavation is unlikley; conservative estimate.
(3) - Assumes contact with hands and feet; average of values for adult males and females.

ug - micrograms
m^3 - cubic meters
yr - year
hr - hour

TABLE 26
RECEPTOR EXPOSURE PARAMETERS - FUTURE LAND USE NAPL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Scenario Timeframe: Future Land Use
Medium: NAPL
Exposure Medium: NAPL

Exposure Route	Receptor Population	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation / Model Name
Dermal	Maintenance Worker	Adult	AOI 1 (Calendar Basement)	CW	Chemical Concentration in NAPL	95% UCL	mg/l	USEPA, 1991	INTAKE-DERMAL (mg/kg-day)=
				DAevent	Permeability Constant Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
				SA	Skin Surface Area Available for Contact	990	cm^2	USEPA, 1997 [2]	DAevent = CW x CF x PCevent
				tevent	Exposure Time	4	hr/event	Assumption [1]	
				EF	Exposure Frequency	12	day/yr	Assumption [1]	where:
				ED	Exposure Duration	25	yr	USEPA, 2002	PCevent is tevent multiplied by chemical-specific parameters
				EV	Event Frequency	1	event/day	Assumption [1]	B, t*, Tevent, and Kp, using the algorithm that is appropriate
				BW	Body Weight	70	kg	USEPA, 2002	for the relationship between tevent and t*, per USEPA (2004)
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	and as described in the risk assessment text.
				AT-N	Averaging Time (Non-Cancer)	9125	day	USEPA, 1989 / equal to ED	Calculations are documented in the risk calculations appendix.
				CF	Conversion Factor	0.001	l/cm^3		
Dermal	Construction Worker	Adult	AOI 15	CW	Chemical Concentration in NAPL	95% UCL	mg/l	USEPA, 1991	INTAKE-DERMAL (mg/kg-day)=
				DAevent	Permeability Constant Per Event	chemical-specific	mg/cm^2-event	USEPA, 2004	DAevent x SA x EF x ED x EV x 1/BW x 1/AT
				SA	Skin Surface Area Available for Contact	3300	cm^2	USEPA, 1997 [2]	DAevent = CW x CF x PCevent
				tevent	Exposure Time	1	hr/event	Assumption [3]	
				EF	Exposure Frequency	20	day/yr	Assumption [3]	where:
				ED	Exposure Duration	1	yr	USEPA, 2002	PCevent is tevent multiplied by chemical-specific parameters
				EV	Event Frequency	1	event/day	Assumption [3]	B, t*, Tevent, and Kp, using the algorithm that is appropriate
				BW	Body Weight	70	kg	USEPA, 2002	for the relationship between tevent and t*, per USEPA (2004)
				AT-C	Averaging Time (Cancer)	25550	day	USEPA, 1989	and as described in the risk assessment text.
				AT-N	Averaging Time (Non-Cancer)	365	day	USEPA, 1989 / equal to ED	Calculations are documented in the risk calculations appendix.
				CF	Conversion Factor	0.001	l/cm^3		

USEPA, 1989. "Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A)"; Office of Emergency and Remedial Response; EPA-540/1-89/002 (interim final); Washington, D.C., December.
USEPA, 1997. "Exposure Factors Handbook, Volume 1"; Office of Research and Development; EPA-600/P-95/002Fa; Washington, D.C.; August.
USEPA, 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. December.
USEPA, 2004. "Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

[1] - Assumes that maintenance worker performs activities in basement which could result in dermal exposure to NAPL, one-half a work day per month.
[2] - Average of 50th percentile body surface areas for hands, for adults.
[3] - Assumes that excavation activities that expose NAPL, which is located approximately 7 ft bgs, would only occur during trenching activities, which would represent a minor component of the overall construction project.
Assumes that incidental contact with NAPL one hour per day, 20 days during construction project.

mg - milligrams
cm^2 - square centimeters
cm^3 - cubic centimeters
yr - year
hr - hour
l - liter
UCL - upper confidence limit
kg - kilograms

TABLE 27
DOSE-RESPONSE VALUES - CANCER - ORAL/DERMAL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal (1)	Absorbed Cancer Slope Factor for Dermal (2)		Weight of Evidence/ Cancer Guideline Description	Oral Cancer Slope Factor	
	Value	Units		Value	Units		Source(s)	Date(s)
VOLATILES								
1,1-Dichloroethane	5.7E-03	(mg/kg/day) -1	100%	5.7E-03	(mg/kg/day) $^{-1}$	NA	CALEPA	July 2009
Benzene	5.5E-02	(mg/kg/day) $^{-1}$	100%	5.5E-02	(mg/kg/day) $^{-1}$	Known carcinogen	IRIS	October 2012
Bromodichloromethane	6.2E-02	(mg/kg/day) $^{-1}$	100%	6.2E-02	(mg/kg/day) $^{-1}$	B2	IRIS	October 2012
Bromoform	7.9E-03	(mg/kg/day) $^{-1}$	100%	7.9E-03	(mg/kg/day) $^{-1}$	B2	IRIS	October 2012
Chloroform	NA		100%	NA		Likely carcinogenic in humans [a]	IRIS	October 2012
Dibromochloromethane	8.4E-02	(mg/kg/day) $^{-1}$	100%	8.4E-02	(mg/kg/day) $^{-1}$	C	IRIS	October 2012
Ethylbenzene	NA			NA		D	IRIS	October 2012
Methyl-tert-butyl ether	1.8E-03	(mg/kg/day) $^{-1}$	100%	1.8E-03	(mg/kg/day) $^{-1}$	NA	CALEPA	July 2009
Tetrachloroethene	2.1E-03	(mg/kg/day) $^{-1}$	100%	2.1E-03	(mg/kg/day) $^{-1}$	Likely carcinogenic in humans	IRIS	October 2012
Tetrahydrofuran	NA			NA		Inadequate evidence	IRIS	October 2012
Toluene	NA			NA		D	IRIS	October 2012
Trichloroethene	5.0E-02	(mg/kg/day) $^{-1}$	100%	5.0E-02	(mg/kg/day) $^{-1}$	Carcinogenic to humans	IRIS	October 2012
Vinyl Chloride (adult only)	7.2E-01	(mg/kg/day) $^{-1}$	100%	7.2E-01	(mg/kg/day) $^{-1}$	Known carcinogen	IRIS	October 2012
Vinyl Chloride (child and adult)	1.4E+00	(mg/kg/day) $^{-1}$	100%	1.4E+00	(mg/kg/day) $^{-1}$	Known carcinogen	IRIS	October 2012
Xylenes (total)	NA			NA		Inadequate evidence	IRIS	October 2012
SEMIVOLATILES								
Benzo(a)anthracene	7.3E-01	(mg/kg/day) $^{-1}$	89%	7.3E-01	(mg/kg/day) $^{-1}$	B2	NCEA	April 2007
Benzo(a)pyrene	7.3E+00	(mg/kg/day) $^{-1}$	89%	7.3E+00	(mg/kg/day) $^{-1}$	B2	IRIS	October 2012
Benzo(b)fluoranthene	7.3E-01	(mg/kg/day) $^{-1}$	89%	7.3E-01	(mg/kg/day) $^{-1}$	B2	NCEA	April 2007
Benzo(k)fluoranthene	7.3E-02	(mg/kg/day) $^{-1}$	89%	7.3E-02	(mg/kg/day) $^{-1}$	B2	NCEA	April 2007
Bis(2-ethylhexyl)phthalate (BEHP)	1.4E-02	(mg/kg/day) $^{-1}$	100%	1.4E-02	(mg/kg/day) $^{-1}$	B2	IRIS	October 2012
Carbazole	2.0E-02	(mg/kg/day) $^{-1}$	100%	2.0E-02	(mg/kg/day) $^{-1}$	B2	HEAST	November 2012
Dimethylphthalate	NA			NA		D	IRIS	October 2012
Di-n-octylphthalate	NA			NA		ND		
Indeno(1,2,3-cd)pyrene	7.3E-01	(mg/kg/day) $^{-1}$	89%	7.3E-01	(mg/kg/day) $^{-1}$	B2	NCEA	April 2007
Naphthalene	NA		89%	NA		Cannot be determined	IRIS	October 2012
Pentachlorophenol	4.0E-01	(mg/kg/day) $^{-1}$	100%	4.0E-01	(mg/kg/day) $^{-1}$	Likely Carcinogenic	IRIS	October 2012
PESTICIDES/PCBs								
Aroclor 1242	2.0E+00	(mg/kg/day) $^{-1}$	80%	2.0E+00	(mg/kg/day) $^{-1}$	See PCBs		
Aroclor-1248	2.0E+00	(mg/kg/day) $^{-1}$	80%	2.0E+00	(mg/kg/day) $^{-1}$	See PCBs		
INORGANICS/METALS								
Antimony	ND			ND		ND	IRIS	October 2012
Arsenic	1.5E+00	(mg/kg/day) $^{-1}$	95%	1.5E+00	(mg/kg/day) $^{-1}$	A	IRIS	October 2012
Cadmium	ND			ND		ND	IRIS	October 2012
Chromium III	NA			NA		Inadequate evidence	IRIS	October 2012

TABLE 27
DOSE-RESPONSE VALUES - CANCER - ORAL/DERMAL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal (1)	Absorbed Cancer Slope Factor for Dermal (2)		Weight of Evidence/ Cancer Guideline Description	Oral Cancer Slope Factor	
	Value	Units		Value	Units		Source(s)	Date(s)
Chromium VI	NA						IRIS	October 2012
Cobalt	ND			ND		ND		
Lead	NA			NA		B2	IRIS	October 2012
Manganese	NA			NA		D	IRIS	October 2012
Thallium	NA			NA		D	IRIS	October 2012

Notes:
In accordance with OSWER 9285.7-53, slope factors are identified from the following heirarchy of sources:
Tier 1:
IRIS = Integrated Risk Information System: October 2012
Tier 2:
PPRTV = Preliminary Peer-Reviewed Reference Toxicity Value May 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites
Tier 3:
HEAST97= Health Effects Assessment Summary Tables: FY 1997 From HEAST FY 1997 Update
HEAST= Health Effects Assessment Summary Tables: November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites
CALEPA - California Environmental Protection Agency July 2009
In addition, provisional RfDs developed by NCEA are presented for informational purposes and to be used on a case-by-case basis:
NCEA = National Center for Environmental Assessment: April 2007 Obtained from Region III RBC Table
WHO = World Health Organization November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites

mg = milligram
kg = kilogram
BW = body weight
ND = no data available

Checked by: JHP 10/30/12

(1) Values obtained from RAGS Volume 1 (Part E, Supplemental Guidance for Dermal Risk Assessment, Interim Guidance) (EPA, 2004)
Per this guidance, a value of 100% is used for analytes without published values.
(2) Adjusted Dermal SF = Oral SF / Oral to Dermal Adjustment Factor. Per RAGS Part E (USEPA, 2004), adjustments are only performed for chemicals that have an oral absorption efficiency of less than 50%.

Weight of Evidence:
A - Human carcinogen
B1 - Probable human carcinogen - indicates that limited human data are available
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans
C - Possible human carcinogen
D - Not classifiable as a human carcinogen

PCB slope factors are applicable to Aroclors 1016, 1248, 1254, and 1260.
[a] - The RfD for chloroform is protective for cancer risk.
[b] - Slope Factor for Benzo(a)Pyrene used for other carcinogenic PAHs, adjusted by Relative Potency Factors of 1.0 [benzo(a)pyrene,dibenz(a,h)anthracene]; 0.1 [benzo(a)anthracene, benzo(b)flouoranthene, indeno(1,2,3-c,d)pyrene]; 0.01 [benzo(k)fluoranthene]; 0.001 [chrysene].

TABLE 28
DOSE-RESPONSE VALUES - CANCER - INHALATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor (1)		Weight of Evidence/ Cancer Guideline Description	Unit Risk: Inhalation Cancer Slope Factor	
	Value	Units	Value	Units		Source(s)	Date(s)
VOLATILES							
1,1-Dichloroethane	1.6E-06	$(ug/m^3)^{-1}$	5.7E-03	$(mg/kg/day)^{-1}$	NA	CALEPA	July 2009
Benzene	7.8E-06	$(ug/m^3)^{-1}$	2.8E-02	$(mg/kg/day)^{-1}$	Known human carcinogen	IRIS	October 2012
Bromodichloromethane	3.7E-05	$(ug/m^3)^{-1}$	1.3E-01	$(mg/kg/day)^{-1}$		CALEPA	July 2009
Bromoform	1.1E-06	$(ug/m^3)^{-1}$	3.9E-03	$(mg/kg/day)^{-1}$	B2	IRIS	October 2012
Chloroform	2.3E-05	$(ug/m^3)^{-1}$	8.1E-02	$(mg/kg/day)^{-1}$	Likely carcinogenic in humans	IRIS	October 2012
Dibromochloromethane	2.7E-05	$(ug/m^3)^{-1}$	9.6E-02	$(mg/kg/day)^{-1}$	C	CALEPA	December 2009
Ethylbenzene	2.5E-06	$(ug/m^3)^{-1}$	8.9E-03	$(mg/kg/day)^{-1}$		CALEPA	December 2009
Methyl-tert-butyl ether	2.6E-07	$(ug/m^3)^{-1}$	1.8E-03	$(mg/kg/day)^{-1}$	NA	CALEPA	July 2009
Tetrachloroethene	2.6E-07	$(ug/m^3)^{-1}$	9.2E-04	$(mg/kg/day)^{-1}$	Likely carcinogenic in humans	IRIS	October 2012
Tetrahydrofuran	NA	$(ug/m^3)^{-1}$	NA	$(mg/kg/day)^{-1}$	Inadequate evidence	IRIS	October 2012
Toluene	NA		NA		D	IRIS	October 2012
Trichloroethene	4.0E-06	$(ug/m^3)^{-1}$	1.4E-02	$(mg/kg/day)^{-1}$	Carcinogenic to humans	IRIS	October 2012
Vinyl Chloride (adult only)	4.4E-06	$(ug/m^3)^{-1}$	1.5E-02	$(mg/kg/day)^{-1}$	Known human carcinogen	IRIS	October 2012
Vinyl Chloride (adult and child)	8.8E-06	$(ug/m^3)^{-1}$	3.1E-02	$(mg/kg/day)^{-1}$	Known human carcinogen	IRIS	October 2012
Xylenes (total)	NA		NA		Inadequate data	IRIS	October 2012
SEMIVOLATILES							
Benzo(a)anthracene	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2	CALEPA	July 2009
Benzo(a)pyrene	1.1E-03	$(ug/m^3)^{-1}$	3.9E+00	$(mg/kg/day)^{-1}$	B2	CALEPA	July 2009
Benzo(b)fluoranthene	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2	CALEPA	July 2009
Benzo(k)fluoranthene	1.1E-05	$(ug/m^3)^{-1}$	3.9E-02	$(mg/kg/day)^{-1}$	B2	CALEPA	July 2009
bis(2-ethylhexyl)phthalate (BEHP)	2.4E-06	$(ug/m^3)^{-1}$	8.5E-03	$(mg/kg/day)^{-1}$	NA	CALEPA	July 2009
Carbazole	ND		ND		ND	HEAST97	FY 1997
Dimethylphthalate	NA		NA		D	IRIS	October 2012
Di-n-octylphthalate	ND		ND		ND		
Indeno(1,2,3-cd)pyrene	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2	CALEPA	July 2009
Naphthalene	3.4E-05		NA		Cannot be determined	CALEPA	December 2009
Pentachlorophenol	5.1E-06	$(ug/m^3)^{-1}$	1.8E-02	$(mg/kg/day)^{-1}$	Likely Carcinogenic	CALEPA	July 2009
PESTICIDES/PCBs							
Aroclor 1242	5.7E-04	$(ug/m^3)^{-1}$	2.00E+00	$(mg/kg/day)^{-1}$	B2	See PCBs	
Aroclor-1248	5.7E-04	$(ug/m^3)^{-1}$	2.00E+00	$(mg/kg/day)^{-1}$	B2	See PCBs	

TABLE 28
DOSE-RESPONSE VALUES - CANCER - INHALATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor (1)		Weight of Evidence/ Cancer Guideline Description	Unit Risk: Inhalation Cancer Slope Factor	
	Value	Units	Value	Units		Source(s)	Date(s)
INORGANICS/METALS							
Antimony	ND		ND		ND	IRIS	October 2012
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.50E+01	$(mg/kg/day)^{-1}$	A	IRIS	October 2012
Cadmium	1.8E-03	$(ug/m^3)^{-1}$	6.30E+00	$(mg/kg/day)^{-1}$	B1	IRIS	October 2012
Chromium III	NA		NA		Inadequate data	IRIS	October 2012
Chromium VI	8.4E-02	$(ug/m^3)^{-1}$	4.20E+01	$(mg/kg/day)^{-1}$	Known human carcinogen	IRIS	October 2012
Cobalt	2.5E-06	$(ug/m^3)^{-1}$	9.0E-03	$(mg/kg/day)^{-1}$	ND	PPRTV	May 2012
Lead	NA		NA		B2	IRIS	October 2012
Manganese	NA		NA		D	IRIS	October 2012
Thallium	NA		NA		D	IRIS	October 2012

Notes:

In accordance with OSWER 9285.7-53, unit risk values are identified from the following heirarchy of sources: Checked by: JHP 10/30/12

Tier 1:

IRIS = Integrated Risk Information System: October 2012

Tier 2:

PPRTV = Preliminary Peer-Reviewed Reference Toxicity Value November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites

Tier 3:

HEAST-97= Health Effects Assessment Summary Tables: FY 1997 From HEAST FY 1997 Update

HEAST= Health Effects Assessment Summary Tables: November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites

CALEPA - California Environmental Protection Agency July 2009

In addition, provisional RfDs developed by NCEA are presented for informational purposes and to be used on a case-by-case basis:

NCEA = National Center for Environmental Assessment: April 2007 Obtained from Region III RBC Table

August 2007 Toxicological Review for Tetrahydrofuran (External Review Draft)

(1) - Inhalation cancer dose-response values are typically published as unit risk values. Unit risk values may be converted to slope factors using the following equation (HEAST, 1997):

Adjustment = 70 kg [adult body weight] * 1000 ug/mg [conversion factor] / 20 m3/day [inhalation rate]

and: Inhalation Slope Factor = Unit Risk * Adjustment

Weight of Evidence:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

TABLE 28
DOSE-RESPONSE VALUES - CANCER - INHALATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor (1)		Weight of Evidence/ Cancer Guideline Description	Unit Risk: Inhalation Cancer Slope Factor	
	Value	Units	Value	Units		Source(s)	Date(s)

PAHs, adjusted by Relative Potency Factors of 1.0 [benzo(a)pyrene, dibenz(a,h)anthracene]; 0.1 [benzo(a)anthracene, benzo(b)flouoranthene, indeno(1,2,3-c,d)pyrene]; 0.01 [benzo(k)fluoranthene]; 0.001 [chrysene].
PCB slope factors are applicable to Aroclors 1016, 1248, 1254, and 1260.

mg = milligram
ug = microgram
kg = kilogram
m^3 = cubic meter
BW = body weight
ND = no data available

TABLE 29
DOSE-RESPONSE VALUES - NON-CANCER - ORAL/DERMAL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal (1)	Adjusted Dermal RfD (2)		Primary Target Organ or System / Critical Effect	Combined Uncertainty/Modifying Factors	RfD: Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)
VOLATILES										
1,1-Dichloroethane	chronic	2.0E-01	mg/kg/day	100%	2.0E-01	mg/kg/day	Kidney; renal injury	3,000	PPRTV	November 2012
	subchronic	2.0E+00	mg/kg/day	100%	2.0E+00	mg/kg/day	Kidney; renal injury	300	PPRTV	November 2012
Benzene	chronic	4.0E-03	mg/kg/day	100%	4.0E-03	mg/kg/day	Immune system; decreased lymphocyte count	300	IRIS	October 2012
	subchronic	4.0E-03	mg/kg/day	100%	4.0E-03	mg/kg/day	Immune system; decreased lymphocyte count	300	Chronic	
Bromodichloromethane	chronic	2.0E-02	mg/kg/day	100%	2.0E-02	mg/kg/day	Kidney; renal cytomegaly	1,000/1	IRIS	October 2012
	subchronic	2.0E-02	mg/kg/day	100%	2.0E-02	mg/kg/day	Kidney; renal cytomegaly	1,000/1	Chronic	
Bromoform	chronic	2.0E-02	mg/kg/day	100%	2.0E-02	mg/kg/day	Liver; hepatic lesions	1,000	IRIS	October 2012
	subchronic	2.0E-01	mg/kg/day	100%	2.0E-01	mg/kg/day	Liver; hepatic lesions	300	MRL	February 2012
Chloroform	chronic	1.0E-02	mg/kg/day	100%	1.0E-02	mg/kg/day	Liver; fatty cyst formation in liver	100/1	IRIS	October 2012
	subchronic	1.0E-01	mg/kg/day	100%	1.0E-01	mg/kg/day	Liver	100	MRL	February 2012
Dibromochloromethane	chronic	2.0E-02	mg/kg/day	100%	2.0E-02	mg/kg/day	Liver; hepatic lesions	1,000/1	IRIS	October 2012
	subchronic	2.0E-01	mg/kg/day	100%	2.0E-01	mg/kg/day	Liver; hepatic lesions	100/1	HEAST97	FY 1997
Ethylbenzene	chronic	1.0E-01	mg/kg/day	100%	1.0E-01	mg/kg/day	Liver and kidney; liver and kidney toxicity	1,000/1	IRIS	October 2012
	subchronic	4.0E-01	mg/kg/day	100%	4.0E-01	mg/kg/day	Liver; liver toxicity	30	MRL	February 2012
Methyl-tert-butyl ether	chronic	3.0E-01	mg/kg/day	100%	3.0E-01	mg/kg/day			Subchronic	
	subchronic	3.0E-01	mg/kg/day	100%	3.0E-01	mg/kg/day	Liver	300	MRL	February 2012
Tetrachloroethene	chronic	6.0E-03	mg/kg/day	100%	6.0E-03	mg/kg/day	CNS; neurotoxicity	100	IRIS	October 2012
	subchronic	6.0E-03	mg/kg/day	100%	6.0E-03	mg/kg/day	CNS; neurotoxicity	100	Chronic	
Tetrahydrofuran	chronic	9.0E-01	mg/kg/day	100%	9.0E-01	mg/kg/day	Developmental; developmental toxicity	1,000	IRIS	October 2012
	subchronic	9.0E-01	mg/kg/day	100%	9.0E-01	mg/kg/day	Developmental; developmental toxicity	1,000	Chronic	
Toluene	chronic	8.0E-02	mg/kg/day	100%	8.0E-02	mg/kg/day	Kidney; increased kidney weight	1,000/1	IRIS	October 2012
	subchronic	2.0E+00	mg/kg/day	100%	2.0E+00	mg/kg/day	Liver and kidney; weight change in liver and kidney	100/1	HEAST97	FY 1997
Trichloroethene	chronic	5.0E-04	mg/kg/day	100%	5.0E-04	mg/kg/day	Immunological	10 to 1000	IRIS	October 2012
	subchronic	5.0E-04	mg/kg/day	100%	5.0E-04	mg/kg/day	Immunological	10 to 1000	Chronic	
Vinyl Chloride	chronic	3.0E-03	mg/kg/day	100%	3.0E-03	mg/kg/day	Liver; liver cell polymorphism	30/1	IRIS	October 2012
	subchronic	3.0E-03	mg/kg/day	100%	3.0E-03	mg/kg/day	Liver; liver cell polymorphism	30/1	Chronic	
Xylenes (total)	chronic	2.0E-01	mg/kg/day	100%	2.0E-01	mg/kg/day	General toxicity; increased mortality	1,000/1	IRIS	October 2012
	subchronic	4.0E-01	mg/kg/day	100%	4.0E-01	mg/kg/day	Nervous system	1,000	MRL	February 2012
SEMIVOLATILES										
Benzo(a)anthracene	chronic	ND		89%	ND				IRIS	October 2012
	subchronic	ND		89%	ND					
Benzo(a)pyrene	chronic	ND		89%	ND				IRIS	October 2012
	subchronic	ND		89%	ND					
Benzo(b)fluoranthene	chronic	ND		89%	ND				IRIS	October 2012
	subchronic	ND		89%	ND					
Benzo(k)fluoranthene	chronic	ND		89%	ND				IRIS	October 2012
	subchronic	ND		89%	ND					
Bis(2-ethylhexyl)phthalate (BEHP)	chronic	2.0E-02	mg/kg/day	100%	2.0E-02	mg/kg/day	Liver; increased liver weight	1,000/1	IRIS	October 2012
	subchronic	1.0E-01	mg/kg/day	100%	1.0E-01	mg/kg/day	Reproductive	100	MRL	February 2012
Carbazole	chronic	ND			ND					
	subchronic	ND			ND					
Dimethylphthalate	chronic	s 1.0E-01	mg/kg/day	100%	1.0E-01	mg/kg/day	Liver; endocrine	3,000	PPRTV	November 2012
	subchronic	s 1.0E+00	mg/kg/day	100%	1.0E+00	mg/kg/day	Liver; endocrine	3,000	PPRTV	November 2012
Di-n-octylphthalate	chronic	1.2E-02	mg/kg/day	100%	1.2E-02	mg/kg/day			PPRTV	November 2012
	subchronic	1.2E-01	mg/kg/day	100%	1.2E-01	mg/kg/day			PPRTV	November 2012
Indeno(1,2,3-cd)pyrene	chronic	ND		89%	ND				IRIS	October 2012
	subchronic	ND		89%	ND					
Naphthalene	chronic	2.0E-02	mg/kg/day	89%	2.0E-02	mg/kg/day	Decreased body weight	3,000/1	IRIS	October 2012
	subchronic	6.0E-01	mg/kg/day	89%	6.0E-01	mg/kg/day	CNS	90	MRL	February 2012
Pentachlorophenol	chronic	5.0E-03	mg/kg/day	100%	5.0E-03	mg/kg/day	Liver; hepatotoxicity	300	IRIS	October 2012
	subchronic	5.0E-03	mg/kg/day	100%	5.0E-03	mg/kg/day	Liver; hepatotoxicity	300	Chronic	
PESTICIDES/PCBs										
Aroclor 1242	chronic	2.0E-05	mg/kg/day	80%	2.0E-05	mg/kg/day	Immune system; immunotoxicity	300/1	Surrogate	

TABLE 29
DOSE-RESPONSE VALUES - NON-CANCER - ORAL/DERMAL
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal (1)	Adjusted Dermal RfD (2)		Primary Target Organ or System / Critical Effect	Combined Uncertainty/Modifying Factors	RfD: Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)
	subchronic	3.0E-05	mg/kg/day	80%	3.0E-05	mg/kg/day	Immune system; immunotoxicity	300/1	Surrogate	
Aroclor-1248	chronic	2.0E-05	mg/kg/day	80%	2.0E-05	mg/kg/day	Immune system; immunotoxicity	300/1	IRIS	October 2012
	subchronic	3.0E-05	mg/kg/day	80%	3.0E-05	mg/kg/day	Immune system; immunotoxicity	300/1	MRL	February 2012
INORGANICS/METALS										
Antimony	chronic	4.0E-04	mg/kg/day	15%	6.0E-05	mg/kg/day	Reduced lifespan; hematological; blood glucose and cholesterol	1,000/1	IRIS	October 2012
	subchronic	4.0E-04	mg/kg/day	15%	6.0E-05	mg/kg/day	Reduced lifespan; hematological; blood glucose and cholesterol	1,000/1	IRIS	October 2012
Arsenic	chronic	3.0E-04	mg/kg/day	95%	3.0E-04	mg/kg/day	Skin; keratosis and hyperpigmentation	3/1	IRIS	October 2012
	subchronic	3.0E-04	mg/kg/day	95%	3.0E-04	mg/kg/day	Skin; keratosis and hyperpigmentation	3/1	HEAST97	FY 1997
Cadmium (water)	chronic	5.0E-04	mg/kg/day	5%	2.5E-05	mg/kg/day	Kidney; proteinuria	10/1	IRIS	October 2012
	subchronic	5.0E-04	mg/kg/day	5%	2.5E-05	mg/kg/day	Kidney; proteinuria	10/1	Chronic	
Chromium III	chronic	1.5E+00	mg/kg/day	1.3%	2.0E-02	mg/kg/day	No effects observed	100/10	IRIS	October 2012
	subchronic	1.5E+00	mg/kg/day	1.3%	2.0E-02	mg/kg/day	No effects observed	100/10	Chronic	
Chromium VI	chronic	3.0E-03	mg/kg/day	2.5%	7.5E-05	mg/kg/day	No effects observed	300/3	IRIS	October 2012
	subchronic	2.0E-02	mg/kg/day	2.5%	5.0E-04	mg/kg/day	No effects observed	300/1	HEAST97	FY 1997
Cobalt	chronic	3.0E-04	mg/kg/day	100%	3.0E-04	mg/kg/day	Thyroid; decreased iodine updake	3,000	PPRTV	November 2012
	subchronic	3.0E-03	mg/kg/day	100%	3.0E-03	mg/kg/day	Thyroid; decreased iodine updake	300	PPRTV	November 2012
Lead	chronic	ND			ND				IRIS	October 2012
	subchronic	ND			ND					
Manganese (drinking water)	chronic	2.4E-02	mg/kg/day	4%	9.6E-04	mg/kg/day	CNS; Impairment of neurobehavioral function	1/3	IRIS	October 2012
	subchronic	2.4E-02	mg/kg/day	4%	9.6E-04	mg/kg/day	CNS; Impairment of neurobehavioral function	1/3	Chronic	
Thallium	chronic	s 1.0E-05	mg/kg/day				Skin; Hair folicle atrophy	3,000	IRIS	October 2012
	subchronic	s 4.0E-05	mg/kg/day				Skin; Hair folicle atrophy	1,000		

Notes:

Checked by: JHP 10/30/12

In accordance with OSWER 9285.7-53, chronic RfDs are identified from the following heirarchy of sources:

Tier 1:
IRIS = Integrated Risk Information System: October 2012

Tier 2:
PPRTV = Preliminary Peer-Reviewed Toxicity Value: November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites

Tier 3:
HEAST97= Health Effects Assessment Summary Tables: FY 1997 From HEAST FY 1997 Update
HEAST= Health Effects Assessment Summary Tables: November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites
MRL = Minimum Risk Level (ATSDR: chronic MRLs): February 2012

In addition, provisional RfDs developed by NCEA are presented for informational purposes and to be used on a case-by-case basis:
NCEA = National Center for Environmental Assessment: September 2004 Obtained from Region IX PRG Table
April 2007 Obtained from Region III RBC Table
August 2007 Toxicological Review for Tetrahydrofuran (External Review Draft)

mg = milligram
kg = kilogram
surrogate - a value for a closely related chemical is used as the RfD
BW = body weight
chronic - the chronic value is used as the subchronic RfD
ND = no data available

s = Value is a Screening PPRTV and is intended to be used to provide screening-level evluation of risks. This value is not used to quantiatively evaluate risks; however, implications of risks based on this value are discussed in the uncertainty assessment.

Subchronic RfDs are obtained from:
- ATSDR: Intermitent MRLs
- HEAST: subchronic RfDs (from HEAST FY 1997)
- Equal to chronic RfDs when values are not published in HEAST or by ATSDR

(1) Values obtained from RAGS Volume 1 (Part E, Supplemental Guidance for Dermal Risk Assessment, Interim Guidance) (EPA, 2004)
Per this guidance, a value of 100% is used for analytes without published values.
(2) Adjusted Dermal RfD = Oral RfD x Oral to Dermal Adjustment Factor. Per RAGS Part E (USEPA, 2004), adjustments are only performed for chemicals that have an oral absorption efficiency of less than 50%.

TABLE 30
DOSE-RESPONSE VALUES - NON-CANCER - INHALATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC (1)		Extrapolated RfD (1)		Primary Target Organ or System / Critical Effect	Combined Uncertainty/Modifying Factors	RfC: Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s)
VOLATILES									
1,1-Dichloroethane	chronic	5.0E+00	mg/m3	1.4E+00	mg/kg/day	Kidney		Subchronic	
	subchronic	5.0E+00	mg/m3	1.4E+00	mg/kg/day	Kidney	100	HEAST97	FY 1997
Benzene	chronic	3.0E-02	mg/m3	8.6E-03	mg/kg/day	Immune system; decreased lymphocyte count	300/1	IRIS	October-12
	subchronic	3.0E-02	mg/m3	8.6E-03	mg/kg/day	Immune system; decreased lymphocyte count	300/1	Chronic	
Bromodichloromethane	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Bromoform	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Chloroform	chronic	9.8E-02	mg/m3	2.8E-02	mg/kg/day	Liver	100	MRL	February 2012
	subchronic	2.5E-01	mg/m3	7.1E-02	mg/kg/day	Liver	300	MRL	February 2012
Dibromochloromethane	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Ethylbenzene	chronic	1.0E+00	mg/m3	2.9E-01	mg/kg/day	Developmental; developmental toxicity	300/1	IRIS	October-12
	subchronic	8.7E+00	mg/m3	2.5E+00	mg/kg/day	Nervous system	30	MRL	February 2012
Methyl-tert-butyl ether	chronic	3.0E+00	mg/m3	8.6E-01	mg/kg/day	Liver and Kidney; increased weight, lesions	100/1	IRIS	October-12
	subchronic	3.0E+00	mg/m3	8.6E-01	mg/kg/day	Liver and Kidney; increased weight, lesions	100/1	Chronic	
Tetrachloroethene	chronic	4.0E-02	mg/m3	1.1E-02	mg/kg/day	CNS; neurotoxicity	100	IRIS	October-12
	subchronic	4.0E-02	mg/m3	1.1E-02	mg/kg/day	CNS; neurotoxicity	100	Chronic	
Tetrahydrofuran	chronic	2.0E+00	mg/m3	5.7E-01	mg/kg/day	Nervous system and liver	100	IRIS	October-12
	subchronic	2.0E+00	mg/m3	5.7E-01	mg/kg/day	Nervous system and liver	100	Chronic	
Toluene	chronic	5.0E+00	mg/m3	1.4E+00	mg/kg/day	CNS; neurological effects	10/1	IRIS	October-12
	subchronic	5.0E+00	mg/m3	1.4E+00	mg/kg/day	CNS; neurological effects	10/1	Chronic	
Trichloroethene	chronic	2.0E-03	mg/m3	5.7E-04	mg/kg/day	Immunological	10 to 1000	IRIS	October-12
	subchronic	5.4E-01	mg/m3	1.5E-01	mg/kg/day	Neurological	300	MRL	February 2012
Vinyl Chloride	chronic	1.0E-01	mg/m3	2.9E-02	mg/kg/day	Liver; liver cell polymorphism	30/1	IRIS	October-12
	subchronic	1.0E-01	mg/m3	2.9E-02	mg/kg/day	Liver; liver cell polymorphism	30/1	Chronic	
Xylenes (total)	chronic	1.0E-01	mg/m3	2.9E-02	mg/kg/day	CNS; impaired motor coordination	300/1	IRIS	October-12
	subchronic	1.0E+01	mg/m3	2.9E+00	mg/kg/day	CNS; impaired motor coordination	300/1	Chronic	
SEMIVOLATILES									
Benzo(a)anthracene	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Benzo(a)pyrene	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Benzo(b)fluoranthene	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Benzo(k)fluoranthene	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Bis(2-ethylhexyl)phthalate (BEHP)	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Carbazole	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Dimethylphthalate	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Di-n-octylphthalate	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Indeno(1,2,3-cd)pyrene	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Naphthalene	chronic	3.0E-03	mg/m3	8.6E-04	mg/kg/day	Lung/Hyperplasia and metaplasia of epithelial cells	3,000/1	IRIS	October-12
	subchronic	3.0E-03	mg/m3	8.6E-04	mg/kg/day	Lung/Hyperplasia and metaplasia of epithelial cells	3,000/1	IRIS	October-12
Pentachlorphenol	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					

TABLE 30
DOSE-RESPONSE VALUES - NON-CANCER - INHALATION
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC (1)		Extrapolated RfD (1)		Primary Target Organ or System / Critical Effect	Combined Uncertainty/Modifying Factors	RfC: Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s)
PESTICIDES/PCBs									
Aroclor 1242	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Aroclor-1248	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
INORGANICS/METALS									
Antimony	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Arsenic	chronic	1.5E-05	mg/m3	4.3E-06	mg/kg/day	Developmental; cardiovascular; CNS		REL	December 2008
	subchronic	1.5E-05	mg/m3	4.3E-06	mg/kg/day	Developmental; cardiovascular; CNS		Chronic	
Cadmium	chronic	2.0E-05	mg/m3	5.7E-06	mg/kg/day	Kidney; respiratory system		REL	December 2008
	subchronic	2.0E-05	mg/m3	5.7E-06	mg/kg/day	Kidney; respiratory system		Chronic	
Chromium III	chronic	ND		ND				IRIS	October-12
	subchronic	5.0E-03	mg/m3	1.4E-03	mg/kg/day	Respiratory system	90	MRL	February 2012
Chromium VI	chronic	1.0E-04	mg/m3	2.9E-05	mg/kg/day	Lung; enzyme alterations	300/1	IRIS	October-12
	subchronic	1.0E-04	mg/m3	2.9E-05	mg/kg/day	Lung; enzyme alterations	300/1	Chronic	
Cobalt	chronic	6.0E-06	mg/m3	1.7E-06	mg/kg/day	Respiratory; lung function	300	PPRTV	November 2012
	subchronic	2.0E-05	mg/m3	5.7E-06	mg/kg/day	Respiratory; lung function	100	PPRTV	November 2012
Lead	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					
Manganese	chronic	5.0E-05	mg/m3	1.4E-05	mg/kg/day	CNS; impairment of neurobehavioral function	1,000/1	IRIS	October-12
	subchronic	5.0E-05	mg/m3	1.4E-05	mg/kg/day	CNS; impairment of neurobehavioral function	1,000/1	Chronic	
Thallium	chronic	ND		ND				IRIS	October-12
	subchronic	ND		ND					

Notes:

In accordance with OSWER 9285.7-53, chronic RfDs are identified from the following heirarchy of sources: Checked by: JHP 10/30/12

Tier 1:

IRIS = Integrated Risk Information System: Oct-12

Tier 2:

PPRTV = Preliminary Peer-Reviewed Toxicity Value: November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites

Tier 3:

HEAST97= Health Effects Assessment Summary Tables: FY 1997 From HEAST FY 1997 Update

HEAST= Health Effects Assessment Summary Tables: November 2012 Obtained from Oak Ridge National Laboratory Regional Screening Levels for Chemical Contaminants at Superfund Sites

MRL = Minimum Risk Level (ATSDR: chronic MRLs): February 2012

REL - CALEPA December 2008

In addition, provisional RfDs developed by NCEA are presented for informational purposes and to be used on a case-by-case basis:

NCEA = National Center for Environmental Assessment: September 2004 Obtained from Region IX PRG Table

April 2007 Obtained from Region III RBC Table

August 2007 Toxicological Review for Tetrahydrofuran (External Review Draft)

mg = milligram
kg = kilogram
ug - microgram
m^3 - cubic meter
BW = body weight

w = PPRTV was withdrawn based on most up-to-date Regional Screening Levels Table.

n = Value is an NCEA provisional value provided for informational purposes only.

Subchronic RfDs are obtained from:

- ATSDR: Intermitent MRLs
- HEAST: subchronic RfDs (from HEAST FY 1997)
- Equal to chronic RfDs when values are not published in HEAST or by ATSDR

chronic - the chronic value is used as the subchronic RfD

(1) - Inhalation non-cancer dose-response values are typically published as RfC values. RfC values may be converted to RfDs using the following equation (HEAST, 1997):

RfD (mg/kg-d) = RfC (mg/m^3) x 20 m^3/d / 70 kg, unless otherwise indicated

Value for chromium VI particulates; value for chromium VI as dissolved chromium VI aerosols or chromic acid mists is 8E-6 mg/m3

There is a National Ambient Air Quality Standard for lead of 1.5 µg/m3 averaged over three months

TABLE 31
RISK SUMMARY - CURRENT LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Receptor	Exposure Medium	Exposure Route	Excess Lifetime Cancer Risk	Hazard Index
Maintenance Worker				
	Unpaved Soil	Incidental Ingestion	1E-05	4E-01
		Dermal Contact	1.E-05	2E-01
		Dust Inhalation	2.E-06	9E-04
		Vapor Inhalation	6.E-08	5E-03
		Total Unpaved Soil Risk:	**2.E-05**	**6.E-01**
Trespasser				
	Unpaved Soil	Incidental Ingestion	4.E-07	4.E-02
		Dermal Contact	1.E-07	9.E-04
		Dust Inhalation	1.E-08	2.E-05
		Vapor Inhalation	1.E-10	9.E-05
		Total Unpaved Soil Risk:	**5.E-07**	**4.E-02**
	Storm Water	Dermal Contact	5.E-06	4E-01
		Total Storm Water Risk:	**5.E-06**	**4E-01**
		Total Trespasser Risk:	**6.E-06**	**4E-01**

TABLE 32
RISK SUMMARY - FUTURE COMMERCIAL/INDUSTRIAL FULL TIME OUTDOOR WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
AOI 1	Surface Soil	2E-06	3E-03
	Subsurface Soil	**5E-04**	**3.5E+01**
AOI 2	Surface Soil	8E-06	8E-02
	Subsurface Soil	1E-05	4E-01
AOI 3	Surface Soil	3E-05	8E-03
	Subsurface Soil	1E-05	0E+00
AOI 4	Surface Soil	4E-07	1E-05
	Subsurface Soil	--	--
AOI 5	Surface Soil	2E-08	2E-03
	Subsurface Soil	2E-07	2E-03
AOI 8	Surface Soil	4E-06	9E-03
	Subsurface Soil	3E-06	3E-02
AOI 9	Surface Soil	6E-06	6E-02
	Subsurface Soil	2E-06	1E-02
AOI 10	Surface Soil	1E-05	7E-02
	Subsurface Soil	1E-06	1E-02

TABLE 32
RISK SUMMARY - FUTURE COMMERCIAL/INDUSTRIAL FULL TIME OUTDOOR WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
AOI 11	Surface Soil	1E-06	6E-03
	Subsurface Soil	1E-06	9E-03
AOI 13	Surface Soil	1E-06	4E-04
	Subsurface Soil	4E-07	4E-01
AOI 14	Surface Soil	2E-06	1E-03
	Subsurface Soil	3E-08	5E-03
AOI 15	Surface Soil	0E+00	2E-05
	Subsurface Soil	0E+00	3E-01
AOI 16	Surface Soil	4E-06	1E-01
	Subsurface Soil	0E+00	2E-03
AOI 17	Surface Soil	1E-05	1E-02
	Subsurface Soil	0E+00	6E-06
AOI 19	Surface Soil	6E-06	4E-01
	Subsurface Soil	1E-06	1E-02
AOI 20	Surface Soil	9E-06	6E-02
	Subsurface Soil	2E-06	1E-02

TABLE 32
RISK SUMMARY - FUTURE COMMERCIAL/INDUSTRIAL FULL TIME OUTDOOR WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
AOI 21	Surface Soil	4E-06	2E-01
	Subsurface Soil	4E-06	1E-01
AOI 22	Surface Soil	1E-05	4E-01
	Subsurface Soil	3E-06	3E-02
AOI 23	Surface Soil	1E-07	3E-03
	Subsurface Soil	8E-09	1E-04
AOI 24	Surface Soil	2E-06	1E-02
	Subsurface Soil	1E-06	9E-03
AOI 25	Surface Soil	2E-06	2E-02
	Subsurface Soil	8E-07	6E-03
AOI 26	Surface Soil	3E-06	3E-02
	Subsurface Soil	2E-06	2E-02
AOI 27	Surface Soil	9E-06	3E-02
	Subsurface Soil	1E-06	9E-03
AOI 28	Surface Soil	2E-06	6E-02
	Subsurface Soil	2E-06	1E-02

TABLE 33
RISK SUMMARY - FUTURE COMMERCIAL/INDUSTRIAL FULL TIME INDOOR WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
Indoor Air (vapor intrusion from groundwater)	Indoor Air	3E-07	2.0E-03
AOI 1	NAPL	**5E-01**	**3.7E+04**
AOI28	Indoor Air	**3E-04**	**9.0E+01**

TABLE 34
RISK SUMMARY - FUTURE CONSTRUCTION WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
AOI 1	Surface Soil	2E-07	5E-03
	Subsurface Soil	6E-05	**6.5E+01**
AOI 2	Surface Soil	9E-07	1E-01
	Subsurface Soil	2E-06	4E-01
AOI 3	Surface Soil	3E-06	1E-02
	Subsurface Soil	1E-06	0E+00
AOI 4	Surface Soil	5E-08	3E-06
	Subsurface Soil	0E+00	0E+00
AOI 5	Surface Soil	2E-09	5E-04
	Subsurface Soil	3E-08	1E-03
AOI 8	Surface Soil	5E-07	2E-02
	Subsurface Soil	3E-07	1E-01
AOI 9	Surface Soil	8E-07	1E-01
	Subsurface Soil	3E-07	5E-02
AOI 10	Surface Soil	1E-06	2E-01
	Subsurface Soil	2E-07	4E-02

TABLE 34
RISK SUMMARY - FUTURE CONSTRUCTION WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
AOI 11	Surface Soil	1E-07	2E-02
	Subsurface Soil	2E-07	3E-02
AOI 13	Surface Soil	1E-07	2E-04
	Subsurface Soil	8E-08	1E-01
AOI 14	Surface Soil	3E-07	4E-04
	Subsurface Soil	7E-09	3E-03
AOI 15	Surface Soil	0E+00	7E-06
	Subsurface Soil	0E+00	1E-01
	NAPL	**4E-03**	**6.7E+02**
AOI 16	Surface Soil	5E-07	3E-02
	Subsurface Soil	0E+00	6E-04
AOI 17	Surface Soil	1E-06	3E-02
	Subsurface Soil	0E+00	2E-06
AOI 19	Surface Soil	5E-07	9E-01
	Subsurface Soil	2E-07	4E-02

TABLE 34
RISK SUMMARY - FUTURE CONSTRUCTION WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
AOI 20	Surface Soil	1E-06	1E-01
	Subsurface Soil	2E-07	4E-02
AOI 21	Surface Soil	3E-07	1E-01
	Subsurface Soil	5E-07	1E-01
AOI 22	Surface Soil	5E-07	6E-01
	Subsurface Soil	4E-07	6E-02
AOI 23	Surface Soil	2E-08	7E-04
	Subsurface Soil	9E-10	4E-05
AOI 24	Surface Soil	2E-07	3E-02
	Subsurface Soil	2E-07	3E-02
AOI 25	Surface Soil	3E-07	5E-02
	Subsurface Soil	1E-07	2E-02
AOI 26	Surface Soil	4E-07	6E-02
	Subsurface Soil	3E-07	6E-02
AOI 27	Surface Soil	1E-06	9E-02
	Subsurface Soil	2E-07	3E-02

TABLE 34
RISK SUMMARY - FUTURE CONSTRUCTION WORKER
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Exposure Point	Exposure Medium	Excess Lifetime Cancer Risk	Hazard Index
AOI 28	Surface Soil	3E-07	8E-02
	Subsurface Soil	2E-07	4E-02
Groundwater	Air in Excavation Trench	6E-11	9E-06
	Groundwater in Excavation Trench - (Direct Contact)	1E-06	1E+00
	Groundwater (Total)	1E-06	1E+00

TABLE 35
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - CURRENT LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection # Not Detected	Frequency of Detection # Detected	Detected Results Minimum	Detected Results Maximum	Upper Conc. Limits Calc. UCL	Upper Conc. Limits statistic[1]	EPC Value	EPC basis[1]		Maintenance Worker ELCR	Maintenance Worker HI	Trespasser ELCR	Trespasser HI
(Current Land Use)															
Unpaved Soil															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	4	14	0.16	7.93	NC	-	7.9	Max		0.0E+00	1.7E-02	0.0E+00	3.8E-03
Arsenic	7440-38-2	mg/kg	0	18	0.58	4.33	NC	-	4.3	Max		2.4E-06	1.5E-02	9.4E-08	2.9E-03
Chromium Total	7440-47-3	mg/kg	0	18	0.62	474	NC	-	474	Max		2.5E-06	1.4E-01	1.1E-08	4.5E-03
Lead	7439-92-1	mg/kg	0	18	4.22	157	NC	-	157	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	5E-06	2E-01	1E-07	1E-02
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	9	8	0.03	4.7	NC	-	4.7	Max		6E-06	4E-01	0E+00	3E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	20	11	0.03	0.2	NC	-	0.2	Max		8.3E-08	0.0E+00	6.6E-09	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	18	13	0.03	0.35	NC	-	0.35	Max		1.5E-06	0.0E+00	1.2E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	24	7	0.54	160	NC	-	160	Max		1.1E-06	1.1E-02	3.7E-08	3.7E-04
Dimethyl phthalate	131-11-3	mg/kg	29	2	0.05	0.06	NC	-	0.06	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	11	20	0.07	20.4	NC	-	20	Max		0.0E+00	2.4E-03	0.0E+00	3.9E-05
Pentachlorophenol	87-86-5	mg/kg	29	2	3.98	30.3	NC	-	30	Max		9.8E-06	1.4E-02	2.5E-07	1.8E-03
											Subtotal:	1E-05	3E-02	4E-07	2E-03
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	25	2	0.0005	0.076	NC	-	0.076	Max		4.8E-09	5.8E-05	1.4E-10	8.4E-06
Ethylbenzene	100-41-4	mg/kg	22	5	0.0006	7	NC	-	7	Max		5.6E-08	1.2E-04	0.0E+00	4.1E-06
Methyl cyclohexane	108-87-2	mg/kg	18	9	0.0003	18	NC	-	18	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	19	8	0.0006	306	NC	-	306	Max		0.0E+00	4.0E-03	0.0E+00	1.1E-04
Trichloroethene	79-01-6	mg/kg	26	1	0.063	0.063	NC	-	0.063	Max		2.0E-09	4.8E-04	1.4E-10	2.4E-05
Xylene (total)	1330-20-7	mg/kg	15	12	0.0004	52	NC	-	52	Max		0.0E+00	4.3E-03	0.0E+00	2.9E-05
											Subtotal:	6E-08	9E-03	3E-10	2E-04
											Receptor Risk Total:	2E-05	6E-01	5E-07	4E-02

Notes and Abbreviations:
(1) Notes regarding chemicals of potential concern (COPC), upper concentration limits (UCL), and exposure point concentrations (EPC) are contained in Table 15.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
mg/kg = milligrams per kilogram.

TABLE 36
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN STORMWATER - CURRENT & FUTUTE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Trespasser	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI
Stormwater - Dermal Contact													
Inorganic Compounds													
Antimony	7440-36-0	ug/L	0	3	2.7	15	NC	-	15	Max		0.0E+00	8.3E-04
Arsenic	7440-38-2	ug/L	0	3	1.7	4.2	NC	-	4.2	Max		1.5E-09	4.7E-05
Vanadium	7440-62-2	ug/L	0	3	0.61	1.1	NC	-	1.1	Max		0.0E+00	1.4E-05
											Subtotal:	1E-09	9E-04
PCBs													
Aroclor-1248 (PCB-1248)	12672-29-6	ug/L	1	3	-	1.3	NC	-	1.3	Max		2E-06	4E-01
Semi-Volatile Organic Cmpds													
Benzo(a)anthracene	56-55-3	ug/L	1	3	-	0.18	NC	-	0.18	Max		1.5E-07	0.0E+00
Benzo(a)pyrene	50-32-8	ug/L	1	3	-	0.19	NC	-	0.19	Max		2.7E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	ug/L	1	3	-	0.35	NC	-	0.35	Max		5.1E-07	0.0E+00
Benzo(k)fluoranthene	207-08-9	ug/L	1	3	-	0.16	NC	-	0.16	Max		2.3E-08	0.0E+00
Chrysene	218-01-9	ug/L	1	3	-	0.27	NC	-	0.27	Max		2.3E-09	0.0E+00
Di-n-octyl phthalate	117-84-0	ug/L	1	3	-	1.3	NC	-	1.3	Max		0.0E+00	8.3E-09
Indeno(1,2,3-cd)pyrene	193-39-5	ug/L	1	3	-	0.13			0.13			2.0E-07	0.0E+00
											Subtotal:	4E-06	2E-09
Volatile Organic Compounds													
Tetrahydrofuran	109-99-9	ug/L	0	3	0.51	6800	NC	-	6800	Max		0E+00	5E-05
										Receptor Risk Total:		5E-06	4E-01

Notes and Abbreviations:
(1) Notes regarding chemicals of potential concern (COPC), upper concentration limits (UCL), and exposure point concentrations (EPC) are contained in Table 19.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
ug/L = micrograms per liter.

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-01															
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	12	1	0.030	0.030	NC	-	0.030	Max		4E-09	5E-03	4E-08	2E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	9	4	0.03	0.41	NC	-	0.41	Max		1.9E-08	0.0E+00	1.7E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	8	5	0.04	0.34	NC	-	0.34	Max		1.6E-07	0.0E+00	1.4E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	7	6	0.04	0.3	NC	-	0.3	Max		1.4E-08	0.0E+00	1.2E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	7	6	0.59	12.5	NC	-	13	Max		1.0E-08	5.2E-04	8.9E-08	8.9E-04
Carbazole	86-74-8	mg/kg	12	1	0.090	0.090	NC	-	0.090	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	13	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	10	3	0.060	0.080	NC	-	0.080	Max		0.0E+00	2.8E-06	0.0E+00	9.5E-06
Pentachlorophenol	87-86-5	mg/kg	13	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-07	5E-04	2E-06	9E-04
											Receptor Risk Total:	2E-07	5E-03	2E-06	3E-03
AOI-02															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	5	7	0.22	7.93	3.38	NP [e]	3.4	UCL		0.0E+00	2.7E-02	0.0E+00	7.2E-03
Arsenic	7440-38-2	mg/kg	0	12	0.58	4.4	2.54	N [g]	2.5	UCL		1.9E-07	3.0E-02	1.4E-06	8.7E-03
Chromium Total	7440-47-3	mg/kg	0	108	1.67	164	42.4	NP [f]	42	UCL		1.0E-08	6.9E-03	2.2E-07	1.2E-02
Lead	7439-92-1	mg/kg	0	108	3.7	899	178	NP [f]	178	UCL		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-07	6E-02	2E-06	3E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	12	2	0.04	0.9	1.00	NP [d]	0.9	Max		4.2E-08	0.0E+00	3.7E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	12	2	0.05	1.17	1.30	NP [d]	1.2	Max		5.5E-07	0.0E+00	4.9E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	12	2	0.06	1.1	1.20	NP [d]	1.1	Max		5.1E-08	0.0E+00	4.6E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	10	4	0.33	24.6	6.26	NP [e]	6.3	UCL		5.3E-09	2.6E-04	4.5E-08	4.5E-04
Carbazole	86-74-8	mg/kg	13	1	0.05	0.05	NC [a]	-	0.05	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	14	0	-	-	-	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	11	0.06	66.9	29.9		30	UCL		0.0E+00	1.0E-03	0.0E+00	3.6E-03
Pentachlorophenol	87-86-5	mg/kg	14	0	-	-	-	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	6E-07	1E-03	6E-06	4E-03
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	67	28	0.0003	20	2.26	NP [c]	2.3	UCL		3.0E-08	9.0E-03	1.4E-07	1.7E-03
Ethylbenzene	100-41-4	mg/kg	46	49	0.0005	200	38.4	NP [c]	38	UCL		0.0E+00	5.3E-04	3.0E-07	6.7E-04
Methyl cyclohexane	108-87-2	mg/kg	6	11	0.0003	18	11.8	NP [d]	12	UCL		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	21	74	0.001	5190	543	NP [c]	543	UCL		0.0E+00	8.2E-03	0.0E+00	7.1E-03
Trichloroethene	79-01-6	mg/kg	85	8	0.007	3	NC	-	3	Max		1.9E-08	2.0E-02	9.7E-08	2.3E-02
Xylene (total)	1330-20-7	mg/kg	21	70	0.0004	963	205	NP [c]	205	UCL		0.0E+00	2.6E-03	0.0E+00	1.7E-02
											Subtotal:	5E-08	4E-02	5E-07	5E-02
											Receptor Risk Total:	9E-07	1E-01	8E-06	8E-02

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-03															
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	2	1	0.08	0.08	NC	-	0.08	Max		1E-08	1E-02	9E-08	7E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	4	0.04	6.09	NC	-	6.1	Max		2.9E-07	0.0E+00	2.5E-06	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	4	0.05	5.94	NC	-	5.9	Max		2.8E-06	0.0E+00	2.5E-05	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	4	0.05	6.15	NC	-	6.2	Max		2.9E-07	0.0E+00	2.6E-06	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	3	5.43	12.2	NC	-	12	Max		1.0E-08	5.1E-04	8.7E-08	8.7E-04
Carbazole	86-74-8	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	4	0.3	1.73	NC	-	1.7	Max		0.0E+00	6.1E-05	0.0E+00	2.1E-04
Pentachlorophenol	87-86-5	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
												3E-06	6E-04	3E-05	1E-03
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	2	1	0.0005	0.0005	NC	-	0.0005	Max		6.5E-12	2.0E-06	3.2E-11	3.8E-07
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	2	1	0.0006	0.0006	NC	-	0.0006	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	2	1	0.0005	0.0005	NC	-	0.0005	Max		0.0E+00	6.3E-09	0.0E+00	4.2E-08
											Subtotal:	7E-12	2E-06	3E-11	4E-07
											Receptor Risk Total:	3E-06	1E-02	3E-05	8E-03
AOI-04															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	0	3	0.06	0.1	NC	-	0.1	Max		4.7E-09	0.0E+00	4.2E-08	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	0	3	0.06	0.08	NC	-	0.08	Max		3.7E-08	0.0E+00	3.3E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	0	3	0.05	0.08	NC	-	0.08	Max		3.7E-09	0.0E+00	3.3E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	1	2	0.09	0.1	NC	-	0.1	Max		0.0E+00	3.5E-06	0.0E+00	1.2E-05
Pentachlorophenol	87-86-5	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	5E-08	3E-06	4E-07	1E-05
											Receptor Risk Total:	5E-08	3E-06	4E-07	1E-05
AOI-05															
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	4	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	1	2.58	2.58	NC	-	2.6	Max		2.2E-09	1.1E-04	1.8E-08	1.8E-04
Carbazole	86-74-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	1	12.3	12.3	NC	-	12	Max		0.0E+00	4.3E-04	0.0E+00	1.5E-03
Pentachlorophenol	87-86-5	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-09	5E-04	2E-08	2E-03
											Receptor Risk Total:	2E-09	5E-04	2E-08	2E-03

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-08															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	6	2	0.13	0.15	NC	-	0.15	Max		0.0E+00	1.2E-03	0.0E+00	3.2E-04
Arsenic	7440-38-2	mg/kg	0	8	0.21	1.37	NC	-	1.4	Max		1.0E-07	1.6E-02	7.5E-07	4.7E-03
Chromium Total	7440-47-3	mg/kg	0	8	0.69	13.8	NC	-	14	Max		3.3E-09	2.3E-03	7.2E-08	4.0E-03
Lead	7439-92-1	mg/kg	0	8	1.24	15.3	NC	-	15	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	1E-07	2E-02	8E-07	9E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	7	3	0.04	0.45	NC	-	0.45	Max		2.1E-08	0.0E+00	1.9E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	7	3	0.06	0.68	NC	-	0.68	Max		3.2E-07	0.0E+00	2.8E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	7	3	0.06	0.61	NC	-	0.61	Max		2.9E-08	0.0E+00	2.5E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	10	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	9	1	0.07	0.07	NC	-	0.07	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	10	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	5	5	0.03	0.2	NC	-	0.2	Max		0.0E+00	7.0E-06	0.0E+00	2.4E-05
Pentachlorophenol	87-86-5	mg/kg	10	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	4E-07	7E-06	3E-06	2E-05
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	8	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	8	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	8	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	7	1	0.0004	0.0004	NC	-	0.0004	Max		0.0E+00	6.1E-09	0.0E+00	5.2E-09
Trichloroethene	79-01-6	mg/kg	6	2	0.002	0.004	NC	-	0.004	Max		2.5E-11	2.6E-05	1.3E-10	3.1E-05
Xylene (total)	1330-20-7	mg/kg	7	1	0.0003	0.0003	NC	-	0.0003	Max		0.0E+00	3.8E-09	0.0E+00	2.5E-08
											Subtotal:	2E-11	3E-05	1E-10	3E-05
											Receptor Risk Total:	5E-07	2E-02	4E-06	9E-03
AOI-09															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	3	1	0.15	0.15	NC	-	0.15	Max		0.0E+00	1.2E-03	0.0E+00	3.2E-04
Arsenic	7440-38-2	mg/kg	0	4	0.19	8.91	NC	-	8.9	Max		6.7E-07	1.0E-01	4.9E-06	3.1E-02
Chromium Total	7440-47-3	mg/kg	0	4	0.97	58.1	NC	-	58	Max		1.4E-08	9.5E-03	3.0E-07	1.7E-02
Lead	7439-92-1	mg/kg	0	4	1.01	197	NC	-	197	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	7E-07	1E-01	5E-06	5E-02
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	1	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	1	145	145	NC	-	145	Max		1.2E-07	6.1E-03	1.0E-06	1.0E-02
Carbazole	86-74-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	2	2	0.2	0.59	NC	-	0.59	Max		0.0E+00	2.1E-05	0.0E+00	7.0E-05
Pentachlorophenol	87-86-5	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	1E-07	6E-03	1E-06	1E-02
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	1	0.004	0.004	NC	-	0.004	Max		0.0E+00	5.6E-08	3.2E-11	7.0E-08
Methyl cyclohexane	108-87-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	4	0	0.0003	0.022	NC	-	0.022	Max		0.0E+00	2.8E-07	0.0E+00	1.8E-06
											Subtotal:	0E+00	3E-07	3E-11	2E-06
											Receptor Risk Total:	8E-07	1E-01	6E-06	6E-02

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-10															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	4	2	0.17	0.51	NC	-	0.51	Max		0.0E+00	4.1E-03	0.0E+00	1.1E-03
Arsenic	7440-38-2	mg/kg	0	6	1.36	15.9	NC	-	16	Max		1.2E-06	1.9E-01	8.8E-06	5.5E-02
Chromium Total	7440-47-3	mg/kg	0	6	4.76	31.9	NC	-	32	Max		7.6E-09	5.2E-03	1.7E-07	9.2E-03
Lead	7439-92-1	mg/kg	0	6	10.6	57.6	NC	-	58	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
							NC	-			Subtotal:	1E-06	2E-01	9E-06	6E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	4	2	0.2	0.35	NC	-	0.35	Max		1.6E-08	0.0E+00	1.5E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	4	2	0.2	0.44	NC	-	0.44	Max		2.1E-07	0.0E+00	1.8E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	4	2	0.2	0.41	NC	-	0.41	Max		1.9E-08	0.0E+00	1.7E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	3	0.08	3.18	NC	-	3.2	Max		0.0E+00	1.1E-04	0.0E+00	3.8E-04
Pentachlorophenol	87-86-5	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-07	1E-04	2E-06	4E-04
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	5	1	0.002	0.002	NC	-	0.002	Max		2.6E-11	7.9E-06	1.3E-10	1.5E-06
Ethylbenzene	100-41-4	mg/kg	5	1	0.0005	0.0005	NC	-	0.0005	Max		0.0E+00	7.0E-09	4.0E-12	8.7E-09
Methyl cyclohexane	108-87-2	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	2	4	0.0004	0.014	NC	-	0.014	Max		0.0E+00	2.1E-07	0.0E+00	1.8E-07
Trichloroethene	79-01-6	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	4	2	0.0003	0.0026	NC	-	0.0026	Max		0.0E+00	3.3E-08	0.0E+00	2.2E-07
											Subtotal:	3E-11	8E-06	1E-10	2E-06
										Receptor Risk Total:		1E-06	2E-01	1.1E-05	6.5E-02
AOI-11															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	1	2	0.1	0.38	NC	-	0.38	Max		0.0E+00	3.1E-03	0.0E+00	8.1E-04
Arsenic	7440-38-2	mg/kg	0	3	0.89	1.32	NC	-	1.3	Max		1.0E-07	1.6E-02	7.3E-07	4.5E-03
Chromium Total	7440-47-3	mg/kg	0	3	2.41	2.47	NC	-	2.5	Max		5.9E-10	4.0E-04	1.3E-08	7.1E-04
Lead	7439-92-1	mg/kg	0	3	1.82	4.89	NC	-	4.9	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
							NC	-			Subtotal:	1E-07	2E-02	7E-07	6E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	1	2	0.02	0.08	NC	-	0.08	Max		3.7E-09	0.0E+00	3.3E-08	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	1	2	0.03	0.08	NC	-	0.08	Max		3.7E-08	0.0E+00	3.3E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	1	2	0.03	0.08	NC	-	0.08	Max		3.7E-09	0.0E+00	3.3E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pentachlorophenol	87-86-5	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	4E-08	0E+00	4E-07	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	2	1	0.0004	0.0004	NC	-	0.0004	Max		0.0E+00	5.6E-09	3.2E-12	7.0E-09
Methyl cyclohexane	108-87-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	1	2	0.0008	0.002	NC	-	0.002	Max		0.0E+00	3.0E-08	0.0E+00	2.6E-08
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	1	2	0.0003	0.0014	NC	-	0.0014	Max		0.0E+00	1.8E-08	0.0E+00	1.2E-07
											Subtotal:	0E+00	5E-08	3E-12	2E-07
										Receptor Risk Total:		1E-07	2E-02	1E-06	6E-03

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection # Not Detected	Frequency of Detection # Detected	Detected Results Minimum	Detected Results Maximum	Upper Conc. Limits Calc. UCL	Upper Conc. Limits statistic[1]	EPC Value	EPC basis[1]		Construction Worker ELCR	Construction Worker HI	Commercial Worker ELCR	Commercial Worker HI
AOI-13															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	2	3	0.03	0.6	NC	-	0.6	Max		2.8E-08	0.0E+00	2.5E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	1	4	0.05	0.2	NC	-	0.2	Max		9.4E-08	0.0E+00	8.3E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	2	3	0.06	0.2	NC	-	0.2	Max		9.4E-09	0.0E+00	8.3E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	2	1.88	3.03	NC	-	3.0	Max		2.5E-09	1.3E-04	2.2E-08	2.2E-04
Carbazole	86-74-8	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	2	0.1	1.4	NC	-	1.4	Max		0.0E+00	4.9E-05	0.0E+00	1.7E-04
Pentachlorophenol	87-86-5	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	1E-07	2E-04	1.2E-06	3.8E-04
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	1	0.01	0.01	NC	-	0.01	Max		1.3E-10	4.0E-05	6.3E-10	7.7E-06
Ethylbenzene	100-41-4	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	2	0.0006	0.13	NC	-	0.13	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	1	0.03	0.03	NC	-	0.03	Max		0.0E+00	4.6E-07	0.0E+00	3.9E-07
Trichloroethene	79-01-6	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	2	3	0.0003	0.05	NC	-	0.05	Max		0.0E+00	6.3E-07	0.0E+00	4.2E-06
											Subtotal:	1E-10	4E-05	6E-10	1E-05
											Receptor Risk Total:	1E-07	2E-04	1E-06	4E-04
AOI-14															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	2	1	0.4	0.4	NC	-	0.4	Max		1.9E-08	0.0E+00	1.7E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	2	1	0.5	0.5	NC	-	0.5	Max		2.3E-07	0.0E+00	2.1E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	2	1	0.6	0.6	NC	-	0.6	Max		2.8E-08	0.0E+00	2.5E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	0	3	0.02	7.81	NC	-	7.8	Max		0.0E+00	2.7E-04	0.0E+00	9.3E-04
Pentachlorophenol	87-86-5	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	3E-07	3E-04	2E-06	9E-04
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	2	1	0.02	0.02	NC	-	0.02	Max		2.6E-10	7.9E-05	1.3E-09	1.5E-05
Ethylbenzene	100-41-4	mg/kg	2	1	0.07	0.07	NC	-	0.07	Max		0.0E+00	9.7E-07	5.6E-10	1.2E-06
Methyl cyclohexane	108-87-2	mg/kg	2	1	0.0003	0.0003	NC	-	0.0003	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	2	1	0.13	0.13	NC	-	0.13	Max		0.0E+00	1.6E-06	0.0E+00	1.1E-05
											Subtotal:	3E-10	8E-05	2E-09	3E-05
											Receptor Risk Total:	3E-07	4E-04	2E-06	1E-03
AOI-15															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	2	0.03	0.2	NC	-	0.2	Max		0.0E+00	7.0E-06	0.0E+00	2.4E-05
Pentachlorophenol	87-86-5	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	7E-06	0E+00	2E-05
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	4	1	0.0008	0.0008	NC	-	0.0008	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	0E+00	7E-06	0E+00	2E-05

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-16															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	4	2	0.1	0.79	NC	-	0.79	Max		3.7E-08	0.0E+00	3.3E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	3	0.022	0.89	NC	-	0.89	Max		4.2E-07	0.0E+00	3.7E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	3	0.042	0.98	NC	-	0.98	Max		4.6E-08	0.0E+00	4.1E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	2	0.72	1.4	NC	-	1.4	Max		1.2E-09	5.9E-05	1.0E-08	1.0E-04
Carbazole	86-74-8	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	3	0.37	918	NC	-	918	Max		0.0E+00	3.2E-02	0.0E+00	1.1E-01
Pentachlorophenol	87-86-5	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	5E-07	3E-02	4E-06	1E-01
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	1	2	0.0006	0.001	NC	-	0.001	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	1	2	0.001	0.0012	NC	-	0.0012	Max		0.0E+00	1.5E-08	0.0E+00	1.0E-07
											Subtotal:	0E+00	2E-08	0E+00	1E-07
											Receptor Risk Total:	5E-07	3E-02	4E-06	1E-01
AOI-17															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	2	2	0.05	0.09	NC	-	0.09	Max		4.2E-09	0.0E+00	3.7E-08	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	2	2	0.05	0.08	NC	-	0.08	Max		3.7E-08	0.0E+00	3.3E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	2	2	0.05	0.1	NC	-	0.1	Max		4.7E-09	0.0E+00	4.2E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	2	2	0.08	0.43	NC	-	0.43	Max		0.0E+00	1.5E-05	0.0E+00	5.1E-05
Pentachlorophenol	87-86-5	mg/kg	2	2	3.98	30.3	NC	-	30	Max		9.8E-07	3.4E-02	9.8E-06	1.4E-02
											Subtotal:	1E-06	3E-02	1E-05	1E-02
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	1	0.0006	0.0006	NC	-	0.0006	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	3	1	0.0009	0.0009	NC	-	0.0009	Max		0.0E+00	1.1E-08	0.0E+00	7.5E-08
											Subtotal:	0E+00	1E-08	0E+00	8E-08
											Receptor Risk Total:	1E-06	3E-02	1E-05	1E-02
AOI-19															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	1	3	0.29	92.5	NC	-	93	Max		0.0E+00	7.5E-01	0.0E+00	2.0E-01
Arsenic	7440-38-2	mg/kg	0	4	1.38	3.69	NC	-	3.7	Max		2.8E-07	4.3E-02	2.0E-06	1.3E-02
Chromium Total	7440-47-3	mg/kg	0	4	4.07	810	NC	-	810	Max		1.9E-07	1.3E-01	4.2E-06	2.3E-01
Lead	7439-92-1	mg/kg	0	4	4.99	3140	NC	-	3140	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	5E-07	9E-01	6E-06	4E-01
											Receptor Risk Total:	5E-07	9E-01	6E-06	4E-01

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-20															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	0	3	0.2	1.62	NC	-	1.6	Max		0.0E+00	1.3E-02	0.0E+00	3.5E-03
Arsenic	7440-38-2	mg/kg	0	3	2.81	5.46	NC	-	5.5	Max		4.1E-07	6.4E-02	3.0E-06	1.9E-02
Chromium Total	7440-47-3	mg/kg	0	3	4.08	81.3	NC	-	81	Max		1.9E-08	1.3E-02	4.2E-07	2.3E-02
Lead	7439-92-1	mg/kg	0	3	28.3	45.3	NC	-	45	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	4E-07	9E-02	3E-06	5E-02
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	1	2	0.02	0.19	NC	-	0.19	Max		0E+00	2E-02	2E-07	2E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	0	5	0.1	1.03	NC	-	1.0	Max		4.8E-08	0.0E+00	4.3E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	0	5	0.1	1.17	NC	-	1.2	Max		5.5E-07	0.0E+00	4.9E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	0	5	0.1	1.22	NC	-	1.2	Max		5.7E-08	0.0E+00	5.1E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	1	4	1.9	6.96	NC	-	7.0	Max		5.8E-09	2.9E-04	5.0E-08	5.0E-04
Carbazole	86-74-8	mg/kg	1	4	0.04	0.3	NC	-	0.3	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	3	2	0.04	0.07	NC	-	0.07	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	2	3	0.97	12.5	NC	-	13	Max		0.0E+00	4.4E-04	0.0E+00	1.5E-03
Pentachlorophenol	87-86-5	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	7E-07	7E-04	6E-06	2E-03
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	1E-06	1E-01	9E-06	6E-02
AOI-21															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	1	2	0.44	1.11	NC	-	1.1	Max		0.0E+00	9.0E-03	0.0E+00	2.4E-03
Arsenic	7440-38-2	mg/kg	0	3	0.59	2.3	NC	-	2.3	Max		1.7E-07	2.7E-02	1.3E-06	7.9E-03
Chromium Total	7440-47-3	mg/kg	0	3	1.04	474	NC	-	474	Max		1.1E-07	7.7E-02	2.5E-06	1.4E-01
Lead	7439-92-1	mg/kg	0	3	1.68	25.9	NC	-	26	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	3E-07	1E-01	4E-06	1E-01
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	2	2	0.03	0.1	NC	-	0.1	Max		0E+00	1E-02	1E-07	8E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	1	0.08	0.08	NC	-	0.08	Max		3.7E-09	0.0E+00	3.3E-08	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	2	2	0.04	0.1	NC	-	0.1	Max		4.7E-08	0.0E+00	4.2E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	2	2	0.03	0.1	NC	-	0.1	Max		4.7E-09	0.0E+00	4.2E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	1	3	0.07	5.15	NC	-	5.2	Max		0.0E+00	1.8E-04	0.0E+00	6.1E-04
Pentachlorophenol	87-86-5	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	6E-08	2E-04	5E-07	6E-04
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	2	1	0.002	0.002	NC	-	0.002	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	2	1	0.001	0.001	NC	-	0.001	Max		0.0E+00	1.3E-08	0.0E+00	8.4E-08
											Subtotal:	0E+00	1E-08	0E+00	8E-08
											Receptor Risk Total:	3E-07	1E-01	4E-06	2E-01

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-22															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	1	5	0.21	2.04	NC	-	2.0	Max		0.0E+00	1.6E-02	0.0E+00	4.4E-03
Arsenic	7440-38-2	mg/kg	0	6	1.06	4.33	NC	-	4.3	Max		3.3E-07	5.1E-02	2.4E-06	1.5E-02
Chromium Total	7440-47-3	mg/kg	0	6	0.64	48.7	NC	-	49	Max		1.2E-08	8.0E-03	2.5E-07	1.4E-02
Lead	7439-92-1	mg/kg	0	6	4.22	157	NC	-	157	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	3E-07	8E-02	3E-06	3E-02
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	4	6	0.08	4.7	NC	-	4.7	Max		0E+00	5E-01	6E-06	4E-01
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	7	3	0.03	0.07	NC	-	0.07	Max		3.3E-09	0.0E+00	2.9E-08	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	6	4	0.03	0.09	NC	-	0.09	Max		4.2E-08	0.0E+00	3.7E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	6	4	0.03	0.1	NC	-	0.1	Max		4.7E-09	0.0E+00	4.2E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	6	4	0.54	160	NC	-	160	Max		1.3E-07	6.7E-03	1.1E-06	1.1E-02
Carbazole	86-74-8	mg/kg	10	-	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	8	2	0.05	0.06	NC	-	0.06	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	1	9	0.3	9.83	NC	-	9.8	Max		0.0E+00	3.4E-04	0.0E+00	1.2E-03
Pentachlorophenol	87-86-5	mg/kg	10	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-07	7E-03	2E-06	1E-02
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	5	1	0.0006	0.0006	NC	-	0.0006	Max		0.0E+00	8.3E-09	4.8E-12	1.0E-08
Methyl cyclohexane	108-87-2	mg/kg	5	1	0.0009	0.0009	NC	-	0.0009	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	3	0.0006	0.017	NC	-	0.017	Max		0.0E+00	2.6E-07	0.0E+00	2.2E-07
Trichloroethene	79-01-6	mg/kg	6	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	5	1	0.0024	0.0024	NC	-	0.0024	Max		0.0E+00	3.0E-08	0.0E+00	2.0E-07
											Subtotal:	0E+00	3E-07	5E-12	4E-07
											Receptor Risk Total:	5E-07	6E-01	1E-05	4E-01
AOI-23															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	6	1	0.03	0.03	NC	-	0.03	Max		1.4E-08	0.0E+00	1.2E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	5	2	0.03	0.03	NC	-	0.03	Max		1.4E-09	0.0E+00	1.2E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	2	5	0.09	21.3	NC	-	21	Max		0.0E+00	7.5E-04	0.0E+00	2.5E-03
Pentachlorophenol	87-86-5	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-08	7E-04	1E-07	3E-03
											Receptor Risk Total:	2E-08	7E-04	1E-07	3E-03

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-24															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	3	1	0.1	0.1	NC	-	0.1	Max		0.0E+00	8.1E-04	0.0E+00	2.1E-04
Arsenic	7440-38-2	mg/kg	0	4	0.43	2.33	NC	-	2.3	Max		1.8E-07	2.7E-02	1.3E-06	8.0E-03
Chromium Total	7440-47-3	mg/kg	0	4	1.67	5.57	NC	-	5.6	Max		1.3E-09	9.1E-04	2.9E-08	1.6E-03
Lead	7439-92-1	mg/kg	0	4	3.56	56.5	NC	-	57	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-07	3E-02	1E-06	1E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	1	0.02	0.02	NC	-	0.02	Max		9.4E-10	0.0E+00	8.3E-09	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	1	0.04	0.04	NC	-	0.04	Max		1.9E-08	0.0E+00	1.7E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	1	0.04	0.04	NC	-	0.04	Max		1.9E-09	0.0E+00	1.7E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pentachlorophenol	87-86-5	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	2E-08	0E+00	2E-07	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	1	3	0.0006	0.001	NC	-	0.001	Max		0.0E+00	1.4E-08	7.9E-12	1.7E-08
Methyl cyclohexane	108-87-2	mg/kg	0	4	0.0008	0.003	NC	-	0.003	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	0	4	0.011	0.046	NC	-	0.046	Max		0.0E+00	7.0E-07	0.0E+00	6.0E-07
Trichloroethene	79-01-6	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	0	4	0.002	0.0049	NC	-	0.0049	Max		0.0E+00	6.2E-08	0.0E+00	4.1E-07
											Subtotal:	0E+00	8E-07	8E-12	1E-06
											Receptor Risk Total:	2E-07	3E-02	2E-06	1E-02
AOI-25															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	0	3	0.24	0.93	NC	-	0.93	Max		0.0E+00	7.5E-03	0.0E+00	2.0E-03
Arsenic	7440-38-2	mg/kg	0	3	0.96	3.65	NC	-	3.7	Max		2.8E-07	4.3E-02	2.0E-06	1.3E-02
Chromium Total	7440-47-3	mg/kg	0	3	0.62	5.97	NC	-	6.0	Max		1.4E-09	9.8E-04	3.1E-08	1.7E-03
Lead	7439-92-1	mg/kg	0	3	4.83	37.7	NC	-	38	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	3E-07	5E-02	2E-06	2E-02
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	2	1	0.05	0.05	NC	-	0.05	Max		2.3E-09	0.0E+00	2.1E-08	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	1	2	0.03	0.06	NC	-	0.06	Max		2.8E-08	0.0E+00	2.5E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	1	2	0.03	0.06	NC	-	0.06	Max		2.8E-09	0.0E+00	2.5E-08	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pentachlorophenol	87-86-5	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	3E-08	0E+00	3E-07	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	2	1	0.0003	0.0003	NC	-	0.0003	Max		0.0E+00	3.8E-09	0.0E+00	2.5E-08
											Subtotal:	0E+00	4E-09	0E+00	3E-08
											Receptor Risk Total:	3E-07	5E-02	2E-06	2E-02

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection # Not Detected	Frequency of Detection # Detected	Detected Results Minimum	Detected Results Maximum	Upper Conc. Limits Calc. UCL	Upper Conc. Limits statistic[1]	EPC Value	EPC basis[1]		Construction Worker ELCR	Construction Worker HI	Commercial Worker ELCR	Commercial Worker HI
AOI-26															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arsenic	7440-38-2	mg/kg	0	3	2.24	4.4	NC	-	4.4	Max		3.3E-07	5.2E-02	2.4E-06	1.5E-02
Chromium Total	7440-47-3	mg/kg	0	3	12.2	62.3	NC	-	62	Max		1.5E-08	1.0E-02	3.2E-07	1.8E-02
Lead	7439-92-1	mg/kg	0	3	13	58.2	NC	-	58	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	3E-07	6E-02	3E-06	3E-02
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	2	1	0.03	0.03	NC	-	0.03	Max		1.4E-08	0.0E+00	1.2E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	2	1	0.08	0.08	NC	-	0.08	Max		0.0E+00	2.8E-06	0.0E+00	9.5E-06
Pentachlorophenol	87-86-5	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	1E-08	3E-06	1E-07	9E-06
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	0	3	0.005	0.006	NC	-	0.006	Max		0.0E+00	9.1E-08	0.0E+00	7.9E-08
Trichloroethene	79-01-6	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	0	3	0.0007	0.0009	NC	-	0.0009	Max		0.0E+00	1.1E-08	0.0E+00	7.5E-08
											Subtotal:	0E+00	1E-07	0E+00	2E-07
											Receptor Risk Total:	4E-07	6E-02	3E-06	3E-02
AOI-27															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	2	7	0.03	0.46	NC	-	0.46	Max		0.0E+00	3.7E-03	0.0E+00	9.9E-04
Arsenic	7440-38-2	mg/kg	0	9	0.79	6.85	NC	-	6.9	Max		5.2E-07	8.0E-02	3.8E-06	2.4E-02
Chromium Total	7440-47-3	mg/kg	0	9	4	12.7	NC	-	13	Max		3.0E-09	2.1E-03	6.6E-08	3.7E-03
Lead	7439-92-1	mg/kg	0	9	4.09	57.1	NC	-	57	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	5E-07	9E-02	4E-06	3E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	5	4	0.04	0.79	NC	-	0.79	Max		3.7E-08	0.0E+00	3.3E-07	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	5	4	0.07	1.05	NC	-	1.1	Max		4.9E-07	0.0E+00	4.4E-06	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	4	5	0.04	1.24	NC	-	1.2	Max		5.8E-08	0.0E+00	5.1E-07	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pentachlorophenol	87-86-5	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	6E-07	0E+00	5E-06	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	8	1	0.01	0.01	NC	-	0.01	Max		0.0E+00	1.4E-07	7.9E-11	1.7E-07
Methyl cyclohexane	108-87-2	mg/kg	5	4	0.01	0.07	NC	-	0.07	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	5	4	0.009	0.06	NC	-	0.06	Max		0.0E+00	9.1E-07	0.0E+00	7.9E-07
Trichloroethene	79-01-6	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	4	5	0.009	0.14	NC	-	0.14	Max		0.0E+00	1.8E-06	0.0E+00	1.2E-05
											Subtotal:	0E+00	3E-06	8E-11	1E-05
											Receptor Risk Total:	1E-06	9E-02	9E-06	3E-02

TABLE 37
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-28															
Inorganic Compounds															
Antimony	7440-36-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arsenic	7440-38-2	mg/kg	0	3	1.34	3.92	NC	-	3.9	Max		3.0E-07	4.6E-02	2.2E-06	1.3E-02
Chromium Total	7440-47-3	mg/kg	0	3	5.83	7.16	NC	-	7.2	Max		1.7E-09	1.2E-03	3.7E-08	2.1E-03
Lead	7439-92-1	mg/kg	0	3	14.1	16.1	NC	-	16	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	3E-07	5E-02	2E-06	2E-02
PCBs															
Aroclor-1248 (PCB-1248)	12672-29-6	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Carbazole	86-74-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethyl phthalate	131-11-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	2	1	0.1	0.1	NC	-	0.1	Max		0.0E+00	3.5E-06	0.0E+00	1.2E-05
Pentachlorophenol	87-86-5	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	3E-06	0E+00	1E-05
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	1	0.0004	0.0004	NC	-	0.0004	Max		5.2E-12	1.6E-06	2.5E-11	3.1E-07
Ethylbenzene	100-41-4	mg/kg	4	1	0.002	0.002	NC	-	0.002	Max		0.0E+00	2.8E-08	1.6E-11	3.5E-08
Methyl cyclohexane	108-87-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	2	3	0.0006	0.032	NC	-	0.032	Max		0.0E+00	4.9E-07	0.0E+00	4.2E-07
Trichloroethene	79-01-6	mg/kg	2	3	0.0009	5.28	NC	-	5.3	Max		3.3E-08	3.5E-02	1.7E-07	4.0E-02
Xylene (total)	1330-20-7	mg/kg	4	1	0.011	0.011	NC	-	0.011	Max		0.0E+00	1.4E-07	0.0E+00	9.2E-07
											Subtotal:	3E-08	3E-02	2E-07	4E-02
											Receptor Risk Total:	3E-07	8E-02	2E-06	6E-02

Notes and Abbreviations:
(1) Notes regarding chemicals of potential concern (COPC), upper concentration limits (UCL), and exposure point concentrations (EPC) are contained in Table 15.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
mg/kg = milligrams per kilogram.

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-01															
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	18	5	4.3	2167	424	NP [e]	424	UCL		6E-05	6E+01	5E-04	3E+01
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	23	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	23	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	23	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	21	2	0.11	3.78	2.47	NP [d]	2.5	UCL		2.1E-09	1.0E-04	1.8E-08	1.8E-04
Di-n-octyl phthalate	117-84-0	mg/kg	17	6	0.05	8.89	1.63	NP [e]	1.6	UCL		0.0E+00	5.7E-05	0.0E+00	1.9E-04
											Subtotal:	2E-09	2E-04	2E-08	4E-04
											Receptor Risk Total:	6E-05	6E+01	5E-04	3E+01
AOI-02															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	1	33	0.36	40	22.9	NP [c]	23	UCL		1.7E-06	2.7E-01	1.3E-05	7.9E-02
Chromium Total	7440-47-3	mg/kg	10	29	2.87	45	9.99	NP [f]	10	UCL		2.4E-09	1.1E-02	5.2E-08	2.9E-03
											Subtotal:	2E-06	3E-01	1E-05	8E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	27	0	-	-	-	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	27	0	-	-	-	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	27	0	-	-	-	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	32	8	3	598	72.6	NP [e]	73	UCL		6.1E-08	3.0E-03	5.2E-07	5.2E-03
Di-n-octyl phthalate	117-84-0	mg/kg	18	22	0.04	884	425	NP [d]	425	UCL		0.0E+00	1.5E-02	0.0E+00	5.0E-02
											Subtotal:	6E-08	2E-02	5E-07	6E-02
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	38	18	0.001	6.8	0.645	NP [e]	0.64	UCL		8.4E-09	2.6E-03	4.1E-08	4.9E-04
Ethylbenzene	100-41-4	mg/kg	30	23	0.002	2200	426	NP [d]	426	UCL		0.0E+00	5.9E-03	0.0E+00	7.4E-03
Methyl cyclohexane	108-87-2	mg/kg	6	29	0.001	56.6	29.6	NP [d]	30	UCL		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	33	23	0.0005	56800	3025	NP [e]	3025	UCL		0.0E+00	4.6E-02	0.0E+00	4.0E-02
Xylene (total)	1330-20-7	mg/kg	11	32	0.0007	10800	2777	NP [d]	2777	UCL		0.0E+00	3.5E-02	0.0E+00	2.3E-01
											Subtotal:	8E-09	9E-02	4E-08	3E-01
											Receptor Risk Total:	2E-06	4E-01	1E-05	4E-01
AOI-03															
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	6	1	2.78	2.78	NC	-	2.8	Max		1.3E-07	0.0E+00	1.2E-06	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	6	1	2.45	2.45	NC	-	2.5	Max		1.1E-06	0.0E+00	1.0E-05	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	6	1	2.9	2.9	NC	-	2.9	Max		1.4E-07	0.0E+00	1.2E-06	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	1E-06	0E+00	1E-05	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	2	1	0.0005	0.0005	NC	-	0.0005	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	1E-06	0E+00	1E-05	0E+00

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-04															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	0E+00	0E+00	0E+00	0E+00
AOI-05															
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	7	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	2	5	0.37	30.2	NC	-	30	Max		2.5E-08	1.3E-03	2.1E-07	2.1E-03
Di-n-octyl phthalate	117-84-0	mg/kg	5	2	0.1	0.2	NC	-	0.2	Max		0.0E+00	7.0E-06	0.0E+00	2.4E-05
											Subtotal:	3E-08	1E-03	2E-07	2E-03
											Receptor Risk Total:	3E-08	1E-03	2E-07	2E-03
AOI-08															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	5	0.78	4.26	NC	-	4.3	Max		3.2E-07	5.0E-02	2.3E-06	1.5E-02
Chromium Total	7440-47-3	mg/kg	0	5	3.86	45	NC	-	45	Max		1.1E-08	4.9E-02	2.3E-07	1.3E-02
											Subtotal:	3E-07	1E-01	3E-06	3E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	1	0.77	0.77	NC	-	0.77	Max		6.5E-10	3.2E-05	5.5E-09	5.5E-05
Di-n-octyl phthalate	117-84-0	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	6E-10	3E-05	5E-09	5E-05
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	1	0.0005	0.0005	NC	-	0.0005	Max		0.0E+00	7.6E-09	0.0E+00	6.5E-09
Xylene (total)	1330-20-7	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	8E-09	0E+00	7E-09
											Receptor Risk Total:	3E-07	1E-01	3E-06	3E-02

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-09															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	4	0.4	3.45	NC	-	3.5	Max		2.6E-07	4.1E-02	1.9E-06	1.2E-02
Chromium Total	7440-47-3	mg/kg	0	4	7.21	9.11	NC	-	9.1	Max		2.2E-09	9.8E-03	4.7E-08	2.6E-03
											Subtotal:	3E-07	5E-02	2E-06	1E-02
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	1	0	-	-	NC	-	-	-		0E+00	0E+00	0.0E+00	0.0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	1	0.06	0.06	NC	-	0.06	Max		0.0E+00	2.1E-06	0.0E+00	7.1E-06
											Subtotal:	0E+00	2E-06	0E+00	7E-06
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	1	0.0003	0.0003	NC	-	0.0003	Max		0.0E+00	4.2E-09	0.0E+00	5.2E-09
Methyl cyclohexane	108-87-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	2	2	0.001	0.0014	NC	-	0.0014	Max		0.0E+00	1.8E-08	0.0E+00	1.2E-07
											Subtotal:	0E+00	2E-08	0E+00	1E-07
											Receptor Risk Total:	3E-07	5E-02	2E-06	1E-02
AOI-10															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	7	0.66	2.6	NC	-	2.6	Max		2.0E-07	3.1E-02	1.4E-06	8.9E-03
Chromium Total	7440-47-3	mg/kg	0	7	3.04	7.94	NC	-	7.9	Max		1.9E-09	8.6E-03	4.1E-08	2.3E-03
											Subtotal:	2E-07	4E-02	1E-06	1E-02
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	7	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	3	0.0004	0.017	NC	-	0.017	Max		0.0E+00	2.6E-07	0.0E+00	2.2E-07
Xylene (total)	1330-20-7	mg/kg	6	1	0.0004	0.0004	NC	-	0.0004	Max		0.0E+00	5.0E-09	0.0E+00	3.3E-08
											Subtotal:	0E+00	3E-07	0E+00	3E-07
											Receptor Risk Total:	2E-07	4E-02	1E-06	1E-02

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-11															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	3	1.09	2.13	NC	-	2.1	Max		1.6E-07	2.5E-02	1.2E-06	7.3E-03
Chromium Total	7440-47-3	mg/kg	0	3	2.9	4.88	NC	-	4.9	Max		1.2E-09	5.3E-03	2.5E-08	1.4E-03
											Subtotal:	2E-07	3E-02	1E-06	9E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	2	1	0.05	0.05	NC	-	0.05	Max		0.0E+00	1.7E-06	0.0E+00	5.9E-06
											Subtotal:	0E+00	2E-06	0E+00	6E-06
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	2	1	0.0004	0.0004	NC	-	0.0004	Max		0.0E+00	6.1E-09	0.0E+00	5.2E-09
Xylene (total)	1330-20-7	mg/kg	2	1	0.0003	0.0003	NC	-	0.0003	Max		0.0E+00	3.8E-09	0.0E+00	2.5E-08
											Subtotal:	0E+00	1E-08	0E+00	3E-08
										Receptor Risk Total:		2E-07	3E-02	1E-06	9E-03
AOI-13															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	12	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	12	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	12	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	10	2	0.061	15	NC	-	15	Max		1.3E-08	6.3E-04	1.1E-07	1.1E-03
Di-n-octyl phthalate	117-84-0	mg/kg	3	9	0.2	2900	NC	-	2900	Max		0.0E+00	1.0E-01	0.0E+00	3.4E-01
											Subtotal:	1E-08	1E-01	1E-07	3E-01
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	10	2	1.4	5	NC	-	5	Max		6.5E-08	2.0E-02	3.2E-07	3.8E-03
Ethylbenzene	100-41-4	mg/kg	6	6	0.001	4	NC	-	4	Max		0.0E+00	5.6E-05	0.0E+00	7.0E-05
Methyl cyclohexane	108-87-2	mg/kg	5	7	0.02	1.2	NC	-	1.2	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	9	3	188	1060	NC	-	1060	Max		0.0E+00	1.6E-02	0.0E+00	1.4E-02
Xylene (total)	1330-20-7	mg/kg	2	10	0.0008	12	NC	-	12	Max		0.0E+00	1.5E-04	0.0E+00	1.0E-03
											Subtotal:	7E-08	4E-02	3E-07	2E-02
										Receptor Risk Total:		8E-08	1E-01	4E-07	4E-01
AOI-14															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	0	5	0.04	36.2	NC	-	36	Max		0.0E+00	1.3E-03	0.0E+00	4.3E-03
											Subtotal:	0E+00	1E-03	0E+00	4E-03
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	2	0.01	0.5	NC	-	0.5	Max		6.5E-09	2.0E-03	3.2E-08	3.8E-04
Ethylbenzene	100-41-4	mg/kg	4	1	0.04	0.04	NC	-	0.04	Max		0.0E+00	5.6E-07	0.0E+00	7.0E-07
Methyl cyclohexane	108-87-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	4	1	0.01	0.01	NC	-	0.01	Max		0.0E+00	1.3E-07	0.0E+00	8.4E-07
											Subtotal:	7E-09	2E-03	3E-08	4E-04
										Receptor Risk Total:		7E-09	3E-03	3E-08	5E-03

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-15															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	5	4	0.06	2800	NC	-	2800	Max		0.0E+00	9.8E-02	0.0E+00	3.3E-01
											Subtotal:	0E+00	1E-01	0E+00	3E-01
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	7	2	0.004	0.006	NC	-	0.006	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	8	1	0.006	0.006	NC	-	0.006	Max		0.0E+00	9.1E-08	0.0E+00	7.9E-08
Xylene (total)	1330-20-7	mg/kg	5	4	0.0007	0.007	NC	-	0.007	Max		0.0E+00	8.8E-08	0.0E+00	5.8E-07
											Subtotal:	0E+00	2E-07	0E+00	7E-07
											Receptor Risk Total:	0E+00	1E-01	0E+00	3E-01
AOI-16															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	1	4	0.04	16.2	NC	-	16	Max		0.0E+00	5.7E-04	0.0E+00	1.9E-03
											Subtotal:	0E+00	6E-04	0E+00	2E-03
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	1	4	0.0009	41.2	NC	-	41	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	0E+00	6E-04	0E+00	2E-03
AOI-17															
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	1	0.05	0.05	NC	-	0.05	Max		0.0E+00	1.7E-06	0.0E+00	5.9E-06
											Subtotal:	0E+00	2E-06	0E+00	6E-06
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	0E+00	2E-06	0E+00	6E-06

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-19															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	2	1.38	2.68	NC	-	2.7	Max		2.0E-07	3.1E-02	1.5E-06	9.2E-03
Chromium Total	7440-47-3	mg/kg	0	2	3.48	4.04	NC	-	4.0	Max		9.6E-10	4.4E-03	2.1E-08	1.2E-03
											Subtotal:	2E-07	4E-02	1E-06	1E-02
											Receptor Risk Total:	2E-07	4E-02	1E-06	1E-02
AO1-20															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	3	1.13	2.75	NC	-	2.8	Max		2.1E-07	3.2E-02	1.5E-06	9.4E-03
Chromium Total	7440-47-3	mg/kg	0	3	2.79	3.49	NC	-	3.5	Max		8.3E-10	3.8E-03	1.8E-08	1.0E-03
											Subtotal:	2E-07	4E-02	2E-06	1E-02
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	2E-07	4E-02	2E-06	1E-02
AOI-21															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	4	0.88	6.52	NC	-	6.5	Max		4.9E-07	7.7E-02	3.6E-06	2.2E-02
Chromium Total	7440-47-3	mg/kg	0	4	1.27	4.58	NC	-	4.6	Max		1.1E-09	4.9E-03	2.4E-08	1.3E-03
											Subtotal:	5E-07	8E-02	4E-06	2E-02
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	5	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	4	1	0.03	0.03	NC	-	0.03	Max		1.4E-08	0.0E+00	1.2E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	5	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	1	4	0.1	1010	NC	-	1010	Max		0.0E+00	3.5E-02	0.0E+00	1.2E-01
											Subtotal:	1E-08	4E-02	1E-07	1E-01
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	1	0.01	0.01	NC	-	0.01	Max		0.0E+00	1.4E-07	0.0E+00	1.7E-07
Methyl cyclohexane	108-87-2	mg/kg	3	1	0.005	0.005	NC	-	0.005	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	3	1	0.0008	0.0008	NC	-	0.0008	Max		0.0E+00	1.0E-08	0.0E+00	6.7E-08
											Subtotal:	0E+00	1E-07	0E+00	2E-07
											Receptor Risk Total:	5E-07	1E-01	4E-06	1E-01

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-22															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	9	0.38	3.55	NC	-	3.6	Max		2.7E-07	4.2E-02	2.0E-06	1.2E-02
Chromium Total	7440-47-3	mg/kg	0	9	1.35	4.1	NC	-	4.1	Max		9.8E-10	4.4E-03	2.1E-08	1.2E-03
											Subtotal:	3E-07	5E-02	2E-06	1E-02
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	8	3	0.01	0.03	NC	-	0.03	Max		4E-09	5E-03	4E-08	2E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	11	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	10	1	0.03	0.03	NC	-	0.03	Max		1.4E-08	0.0E+00	1.2E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	11	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	10	1	147	147	NC	-	147	Max		1.2E-07	6.2E-03	1.0E-06	1.0E-02
Di-n-octyl phthalate	117-84-0	mg/kg	4	7	0.05	36.6	NC	-	37	Max		0.0E+00	1.3E-03	0.0E+00	4.3E-03
											Subtotal:	1E-07	7E-03	1E-06	1E-02
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	9	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	8	1	0.0005	0.0005	NC	-	0.0005	Max		0.0E+00	7.0E-09	0.0E+00	8.7E-09
Methyl cyclohexane	108-87-2	mg/kg	6	3	0.0009	0.04	NC	-	0.04	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	7	2	0.0003	0.0004	NC	-	0.0004	Max		0.0E+00	6.1E-09	0.0E+00	5.2E-09
Xylene (total)	1330-20-7	mg/kg	7	2	0.0004	0.002	NC	-	0.002	Max		0.0E+00	2.5E-08	0.0E+00	1.7E-07
											Subtotal:	0E+00	4E-08	0E+00	2E-07
											Receptor Risk Total:	4E-07	6E-02	3E-06	3E-02
AOI-23															
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	2	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	9	1	0.02	0.02	NC	-	0.02	Max		9.4E-10	0.0E+00	8.3E-09	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	10	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	10	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	10	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	5	5	0.03	1.25	NC	-	1.3	Max		0.0E+00	4.4E-05	0.0E+00	1.5E-04
											Subtotal:	9E-10	4E-05	8E-09	1E-04
											Receptor Risk Total:	9E-10	4E-05	8E-09	1E-04
AOI-24															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	4	0.98	2.25	NC	-	2.3	Max		1.7E-07	2.6E-02	1.2E-06	7.7E-03
Chromium Total	7440-47-3	mg/kg	0	4	4.34	4.99	NC	-	5.0	Max		1.2E-09	5.4E-03	2.6E-08	1.4E-03
											Subtotal:	2E-07	3E-02	1E-06	9E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	4	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	1	0.0008	0.0008	NC	-	0.0008	Max		0.0E+00	1.1E-08	0.0E+00	1.4E-08
Methyl cyclohexane	108-87-2	mg/kg	2	2	0.13	36.8	NC	-	37	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	1	0.016	0.016	NC	-	0.016	Max		0.0E+00	2.4E-07	0.0E+00	2.1E-07
Xylene (total)	1330-20-7	mg/kg	3	1	0.0029	0.0029	NC	-	0.0029	Max		0.0E+00	3.7E-08	0.0E+00	2.4E-07
											Subtotal:	0E+00	3E-07	0E+00	5E-07
											Receptor Risk Total:	2E-07	3E-02	1E-06	9E-03

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-25															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	3	1.24	1.35	NC	-	1.4	Max		1.0E-07	1.6E-02	7.4E-07	4.6E-03
Chromium Total	7440-47-3	mg/kg	0	3	2.29	5.67	NC	-	5.7	Max		1.3E-09	6.1E-03	3.0E-08	1.6E-03
											Subtotal:	1E-07	2E-02	8E-07	6E-03
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	2	1	0.0009	0.0009	NC	-	0.0009	Max		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	2	1	0.001	0.001	NC	-	0.001	Max		0.0E+00	1.3E-08	0.0E+00	8.4E-08
											Subtotal:	0E+00	1E-08	0E+00	8E-08
											Receptor Risk Total:	1E-07	2E-02	8E-07	6E-03
AOI-26															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	3	2.47	4.22	NC	-	4.2	Max		3.2E-07	5.0E-02	2.3E-06	1.4E-02
Chromium Total	7440-47-3	mg/kg	0	3	6.77	11.9	NC	-	12	Max		2.8E-09	1.3E-02	6.2E-08	3.4E-03
											Subtotal:	3E-07	6E-02	2E-06	2E-02
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0E+00	0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	1	2	0.03	0.1	NC	-	0.1	Max		0.0E+00	3.5E-06	0.0E+00	1.2E-05
											Subtotal:	0E+00	3E-06	0E+00	1E-05
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	2	1	0.005	0.005	NC	-	0.005	Max		0.0E+00	7.6E-08	0.0E+00	6.5E-08
Xylene (total)	1330-20-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	8E-08	0E+00	7E-08
											Receptor Risk Total:	3E-07	6E-02	2E-06	2E-02

TABLE 38
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN SUBSURFACE SOIL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker		Commercial Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI	ELCR	HI
AOI-27															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	15	1.01	2.06	NC	-	2.1	Max		1.6E-07	2.4E-02	1.1E-06	7.1E-03
Chromium Total	7440-47-3	mg/kg	0	15	3.24	6.85	NC	-	6.9	Max		1.6E-09	7.4E-03	3.6E-08	2.0E-03
											Subtotal:	2E-07	3E-02	1E-06	9E-03
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	14	1	0.04	0.04	NC	-	0.04	Max		1.9E-08	0.0E+00	1.7E-07	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	12	3	0.03	0.07	NC	-	0.07	Max		0.0E+00	2.4E-06	0.0E+00	8.3E-06
											Subtotal:	2E-08	2E-06	2E-07	8E-06
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Xylene (total)	1330-20-7	mg/kg	15	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
											Receptor Risk Total:	2E-07	3E-02	1E-06	9E-03
AOI-28															
Inorganic Compounds															
Arsenic	7440-38-2	mg/kg	0	3	1.17	2.71	NC	-	2.7	Max		2.0E-07	3.2E-02	1.5E-06	9.3E-03
Chromium Total	7440-47-3	mg/kg	0	3	7.06	8.59	NC	-	8.6	Max		2.0E-09	9.3E-03	4.5E-08	2.5E-03
											Subtotal:	2E-07	4E-02	2E-06	1E-02
PCBs															
Aroclor-1242 (PCB-1242)	53469-21-9	mg/kg	3	0	-	-	NC	-	-	-		0E+00	0E+00	0.0E+00	0.0E+00
Semi-Volatile Organic Cmpds															
Benzo(a)anthracene	56-55-3	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	50-32-8	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	205-99-2	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octyl phthalate	117-84-0	mg/kg	3	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
											Subtotal:	0E+00	0E+00	0E+00	0E+00
Volatile Organic Compounds															
Benzene	71-43-2	mg/kg	8	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	mg/kg	8	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methyl cyclohexane	108-87-2	mg/kg	8	0	-	-	NC	-	-	-		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	108-88-3	mg/kg	6	2	0.0008	0.001	NC	-	0.001	Max		0.0E+00	1.5E-08	0.0E+00	1.3E-08
Xylene (total)	1330-20-7	mg/kg	7	1	0.0004	0.0004	NC	-	0.0004	Max		0.0E+00	5.0E-09	0.0E+00	3.3E-08
											Subtotal:	0E+00	2E-08	0E+00	5E-08
											Receptor Risk Total:	2E-07	4E-02	2E-06	1E-02

Notes and Abbreviations:
(1) Notes regarding chemicals of potential concern (COPC), upper concentration limits (UCL), and exposure point concentrations (EPC) are contained in Table 16.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
mg/kg = milligrams per kilogram.

TABLE 39
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN GROUNDWATER - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	Frequency of Detection		Detected Results		Upper Conc. Limits		EPC			Construction Worker	
			# Not Detected	# Detected	Minimum	Maximum	Calc. UCL	statistic[1]	Value	basis[1]		ELCR	HI
Excavation Construction Worker													
Inorganic Compounds													
Antimony	7440-36-0	ug/L	32	22	1	41	NC	-	41	Max		0.0E+00	1.0E-02
Arsenic	7440-38-2	ug/L	9	45	1	56	NC	-	56	Max		2.6E-08	4.1E-03
Cadmium	7440-43-9	ug/L	41	13	0.2	8.9	NC	-	8.9	Max		0.0E+00	3.9E-04
Chromium Total	7440-47-3	ug/L	13	41	3	24	NC	-	24	Max		0.0E+00	4.3E-05
Cobalt	7440-48-4	ug/L	35	19	1	53	NC	-	53	Max		0.0E+00	3.9E-04
Manganese	7439-96-5	ug/L	0	54	1	3370	NC	-	3370	Max		0.0E+00	5.1E-02
											Subtotal:	3E-08	7E-02
PCBs													
Aroclor-1242 (PCB-1242)	53469-21-9	ug/L	5	2	0.6	2.9	1.7	NP [e]	1.7	UCL		8E-07	9E-01
Semi-Volatile Organic Cmpds													
bis(2-Ethylhexyl)phthalate	117-81-7	ug/L	56	12	7	1410	NC	-	1410	Max		3.2E-07	1.6E-02
Di-n-octyl phthalate	117-84-0	ug/L	49	19	0.2	12500	NC	-	12500	Max		0.0E+00	9.3E-04
											Subtotal:	3E-07	2E-02
Volatile Organic Compounds													
1,1-Dichloroethane	75-34-3	ug/L	66	6	0.6	5	NC	-	5	Max		4.5E-11	2.8E-07
Benzene	71-43-2	ug/L	62	10	0.1	0.5	NC	-	0.5	Max		1.7E-07	5.4E-02
Chloroform (Trichloromethane)	67-66-3	ug/L	61	11	0.2	2	NC	-	2	Max		0.0E+00	2.3E-06
Methyl Tert Butyl Ether	1634-04-4	ug/L	66	6	2	210	NC	-	210	Max		2.5E-10	3.2E-05
Tetrahydrofuran	109-99-9	ug/L	63	15	0.52	180000	NC	-	180000	Max		0.0E+00	5.3E-03
Trichloroethene	79-01-6	ug/L	59	13	0.2	5.93	NC	-	5.9	Max		8.0E-10	2.3E-03
Vinyl chloride - dissolved aqueous	75-01-4	ug/L	70	2	5	17	NC	-	17	Max		1.6E-08	5.1E-04
Vinyl chloride - vapor in excavation air	75-01-4	ug/m3	70	2	5	17	NC	-	0.052	Max		5.9E-11	9E-06
											Subtotal:	2E-07	6E-02
											Receptor Risk Total:	1E-06	1E+00

Notes and Abbreviations:
(1) Notes regarding chemicals of potential concern (COPC), upper concentration limits (UCL), and exposure point concentrations (EPC) are contained in Tables 17 and 18.

EPC = Exposure Point Concentration.
UCL = Upper Confidence Limit on the arithmetic mean.
ug/L = micrograms per liter.
ug/m3 = micrograms per cubic meter.

TABLE 40
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN, EXPOSURE POINT CONCENTRATIONS, AND RISK IN NAPL - FUTURE LAND USE
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

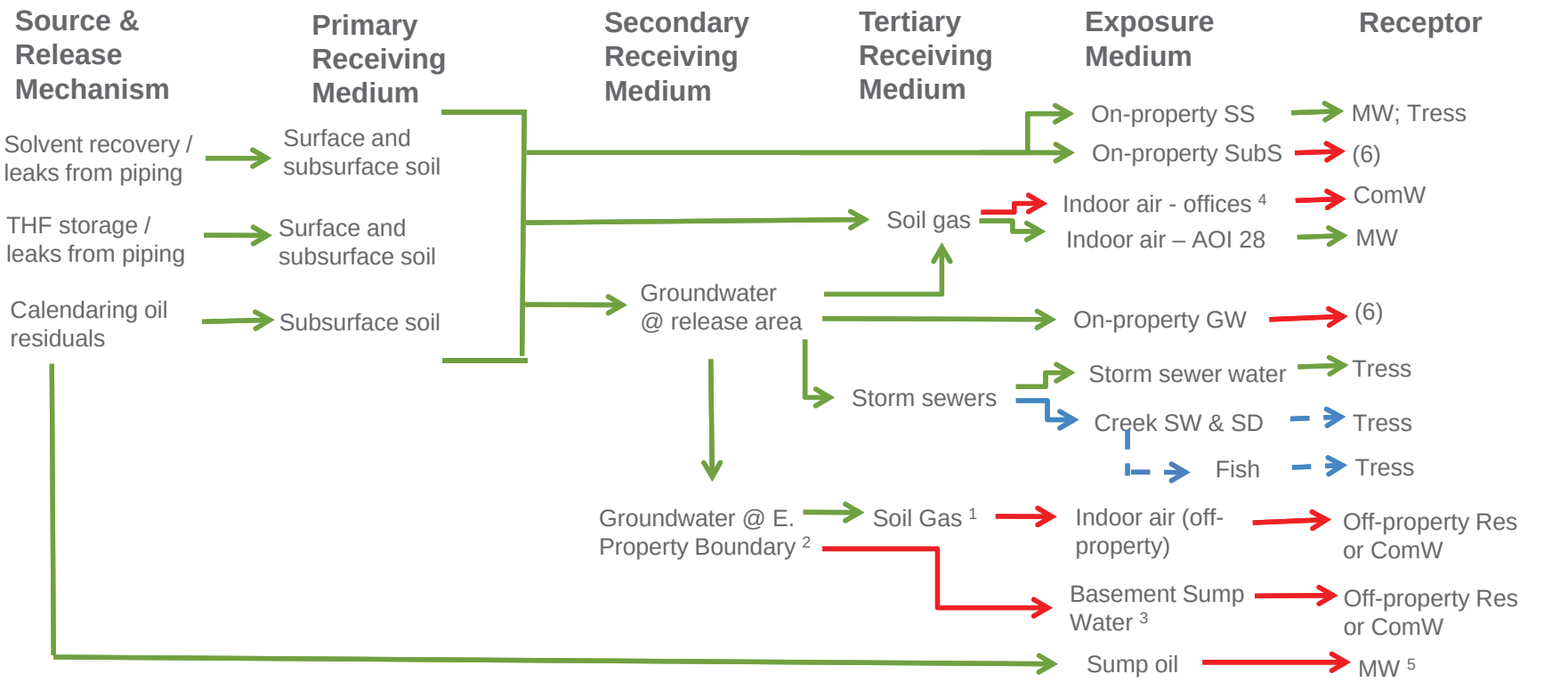
Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	EPC Value	EPC basis[1]		Construction Worker ELCR	Construction Worker HI
AOI-15 NAPL							
PCBs							
Aroclor-1242 (PCB-1242)	53469-21-9	mg/L	2.134	Max		4E-04	4.8E+02
Semi-Volatile Organic Cmpds							
bis(2-Ethylhexyl)phthalate	117-81-7	mg/L	32,890	Max		3.8E-03	1.9E+02
Di-n-octyl phthalate	117-84-0	mg/L	106,700	Max		0.0E+00	8.5E+00
					Subtotal:	4E-03	2.0E+02
					Receptor Risk Total:	4E-03	6.8E+02

Chemical Group / Chemical of Potential Concern[1]	CASRN	Units	EPC Value	EPC basis[1]		Commercial/ Industrial Worker ELCR	Commercial/ Industrial Worker HI
AOI-01							
Calendar Basement - NAPL							
PCBs							
Aroclor-1242 (PCB-1242)	53469-21-9	mg/L	300	Max		5E-01	3.7E+04
					Receptor Risk Total:	5E-01	3.7E+04

Notes and Abbreviations:
(1) Notes regarding chemicals of potential concern (COPC) and exposure point concentrations (EPC) in NAPL are contained in Tables 10 and 11.

EPC = Exposure Point Concentration.
NAPL = Non-aqueous phase liquid.
mg/L = milligrams per liter.

Conceptual Site Model – Current Land Use



[1] No Site-related analytes were detected in soil gas at concentrations greater than the generic soil gas screening levels presented in Table 2C of the USEPA Draft Vapor Intrusion Guidance (as modified to reflect current toxicity values), indicating that vapor intrusion from soil gas is an insignficant exposure pathway.

[2] Analytes detected in groundwater near the eastern property boundary were reported at low concentrations, well below the generic groundwater screening levels presented in Table 2C of the USEPA Draft Vapor Intrusion Guidance (as modified to reflect current toxicity values), indicating that vapor migration from groundwater to soil gas is an insignificant pathway for vapor intrusion.

[3] The analytical data and hydrogeology provide no evidence of any Site-related groundwater contamination to the east of the Site.

[4] Offices are located more than 100 feet from subsurface vapor sources.

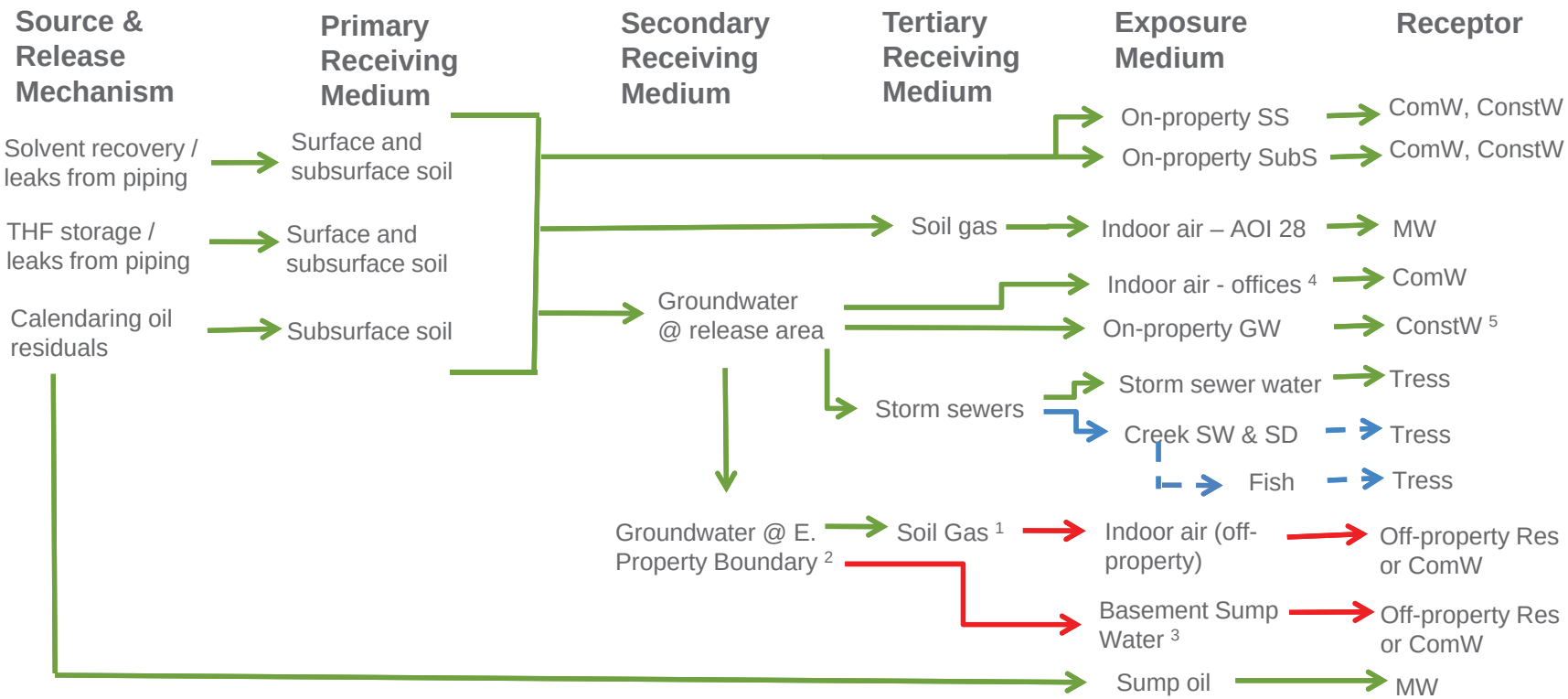
[5] Maintenance workers follow facility health and safety plan for handling sump oil.

[6] There are no excavation activities that are occurring or are planned that could expose receptors to subsurface soil or shallow groundwater

→ Complete pathway - - → Pathway evaluated in Ottawa River RI → Incomplete pathway

MW: maintenance worker; Tress: trespasser; ComW: commercial worker

Conceptual Site Model – Future Land Use



[1] No Site-related analytes were detected in soil gas at concentrations greater than the generic soil gas screening levels presented in Table 2C of the USEPA Draft Vapor Intrusion Guidance (as modified to reflect current toxicity values), indicating that vapor intrusion from soil gas is an insignificant exposure pathway.

[2] Analytes detected in groundwater near the eastern property boundary were reported at low concentrations, well below the generic groundwater screening levels presented in Table 2C of the USEPA Draft Vapor Intrusion Guidance (as modified to reflect current toxicity values), indicating that vapor migration from groundwater to soil gas is an insignificant pathway for vapor intrusion.

[3] The analytical data and hydrogeology provide no evidence of any Site-related groundwater contamination to the east of the Site.

[4] Future offices assumed to be constructed over areas of highest VOC concentrations in groundwater.

[5] Exposure by incidental ingestion, dermal contact, and vapor inhalation.

→ Complete pathway - - → Pathway evaluated in Ottawa River RI → Incomplete pathway

MW: maintenance worker; Tress: trespasser; ComW: commercial worker

Attachment A

Vapor Intrusion Screening Levels (VISLs)

OSWER VAPOR INTRUSION ASSESSMENT
Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down lis!
Target Risk for Carcinogens	TCR	1.00E-06	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	0.1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (°C)	Tgw	15	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 1E-06 or THQ = 0.1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 1E-06 or THQ = 0.1	Target Ground Water Conc. @ TCR = 1E-06 or THQ = 0.1	Is Target Ground Water Conc. < MCL?	Temperature for Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 1E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 0.1
			Cvp > Cia,target/AFss?	Cvp > Cia,target/AFgw?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw<MCL?	Tgw or 25	LEL		IUR		RfC		i	Cia,c	Cia,nc
			Yes/No	Yes/No	(ug/m^3)	C/NC	(ug/m^3)	(ug/L)	Yes/No (MCL ug/L)	C	(% by vol)		(ug/m^3)$^{-1}$		(mg/m^3)			(ug/m^3)	(ug/m^3)
	83-32-9	Acenaphthene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	0.6	M							
	75-07-0	Acetaldehyde	Yes	Yes	3.9E+00	NC	3.9E+01	2.1E+03	--	15	4	E	2.20E-06	I	9.00E-03	I		5.6E+00	3.9E+00
	67-64-1	Acetone	Yes	Yes	1.4E+04	NC	1.4E+05	1.5E+07	--	15	2.6	E			3.10E+01	A			1.4E+04
	75-86-5	Acetone Cyanohydrin	Yes	Yes	2.6E+01	NC	2.6E+02	4.9E+04	--	25					6.00E-02	P			2.6E+01
	75-05-8	Acetonitrile	Yes	Yes	2.6E+01	NC	2.6E+02	2.9E+04	--	15	3	N			6.00E-02	I			2.6E+01
	98-86-2	Acetophenone	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.1	M							
	107-02-8	Acrolein	Yes	Yes	8.8E-03	NC	8.8E-02	2.7E+00	--	15	2.8	N			2.00E-05	I			8.8E-03
	107-13-1	Acrylonitrile	Yes	Yes	1.8E-01	C	1.8E+00	5.4E+01	--	15	3	N	6.80E-05	I	2.00E-03	I		1.8E-01	8.8E-01
	107-05-1	Allyl Chloride	Yes	Yes	4.4E-01	NC	4.4E+00	1.5E+00	--	15			6.00E-06	CA	1.00E-03	I		2.0E+00	4.4E-01
	120-12-7	Anthracene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	0.6	M							
	11104-28-2	Aroclor 1221	Yes	Yes	2.2E-02	C	2.2E-01	7.2E-01	--	25			5.70E-04	S				2.2E-02	
	11141-16-5	Aroclor 1232	Yes	Yes	2.2E-02	C	2.2E-01	7.2E-01	--	25			5.70E-04	S				2.2E-02	
	103-33-3	Azobenzene	Yes	Yes	4.0E-01	C	4.0E+00	7.2E+02	--	25			3.10E-05	I				4.0E-01	
	100-52-7	Benzaldehyde	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.4	M							
x	71-43-2	Benzene	Yes	Yes	1.6E+00	C	1.6E+01	1.1E+01	No (5)	15	1.2	N	7.80E-06	I	3.00E-02	I		1.6E+00	1.3E+01
	108-98-5	Benzenethiol	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	98-07-7	Benzotrichloride	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	100-44-7	Benzyl Chloride	Yes	Yes	2.5E-01	C	2.5E+00	2.8E+01	--	15	1.1	N	4.90E-05	CA	1.00E-03	P		2.5E-01	4.4E-01
	92-52-4	Biphenyl, 1,1'-	Yes	Yes	1.8E-01	NC	1.8E+00	3.2E+01	--	15	0.6	N			4.00E-04	X			1.8E-01
	108-60-1	Bis(2-chloro-1-methylethyl) ether	Yes	Yes	1.2E+00	C	1.2E+01	8.2E+02	--	15			1.00E-05	H				1.2E+00	
	111-44-4	Bis(2-chloroethyl)ether	Yes	Yes	3.7E-02	C	3.7E-01	1.2E+02	--	15	2.7	N	3.30E-04	I				3.7E-02	
	542-88-1	Bis(chloromethyl)ether	Yes	Yes	2.0E-04	C	2.0E-03	1.1E-03	--	25			6.20E-02	I				2.0E-04	
	107-04-0	Bromo-2-chloroethane, 1-	Yes	Yes	2.0E-02	C	2.0E-01	1.0E+00	--	15			6.00E-04	X				2.0E-02	
	108-86-1	Bromobenzene	Yes	Yes	2.6E+01	NC	2.6E+02	5.4E+02	--	15					6.00E-02	I			2.6E+01
	74-97-5	Bromochloromethane	Yes	Yes	1.8E+01	NC	1.8E+02	4.7E+02	--	15					4.00E-02	X			1.8E+01
	75-27-4	Bromodichloromethane	Yes	Yes	3.3E-01	C	3.3E+00	6.3E+00	Yes (80)	15			3.70E-05	CA				3.3E-01	
	74-83-9	Bromomethane	Yes	Yes	2.2E+00	NC	2.2E+01	1.0E+01	--	15	10	N			5.00E-03	I			2.2E+00
	106-99-0	Butadiene, 1,3-	Yes	Yes	4.1E-01	C	4.1E+00	1.8E-01	--	15	2	N	3.00E-05	I	2.00E-03	I		4.1E-01	8.8E-01
	104-51-8	Butylbenzene, n-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
x	75-15-0	Carbon Disulfide	Yes	Yes	3.1E+02	NC	3.1E+03	7.7E+02	--	15	1.3	N			7.00E-01	I			3.1E+02
	56-23-5	Carbon Tetrachloride	Yes	Yes	2.0E+00	C	2.0E+01	2.9E+00	Yes (5)	15			6.00E-06	I	1.00E-01	I		2.0E+00	4.4E+01
	75-68-3	Chloro-1,1-difluoroethane, 1-	Yes	Yes	2.2E+04	NC	2.2E+05	1.7E+05	--	15					5.00E+01	I			2.2E+04
	126-99-8	Chloro-1,3-butadiene, 2-	Yes	Yes	4.1E-02	C	4.1E-01	3.0E-02	--	15	1.9	N	3.00E-04	I	2.00E-02	I		4.1E-02	8.8E+00
	107-20-0	Chloroacetaldehyde, 2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	108-90-7	Chlorobenzene	Yes	Yes	2.2E+01	NC	2.2E+02	3.1E+02	No (100)	15	1.3	N			5.00E-02	P			2.2E+01
	98-56-6	Chlorobenzotrifluoride, 4-	Yes	Yes	1.3E+02	NC	1.3E+03	9.3E+01	--	25					3.00E-01	P			1.3E+02
	109-69-3	Chlorobutane, 1-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.8	M							
	75-45-6	Chlorodifluoromethane	Yes	Yes	2.2E+04	NC	2.2E+05	1.7E+04	--	15					5.00E+01	I			2.2E+04
	67-66-3	Chloroform	Yes	Yes	5.3E-01	C	5.3E+00	5.5E+00	Yes (80)	15			2.30E-05	I	9.80E-02	A		5.3E-01	4.3E+01
x	74-87-3	Chloromethane	Yes	Yes	3.9E+01	NC	3.9E+02	1.4E+02	--	15	8.1	N			9.00E-02	I			3.9E+01
	107-30-2	Chloromethyl Methyl Ether	Yes	Yes	1.8E-02	C	1.8E-01	1.4E+00	--	25			6.90E-04	CA				1.8E-02	
	91-58-7	Chloronaphthalene, Beta-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	95-57-8	Chlorophenol, 2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	76-06-2	Chloropicrin	Yes	Yes	1.8E-01	NC	1.8E+00	2.1E+00	--	25					4.00E-04	CA			1.8E-01
	95-49-8	Chlorotoluene, o-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	106-43-4	Chlorotoluene, p-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	123-73-9	Crotonaldehyde, trans-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.1	N							
	98-82-8	Cumene	Yes	Yes	1.8E+02	NC	1.8E+03	7.8E+02	--	15	0.9	N			4.00E-01	I			1.8E+02
	57-12-5	Cyanide (CN-)	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	No (200)	25									
	460-19-5	Cyanogen	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	506-68-3	Cyanogen Bromide	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	506-77-4	Cyanogen Chloride	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	110-82-7	Cyclohexane	Yes	Yes	2.6E+03	NC	2.6E+04	6.8E+02	--	15					6.00E+00	I			2.6E+03
	132-64-9	Dibenzofuran	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	96-12-8	Dibromo-3-chloropropane, 1,2-	Yes	Yes	2.0E-03	C	2.0E-02	7.0E-01	No (0.2)	15			6.00E-03	P	2.00E-04	I	Mut	2.0E-03	8.8E-02
	124-48-1	Dibromochloromethane	Yes	Yes	4.5E-01	C	4.5E+00	2.1E+01	Yes (80)	15			2.70E-05	CA				4.5E-01	
	106-93-4	Dibromoethane, 1,2-	Yes	Yes	2.0E-02	C	2.0E-01	1.4E+00	No (0.05)	15			6.00E-04	I	9.00E-03	I		2.0E-02	3.9E+00
	74-95-3	Dibromomethane (Methylene Bromide)	Yes	Yes	1.8E+00	NC	1.8E+01	8.8E+01	--	15					4.00E-03	X			1.8E+00
	764-41-0	Dichloro-2-butene, 1,4-	Yes	Yes	2.9E-03	C	2.9E-02	1.1E-01	--	25			4.20E-03	P				2.9E-03	
	1476-11-5	Dichloro-2-butene, cis-1,4-	Yes	Yes	2.9E-03	C	2.9E-02	2.0E-01	--	15			4.20E-03	P				2.9E-03	
	110-57-6	Dichloro-2-butene, trans-1,4-	Yes	Yes	2.9E-03	C	2.9E-02	2.1E-01	--	15			4.20E-03	P				2.9E-03	
	95-50-1	Dichlorobenzene, 1,2-	Yes	Yes	8.8E+01	NC	8.8E+02	2.2E+03	No (600)	15	2.2	N			2.00E-01	H			8.8E+01
x	106-46-7	Dichlorobenzene, 1,4-	Yes	Yes	1.1E+00	C	1.1E+01	2.2E+01	Yes (75)	15	2.5	N	1.10E-05	CA	8.00E-01	I		1.1E+00	3.5E+02
x	75-71-8	Dichlorodifluoromethane	Yes	Yes	4.4E+01	NC	4.4E+02	5.1E+00	--	15					1.00E-01	X			4.4E+01
x	75-34-3	Dichloroethane, 1,1-	Yes	Yes	7.7E+00	C	7.7E+01	5.1E+01	--	15	5.4	N	1.60E-06	CA				7.7E+00	
	107-06-2	Dichloroethane, 1,2-	Yes	Yes	4.7E-01	C	4.7E+00	1.6E+01	No (5)	15	6.2	N	2.60E-05	I	7.00E-03	P		4.7E-01	3.1E+00
x	75-35-4	Dichloroethylene, 1,1-	Yes	Yes	8.8E+01	NC	8.8E+02	1.2E+02	No (7)	15	6.5	N			2.00E-01	I			8.8E+01
x	540-59-0	Dichloroethylene, 1,2- (Mixed Isomers)	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	156-59-2	Dichloroethylene, 1,2-cis-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	No (70)	15	9.7	M							
	156-60-5	Dichloroethylene, 1,2-trans-	Yes	Yes	2.6E+01	NC	2.6E+02	2.4E+02	No (100)	15	9.7	M			6.00E-02	P			2.6E+01
	78-87-5	Dichloropropane, 1,2-	Yes	Yes	1.2E+00	C	1.2E+01	1.8E+01	No (5)	15	3.4	N	1.00E-05	CA	4.00E-03	I		1.2E+00	1.8E+00
	142-28-9	Dichloropropane, 1,3-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	542-75-6	Dichloropropene, 1,3-	Yes	Yes	3.1E+00	C	3.1E+01	3.6E+01	--	15	5.3	N	4.00E-06	I	2.00E-02	I		3.1E+00	8.8E+00
	77-73-6	Dicyclopentadiene	Yes	Yes	3.1E+00	NC	3.1E+01	1.4E+00	--	15					7.00E-03	P			3.1E+00
	75-37-6	Difluoroethane, 1,1-	Yes	Yes	1.8E+04	NC	1.8E+05	2.7E+04	--	15					4.00E+01	I			1.8E+04
	94-58-6	Dihydrosafrole	Yes	Yes	9.4E-01	C	9.4E+00	1.4E-01	--	25			1.30E-05	CA				9.4E-01	
	108-20-3	Diisopropyl Ether	Yes	Yes	3.1E+02	NC	3.1E+03	2.9E+03	--	25					7.00E-01	P			3.1E+02
	1445-75-6	Diisopropyl Methylphosphonate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									

OSWER VAPOR INTRUSION ASSESSMENT
Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down lis
Target Risk for Carcinogens	TCR	1.00E-06	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	0.1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (°C)	Tgw	15	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 1E-06 or THQ = 0.1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 1E-06 or THQ = 0.1	Target Ground Water Conc. @ TCR = 1E-06 or THQ = 0.1	Is Target Ground Water Conc. < MCL?	Temperature for Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 1E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 0.1
			Cvp > Cia,target/AFss?	Cvp > Cia,target/AFgw?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw<MCL?	Tgw or 25	LEL		IUR		RfC		i	Cia,c	Cia,nc
			Yes/No	Yes/No	(ug/m^3)	C/NC	(ug/m^3)	(ug/L)	Yes/No (MCL ug/L)	C	(% by vol)		(ug/m^3)$^{-1}$		(mg/m^3)			(ug/m^3)	(ug/m^3)
	121-69-7	Dimethylaniline, N,N-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	120-61-6	Dimethylterephthalate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	513-37-1	Dimethylvinylchloride	Yes	Yes	9.4E-01	C	9.4E+00	2.8E-01	--	25			1.30E-05	CA				9.4E-01	
	505-29-3	Dithiane, 1,4-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	106-89-8	Epichlorohydrin	Yes	Yes	4.4E-01	NC	4.4E+00	3.5E+02	--	15	3.8	N	1.20E-06	I	1.00E-03	I		1.0E+01	4.4E-01
	106-88-7	Epoxybutane, 1,2-	Yes	Yes	8.8E+00	NC	8.8E+01	1.9E+03	--	15					2.00E-02	I			8.8E+00
	759-94-4	EPTC	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	141-78-6	Ethyl Acetate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2	N							
x	140-88-5	Ethyl Acrylate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	75-00-3	Ethyl Chloride	Yes	Yes	4.4E+03	NC	4.4E+04	1.4E+04	--	15	3.8	N			1.00E+01	I			4.4E+03
	60-29-7	Ethyl Ether	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25	1.9	N							
	97-63-2	Ethyl Methacrylate	Yes	Yes	1.3E+02	NC	1.3E+03	1.2E+04	--	15	1.8	M			3.00E-01	P			1.3E+02
	100-41-4	Ethylbenzene	Yes	Yes	4.9E+00	C	4.9E+01	2.8E+01	Yes (700)	15	0.8	N	2.50E-06	CA	1.00E+00	I		4.9E+00	4.4E+02
	75-21-8	Ethylene Oxide	Yes	Yes	1.4E-01	C	1.4E+00	3.3E+01	--	15	3	N	8.80E-05	CA	3.00E-02	CA		1.4E-01	1.3E+01
	151-56-4	Ethyleneimine	Yes	Yes	6.5E-04	C	6.5E-03	1.3E+00	--	25	3.3	N	1.90E-02	CA				6.5E-04	
	86-73-7	Fluorene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	110-00-9	Furan	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.3	M							
	822-06-0	Hexamethylene Diisocyanate, 1,6-	Yes	Yes	4.4E-03	NC	4.4E-02	2.2E+00	--	25					1.00E-05	I			4.4E-03
	110-54-3	Hexane, N-	Yes	Yes	3.1E+02	NC	3.1E+03	6.5E+00	--	15	1.1	N			7.00E-01	I			3.1E+02
	591-78-6	Hexanone, 2-	Yes	Yes	1.3E+01	NC	1.3E+02	6.3E+03	--	15					3.00E-02	I			1.3E+01
	74-90-8	Hydrogen Cyanide	Yes	Yes	3.5E-01	NC	3.5E+00	9.6E+01	--	15	5.6	N			8.00E-04	I			3.5E-01
	NA (JP-7)	JP-7	No VP	No VP	No VP	NC	No VP	No VP	--	25					3.00E-01	A			1.3E+02
	7439-97-6	Mercury (elemental)	Yes	Yes	1.3E-01	NC	1.3E+00	6.5E-01	Yes (2)	15					3.00E-04	I			1.3E-01
	126-98-7	Methacrylonitrile	Yes	Yes	3.1E-01	NC	3.1E+00	5.0E+01	--	15	2	N			7.00E-04	H			3.1E-01
	79-20-9	Methyl Acetate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	3.1	N							
	96-33-3	Methyl Acrylate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.8	N							
	78-93-3	Methyl Ethyl Ketone (2-Butanone)	Yes	Yes	2.2E+03	NC	2.2E+04	1.5E+06	--	15	1.4	N			5.00E+00	I			2.2E+03
	108-10-1	Methyl Isobutyl Ketone (4-methyl-2-penta	Yes	Yes	1.3E+03	NC	1.3E+04	4.1E+05	--	15	1.2	N			3.00E+00	I			1.3E+03
	624-83-9	Methyl Isocyanate	Yes	Yes	4.4E-01	NC	4.4E+00	1.2E+01	--	25	5.3	N			1.00E-03	CA			4.4E-01
	80-62-6	Methyl Methacrylate	Yes	Yes	3.1E+02	NC	3.1E+03	4.3E+04	--	15	1.7	N			7.00E-01	I			3.1E+02
	25013-15-4	Methyl Styrene (Mixed Isomers)	Yes	Yes	1.8E+01	NC	1.8E+02	4.0E+02	--	15					4.00E-02	H			1.8E+01
	1634-04-4	Methyl tert-Butyl Ether (MTBE)	Yes	Yes	4.7E+01	C	4.7E+02	3.0E+03	--	15	1.6	M	2.60E-07	CA	3.00E+00	I		4.7E+01	1.3E+03
	75-09-2	Methylene Chloride	Yes	Yes	2.6E+02	NC	2.6E+03	3.0E+03	No (5)	15	13	N	1.00E-08	I	6.00E-01	I	Mut	1.2E+03	2.6E+02
	90-12-0	Methylnaphthalene, 1-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	91-57-6	Methylnaphthalene, 2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	98-83-9	Methylstyrene, Alpha-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	8012-95-1	Mineral oils	No VP	No VP	No VP	--	No VP	No VP	--	25									
	64724-95-6	Naphtha, High Flash Aromatic (HFAN)	No MW	No MW	No MW	NC	No MW	No MW	--	25					1.00E-01	P			4.4E+01
	91-20-3	Naphthalene	Yes	Yes	3.6E-01	C	3.6E+00	4.3E+01	--	15	0.9	N	3.40E-05	CA	3.00E-03	I		3.6E-01	1.3E+00
	98-95-3	Nitrobenzene	Yes	Yes	3.1E-01	C	3.1E+00	6.8E+02	--	15	1.8	N	4.00E-05	I	9.00E-03	I		3.1E-01	3.9E+00
	75-52-5	Nitromethane	Yes	Yes	1.4E+00	C	1.4E+01	2.1E+03	--	15			9.00E-06	P	2.00E-02	P		1.4E+00	8.8E+00
	79-46-9	Nitropropane, 2-	Yes	Yes	4.5E-03	C	4.5E-02	1.7E+00	--	15	2.6	N	2.70E-03	H	2.00E-02	I		4.5E-03	8.8E+00
	924-16-3	Nitroso-di-N-butylamine, N-	Yes	Yes	7.7E-03	C	7.7E-02	1.4E+01	--	25			1.60E-03	I				7.7E-03	
	88-72-2	Nitrotoluene, o-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.2	N							
	111-84-2	Nonane, n-	Yes	Yes	8.8E+01	NC	8.8E+02	1.4E+00	--	15					2.00E-01	P			8.8E+01
	109-66-0	Pentane, n-	Yes	Yes	4.4E+02	NC	4.4E+03	1.3E+01	--	15					1.00E+00	P			4.4E+02
	75-44-5	Phosgene	Yes	Yes	1.3E-01	NC	1.3E+00	2.9E-01	--	15					3.00E-04	I			1.3E-01
	123-38-6	Propionaldehyde	Yes	Yes	3.5E+00	NC	3.5E+01	1.8E+03	--	15					8.00E-03	I			3.5E+00
	103-65-1	Propyl benzene	Yes	Yes	4.4E+02	NC	4.4E+03	2.0E+03	--	15	0.8	M			1.00E+00	X			4.4E+02
	115-07-1	Propylene	Yes	Yes	1.3E+03	NC	1.3E+04	2.0E+02	--	15	2	E			3.00E+00	CA			1.3E+03
	75-56-9	Propylene Oxide	Yes	Yes	3.3E+00	C	3.3E+01	1.7E+03	--	15			3.70E-06	I	3.00E-02	I		3.3E+00	1.3E+01
	129-00-0	Pyrene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	110-86-1	Pyridine	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.8	N							
	100-42-5	Styrene	Yes	Yes	4.4E+02	NC	4.4E+03	7.2E+03	No (100)	15	1.1	E			1.00E+00	I			4.4E+02
	630-20-6	Tetrachloroethane, 1,1,1,2-	Yes	Yes	1.7E+00	C	1.7E+01	3.2E+01	--	15			7.40E-06	I				1.7E+00	
x	79-34-5	Tetrachloroethane, 1,1,2,2-	Yes	Yes	2.1E-01	C	2.1E+00	2.6E+01	--	15			5.80E-05	CA				2.1E-01	
x	127-18-4	Tetrachloroethylene	Yes	Yes	1.8E+01	NC	1.8E+02	4.2E+01	No (5)	15			2.60E-07	I	4.00E-02	I		4.7E+01	1.8E+01
	811-97-2	Tetrafluoroethane, 1,1,1,2-	Yes	Yes	3.5E+04	NC	3.5E+05	2.6E+04	--	15					8.00E+01	I			3.5E+04
	109-99-9	Tetrahydrofuran	Yes	Yes	8.8E+02	NC	8.8E+03	4.8E+05	--	15	2	N			2.00E+00	I			8.8E+02
	463-56-9	Thiocyanate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
x	108-88-3	Toluene	Yes	Yes	2.2E+03	NC	2.2E+04	1.4E+04	No (1000)	15	1.1	N			5.00E+00	I			2.2E+03
	76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	Yes	Yes	1.3E+04	NC	1.3E+05	9.2E+02	--	15					3.00E+01	H			1.3E+04
	87-61-6	Trichlorobenzene, 1,2,3-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	120-82-1	Trichlorobenzene, 1,2,4-	Yes	Yes	8.8E-01	NC	8.8E+00	3.3E+01	Yes (70)	15	2.5	N			2.00E-03	P			8.8E-01
x	71-55-6	Trichloroethane, 1,1,1-	Yes	Yes	2.2E+03	NC	2.2E+04	4.9E+03	No (200)	15	7.5	N			5.00E+00	I			2.2E+03
x	79-00-5	Trichloroethane, 1,1,2-	Yes	Yes	8.8E-02	NC	8.8E-01	4.5E+00	Yes (5)	15	6	N	1.60E-05	I	2.00E-04	X		7.7E-01	8.8E-02
x	79-01-6	Trichloroethylene	Yes	Yes	8.8E-01	NC	8.8E+00	3.6E+00	Yes (5)	15	8	N	see note	I	2.00E-03	I	TCE	3.0E+00	8.8E-01
	75-69-4	Trichlorofluoromethane	Yes	Yes	3.1E+02	NC	3.1E+03	1.1E+02	--	15					7.00E-01	H			3.1E+02
	598-77-6	Trichloropropane, 1,1,2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	96-18-4	Trichloropropane, 1,2,3-	Yes	Yes	1.3E-01	NC	1.3E+00	1.8E+01	--	15	3.2	N			3.00E-04	I	Mut		1.3E-01
	96-19-5	Trichloropropene, 1,2,3-	Yes	Yes	1.3E-01	NC	1.3E+00	1.8E-01	--	25					3.00E-04	P			1.3E-01
	121-44-8	Triethylamine	Yes	Yes	3.1E+00	NC	3.1E+01	8.7E+02	--	15					7.00E-03	I			3.1E+00
	526-73-8	Trimethylbenzene, 1,2,3-	Yes	Yes	2.2E+00	NC	2.2E+01	2.9E+01	--	15					5.00E-03	P			2.2E+00
	95-63-6	Trimethylbenzene, 1,2,4-	Yes	Yes	3.1E+00	NC	3.1E+01	2.4E+01	--	15	0.9	N			7.00E-03	P			3.1E+00
	108-67-8	Trimethylbenzene, 1,3,5-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	108-05-4	Vinyl Acetate	Yes	Yes	8.8E+01	NC	8.8E+02	7.0E+03	--	15	2.6	N			2.00E-01	I			8.8E+01
	593-60-2	Vinyl Bromide	Yes	No	3.8E-01	C	3.8E+00	NVT	--	15			3.20E-05	H	3.00E-03	I		3.8E-01	1.3E+00
x	75-01-4	Vinyl Chloride	Yes	Yes	2.8E+00	C	2.8E+01	3.3E+00	No (2)	15	3.6	N	4.40E-06	I	1.00E-01	I	VC	2.8E+00	4.4E+01

OSWER VAPOR INTRUSION ASSESSMENT
Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-06	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	0.1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (^{0}C)	Tgw	15	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 1E-06 or THQ = 0.1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 1E-06 or THQ = 0.1	Target Ground Water Conc. @ TCR = 1E-06 or THQ = 0.1	Is Target Ground Water Conc. < MCL?	Temperature for Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 1E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 0.1
			Cvp > Cia,target/AFss?	Cvp > Cia,target/AFgw?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw<MCL?	Tgw or 25	LEL		IUR		RfC		i	Cia,c	Cia,nc
			Yes/No	Yes/No	(ug/m^3)	C/NC	(ug/m^3)	(ug/L)	Yes/No (MCL ug/L)	C	(% by vol)		(ug/m^3)$^{-1}$		(mg/m^3)			(ug/m^3)	(ug/m^3)
	108-38-3	Xylene, m-	Yes	Yes	4.4E+01	NC	4.4E+02	2.7E+02	--	15	1.1	N			1.00E-01	S			4.4E+01
x	95-47-6	Xylene, o-	Yes	Yes	4.4E+01	NC	4.4E+02	3.8E+02	--	15	0.9	N			1.00E-01	S			4.4E+01
x	106-42-3	Xylene, P-	Yes	Yes	4.4E+01	NC	4.4E+02	2.8E+02	--	15	1	N			1.00E-01	S			4.4E+01
x	1330-20-7	Xylenes	Yes	Yes	4.4E+01	NC	4.4E+02	3.8E+02	Yes (10000)	15					1.00E-01	I			4.4E+01

x
x **Notes:**
x
x (1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected (based on scenario in cell E5) Value
Averaging time for carcinogens	(yrs)	ATc_R	70	ATc_C	70	ATc	70
Averaging time for non-carcinogens	(yrs)	ATnc_R	30	ATnc_C	25	ATnc	25
Exposure duration	(yrs)	ED_R	30	ED_C	25	ED	25
Exposure frequency	(days/yr)	EF_R	350	EF_C	250	EF	250
Exposure time	(hr/day)	ET_R	24	ET_C	8	ET	8

x (2) **Generic Attenuation Factors:**

Source Medium of Vapors		Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected (based on scenario in cell E5) Value
Groundwater	(-)	AFgw_R	0.001	AFgw_C	0.001	AFgw	0.001
Sub-Slab and Exterior Soil Gas	(-)	AFss_R	0.1	AFss_C	0.1	AFss	0.1

x
x (3) **Formulas**
x Cia, target = MIN(Cia,c; Cia,nc)
x Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
x Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)
x
x (4) **Special Case Chemicals**

Trichloroethylene	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected (based on scenario in cell E5) Value
	mIURTCE_R	1.00E-06	mIURTCE_C	0.00E+00	mIURTCE	0.00E+00
	IURTCE_R	3.10E-06	IURTCE_C	4.10E-06	IURTCE	4.10E-06

x
x Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below
x
x Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration (years)	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 30 years	14	1

x **Mutagenic-mode-of-action (MMOA) adjustment factor** 25 This factor is used in the equations for mutagenic chemicals.
x
x Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.
x
x **Notation:**
x NVT = Not sufficiently volatile and/or toxic to pose inhalation risk in selected exposure scenario for the indicated medium
x C = Carcinogenic
x NC = Non-carcinogenic
x I = IRIS: EPA Integrated Risk Information System (IRIS). Available online a http://www.epa.gov/iris/subst/index.html
x P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
x A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at http://www.atsdr.cdc.gov/mrls/index.htm
x CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online a
x H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
x S = See RSL User Guide, Section 5
x X = PPRTV Appendix
x E = The Engineering ToolBox. Available online at http://www.engineeringtoolbox.com/explosive-concentration-limits-d_423.htm
x N = Centers for Disease Control and Prevention (CDC) National Institute for Occupational Safety and Health (NIOSH). Pocket Guide to Chemical Hazards. Available online at
x M = Chemical-specific MSDS
x Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above)
x VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
x TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
x Yellow highlighting indicates site-specific parameters that may be edited by the user.
x Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
x **Lower explosive limit is the minimum concentration of the compound in air (% by volume) that is needed for the gas to ignite and explode

OSWER VAPOR INTRUSION ASSESSMENT
Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down lis!
Target Risk for Carcinogens	TCR	1.00E-06	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (°C)	Tgw	15	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 1E-06 or THQ = 1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 1E-06 or THQ = 1	Target Ground Water Conc. @ TCR = 1E-06 or THQ = 1	Is Target Ground Water Conc. < MCL?	Temperature for Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 1E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 1
			Cvp > Cia,target/AFss?	Cvp > Cia,target/AFgw?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw<MCL?	Tgw or 25	LEL		IUR		RfC		i	Cia,c	Cia,nc
			Yes/No	Yes/No	(ug/m^3)	C/NC	(ug/m^3)	(ug/L)	Yes/No (MCL ug/L)	C	(% by vol)		(ug/m^3)$^{-1}$		(mg/m^3)			(ug/m^3)	(ug/m^3)
	83-32-9	Acenaphthene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	0.6	M							
	75-07-0	Acetaldehyde	Yes	Yes	1.1E+00	C	1.1E+01	5.8E+02	--	15	4	E	2.20E-06	I	9.00E-03	I		1.1E+00	9.4E+00
	67-64-1	Acetone	Yes	Yes	3.2E+04	NC	3.2E+05	3.5E+07	--	15	2.6	E			3.10E+01	A			3.2E+04
	75-86-5	Acetone Cyanohydrin	Yes	Yes	6.3E+01	NC	6.3E+02	1.2E+05	--	25					6.00E-02	P			6.3E+01
	75-05-8	Acetonitrile	Yes	Yes	6.3E+01	NC	6.3E+02	6.9E+04	--	15	3	N			6.00E-02	I			6.3E+01
	98-86-2	Acetophenone	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.1	M							
	107-02-8	Acrolein	Yes	Yes	2.1E-02	NC	2.1E-01	6.4E+00	--	15	2.8	N			2.00E-05	I			2.1E-02
	107-13-1	Acrylonitrile	Yes	Yes	3.6E-02	C	3.6E-01	1.1E+01	--	15	3	N	6.80E-05	I	2.00E-03	I		3.6E-02	2.1E+00
	107-05-1	Allyl Chloride	Yes	Yes	4.1E-01	C	4.1E+00	1.4E+00	--	15			6.00E-06	CA	1.00E-03	I		4.1E-01	1.0E+00
	120-12-7	Anthracene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	0.6	M							
	11104-28-2	Aroclor 1221	Yes	Yes	4.3E-03	C	4.3E-02	1.4E-01	--	25			5.70E-04	S				4.3E-03	
	11141-16-5	Aroclor 1232	Yes	Yes	4.3E-03	C	4.3E-02	1.4E-01	--	25			5.70E-04	S				4.3E-03	
	103-33-3	Azobenzene	Yes	Yes	7.8E-02	C	7.8E-01	1.4E+02	--	25			3.10E-05	I				7.8E-02	
	100-52-7	Benzaldehyde	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.4	M							
x	71-43-2	Benzene	Yes	Yes	3.1E-01	C	3.1E+00	2.2E+00	Yes (5)	15	1.2	N	7.80E-06	I	3.00E-02	I		3.1E-01	3.1E+01
	108-98-5	Benzenethiol	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	98-07-7	Benzotrichloride	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	100-44-7	Benzyl Chloride	Yes	Yes	5.0E-02	C	5.0E-01	5.5E+00	--	15	1.1	N	4.90E-05	CA	1.00E-03	P		5.0E-02	1.0E+00
	92-52-4	Biphenyl, 1,1'-	Yes	Yes	4.2E-01	NC	4.2E+00	7.5E+01	--	15	0.6	N			4.00E-04	X			4.2E-01
	108-60-1	Bis(2-chloro-1-methylethyl) ether	Yes	Yes	2.4E-01	C	2.4E+00	1.6E+02	--	15			1.00E-05	H				2.4E-01	
	111-44-4	Bis(2-chloroethyl)ether	Yes	Yes	7.4E-03	C	7.4E-02	2.3E+01	--	15	2.7	N	3.30E-04	I				7.4E-03	
	542-88-1	Bis(chloromethyl)ether	Yes	Yes	3.9E-05	C	3.9E-04	2.2E-04	--	25			6.20E-02	I				3.9E-05	
	107-04-0	Bromo-2-chloroethane, 1-	Yes	Yes	4.1E-03	C	4.1E-02	2.0E-01	--	15			6.00E-04	X				4.1E-03	
	108-86-1	Bromobenzene	Yes	Yes	6.3E+01	NC	6.3E+02	1.3E+03	--	15					6.00E-02	I			6.3E+01
	74-97-5	Bromochloromethane	Yes	Yes	4.2E+01	NC	4.2E+02	1.1E+03	--	15					4.00E-02	X			4.2E+01
	75-27-4	Bromodichloromethane	Yes	Yes	6.6E-02	C	6.6E-01	1.3E+00	Yes (80)	15			3.70E-05	CA				6.6E-02	
	74-83-9	Bromomethane	Yes	Yes	5.2E+00	NC	5.2E+01	2.4E+01	--	15	10	N			5.00E-03	I			5.2E+00
	106-99-0	Butadiene, 1,3-	Yes	Yes	8.1E-02	C	8.1E-01	3.6E-02	--	15	2	N	3.00E-05	I	2.00E-03	I		8.1E-02	2.1E+00
	104-51-8	Butylbenzene, n-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
x	75-15-0	Carbon Disulfide	Yes	Yes	7.3E+02	NC	7.3E+03	1.8E+03	--	15	1.3	N			7.00E-01	I			7.3E+02
	56-23-5	Carbon Tetrachloride	Yes	Yes	4.1E-01	C	4.1E+00	5.7E-01	Yes (5)	15			6.00E-06	I	1.00E-01	I		4.1E-01	1.0E+02
	75-68-3	Chloro-1,1-difluoroethane, 1-	Yes	Yes	5.2E+04	NC	5.2E+05	4.0E+05	--	15					5.00E+01	I			5.2E+04
	126-99-8	Chloro-1,3-butadiene, 2-	Yes	Yes	8.1E-03	C	8.1E-02	5.9E-03	--	15	1.9	N	3.00E-04	I	2.00E-02	I		8.1E-03	2.1E+01
	107-20-0	Chloroacetaldehyde, 2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	108-90-7	Chlorobenzene	Yes	Yes	5.2E+01	NC	5.2E+02	7.3E+02	No (100)	15	1.3	N			5.00E-02	P			5.2E+01
	98-56-6	Chlorobenzotrifluoride, 4-	Yes	Yes	3.1E+02	NC	3.1E+03	2.2E+02	--	25					3.00E-01	P			3.1E+02
	109-69-3	Chlorobutane, 1-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.8	M							
	75-45-6	Chlorodifluoromethane	Yes	Yes	5.2E+04	NC	5.2E+05	4.0E+04	--	15					5.00E+01	I			5.2E+04
	67-66-3	Chloroform	Yes	Yes	1.1E-01	C	1.1E+00	1.1E+00	Yes (80)	15			2.30E-05	I	9.80E-02	A		1.1E-01	1.0E+02
x	74-87-3	Chloromethane	Yes	Yes	9.4E+01	NC	9.4E+02	3.4E+02	--	15	8.1	N			9.00E-02	I			9.4E+01
	107-30-2	Chloromethyl Methyl Ether	Yes	Yes	3.5E-03	C	3.5E-02	2.8E-01	--	25			6.90E-04	CA				3.5E-03	
	91-58-7	Chloronaphthalene, Beta-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	95-57-8	Chlorophenol, 2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	76-06-2	Chloropicrin	Yes	Yes	4.2E-01	NC	4.2E+00	5.0E+00	--	25					4.00E-04	CA			4.2E-01
	95-49-8	Chlorotoluene, o-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	106-43-4	Chlorotoluene, p-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	123-73-9	Crotonaldehyde, trans-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.1	N							
	98-82-8	Cumene	Yes	Yes	4.2E+02	NC	4.2E+03	1.9E+03	--	15	0.9	N			4.00E-01	I			4.2E+02
	57-12-5	Cyanide (CN-)	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	No (200)	25									
	460-19-5	Cyanogen	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	506-68-3	Cyanogen Bromide	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	506-77-4	Cyanogen Chloride	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	110-82-7	Cyclohexane	Yes	Yes	6.3E+03	NC	6.3E+04	1.6E+03	--	15					6.00E+00	I			6.3E+03
	132-64-9	Dibenzofuran	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	96-12-8	Dibromo-3-chloropropane, 1,2-	Yes	Yes	1.6E-04	C	1.6E-03	5.5E-02	Yes (0.2)	15			6.00E-03	P	2.00E-04	I	Mut	1.6E-04	2.1E-01
	124-48-1	Dibromochloromethane	Yes	Yes	9.0E-02	C	9.0E-01	4.1E+00	Yes (80)	15			2.70E-05	CA				9.0E-02	
	106-93-4	Dibromoethane, 1,2-	Yes	Yes	4.1E-03	C	4.1E-02	2.8E-01	No (0.05)	15			6.00E-04	I	9.00E-03	I		4.1E-03	9.4E+00
	74-95-3	Dibromomethane (Methylene Bromide)	Yes	Yes	4.2E+00	NC	4.2E+01	2.1E+02	--	15					4.00E-03	X			4.2E+00
	764-41-0	Dichloro-2-butene, 1,4-	Yes	Yes	5.8E-04	C	5.8E-03	2.1E-02	--	25			4.20E-03	P				5.8E-04	
	1476-11-5	Dichloro-2-butene, cis-1,4-	Yes	Yes	5.8E-04	C	5.8E-03	4.1E-02	--	15			4.20E-03	P				5.8E-04	
	110-57-6	Dichloro-2-butene, trans-1,4-	Yes	Yes	5.8E-04	C	5.8E-03	4.1E-02	--	15			4.20E-03	P				5.8E-04	
	95-50-1	Dichlorobenzene, 1,2-	Yes	Yes	2.1E+02	NC	2.1E+03	5.3E+03	No (600)	15	2.2	N			2.00E-01	H			2.1E+02
x	106-46-7	Dichlorobenzene, 1,4-	Yes	Yes	2.2E-01	C	2.2E+00	4.3E+00	Yes (75)	15	2.5	N	1.10E-05	CA	8.00E-01	I		2.2E-01	8.3E+02
x	75-71-8	Dichlorodifluoromethane	Yes	Yes	1.0E+02	NC	1.0E+03	1.2E+01	--	15					1.00E-01	X			1.0E+02
x	75-34-3	Dichloroethane, 1,1-	Yes	Yes	1.5E+00	C	1.5E+01	1.0E+01	--	15	5.4	N	1.60E-06	CA				1.5E+00	
	107-06-2	Dichloroethane, 1,2-	Yes	Yes	9.4E-02	C	9.4E-01	3.2E+00	Yes (5)	15	6.2	N	2.60E-05	I	7.00E-03	P		9.4E-02	7.3E+00
x	75-35-4	Dichloroethylene, 1,1-	Yes	Yes	2.1E+02	NC	2.1E+03	2.8E+02	No (7)	15	6.5	N			2.00E-01	I			2.1E+02
x	540-59-0	Dichloroethylene, 1,2- (Mixed Isomers)	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	156-59-2	Dichloroethylene, 1,2-cis-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	No (70)	15	9.7	M							
	156-60-5	Dichloroethylene, 1,2-trans-	Yes	Yes	6.3E+01	NC	6.3E+02	5.7E+02	No (100)	15	9.7	M			6.00E-02	P			6.3E+01
	78-87-5	Dichloropropane, 1,2-	Yes	Yes	2.4E-01	C	2.4E+00	3.5E+00	Yes (5)	15	3.4	N	1.00E-05	CA	4.00E-03	I		2.4E-01	4.2E+00
	142-28-9	Dichloropropane, 1,3-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	542-75-6	Dichloropropene, 1,3-	Yes	Yes	6.1E-01	C	6.1E+00	7.2E+00	--	15	5.3	N	4.00E-06	I	2.00E-02	I		6.1E-01	2.1E+01
	77-73-6	Dicyclopentadiene	Yes	Yes	7.3E+00	NC	7.3E+01	3.3E+00	--	15					7.00E-03	P			7.3E+00
	75-37-6	Difluoroethane, 1,1-	Yes	Yes	4.2E+04	NC	4.2E+05	6.5E+04	--	15					4.00E+01	I			4.2E+04
	94-58-6	Dihydrosafrole	Yes	Yes	1.9E-01	C	1.9E+00	2.8E-02	--	25			1.30E-05	CA				1.9E-01	
	108-20-3	Diisopropyl Ether	Yes	Yes	7.3E+02	NC	7.3E+03	7.0E+03	--	25					7.00E-01	P			7.3E+02
	1445-75-6	Diisopropyl Methylphosphonate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									

OSWER VAPOR INTRUSION ASSESSMENT
Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down lis!
Target Risk for Carcinogens	TCR	1.00E-06	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (°C)	Tgw	15	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 1E-06 or THQ = 1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 1E-06 or THQ = 1	Target Ground Water Conc. @ TCR = 1E-06 or THQ = 1	Is Target Ground Water Conc. < MCL?	Temperature for Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 1E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 1
			Cvp > Cia,target/AFss?	Cvp > Cia,target/AFgw?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw<MCL?	Tgw or 25	LEL		IUR		RfC		i	Cia,c	Cia,nc
			Yes/No	Yes/No	(ug/m^3)	C/NC	(ug/m^3)	(ug/L)	Yes/No (MCL ug/L)	C	(% by vol)		(ug/m^3)$^{-1}$		(mg/m^3)			(ug/m^3)	(ug/m^3)
	121-69-7	Dimethylaniline, N,N-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	120-61-6	Dimethylterephthalate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	513-37-1	Dimethylvinylchloride	Yes	Yes	1.9E-01	C	1.9E+00	5.7E-02	--	25			1.30E-05	CA				1.9E-01	
	505-29-3	Dithiane, 1,4-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	106-89-8	Epichlorohydrin	Yes	Yes	1.0E+00	NC	1.0E+01	8.4E+02	--	15	3.8	N	1.20E-06	I	1.00E-03	I		2.0E+00	1.0E+00
	106-88-7	Epoxybutane, 1,2-	Yes	Yes	2.1E+01	NC	2.1E+02	4.5E+03	--	15					2.00E-02	I			2.1E+01
	759-94-4	EPTC	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	141-78-6	Ethyl Acetate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2	N							
x	140-88-5	Ethyl Acrylate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	75-00-3	Ethyl Chloride	Yes	Yes	1.0E+04	NC	1.0E+05	3.2E+04	--	15	3.8	N			1.00E+01	I			1.0E+04
	60-29-7	Ethyl Ether	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25	1.9	N							
	97-63-2	Ethyl Methacrylate	Yes	Yes	3.1E+02	NC	3.1E+03	2.9E+04	--	15	1.8	M			3.00E-01	P			3.1E+02
	100-41-4	Ethylbenzene	Yes	Yes	9.7E-01	C	9.7E+00	5.5E+00	Yes (700)	15	0.8	N	2.50E-06	CA	1.00E+00	I		9.7E-01	1.0E+03
	75-21-8	Ethylene Oxide	Yes	Yes	2.8E-02	C	2.8E-01	6.5E+00	--	15	3	N	8.80E-05	CA	3.00E-02	CA		2.8E-02	3.1E+01
	151-56-4	Ethyleneimine	Yes	Yes	1.3E-04	C	1.3E-03	2.6E-01	--	25	3.3	N	1.90E-02	CA				1.3E-04	
	86-73-7	Fluorene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	110-00-9	Furan	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.3	M							
	822-06-0	Hexamethylene Diisocyanate, 1,6-	Yes	Yes	1.0E-02	NC	1.0E-01	5.3E+00	--	25					1.00E-05	I			1.0E-02
	110-54-3	Hexane, N-	Yes	Yes	7.3E+02	NC	7.3E+03	1.6E+01	--	15	1.1	N			7.00E-01	I			7.3E+02
	591-78-6	Hexanone, 2-	Yes	Yes	3.1E+01	NC	3.1E+02	1.5E+04	--	15					3.00E-02	I			3.1E+01
	74-90-8	Hydrogen Cyanide	Yes	Yes	8.3E-01	NC	8.3E+00	2.3E+02	--	15	5.6	N			8.00E-04	I			8.3E-01
	NA (JP-7)	JP-7	No VP	No VP	No VP	NC	No VP	No VP	--	25					3.00E-01	A			3.1E+02
	7439-97-6	Mercury (elemental)	Yes	Yes	3.1E-01	NC	3.1E+00	1.6E+00	Yes (2)	15					3.00E-04	I			3.1E-01
	126-98-7	Methacrylonitrile	Yes	Yes	7.3E-01	NC	7.3E+00	1.2E+02	--	15	2	N			7.00E-04	H			7.3E-01
	79-20-9	Methyl Acetate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	3.1	N							
	96-33-3	Methyl Acrylate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.8	N							
	78-93-3	Methyl Ethyl Ketone (2-Butanone)	Yes	Yes	5.2E+03	NC	5.2E+04	3.7E+06	--	15	1.4	N			5.00E+00	I			5.2E+03
	108-10-1	Methyl Isobutyl Ketone (4-methyl-2-penta	Yes	Yes	3.1E+03	NC	3.1E+04	9.9E+05	--	15	1.2	N			3.00E+00	I			3.1E+03
	624-83-9	Methyl Isocyanate	Yes	Yes	1.0E+00	NC	1.0E+01	2.8E+01	--	25	5.3	N			1.00E-03	CA			1.0E+00
	80-62-6	Methyl Methacrylate	Yes	Yes	7.3E+02	NC	7.3E+03	1.0E+05	--	15	1.7	N			7.00E-01	I			7.3E+02
	25013-15-4	Methyl Styrene (Mixed Isomers)	Yes	Yes	4.2E+01	NC	4.2E+02	9.5E+02	--	15					4.00E-02	H			4.2E+01
	1634-04-4	Methyl tert-Butyl Ether (MTBE)	Yes	Yes	9.4E+00	C	9.4E+01	6.0E+02	--	15	1.6	M	2.60E-07	CA	3.00E+00	I		9.4E+00	3.1E+03
	75-09-2	Methylene Chloride	Yes	Yes	9.6E+01	C	9.6E+02	1.1E+03	No (5)	15	13	N	1.00E-08	I	6.00E-01	I	Mut	9.6E+01	6.3E+02
	90-12-0	Methylnaphthalene, 1-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	91-57-6	Methylnaphthalene, 2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	98-83-9	Methylstyrene, Alpha-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	8012-95-1	Mineral oils	No VP	No VP	No VP	--	No VP	No VP	--	25									
	64724-95-6	Naphtha, High Flash Aromatic (HFAN)	No MW	No MW	No MW	NC	No MW	No MW	--	25					1.00E-01	P			1.0E+02
	91-20-3	Naphthalene	Yes	Yes	7.2E-02	C	7.2E-01	8.5E+00	--	15	0.9	N	3.40E-05	CA	3.00E-03	I		7.2E-02	3.1E+00
	98-95-3	Nitrobenzene	Yes	Yes	6.1E-02	C	6.1E-01	1.4E+02	--	15	1.8	N	4.00E-05	I	9.00E-03	I		6.1E-02	9.4E+00
	75-52-5	Nitromethane	Yes	Yes	2.7E-01	C	2.7E+00	4.2E+02	--	15			9.00E-06	P	2.00E-02	P		2.7E-01	2.1E+01
	79-46-9	Nitropropane, 2-	Yes	Yes	9.0E-04	C	9.0E-03	3.3E-01	--	15	2.6	N	2.70E-03	H	2.00E-02	I		9.0E-04	2.1E+01
	924-16-3	Nitroso-di-N-butylamine, N-	Yes	Yes	1.5E-03	C	1.5E-02	2.8E+00	--	25			1.60E-03	I				1.5E-03	
	88-72-2	Nitrotoluene, o-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	2.2	N							
	111-84-2	Nonane, n-	Yes	Yes	2.1E+02	NC	2.1E+03	3.4E+00	--	15					2.00E-01	P			2.1E+02
	109-66-0	Pentane, n-	Yes	Yes	1.0E+03	NC	1.0E+04	3.0E+01	--	15					1.00E+00	P			1.0E+03
	75-44-5	Phosgene	Yes	Yes	3.1E-01	NC	3.1E+00	7.0E-01	--	15					3.00E-04	I			3.1E-01
	123-38-6	Propionaldehyde	Yes	Yes	8.3E+00	NC	8.3E+01	4.3E+03	--	15					8.00E-03	I			8.3E+00
	103-65-1	Propyl benzene	Yes	Yes	1.0E+03	NC	1.0E+04	4.7E+03	--	15	0.8	M			1.00E+00	X			1.0E+03
	115-07-1	Propylene	Yes	Yes	3.1E+03	NC	3.1E+04	4.8E+02	--	15	2	E			3.00E+00	CA			3.1E+03
	75-56-9	Propylene Oxide	Yes	Yes	6.6E-01	C	6.6E+00	3.5E+02	--	15			3.70E-06	I	3.00E-02	I		6.6E-01	3.1E+01
	129-00-0	Pyrene	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	110-86-1	Pyridine	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15	1.8	N							
	100-42-5	Styrene	Yes	Yes	1.0E+03	NC	1.0E+04	1.7E+04	No (100)	15	1.1	E			1.00E+00	I			1.0E+03
	630-20-6	Tetrachloroethane, 1,1,1,2-	Yes	Yes	3.3E-01	C	3.3E+00	6.3E+00	--	15			7.40E-06	I				3.3E-01	
x	79-34-5	Tetrachloroethane, 1,1,2,2-	Yes	Yes	4.2E-02	C	4.2E-01	5.2E+00	--	15			5.80E-05	CA				4.2E-02	
x	127-18-4	Tetrachloroethylene	Yes	Yes	9.4E+00	C	9.4E+01	2.3E+01	No (5)	15			2.60E-07	I	4.00E-02	I		9.4E+00	4.2E+01
	811-97-2	Tetrafluoroethane, 1,1,1,2-	Yes	Yes	8.3E+04	NC	8.3E+05	6.1E+04	--	15					8.00E+01	I			8.3E+04
	109-99-9	Tetrahydrofuran	Yes	Yes	2.1E+03	NC	2.1E+04	1.1E+06	--	15	2	N			2.00E+00	I			2.1E+03
	463-56-9	Thiocyanate	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
x	108-88-3	Toluene	Yes	Yes	5.2E+03	NC	5.2E+04	3.3E+04	No (1000)	15	1.1	N			5.00E+00	I			5.2E+03
	76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	Yes	Yes	3.1E+04	NC	3.1E+05	2.2E+03	--	15					3.00E+01	H			3.1E+04
	87-61-6	Trichlorobenzene, 1,2,3-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15					--				
	120-82-1	Trichlorobenzene, 1,2,4-	Yes	Yes	2.1E+00	NC	2.1E+01	7.8E+01	No (70)	15	2.5	N			2.00E-03	P			2.1E+00
x	71-55-6	Trichloroethane, 1,1,1-	Yes	Yes	5.2E+03	NC	5.2E+04	1.2E+04	No (200)	15	7.5	N			5.00E+00	I			5.2E+03
x	79-00-5	Trichloroethane, 1,1,2-	Yes	Yes	1.5E-01	C	1.5E+00	7.9E+00	No (5)	15	6	N	1.60E-05	I	2.00E-04	X		1.5E-01	2.1E-01
x	79-01-6	Trichloroethylene	Yes	Yes	4.3E-01	C	4.3E+00	1.8E+00	Yes (5)	15	8	N	see note	I	2.00E-03	I	TCE	4.3E-01	2.1E+00
	75-69-4	Trichlorofluoromethane	Yes	Yes	7.3E+02	NC	7.3E+03	2.6E+02	--	15					7.00E-01	H			7.3E+02
	598-77-6	Trichloropropane, 1,1,2-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	25									
	96-18-4	Trichloropropane, 1,2,3-	Yes	Yes	3.1E-01	NC	3.1E+00	4.3E+01	--	15	3.2	N			3.00E-04	I	Mut		3.1E-01
	96-19-5	Trichloropropene, 1,2,3-	Yes	Yes	3.1E-01	NC	3.1E+00	4.3E-01	--	25					3.00E-04	P			3.1E-01
	121-44-8	Triethylamine	Yes	Yes	7.3E+00	NC	7.3E+01	2.1E+03	--	15					7.00E-03	I			7.3E+00
	526-73-8	Trimethylbenzene, 1,2,3-	Yes	Yes	5.2E+00	NC	5.2E+01	6.9E+01	--	15					5.00E-03	P			5.2E+00
	95-63-6	Trimethylbenzene, 1,2,4-	Yes	Yes	7.3E+00	NC	7.3E+01	5.7E+01	--	15	0.9	N			7.00E-03	P			7.3E+00
	108-67-8	Trimethylbenzene, 1,3,5-	No Inhal. Tox. Info	No Inhal. Tox. Info	--	--	--	--	--	15									
	108-05-4	Vinyl Acetate	Yes	Yes	2.1E+02	NC	2.1E+03	1.7E+04	--	15	2.6	N			2.00E-01	I			2.1E+02
	593-60-2	Vinyl Bromide	Yes	No	7.6E-02	C	7.6E-01	NVT	--	15			3.20E-05	H	3.00E-03	I		7.6E-02	3.1E+00
x	75-01-4	Vinyl Chloride	Yes	Yes	1.6E-01	C	1.6E+00	1.9E-01	Yes (2)	15	3.6	N	4.40E-06	I	1.00E-01	I	VC	1.6E-01	1.0E+02

OSWER VAPOR INTRUSION ASSESSMENT
Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Residential	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-06	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (^{o}C)	Tgw	15	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 1E-06 or THQ = 1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 1E-06 or THQ = 1	Target Ground Water Conc. @ TCR = 1E-06 or THQ = 1	Is Target Ground Water Conc. < MCL?	Temperature for Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 1E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 1
			Cvp > Cia,target/AFss?	Cvp > Cia,target/AFgw?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw<MCL?	Tgw or 25	LEL		IUR		RfC		i	Cia,c	Cia,nc
			Yes/No	Yes/No	(ug/m^3)	C/NC	(ug/m^3)	(ug/L)	Yes/No (MCL ug/L)	C	(% by vol)		(ug/m^3)$^{-1}$		(mg/m^3)			(ug/m^3)	(ug/m^3)
	108-38-3	Xylene, m-	Yes	Yes	1.0E+02	NC	1.0E+03	6.5E+02	--	15	1.1	N			1.00E-01	S			1.0E+02
x	95-47-6	Xylene, o-	Yes	Yes	1.0E+02	NC	1.0E+03	9.0E+02	--	15	0.9	N			1.00E-01	S			1.0E+02
x	106-42-3	Xylene, P-	Yes	Yes	1.0E+02	NC	1.0E+03	6.7E+02	--	15	1	N			1.00E-01	S			1.0E+02
x	1330-20-7	Xylenes	Yes	Yes	1.0E+02	NC	1.0E+03	8.9E+02	Yes (10000)	15					1.00E-01	I			1.0E+02

x
x **Notes:**
x
x (1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected Value
Averaging time for carcinogens	(yrs)	ATc_R	70	ATc_C	70	ATc	70
Averaging time for non-carcinogens	(yrs)	ATnc_R	30	ATnc_C	25	ATnc	30
Exposure duration	(yrs)	ED_R	30	ED_C	25	ED	30
Exposure frequency	(days/yr)	EF_R	350	EF_C	250	EF	350
Exposure time	(hr/day)	ET_R	24	ET_C	8	ET	24

x (2) **Generic Attenuation Factors:**

Source Medium of Vapors	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected Value
Groundwater (-)	AFgw_R	0.001	AFgw_C	0.001	AFgw	0.001
Sub-Slab and Exterior Soil Gas (-)	AFss_R	0.1	AFss_C	0.1	AFss	0.1

x (3) **Formulas**
x Cia, target = MIN(Cia,c; Cia,nc)
x Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
x Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)
x
x (4) **Special Case Chemicals**

Trichloroethylene	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected Value
	mIURTCE_R	1.00E-06	mIURTCE_C	0.00E+00	mIURTCE	1.00E-06
	IURTCE_R	3.10E-06	IURTCE_C	4.10E-06	IURTCE	3.10E-06

x Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below

x Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration (years)	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 30 years	14	1

x **Mutagenic-mode-of-action (MMOA) adjustment factor** 76 This factor is used in the equations for mutagenic chemicals.

x Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.

x **Notation:**
x NVT = Not sufficiently volatile and/or toxic to pose inhalation risk in selected exposure scenario for the indicated medium
x C = Carcinogenic
x NC = Non-carcinogenic
x I = IRIS: EPA Integrated Risk Information System (IRIS). Available online a http://www.epa.gov/iris/subst/index.html
x P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
x A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at http://www.atsdr.cdc.gov/mrls/index.htm
x CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online a
x H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
x S = See RSL User Guide, Section 5
x X = PPRTV Appendix
x E = The Engineering ToolBox. Available online at http://www.engineeringtoolbox.com/explosive-concentration-limits-d_423.htm
x N = Centers for Disease Control and Prevention (CDC) National Institute for Occupational Safety and Health (NIOSH). Pocket Guide to Chemical Hazards. Available online at
x M = Chemical-specific MSDS
x Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above)
x VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
x TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
x Yellow highlighting indicates site-specific parameters that may be edited by the user.
x Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
x **Lower explosive limit is the minimum concentration of the compound in air (% by volume) that is needed for the gas to ignite and explode

Attachment B

95% Upper Confidence Limit (UCL) Calculations

AOI 1 Subsurface Soil

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	G:\36005\BRA 2011\UCL95 EPCs\UCL input\2011-0526-HAI-AOI-01_SubSO_ProUCL.xls.wst
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aroclor-1242 (PCB-1242)

General Statistics

Number of Valid Data	23	Number of Detected Data	5
Number of Distinct Detected Data	5	Number of Non-Detect Data	18
		Percent Non-Detects	78.26%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	4.3	Minimum Detected	1.458615
Maximum Detected	2167	Maximum Detected	7.681099
Mean of Detected	858.06	Mean of Detected	4.8580451
SD of Detected	1120.8182	SD of Detected	2.7737546
Minimum Non-Detect	0.043	Minimum Non-Detect	-3.146555
Maximum Non-Detect	0.33	Maximum Non-Detect	-1.108663
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	18
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	5
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	78.26%

Warning: There are only 5 Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.7300692	Shapiro Wilk Test Statistic	0.8987138
5% Shapiro Wilk Critical Value	0.762	5% Shapiro Wilk Critical Value	0.762
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	186.65767	Mean	-0.442619
SD	599.42867	SD	3.1203586
95% DL/2 (t) UCL	401.28272	95% H-Stat (DL/2) UCL	4456.3977
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-4.737106
		SD in Log Scale	6.8482727
		Mean in Original Scale	186.60512
		SD in Original Scale	599.4458
		95% t UCL	401.2363
		95% Percentile Bootstrap UCL	381.61981
		95% BCA Bootstrap UCL	472.76517
		95% H-UCL	1.498E+16

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.2748948	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	3121.4126		
nu star	2.7489477		
A-D Test Statistic	0.4641476	**Nonparametric Statistics**	
5% A-D Critical Value	0.7315596	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.7315596	Mean	189.9
5% K-S Critical Value	0.3776757	SD	585.22293
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	136.4308
		95% KM (t) UCL	424.17137
Assuming Gamma Distribution		95% KM (z) UCL	414.30869
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	394.87845
Minimum	0.000001	95% KM (bootstrap t) UCL	3915.1353
Maximum	2167	95% KM (BCA) UCL	2014.5217
Mean	186.53478	95% KM (Percentile Bootstrap) UCL	480.31304
Median	0.000001	95% KM (Chebyshev) UCL	784.58806
SD	599.46864	97.5% KM (Chebyshev) UCL	1041.9101
k star	0.0790983	99% KM (Chebyshev) UCL	1547.3693
Theta star	2358.2656		
Nu star	3.6385216	**Potential UCLs to Use**	
AppChi2	0.5843255	95% KM (t) UCL	424.17137
95% Gamma Approximate UCL	1161.5287		
95% Adjusted Gamma UCL	1339.8026		

bis(2-Ethylhexyl)phthalate

General Statistics

Number of Valid Data	23	Number of Detected Data	2
Number of Distinct Detected Data	2	Number of Non-Detect Data	21
		Percent Non-Detects	91.30%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.11	Minimum Detected	-2.207275
Maximum Detected	3.78	Maximum Detected	1.329724
Mean of Detected	1.945	Mean of Detected	-0.438775
SD of Detected	2.5950819	SD of Detected	2.5010359
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	2.22	Maximum Non-Detect	0.7975072
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	22
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	1
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	95.65%

Warning: Data set has only 2 Distinct Detected Values.

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	N/A	Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A	5% Shapiro Wilk Critical Value	N/A
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.3676087	Mean	-1.571609
SD	0.7700101	SD	0.763494
95% DL/2 (t) UCL	0.6433103	95% H-Stat (DL/2) UCL	0.4001075
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	N/A
		SD in Log Scale	N/A
		Mean in Original Scale	N/A
		SD in Original Scale	N/A
		95% t UCL	N/A
		95% Percentile Bootstrap UCL	N/A
		95% BCA Bootstrap UCL	N/A
		95% H-UCL	N/A

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	N/A	Data do not follow a Discernable Distribution (0.05)	
Theta Star	N/A		
nu star	N/A		
A-D Test Statistic	N/A	**Nonparametric Statistics**	
5% A-D Critical Value	N/A	Kaplan-Meier (KM) Method	
K-S Test Statistic	N/A	Mean	0.2695652
5% K-S Critical Value	N/A	SD	0.7484272
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.2206991
		95% KM (t) UCL	0.6485375
Assuming Gamma Distribution		95% KM (z) UCL	0.632583
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	2.6915693
Minimum	N/A	95% KM (bootstrap t) UCL	N/A
Maximum	N/A	95% KM (BCA) UCL	N/A
Mean	N/A	95% KM (Percentile Bootstrap) UCL	3.78
Median	N/A	95% KM (Chebyshev) UCL	1.2315705
SD	N/A	97.5% KM (Chebyshev) UCL	1.6478309
k star	N/A	99% KM (Chebyshev) UCL	2.465494
Theta star	N/A		
Nu star	N/A	Potential UCLs to Use	
AppChi2	N/A	99% KM (Chebyshev) UCL	2.465494
95% Gamma Approximate UCL	N/A		
95% Adjusted Gamma UCL	N/A		

Di-n-octyl phthalate

General Statistics

Number of Valid Data	23	Number of Detected Data	6
Number of Distinct Detected Data	6	Number of Non-Detect Data	17
		Percent Non-Detects	73.91%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.05	Minimum Detected	-2.995732
Maximum Detected	8.89	Maximum Detected	2.184927
Mean of Detected	3.0266667	Mean of Detected	0.0231869
SD of Detected	3.2602679	SD of Detected	2.1330855
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	0.43	Maximum Non-Detect	-0.84397
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	19
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	4
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	82.61%

Warning: There are only 6 Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.8655982	Shapiro Wilk Test Statistic	0.8432186
5% Shapiro Wilk Critical Value	0.788	5% Shapiro Wilk Critical Value	0.788
Data appear Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.9136957	Mean	-1.314215
SD	2.0157506	SD	1.3027209
95% DL/2 (t) UCL	1.6354338	95% H-Stat (DL/2) UCL	1.4241747
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.918318
		SD in Log Scale	2.0523829
		Mean in Original Scale	0.9227426
		SD in Original Scale	2.0216754
		95% t UCL	1.6466021
		95% Percentile Bootstrap UCL	1.6737504
		95% BCA Bootstrap UCL	1.9163899
		95% H-UCL	7.3806984

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.3979435	Data appear Normal at 5% Significance Level	
Theta Star	7.6057689		
nu star	4.7753226		
A-D Test Statistic	0.4287747	**Nonparametric Statistics**	
5% A-D Critical Value	0.7314714	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.7314714	Mean	0.845
5% K-S Critical Value	0.3470896	SD	1.997767
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.4565729
		95% KM (t) UCL	1.6290017
Assuming Gamma Distribution		95% KM (z) UCL	1.5959957
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.5779397
Minimum	0.000001	95% KM (bootstrap t) UCL	2.1410286
Maximum	8.89	95% KM (BCA) UCL	3.6656522
Mean	1.1564741	95% KM (Percentile Bootstrap) UCL	2.8782609
Median	0.05	95% KM (Chebyshev) UCL	2.8351553
SD	2.059008	97.5% KM (Chebyshev) UCL	3.6962971
k star	0.1318357	99% KM (Chebyshev) UCL	5.3878435
Theta star	8.7720863		
Nu star	6.0644419	**Potential UCLs to Use**	
AppChi2	1.6728856	95% KM (t) UCL	1.6290017
95% Gamma Approximate UCL	4.1923787	95% KM (Percentile Bootstrap) UCL	2.8782609
95% Adjusted Gamma UCL	4.6382151		

AOI 2 Surface Soil

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	G:\36005\BRA 2011\UCL95 EPCs\UCL input\2011-0526-HAI-AOI-02_SurSO_ProUCL-r1rve.xls.wst
Full Precision	ON
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Antimony

General Statistics

Number of Valid Data	12	Number of Detected Data	7
Number of Distinct Detected Data	7	Number of Non-Detect Data	5
Number of Missing Values	8	Percent Non-Detects	41.67%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.22	Minimum Detected	-1.514128
Maximum Detected	7.93	Maximum Detected	2.070653
Mean of Detected	3.3171429	Mean of Detected	0.7750549
SD of Detected	2.656142	SD of Detected	1.1882104
Minimum Non-Detect	0.5	Minimum Non-Detect	-0.693147
Maximum Non-Detect	0.5	Maximum Non-Detect	-0.693147

Warning: There are only 7 Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.9518594	Shapiro Wilk Test Statistic	0.9145919
5% Shapiro Wilk Critical Value	0.803	5% Shapiro Wilk Critical Value	0.803
Data appear Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	2.0391667	Mean	-0.125507
SD	2.5184536	SD	1.417298
95% DL/2 (t) UCL	3.3448017	95% H-Stat (DL/2) UCL	11.828477
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	0.5855512	Mean in Log Scale	-0.129297
SD	4.0019823	SD in Log Scale	1.4977992
95% MLE (t) UCL	2.6602881	Mean in Original Scale	2.063498
95% MLE (Tiku) UCL	3.1393786	SD in Original Scale	2.5028378
		95% t UCL	3.3610375
		95% Percentile Bootstrap UCL	3.2873254
		95% BCA Bootstrap UCL	3.5892981
		95% H UCL	15.639042
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.8500502	Data appear Normal at 5% Significance Level	
Theta Star	3.9022904		
nu star	11.900703		
A-D Test Statistic	0.1629707	**Nonparametric Statistics**	
5% A-D Critical Value	0.7234821	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.7234821	Mean	2.0266667
5% K-S Critical Value	0.3179376	SD	2.4205383
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.7547354
		95% KM (t) UCL	3.3820845
Assuming Gamma Distribution		95% KM (z) UCL	3.2680959
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	3.2595838
Minimum	0.000001	95% KM (bootstrap t) UCL	3.8070265
Maximum	7.93	95% KM (BCA) UCL	3.955
Mean	1.9743405	95% KM (Percentile Bootstrap) UCL	3.635
Median	0.851041	95% KM (Chebyshev) UCL	5.3164821
SD	2.5726042	97.5% KM (Chebyshev) UCL	6.7399878
k star	0.1726139	99% KM (Chebyshev) UCL	9.5361892
Theta star	11.4379		
Nu star	4.1427337	**Potential UCLs to Use**	
AppChi2	0.7788855	95% KM (t) UCL	3.3820845
95% Gamma Approximate UCL	10.501116	95% KM (Percentile Bootstrap) UCL	3.635
95% Adjusted Gamma UCL	13.929055		

Arsenic

General Statistics

Number of Valid Observations	12	Number of Distinct Observations	12
Number of Missing Values	8		

Raw Statistics		Log-transformed Statistics	
Minimum	0.58	Minimum of Log Data	-0.544727
Maximum	4.4	Maximum of Log Data	1.4816045
Mean	2.0041667	Mean of log Data	0.5699766
Median	1.775	SD of log Data	0.5385013
SD	1.040607		
Std. Error of Mean	0.3003974		
Coefficient of Variation	0.5192218		
Skewness	1.0713542		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.9344487	Shapiro Wilk Test Statistic	0.9841649
Shapiro Wilk Critical Value	0.859	Shapiro Wilk Critical Value	0.859
Data appear Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	2.5436457	95% H-UCL	2.9166294
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	3.4204566
95% Adjusted-CLT UCL (Chen-1995)	2.5975466	97.5% Chebyshev (MVUE) UCL	4.0277797
95% Modified-t UCL (Johnson-1978)	2.5591299	99% Chebyshev (MVUE) UCL	5.2207484
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	3.169048	Data appear Normal at 5% Significance Level	
Theta Star	0.6324192		
MLE of Mean	2.0041667		
MLE of Standard Deviation	1.1258212		
nu star	76.057151		
Approximate Chi Square Value (.05)	56.969342	**Nonparametric Statistics**	
Adjusted Level of Significance	0.02896	95% CLT UCL	2.4982764
Adjusted Chi Square Value	54.454601	95% Jackknife UCL	2.5436457
		95% Standard Bootstrap UCL	2.4767422
Anderson-Darling Test Statistic	0.141355	95% Bootstrap-t UCL	2.7469026
Anderson-Darling 5% Critical Value	0.7352319	95% Hall's Bootstrap UCL	2.8822286
Kolmogorov-Smirnov Test Statistic	0.1110245	95% Percentile Bootstrap UCL	2.4725
Kolmogorov-Smirnov 5% Critical Value	0.2463289	95% BCA Bootstrap UCL	2.5616667
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	3.3135684
		97.5% Chebyshev(Mean, Sd) UCL	3.8801476
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	4.9930826
95% Approximate Gamma UCL	2.6756708		
95% Adjusted Gamma UCL	2.7992347		

Potential UCL to Use		Use 95% Student's-t UCL	2.5436457

Benzene

General Statistics

Number of Valid Data	95	Number of Detected Data	28
Number of Distinct Detected Data	26	Number of Non-Detect Data	67
Number of Missing Values	20	Percent Non-Detects	70.53%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0003	Minimum Detected	-8.111728
Maximum Detected	20	Maximum Detected	2.9957323
Mean of Detected	2.0993643	Mean of Detected	-2.460871
SD of Detected	4.3005284	SD of Detected	3.3949569
Minimum Non-Detect	0.002	Minimum Non-Detect	-6.214608
Maximum Non-Detect	40	Maximum Non-Detect	3.6888795
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	95
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.5633754	Shapiro Wilk Test Statistic	0.9313565
5% Shapiro Wilk Critical Value	0.924	5% Shapiro Wilk Critical Value	0.924
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.8549547	Mean	-4.513948
SD	3.1866423	SD	2.8278713
95% DL/2 (t) UCL	1.3980803	95% H-Stat (DL/2) UCL	2.2222248
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-6.756866
		SD in Log Scale	3.8678396
		Mean in Original Scale	0.6194564
		SD in Original Scale	2.4974545
		95% t UCL	1.045118
		95% Percentile Bootstrap UCL	1.0555081
		95% BCA Bootstrap UCL	1.2274687
		95% H-UCL	22.190214
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.2251403	Data appear Lognormal at 5% Significance Level	
Theta Star	9.3246948		
nu star	12.607855		
A-D Test Statistic	1.042754	**Nonparametric Statistics**	
5% A-D Critical Value	0.8861575	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.8861575	Mean	0.6270719
5% K-S Critical Value	0.1822743	SD	2.4965192
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.2622367
		95% KM (t) UCL	1.0627063
Assuming Gamma Distribution		95% KM (z) UCL	1.0584129
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.0571752
Minimum	0.000001	95% KM (bootstrap t) UCL	1.4670774
Maximum	20	95% KM (BCA) UCL	1.2147555
Mean	0.6187607	95% KM (Percentile Bootstrap) UCL	1.0952036
Median	0.000001	95% KM (Chebyshev) UCL	1.7701351
SD	2.4976282	97.5% KM (Chebyshev) UCL	2.2647395
k star	0.0875322	99% KM (Chebyshev) UCL	3.236294
Theta star	7.068948		
Nu star	16.631122	**Potential UCLs to Use**	
AppChi2	8.4092613	97.5% KM (Chebyshev) UCL	2.2647395
95% Gamma Approximate UCL	1.2237323		
95% Adjusted Gamma UCL	1.2370065		

Benzo(a)anthracene

General Statistics

Number of Valid Data	14	Number of Detected Data	2
Number of Distinct Detected Data	2	Number of Non-Detect Data	12
Number of Missing Values	7	Percent Non-Detects	85.71%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.04	Minimum Detected	-3.218876
Maximum Detected	0.9	Maximum Detected	-0.105361
Mean of Detected	0.47	Mean of Detected	-1.662118
SD of Detected	0.6081118	SD of Detected	2.2015878
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	2.11	Maximum Non-Detect	0.7466879
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	14
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

Warning: Data set has only 2 Distinct Detected Values.

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	N/A	Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A	5% Shapiro Wilk Critical Value	N/A
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.2939286	Mean	-1.563686
SD	0.3016313	SD	0.8075364
95% DL/2 (t) UCL	0.4366912	95% H-Stat (DL/2) UCL	0.5066623
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	N/A
		SD in Log Scale	N/A
		Mean in Original Scale	N/A
		SD in Original Scale	N/A
		95% t UCL	N/A
		95% Percentile Bootstrap UCL	N/A
		95% BCA Bootstrap UCL	N/A
		95% H-UCL	N/A
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	N/A	Data do not follow a Discernable Distribution (0.05)	
Theta Star	N/A		
nu star	N/A		
A-D Test Statistic	N/A	**Nonparametric Statistics**	
5% A-D Critical Value	N/A	Kaplan-Meier (KM) Method	
K-S Test Statistic	N/A	Mean	0.1061538
5% K-S Critical Value	N/A	SD	0.2291636
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.0898854
		95% KM (t) UCL	0.2653349
Assuming Gamma Distribution		95% KM (z) UCL	0.2540021
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.6854967
Minimum	N/A	95% KM (bootstrap t) UCL	N/A
Maximum	N/A	95% KM (BCA) UCL	0.9
Mean	N/A	95% KM (Percentile Bootstrap) UCL	0.9
Median	N/A	95% KM (Chebyshev) UCL	0.4979551
SD	N/A	97.5% KM (Chebyshev) UCL	0.6674878
k star	N/A	99% KM (Chebyshev) UCL	1.0005021
Theta star	N/A		
Nu star	N/A	**Potential UCLs to Use**	
AppChi2	N/A	99% KM (Chebyshev) UCL	1.0005021
95% Gamma Approximate UCL	N/A		
95% Adjusted Gamma UCL	N/A		

Warning: Recommended UCL exceeds the maximum observation

Benzo(a)pyrene

General Statistics

Number of Valid Data	14	Number of Detected Data	2
Number of Distinct Detected Data	2	Number of Non-Detect Data	12
Number of Missing Values	7	Percent Non-Detects	85.71%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.05	Minimum Detected	-2.995732
Maximum Detected	1.17	Maximum Detected	0.1570037
Mean of Detected	0.61	Mean of Detected	-1.419364
SD of Detected	0.7919596	SD of Detected	2.229321
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	2.11	Maximum Non-Detect	0.7466879
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	14
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

Warning: Data set has only 2 Distinct Detected Values.

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	N/A	Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A	5% Shapiro Wilk Critical Value	N/A
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.3139286	Mean	-1.529007
SD	0.3477797	SD	0.8136254
95% DL/2 (t) UCL	0.4785333	95% H-Stat (DL/2) UCL	0.5304388
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	N/A
		SD in Log Scale	N/A
		Mean in Original Scale	N/A
		SD in Original Scale	N/A
		95% t UCL	N/A
		95% Percentile Bootstrap UCL	N/A
		95% BCA Bootstrap UCL	N/A
		95% H-UCL	N/A
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	N/A	Data do not follow a Discernable Distribution (0.05)	
Theta Star	N/A		
nu star	N/A		
A-D Test Statistic	N/A	**Nonparametric Statistics**	
5% A-D Critical Value	N/A	Kaplan-Meier (KM) Method	
K-S Test Statistic	N/A	Mean	0.1361538
5% K-S Critical Value	N/A	SD	0.2984457
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.11706
		95% KM (t) UCL	0.3434594
Assuming Gamma Distribution		95% KM (z) UCL	0.3287005
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.8906468
Minimum	N/A	95% KM (bootstrap t) UCL	0.1446842
Maximum	N/A	95% KM (BCA) UCL	1.17
Mean	N/A	95% KM (Percentile Bootstrap) UCL	1.17
Median	N/A	95% KM (Chebyshev) UCL	0.6464067
SD	N/A	97.5% KM (Chebyshev) UCL	0.8671935
k star	N/A	99% KM (Chebyshev) UCL	1.3008864
Theta star	N/A		
Nu star	N/A	**Potential UCLs to Use**	
AppChi2	N/A	99% KM (Chebyshev) UCL	1.3008864
95% Gamma Approximate UCL	N/A		
95% Adjusted Gamma UCL	N/A		

Warning: Recommended UCL exceeds the maximum observation

Benzo(b)fluoranthene

General Statistics

Number of Valid Data	14	Number of Detected Data	2
Number of Distinct Detected Data	2	Number of Non-Detect Data	12
Number of Missing Values	7	Percent Non-Detects	85.71%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.06	Minimum Detected	-2.813411
Maximum Detected	1.1	Maximum Detected	0.0953102
Mean of Detected	0.58	Mean of Detected	-1.35905
SD of Detected	0.7353911	SD of Detected	2.0567763
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	2.11	Maximum Non-Detect	0.7466879
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	14
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

Warning: Data set has only 2 Distinct Detected Values.

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	N/A	Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A	5% Shapiro Wilk Critical Value	N/A
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.3096429	Mean	-1.52039
SD	0.3342009	SD	0.7794952
95% DL/2 (t) UCL	0.4678208	95% H-Stat (DL/2) UCL	0.5029776
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	N/A
		SD in Log Scale	N/A
		Mean in Original Scale	N/A
		SD in Original Scale	N/A
		95% t UCL	N/A
		95% Percentile Bootstrap UCL	N/A
		95% BCA Bootstrap UCL	N/A
		95% H-UCL	N/A
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	N/A	Data do not follow a Discernable Distribution (0.05)	
Theta Star	N/A		
nu star	N/A		
A-D Test Statistic	N/A	**Nonparametric Statistics**	
5% A-D Critical Value	N/A	Kaplan-Meier (KM) Method	
K-S Test Statistic	N/A	Mean	0.14
5% K-S Critical Value	N/A	SD	0.2771281
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.1086986
		95% KM (t) UCL	0.332498
Assuming Gamma Distribution		95% KM (z) UCL	0.3187933
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.8406006
Minimum	N/A	95% KM (bootstrap t) UCL	N/A
Maximum	N/A	95% KM (BCA) UCL	1.1
Mean	N/A	95% KM (Percentile Bootstrap) UCL	1.1
Median	N/A	95% KM (Chebyshev) UCL	0.6138062
SD	N/A	97.5% KM (Chebyshev) UCL	0.8188225
k star	N/A	99% KM (Chebyshev) UCL	1.2215374
Theta star	N/A		
Nu star	N/A	**Potential UCLs to Use**	
AppChi2	N/A	99% KM (Chebyshev) UCL	1.2215374
95% Gamma Approximate UCL	N/A		
95% Adjusted Gamma UCL	N/A		

Warning: Recommended UCL exceeds the maximum observation

bis(2-Ethylhexyl)phthalate

General Statistics

Number of Valid Data	14	Number of Detected Data	4
Number of Distinct Detected Data	4	Number of Non-Detect Data	10
Number of Missing Values	7	Percent Non-Detects	71.43%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.33	Minimum Detected	-1.108663
Maximum Detected	24.6	Maximum Detected	3.2027464
Mean of Detected	9.0025	Mean of Detected	1.3729814
SD of Detected	10.709128	SD of Detected	1.8047708
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	2.11	Maximum Non-Detect	0.7466879
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	11
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	3
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	78.57%

Warning: There are only 4 Distinct Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.8376927	Shapiro Wilk Test Statistic	0.9315997
5% Shapiro Wilk Critical Value	0.748	5% Shapiro Wilk Critical Value	0.748
Data appear Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	2.7753571	Mean	-0.676559
SD	6.5745782	SD	1.6812872
95% DL/2 (t) UCL	5.8871172	95% H-Stat (DL/2) UCL	13.749548
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	14.609432	Mean in Log Scale	-3.213289
SD	9.0143084	SD in Log Scale	3.544453
95% MLE (t) UCL	18.875921	Mean in Original Scale	2.5869349
95% MLE (Tiku) UCL	23.503253	SD in Original Scale	6.648068
		95% t UCL	5.7334779
		95% Percentile Bootstrap UCL	5.9826781
		95% BCA Bootstrap UCL	7.832758
		95% H UCL	50405.131
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.3488853	Data appear Normal at 5% Significance Level	
Theta Star	25.803611		
nu star	2.7910822		
A-D Test Statistic	0.2539513	**Nonparametric Statistics**	
5% A-D Critical Value	0.6711966	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.6711966	Mean	2.8078571
5% K-S Critical Value	0.4054353	SD	6.3186144
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	1.9499667
		95% KM (t) UCL	6.2611184
Assuming Gamma Distribution		95% KM (z) UCL	6.015267
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	6.2934941
Minimum	0.000001	95% KM (bootstrap t) UCL	8.7163756
Maximum	24.6	95% KM (BCA) UCL	24.6
Mean	2.5721436	95% KM (Percentile Bootstrap) UCL	9.0521429
Median	0.000001	95% KM (Chebyshev) UCL	11.307565
SD	6.6541681	97.5% KM (Chebyshev) UCL	14.985396
k star	0.1105108	99% KM (Chebyshev) UCL	22.209781
Theta star	23.275047		
Nu star	3.0943019	**Potential UCLs to Use**	
AppChi2	0.4008944	95% KM (t) UCL	6.2611184
95% Gamma Approximate UCL	19.853081	95% KM (Percentile Bootstrap) UCL	9.0521429
95% Adjusted Gamma UCL	N/A		

Carbazole

General Statistics

Number of Valid Data	14	Number of Detected Data	1
Number of Distinct Detected Data	1	Number of Non-Detect Data	13
Number of Missing Values	7	Percent Non-Detects	92.86%

The data set for variable Carbazole was not processed!

Chromium Total

General Statistics

Number of Valid Observations	108	Number of Distinct Observations	90
Number of Missing Values	7		

Raw Statistics		Log-transformed Statistics	
Minimum	1.67	Minimum of Log Data	0.5128236
Maximum	164	Maximum of Log Data	5.0998664
Mean	30.078981	Mean of log Data	3.091397
Median	22.35	SD of log Data	0.7929791
SD	29.357687		
Std. Error of Mean	2.8249447		
Coefficient of Variation	0.97602		
Skewness	2.8494572		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.2761333	Lilliefors Test Statistic	0.1499385
Lilliefors Critical Value	0.0852554	Lilliefors Critical Value	0.0852554
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	34.766184	95% H-UCL	35.226172
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	41.336317
95% Adjusted-CLT UCL (Chen-1995)	35.55324	97.5% Chebyshev (MVUE) UCL	46.230995
95% Modified-t UCL (Johnson-1978)	34.895279	99% Chebyshev (MVUE) UCL	55.845642

Gamma Distribution Test		Data Distribution
k star (bias corrected)	1.7061185	Data do not follow a Discernable Distribution (0.05)
Theta Star	17.630066	
MLE of Mean	30.078981	
MLE of Standard Deviation	23.028122	
nu star	368.5216	
Approximate Chi Square Value (.05)	325.03182	**Nonparametric Statistics**
Adjusted Level of Significance	0.0477778	95% CLT UCL 34.725602
Adjusted Chi Square Value	324.4845	95% Jackknife UCL 34.766184
		95% Standard Bootstrap UCL 34.794352
Anderson-Darling Test Statistic	4.3534814	95% Bootstrap-t UCL 35.897694
Anderson-Darling 5% Critical Value	0.7675371	95% Hall's Bootstrap UCL 35.890362
Kolmogorov-Smirnov Test Statistic	0.1801757	95% Percentile Bootstrap UCL 34.956574
Kolmogorov-Smirnov 5% Critical Value	0.0887792	95% BCA Bootstrap UCL 35.24787
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 42.39263
		97.5% Chebyshev(Mean, Sd) UCL 47.720756
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 58.186826
95% Approximate Gamma UCL	34.103598	
95% Adjusted Gamma UCL	34.161121	

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL 42.39263

Di-n-octyl phthalate

General Statistics

Number of Valid Data	14	Number of Detected Data	11
Number of Distinct Detected Data	9	Number of Non-Detect Data	3
Number of Missing Values	7	Percent Non-Detects	21.43%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.06	Minimum Detected	-2.813411
Maximum Detected	66.9	Maximum Detected	4.203199
Mean of Detected	10.795455	Mean of Detected	0.0434574
SD of Detected	20.102564	SD of Detected	2.7126677
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	0.33	Maximum Non-Detect	-1.108663

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.6130964	Shapiro Wilk Test Statistic	0.8580503
5% Shapiro Wilk Critical Value	0.85	5% Shapiro Wilk Critical Value	0.85
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	8.5175	Mean	-0.351957
SD	18.202923	SD	2.5055593
95% DL/2 (t) UCL	17.132978	95% H-Stat (DL/2) UCL	857.98334
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-0.445398
		SD in Log Scale	2.6189167
		Mean in Original Scale	8.5186565
		SD in Original Scale	18.20248
		95% t UCL	17.133924
		95% Percentile Bootstrap UCL	17.145372
		95% BCA Bootstrap UCL	22.624423
		95% H-UCL	1483.0006
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.2758037	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	39.141806		
nu star	6.0676812		
A-D Test Statistic	0.7045668	**Nonparametric Statistics**	
5% A-D Critical Value	0.8217505	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.8217505	Mean	8.4992857
5% K-S Critical Value	0.2761191	SD	17.549484
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	4.9192256
		95% KM (t) UCL	17.210907
Assuming Gamma Distribution		95% KM (z) UCL	16.590692
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	17.119043
Minimum	0.000001	95% KM (bootstrap t) UCL	30.721676
Maximum	66.9	95% KM (BCA) UCL	17.069048
Mean	8.4821431	95% KM (Percentile Bootstrap) UCL	17.071429
Median	0.1	95% KM (Chebyshev) UCL	29.941693
SD	18.220522	97.5% KM (Chebyshev) UCL	39.21984
k star	0.1666859	99% KM (Chebyshev) UCL	57.444963
Theta star	50.886997		
Nu star	4.6672042	**Potential UCLs to Use**	
AppChi2	1.0016538	95% KM (Chebyshev) UCL	29.941693
95% Gamma Approximate UCL	39.522532		
95% Adjusted Gamma UCL	49.52801		

Ethylbenzene

General Statistics

Number of Valid Data	95	Number of Detected Data	49
Number of Distinct Detected Data	44	Number of Non-Detect Data	46
Number of Missing Values	20	Percent Non-Detects	48.42%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0005	Minimum Detected	-7.600902
Maximum Detected	200	Maximum Detected	5.2983174
Mean of Detected	27.284424	Mean of Detected	-0.72722
SD of Detected	49.168141	SD of Detected	4.2057069
Minimum Non-Detect	0.002	Minimum Non-Detect	-6.214608
Maximum Non-Detect	0.4	Maximum Non-Detect	-0.916291
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	72
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	23
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	75.79%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.6305059	Shapiro Wilk Test Statistic	0.8851347
5% Shapiro Wilk Critical Value	0.947	5% Shapiro Wilk Critical Value	0.947
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	14.082251	Mean	-3.155243
SD	37.710904	SD	4.0480502
95% DL/2 (t) UCL	20.509629	95% H-Stat (DL/2) UCL	2063.1178
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-4.523194
		SD in Log Scale	5.2890023
		Mean in Original Scale	14.073844
		SD in Original Scale	37.714056
		95% t UCL	20.501759
		95% Percentile Bootstrap UCL	20.569779
		95% BCA Bootstrap UCL	21.822391
		95% H-UCL	1008415.9
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.1870059	Data do not follow a Discernable Distribution (0.05)	
Theta Star	145.90138		
nu star	18.326582		
A-D Test Statistic	1.9932699	**Nonparametric Statistics**	
5% A-D Critical Value	0.9170577	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.9170577	Mean	14.074252
5% K-S Critical Value	0.1409068	SD	37.514884
Data not Gamma Distributed at 5% Significance Level		SE of Mean	3.8888325
		95% KM (t) UCL	20.534482
Assuming Gamma Distribution		95% KM (z) UCL	20.470812
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	20.502142
Minimum	0.000001	95% KM (bootstrap t) UCL	22.731385
Maximum	200	95% KM (BCA) UCL	21.204662
Mean	14.073019	95% KM (Percentile Bootstrap) UCL	20.303439
Median	0.0007	95% KM (Chebyshev) UCL	31.02528
SD	37.714367	97.5% KM (Chebyshev) UCL	38.360003
k star	0.0896072	99% KM (Chebyshev) UCL	52.767647
Theta star	157.05237		
Nu star	17.025364	**Potential UCLs to Use**	
AppChi2	8.6903498	97.5% KM (Chebyshev) UCL	38.360003
95% Gamma Approximate UCL	27.570614		
95% Adjusted Gamma UCL	27.865335		

Tetrachloroethene

General Statistics

Number of Valid Data	93	Number of Detected Data	10
Number of Distinct Detected Data	9	Number of Non-Detect Data	83
Number of Missing Values	22	Percent Non-Detects	89.25%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0006	Minimum Detected	-7.418581
Maximum Detected	0.36	Maximum Detected	-1.021651
Mean of Detected	0.05236	Mean of Detected	-4.2869
SD of Detected	0.1098158	SD of Detected	1.7392011
Minimum Non-Detect	0.002	Minimum Non-Detect	-6.214608
Maximum Non-Detect	40	Maximum Non-Detect	3.6888795
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	93
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.5013372	Shapiro Wilk Test Statistic	0.959663
5% Shapiro Wilk Critical Value	0.842	5% Shapiro Wilk Critical Value	0.842
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.2936409	Mean	-4.653049
SD	2.0715872	SD	2.3239128
95% DL/2 (t) UCL	0.650572	95% H-Stat (DL/2) UCL	0.3577637
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-7.563817
		SD in Log Scale	1.8831502
		Mean in Original Scale	0.0064043
		SD in Original Scale	0.0379303
		95% t UCL	0.0129396
		95% Percentile Bootstrap UCL	0.0137755
		95% BCA Bootstrap UCL	0.0202485
		95% H-UCL	0.0057841
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.4014607	Data Follow Appr. Gamma Distribution at 5% Significance Level	
Theta Star	0.1304237		
nu star	8.0292133		
A-D Test Statistic	0.7354001	**Nonparametric Statistics**	
5% A-D Critical Value	0.7809685	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.7809685	Mean	0.0080288
5% K-S Critical Value	0.2816092	SD	0.0424943
Data follow Appr. Gamma Distribution at 5% Significance Level		SE of Mean	0.0052537
		95% KM (t) UCL	0.0167582
Assuming Gamma Distribution		95% KM (z) UCL	0.0166703
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.0148739
Minimum	0.000001	95% KM (bootstrap t) UCL	0.0557015
Maximum	0.36	95% KM (BCA) UCL	0.0241138
Mean	0.007346	95% KM (Percentile Bootstrap) UCL	0.0197833
Median	0.000001	95% KM (Chebyshev) UCL	0.0309291
SD	0.0383718	97.5% KM (Chebyshev) UCL	0.040838
k star	0.1193405	99% KM (Chebyshev) UCL	0.0603023
Theta star	0.0615551		
Nu star	22.197331	**Potential UCLs to Use**	
AppChi2	12.486323	95% KM (t) UCL	0.0167582
95% Gamma Approximate UCL	0.0130592		
95% Adjusted Gamma UCL	0.0131805		

Thallium

General Statistics

Number of Valid Data	12	Number of Detected Data	1
Number of Distinct Detected Data	1	Number of Non-Detect Data	11
Number of Missing Values	8	Percent Non-Detects	91.67%

The data set for variable Thallium was not processed!

Toluene

General Statistics

Number of Valid Data	95	Number of Detected Data	74
Number of Distinct Detected Data	56	Number of Non-Detect Data	21
Number of Missing Values	20	Percent Non-Detects	22.11%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.001	Minimum Detected	-6.907755
Maximum Detected	5190	Maximum Detected	8.554489
Mean of Detected	207.715	Mean of Detected	-0.73439
SD of Detected	667.17093	SD of Detected	4.5411589
Minimum Non-Detect	0.002	Minimum Non-Detect	-6.214608
Maximum Non-Detect	3	Maximum Non-Detect	1.0986123
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	74
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	21
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	77.89%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.3777728	Lilliefors Test Statistic	0.1783999
5% Lilliefors Critical Value	0.1029954	5% Lilliefors Critical Value	0.1029954
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	161.81646	Mean	-1.828265
SD	594.28825	SD	4.5763303
95% DL/2 (t) UCL	263.10588	95% H-Stat (DL/2) UCL	151949.46
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-2.560641
		SD in Log Scale	5.40127
		Mean in Original Scale	161.79934
		SD in Original Scale	594.29294
		95% t UCL	263.08956
		95% Percentile Bootstrap UCL	276.54121
		95% BCA Bootstrap UCL	313.69404
		95% H-UCL	15703416
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.1330728	Data do not follow a Discernable Distribution (0.05)	
Theta Star	1560.913		
nu star	19.694769		
A-D Test Statistic	7.4325285	**Nonparametric Statistics**	
5% A-D Critical Value	0.9706551	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.9706551	Mean	161.80091
5% K-S Critical Value	0.1176104	SD	591.15638
Data not Gamma Distributed at 5% Significance Level		SE of Mean	61.065372
		95% KM (t) UCL	263.2443
Assuming Gamma Distribution		95% KM (z) UCL	262.24451
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	263.09077
Minimum	0.000001	95% KM (bootstrap t) UCL	390.98663
Maximum	5190	95% KM (BCA) UCL	275.39254
Mean	161.79905	95% KM (Percentile Bootstrap) UCL	269.19742
Median	0.038	95% KM (Chebyshev) UCL	427.9787
SD	594.29302	97.5% KM (Chebyshev) UCL	543.15404
k star	0.097992	99% KM (Chebyshev) UCL	769.39369
Theta star	1651.1453		
Nu star	18.618483	**Potential UCLs to Use**	
AppChi2	9.8393152	97.5% KM (Chebyshev) UCL	543.15404
95% Gamma Approximate UCL	306.1649		
95% Adjusted Gamma UCL	309.2609		

Vanadium

General Statistics

Number of Valid Observations	12	Number of Distinct Observations	12
Number of Missing Values	8		

Raw Statistics		Log-transformed Statistics	
Minimum	1.65	Minimum of Log Data	0.5007753
Maximum	12.4	Maximum of Log Data	2.5176965
Mean	8.1608333	Mean of log Data	1.9685222
Median	8.825	SD of log Data	0.6069842
SD	3.4987464		
Std. Error of Mean	1.0100011		
Coefficient of Variation	0.4287242		
Skewness	-0.62147		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.9235712	Shapiro Wilk Test Statistic	0.8295367
Shapiro Wilk Critical Value	0.859	Shapiro Wilk Critical Value	0.859
Data appear Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	9.974679	95% H-UCL	13.067251
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	15.134545
95% Adjusted-CLT UCL (Chen-1995)	9.6285255	97.5% Chebyshev (MVUE) UCL	18.022967
95% Modified-t UCL (Johnson-1978)	9.9444794	99% Chebyshev (MVUE) UCL	23.696714
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	3.0412699	Data appear Normal at 5% Significance Level	
Theta Star	2.6833637		
MLE of Mean	8.1608333		
MLE of Standard Deviation	4.6795816		
nu star	72.990478		
Approximate Chi Square Value (.05)	54.317112	**Nonparametric Statistics**	
Adjusted Level of Significance	0.02896	95% CLT UCL	9.8221373
Adjusted Chi Square Value	51.865351	95% Jackknife UCL	9.974679
		95% Standard Bootstrap UCL	9.7422752
Anderson-Darling Test Statistic	0.6310407	95% Bootstrap-t UCL	9.7005523
Anderson-Darling 5% Critical Value	0.735871	95% Hall's Bootstrap UCL	9.5174071
Kolmogorov-Smirnov Test Statistic	0.1863922	95% Percentile Bootstrap UCL	9.7025
Kolmogorov-Smirnov 5% Critical Value	0.2464192	95% BCA Bootstrap UCL	9.6708333
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	12.563326
		97.5% Chebyshev(Mean, Sd) UCL	14.468288
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	18.210217
95% Approximate Gamma UCL	10.966399		
95% Adjusted Gamma UCL	11.484799		

Potential UCL to Use Use 95% Student's-t UCL 9.974679

Note: For highly negative-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

Xylene (total)

General Statistics

Number of Valid Data	78	Number of Detected Data	57
Number of Distinct Detected Data	52	Number of Non-Detect Data	21
Number of Missing Values	37	Percent Non-Detects	26.92%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.004	Minimum Detected	-5.521461
Maximum Detected	963	Maximum Detected	6.8700534
Mean of Detected	125.99254	Mean of Detected	0.6194764
SD of Detected	229.96471	SD of Detected	4.1955731
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	0.3	Maximum Non-Detect	-1.203973
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	43
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	35
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	55.13%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.3387554	Lilliefors Test Statistic	0.1562266
5% Lilliefors Critical Value	0.1173536	5% Lilliefors Critical Value	0.1173536
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	92.074936	Mean	-0.898765
SD	204.01961	SD	4.3938543
95% DL/2 (t) UCL	130.53489	95% H-Stat (DL/2) UCL	188460.28
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.369856
		SD in Log Scale	4.9700148
		Mean in Original Scale	92.072538
		SD in Original Scale	204.02071
		95% t UCL	130.53269
		95% Percentile Bootstrap UCL	132.9772
		95% BCA Bootstrap UCL	137.35258
		95% H-UCL	4376583.9
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.1800687	Data do not follow a Discernable Distribution (0.05)	
Theta Star	699.69159		
nu star	20.52783		
A-D Test Statistic	2.6722111	**Nonparametric Statistics**	
5% A-D Critical Value	0.9252101	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.9252101	Mean	92.073226
5% K-S Critical Value	0.131504	SD	202.70835
Data not Gamma Distributed at 5% Significance Level		SE of Mean	23.156224
		95% KM (t) UCL	130.62566
Assuming Gamma Distribution		95% KM (z) UCL	130.16183
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	130.53332
Minimum	0.000001	95% KM (bootstrap t) UCL	141.98422
Maximum	963	95% KM (BCA) UCL	133.49198
Mean	92.071475	95% KM (Percentile Bootstrap) UCL	132.06953
Median	0.056	95% KM (Chebyshev) UCL	193.00887
SD	204.02119	97.5% KM (Chebyshev) UCL	236.6838
k star	0.1083264	99% KM (Chebyshev) UCL	322.47475
Theta star	849.94463		
Nu star	16.898924	**Potential UCLs to Use**	
AppChi2	8.6000531	97.5% KM (Chebyshev) UCL	236.6838
95% Gamma Approximate UCL	180.91852		
95% Adjusted Gamma UCL	183.2996		

xylenes-total-calculated

General Statistics

Number of Valid Observations	15	Number of Distinct Observations	15
Number of Missing Values	54		

Raw Statistics		Log-transformed Statistics	
Minimum	0.0004	Minimum of Log Data	-7.824046
Maximum	963	Maximum of Log Data	6.8700534
Mean	67.739567	Mean of log Data	-3.561152
Median	0.0069	SD of log Data	4.2410709
SD	248.02706		
Std. Error of Mean	64.040312		
Coefficient of Variation	3.6614799		
Skewness	3.8541172		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.3060177	Shapiro Wilk Test Statistic	0.8352323
Shapiro Wilk Critical Value	0.881	Shapiro Wilk Critical Value	0.881
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	180.53442	95% H-UCL	7166948.8
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	73.203545
95% Adjusted-CLT UCL (Chen-1995)	241.17118	97.5% Chebyshev (MVUE) UCL	98.722693
95% Modified-t UCL (Johnson-1978)	191.15581	99% Chebyshev (MVUE) UCL	148.85012

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.1275803	Data do not follow a Discernable Distribution (0.05)
Theta Star	530.95646	
MLE of Mean	67.739567	
MLE of Standard Deviation	189.64905	
nu star	3.827408	
Approximate Chi Square Value (.05)	0.6547143	**Nonparametric Statistics**
Adjusted Level of Significance	0.03235	95% CLT UCL 173.07651
Adjusted Chi Square Value	0.5160644	95% Jackknife UCL 180.53442
		95% Standard Bootstrap UCL 167.32139
Anderson-Darling Test Statistic	2.6888684	95% Bootstrap-t UCL 83294.901
Anderson-Darling 5% Critical Value	0.9099169	95% Hall's Bootstrap UCL 81342.705
Kolmogorov-Smirnov Test Statistic	0.3533694	95% Percentile Bootstrap UCL 192.77014
Kolmogorov-Smirnov 5% Critical Value	0.2487695	95% BCA Bootstrap UCL 263.80491
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 346.88481
		97.5% Chebyshev(Mean, Sd) UCL 467.67119
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 704.93262
95% Approximate Gamma UCL	396.00017	
95% Adjusted Gamma UCL	502.39262	

Potential UCL to Use	Use 95% Hall's Bootstrap UCL 81342.705

Recommended UCL exceeds the maximum observation

In Case Bootstrap t and/or Hall's Bootstrap yields an unreasonably large UCL value, use 97.5% or 99% Chebyshev (Mean, Sd) UCL

xylenes (total) rpt'ed-calc'ed combined

General Statistics

Number of Valid Data	91	Number of Detected Data	70
Number of Distinct Detected Data	62	Number of Non-Detect Data	21
Number of Missing Values	24	Percent Non-Detects	23.08%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	0.0004	Minimum Detected	-7.824046
Maximum Detected	963	Maximum Detected	6.8700534
Mean of Detected	103.34116	Mean of Detected	-0.353395
SD of Detected	212.69364	SD of Detected	4.4942409
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	0.3	Maximum Non-Detect	-1.203973
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	55
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	36
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	60.44%

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Lilliefors Test Statistic	0.3605972	Lilliefors Test Statistic	0.1365094
5% Lilliefors Critical Value	0.1058973	5% Lilliefors Critical Value	0.1058973
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	79.49617	Mean	-1.430236
SD	191.30931	SD	4.419909
95% DL/2 (t) UCL	112.82625	95% H-Stat (DL/2) UCL	95265.853
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.726011
		SD in Log Scale	4.7612845
		Mean in Original Scale	79.4946
		SD in Original Scale	191.30997
		95% t UCL	112.82479
		95% Percentile Bootstrap UCL	114.60659
		95% BCA Bootstrap UCL	119.40916
		95% H-UCL	552249.71
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	0.1564144	Data do not follow a Discernable Distribution (0.05)	
Theta Star	660.68822		
nu star	21.898019		
A-D Test Statistic	3.8841091	**Nonparametric Statistics**	
5% A-D Critical Value	0.9478057	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.9478057	Mean	79.494395
5% K-S Critical Value	0.119661	SD	190.256
Data not Gamma Distributed at 5% Significance Level		SE of Mean	20.088251
		95% KM (t) UCL	112.88029
Assuming Gamma Distribution		95% KM (z) UCL	112.53663
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	112.8246
Minimum	0.000001	95% KM (bootstrap t) UCL	122.68058
Maximum	963	95% KM (BCA) UCL	112.2909
Mean	79.493204	95% KM (Percentile Bootstrap) UCL	113.97762
Median	0.034	95% KM (Chebyshev) UCL	167.05705
SD	191.31056	97.5% KM (Chebyshev) UCL	204.94549
k star	0.1071499	99% KM (Chebyshev) UCL	279.36997
Theta star	741.88814		
Nu star	19.501273	**Potential UCLs to Use**	
AppChi2	10.484324	97.5% KM (Chebyshev) UCL	204.94549
95% Gamma Approximate UCL	147.86063		
95% Adjusted Gamma UCL	149.37947		

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	G:\36005\BRA 2011\UCL95 EPCs\UCL input\2011-0630-HAI-AOI-02_Surface soil_missing COPC for UCL95-d1
Full Precision	ON
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Lead

General Statistics

Number of Valid Observations	108	Number of Distinct Observations	99
Raw Statistics		**Log-transformed Statistics**	
Minimum	3.7	Minimum of Log Data	1.3083328
Maximum	899	Maximum of Log Data	6.801283
Mean	106.61287	Mean of log Data	3.7634409
Median	30.55	SD of log Data	1.2944602
SD	170.51079		
Std. Error of Mean	16.407408		
Coefficient of Variation	1.5993453		
Skewness	2.5374231		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Lilliefors Test Statistic	0.2916213	Lilliefors Test Statistic	0.1226304
Lilliefors Critical Value	0.0852554	Lilliefors Critical Value	0.0852554
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	133.83636	95% H-UCL	136.23231
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	168.11462
95% Adjusted-CLT UCL (Chen-1995)	137.88122	97.5% Chebyshev (MVUE) UCL	198.3543
95% Modified-t UCL (Johnson-1978)	134.50404	99% Chebyshev (MVUE) UCL	257.7543
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.6587087	Data do not follow a Discernable Distribution (0.05)	
Theta Star	161.85131		
MLE of Mean	106.61287		
MLE of Standard Deviation	131.35994		
nu star	142.28109		
Approximate Chi Square Value (.05)	115.71674	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0477778	95% CLT UCL	133.60066
Adjusted Chi Square Value	115.39485	95% Jackknife UCL	133.83636
		95% Standard Bootstrap UCL	133.62436
Anderson-Darling Test Statistic	5.737723	95% Bootstrap-t UCL	137.1383
Anderson-Darling 5% Critical Value	0.8025321	95% Hall's Bootstrap UCL	138.74923
Kolmogorov-Smirnov Test Statistic	0.1952621	95% Percentile Bootstrap UCL	134.58731
Kolmogorov-Smirnov 5% Critical Value	0.091314	95% BCA Bootstrap UCL	137.6887
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	178.13111
		97.5% Chebyshev(Mean, Sd) UCL	209.0771
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	269.86452
95% Approximate Gamma UCL	131.08729		
95% Adjusted Gamma UCL	131.45297		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	178.13111

Methyl cyclohexane

General Statistics

Number of Valid Data	17	Number of Detected Data	11
Number of Distinct Detected Data	10	Number of Non-Detect Data	6
		Percent Non-Detects	35.29%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0003	Minimum Detected	-8.111728
Maximum Detected	18	Maximum Detected	2.8903718
Mean of Detected	1.6652364	Mean of Detected	-4.532636
SD of Detected	5.4178647	SD of Detected	3.2837635
Minimum Non-Detect	0.01	Minimum Non-Detect	-4.60517
Maximum Non-Detect	0.8	Maximum Non-Detect	-0.223144
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	16
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	1
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	94.12%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.3516253	Shapiro Wilk Test Statistic	0.8861881
5% Shapiro Wilk Critical Value	0.85	5% Shapiro Wilk Critical Value	0.85
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	1.1025059	Mean	-4.54511
SD	4.3555425	SD	2.7820595
95% DL/2 (t) UCL	2.9468124	95% H-Stat (DL/2) UCL	30.177274
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-5.272534
		SD in Log Scale	2.9431676
		Mean in Original Scale	1.0785295
		SD in Original Scale	4.3607695
		95% t UCL	2.9250493
		95% Percentile Bootstrap UCL	3.1898683
		95% BCA Bootstrap UCL	4.2521553
		95% H-UCL	36.867337

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.1712301	Data appear Lognormal at 5% Significance Level	
Theta Star	9.7251373		
nu star	3.7670625		
A-D Test Statistic	1.6938794	Nonparametric Statistics	
5% A-D Critical Value	0.8768091	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.8768091	Mean	1.0791488
5% K-S Critical Value	0.283985	SD	4.2304259
Data not Gamma Distributed at 5% Significance Level		SE of Mean	1.0761119
		95% KM (t) UCL	2.957915
Assuming Gamma Distribution		95% KM (z) UCL	2.8491953
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	2.9256137
Minimum	0.000001	95% KM (bootstrap t) UCL	253.04158
Maximum	18	95% KM (BCA) UCL	3.2024434
Mean	1.0775062	95% KM (Percentile Bootstrap) UCL	3.1896648
Median	0.0007	95% KM (Chebyshev) UCL	5.7698118
SD	4.3610376	97.5% KM (Chebyshev) UCL	7.7994655
k star	0.1237679	99% KM (Chebyshev) UCL	11.786327
Theta star	8.7058606		
Nu star	4.2081092	Potential UCLs to Use	
AppChi2	0.8055985	99% KM (Chebyshev) UCL	11.786327
95% Gamma Approximate UCL	5.6284417		
95% Adjusted Gamma UCL	6.8057465		

Tetrahydrofuran

General Statistics

Number of Valid Data	93	Number of Detected Data	6
Number of Distinct Detected Data	5	Number of Non-Detect Data	87
		Percent Non-Detects	93.55%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.011	Minimum Detected	-4.50986
Maximum Detected	0.3	Maximum Detected	-1.203973
Mean of Detected	0.1718333	Mean of Detected	-2.122833
SD of Detected	0.1023336	SD of Detected	1.2185898
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	80	Maximum Non-Detect	4.3820266
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	93
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

Warning: There are only 6 Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.9680513	Shapiro Wilk Test Statistic	0.7478366
5% Shapiro Wilk Critical Value	0.788	5% Shapiro Wilk Critical Value	0.788
Data appear Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	1.4523065	Mean	-2.345558
SD	4.5692201	SD	2.5116998
95% DL/2 (t) UCL	2.2395757	95% H-Stat (DL/2) UCL	6.5151408
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-5.933693
		SD in Log Scale	1.6206643
		Mean in Original Scale	0.0149288
		SD in Original Scale	0.0480931
		95% t UCL	0.0232151
		95% Percentile Bootstrap UCL	0.0237895
		95% BCA Bootstrap UCL	0.0257993
		95% H-UCL	0.0161507

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.8751348	Data appear Normal at 5% Significance Level	
Theta Star	0.1963507		
nu star	10.501617		
A-D Test Statistic	0.5816929	**Nonparametric Statistics**	
5% A-D Critical Value	0.7075892	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.7075892	Mean	0.0269909
5% K-S Critical Value	0.3373591	SD	0.0562021
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.0079018
		95% KM (t) UCL	0.0401205
Assuming Gamma Distribution		95% KM (z) UCL	0.0399883
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.0872221
Minimum	0.000001	95% KM (bootstrap t) UCL	0.0372952
Maximum	0.3	95% KM (BCA) UCL	0.1870176
Mean	0.011087	95% KM (Percentile Bootstrap) UCL	0.1844444
Median	0.000001	95% KM (Chebyshev) UCL	0.0614342
SD	0.0486882	97.5% KM (Chebyshev) UCL	0.0763379
k star	0.0995267	99% KM (Chebyshev) UCL	0.1056132
Theta star	0.1113968		
Nu star	18.511964	Potential UCLs to Use	
AppChi2	9.7618731	95% KM (t) UCL	0.0401205
95% Gamma Approximate UCL	0.0210248	95% KM (Percentile Bootstrap) UCL	0.1844444
95% Adjusted Gamma UCL	0.0212429		

AOI 2 Subsurface Soil

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	G:\36005\BRA 2011\UCL95 EPCs\UCL input\2011-0525-HAI-AOI-02_SubSO_ProUCL-<1rve.xls.wst
Full Precision	ON
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Number of Valid Data	34	Number of Detected Data	33
Number of Distinct Detected Data	25	Number of Non-Detect Data	1
Number of Missing Values	30	Percent Non-Detects	2.94%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.36	Minimum Detected	-1.021651
Maximum Detected	40	Maximum Detected	3.6888795
Mean of Detected	10.331212	Mean of Detected	1.4583244
SD of Detected	12.024151	SD of Detected	1.4699066
Minimum Non-Detect	0.1	Minimum Non-Detect	-2.302585
Maximum Non-Detect	0.1	Maximum Non-Detect	-2.302585

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.7694004	Shapiro Wilk Test Statistic	0.9180495
5% Shapiro Wilk Critical Value	0.931	5% Shapiro Wilk Critical Value	0.931
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	10.028824	Mean	1.3273227
SD	11.971128	SD	1.6366553
95% DL/2 (t) UCL	13.503293	95% H-Stat (DL/2) UCL	37.02842
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	9.8296736	Mean in Log Scale	1.3503877
SD	12.055303	SD in Log Scale	1.5783736
95% MLE (t) UCL	13.328573	Mean in Original Scale	10.030575
95% MLE (Tiku) UCL	13.092291	SD in Original Scale	11.969628
		95% t UCL	13.504608
		95% Percentile Bootstrap UCL	13.585588
		95% BCA Bootstrap UCL	13.915588
		95% H UCL	32.587754

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only
k star (bias corrected)	0.6479648	Data do not follow a Discernable Distribution (0.05)
Theta Star	15.944094	
nu star	42.765679	
A-D Test Statistic	1.3572798	**Nonparametric Statistics**
5% A-D Critical Value	0.793261	Kaplan-Meier (KM) Method
K-S Test Statistic	0.793261	Mean 10.037941
5% K-S Critical Value	0.1598906	SD 11.786167
Data not Gamma Distributed at 5% Significance Level		SE of Mean 2.052651
		95% KM (t) UCL 13.511766
Assuming Gamma Distribution		95% KM (z) UCL 13.414252
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL 13.510171
Minimum	0.000001	95% KM (bootstrap t) UCL 13.985926
Maximum	40	95% KM (BCA) UCL 13.575294
Mean	10.027353	95% KM (Percentile Bootstrap) UCL 13.511176
Median	2.715	95% KM (Chebyshev) UCL 18.98524
SD	11.972394	97.5% KM (Chebyshev) UCL 22.856743
k-star	0.4676079	99% KM (Chebyshev) UCL 30.461561
Theta star	21.443933	
Nu star	31.797339	Potential UCLs to Use
AppChi2	19.911392	97.5% KM (Chebyshev) UCL 22.856743
95% Gamma Approximate UCL	18.013101	
95% Adjusted Gamma UCL	16.396823	

Benzene

General Statistics

Number of Valid Data	56	Number of Detected Data	18
Number of Distinct Detected Data	17	Number of Non-Detect Data	38
Number of Missing Values	8	Percent Non-Detects	67.86%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.001	Minimum Detected	-6.907755
Maximum Detected	6.8	Maximum Detected	1.9169226
Mean of Detected	1.1161667	Mean of Detected	-1.321651
SD of Detected	1.7715277	SD of Detected	2.3482919
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	7.5	Maximum Non-Detect	2.014903
Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	56
For all methods (except KM, DL/2, and ROS Methods)		Number treated as Detected	0
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.6516021	Shapiro Wilk Test Statistic	0.8038191
5% Shapiro Wilk Critical Value	0.897	5% Shapiro Wilk Critical Value	0.897
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.5304911	Mean	-3.396956
SD	1.2074273	SD	2.7973108
95% DL/2 (t) UCL	0.8004339	95% H-Stat (DL/2) UCL	11.339061
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
		SD in Log Scale	2.7206683
		Mean in Original Scale	0.3658895
		SD in Original Scale	1.1142971
		95% t UCL	0.6150113
		95% Percentile Bootstrap UCL	0.6323906
		95% BCA Bootstrap UCL	0.7144691
		95% H-UCL	3.933572

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only
k star (bias corrected)	0.4128238	Data appear Gamma Distributed at 5% Significance Level
nu star	14.861658	
A-D Test Statistic	0.3438711	**Nonparametric Statistics**
5% A-D Critical Value	0.810417	Kaplan-Meier (KM) Method
K-S Test Statistic	0.810417	Mean 0.3838953
Data appear Gamma Distributed at 5% Significance Level		SE of Mean 0.1558186
		95% KM (t) UCL 0.6445851
Assuming Gamma Distribution		95% KM (z) UCL 0.6401941
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL 0.6396849
Minimum	0.000001	95% KM (bootstrap t) UCL 0.9430614
Maximum	6.8	95% KM (BCA) UCL 0.7266985
Mean	0.3644721	95% KM (Percentile Bootstrap) UCL 0.6612894
Median	0.000001	95% KM (Chebyshev) UCL 1.0630927
SD	1.1155037	97.5% KM (Chebyshev) UCL 1.356982
k star	0.1021835	99% KM (Chebyshev) UCL 1.9342706
Theta star	3.5668393	
Nu star	11.444551	Potential UCLs to Use
AppChi2	4.8634746	95% KM (t) UCL 0.6445851
95% Gamma Approximate UCL	0.8576624	
95% Adjusted Gamma UCL	0.8781477	

bis(2-Ethylhexyl)phthalate_

General Statistics

Number of Valid Data	40	Number of Detected Data	8
Number of Distinct Detected Data	8	Number of Non-Detect Data	32
Number of Missing Values	24	Percent Non-Detects	80.00%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	3	Minimum Detected	1.0986123
Maximum Detected	598	Maximum Detected	6.3935908
Mean of Detected	184.6175	Mean of Detected	3.8095667
SD of Detected	218.23104	SD of Detected	2.3171677
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	2.01	Maximum Non-Detect	0.6981347
		Number treated as Non-Detect	32
		Number treated as Detected	8
		Single DL Non-Detect Percentage	80.00%

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Warning: There are only 8 Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.8415119
5% Shapiro Wilk Critical Value	0.818

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	37.137125
SD	118.84908
95% DL/2 (t) UCL	68.798775
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.8169464
5% Shapiro Wilk Critical Value	0.818

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-0.404216
SD	2.3889234
95% H-Stat (DL/2) UCL	61.544931
Log ROS Method	
Mean in Log Scale	-3.683259
SD in Log Scale	4.9677273
Mean in Original Scale	36.99843
SD in Original Scale	118.89331
95% t UCL	68.671864
95% Percentile Bootstrap UCL	71.167651
95% BCA Bootstrap UCL	83.488563
95% H-UCL	5091938.1

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.3691132
Theta Star	500.16501
nu star	5.9058109
A-D Test Statistic	0.5354686
5% A-D Critical Value	0.7698281
K-S Test Statistic	0.7698281
5% K-S Critical Value	0.3106915

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	598
Mean	36.923501
Median	0.000001
SD	118.91698
k star	0.0737492
Theta star	500.6628
Nu star	5.8999392
AppChi2	1.5889467
95% Gamma Approximate UCL	137.10114
95% Adjusted Gamma UCL	144.53247

Data Distribution Test with Detected Values Only

Data appear Normal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	39.3235
SD	116.67015
SE of Mean	19.720855
95% KM (t) UCL	72.550677
95% KM (z) UCL	71.76142
95% KM (jackknife) UCL	70.72764
95% KM (bootstrap t) UCL	101.98668
95% KM (BCA) UCL	92.481
95% KM (Percentile Bootstrap) UCL	81.58
95% KM (Chebyshev) UCL	125.28471
97.5% KM (Chebyshev) UCL	162.4802
99% KM (Chebyshev) UCL	235.54353

Potential UCLs to Use

95% KM (t) UCL	72.550677
95% KM (Percentile Bootstrap) UCL	81.58

Chromium Total

General Statistics

Number of Valid Data	39	Number of Detected Data	29
Number of Distinct Detected Data	26	Number of Non-Detect Data	10
Number of Missing Values	25	Percent Non-Detects	25.64%
Raw Statistics		**Log-transformed Statistics**	
Minimum Detected	2.87	Minimum Detected	1.054312
Maximum Detected	45	Maximum Detected	3.8066625
Mean of Detected	9.0568966	Mean of Detected	1.9201058
SD of Detected	9.0096932	SD of Detected	0.6804255
Minimum Non-Detect	0.02	Minimum Non-Detect	-3.912023
Maximum Non-Detect	0.02	Maximum Non-Detect	-3.912023

UCL Statistics

Normal Distribution Test with Detected Values Only		**Lognormal Distribution Test with Detected Values Only**	
Shapiro Wilk Test Statistic	0.6180882	Shapiro Wilk Test Statistic	0.8051614
5% Shapiro Wilk Critical Value	0.926	5% Shapiro Wilk Critical Value	0.926
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	6.7371795	Mean	0.2469581
SD	8.7079652	SD	2.9450144
95% DL/2 (t) UCL	9.0880583	95% H-Stat (DL/2) UCL	1183.0584
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	4.9409289	Mean in Log Scale	1.5277662
SD	10.750396	SD in Log Scale	0.9130071
95% MLE (t) UCL	7.8432004	Mean in Original Scale	7.1367246
95% MLE (Tiku) UCL	7.9295846	SD in Original Scale	8.4174697
		95% t UCL	9.4091786
		95% Percentile Bootstrap UCL	9.4159309
		95% BCA Bootstrap UCL	10.343785
		95% H UCL	9.8325397
Gamma Distribution Test with Detected Values Only		**Data Distribution Test with Detected Values Only**	
k star (bias corrected)	1.7390078	Data do not follow a Discernable Distribution (0.05)	
Theta Star	5.2080828		
nu star	100.86245		
A-D Test Statistic	3.2679814	**Nonparametric Statistics**	
5% A-D Critical Value	0.7581937	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.7581937	Mean	7.4705128
5% K-S Critical Value	0.1648724	SD	8.0979849
Data not Gamma Distributed at 5% Significance Level		SE of Mean	1.3196679
		95% KM (t) UCL	9.6954128
Assuming Gamma Distribution		95% KM (z) UCL	9.6411733
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	9.5459651
Minimum	0.000001	95% KM (bootstrap t) UCL	10.95187
Maximum	45	95% KM (BCA) UCL	9.9864103
Mean	6.7348156	95% KM (Percentile Bootstrap) UCL	9.8120513
Median	4.72	95% KM (Chebyshev) UCL	13.222812
SD	8.7099988	97.5% KM (Chebyshev) UCL	15.711836
k star	0.1880214	99% KM (Chebyshev) UCL	20.601042
Theta star	35.81835		
Nu star	14.665658	Potential UCLs to Use	
AppChi2	7.0295795	95% KM (BCA) UCL	9.9864103
95% Gamma Approximate UCL	14.050291		
95% Adjusted Gamma UCL	14.48047		

Di-n-octyl phthalate

General Statistics

Number of Valid Data	40	Number of Detected Data	22
Number of Distinct Detected Data	19	Number of Non-Detect Data	18
Number of Missing Values	24	Percent Non-Detects	45.00%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.04	Minimum Detected	-3.218876
Maximum Detected	884	Maximum Detected	6.7844571
Mean of Detected	138.89773	Mean of Detected	0.7917183
SD of Detected	283.18916	SD of Detected	3.6768545
Minimum Non-Detect	0.33	Minimum Non-Detect	-1.108663
Maximum Non-Detect	1	Maximum Non-Detect	0
		Number treated as Non-Detect	30
		Number treated as Detected	10
		Single DL Non-Detect Percentage	75.00%

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods)
Observations < Largest ND are treated as NDs

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.5557131
5% Shapiro Wilk Critical Value	0.911

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	76.529125
SD	219.22289
95% DL/2 (t) UCL	134.93057
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.8751305
5% Shapiro Wilk Critical Value	0.911

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-0.143749
SD	2.9086771
95% H-Stat (DL/2) UCL	665.15732
Log ROS Method	
Mean in Log Scale	-0.578847
SD in Log Scale	3.3060617
Mean in Original Scale	76.524493
SD in Original Scale	219.22466
95% t UCL	134.92641
95% Percentile Bootstrap UCL	138.78423
95% BCA Bootstrap UCL	160.56835
95% H-UCL	2881.2766

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.1861946
Theta Star	745.9813
nu star	8.1925646
A-D Test Statistic	1.7035296
5% A-D Critical Value	0.8998792
K-S Test Statistic	0.8998792
5% K-S Critical Value	0.2062086

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	884
Mean	76.39375
Median	0.04
SD	219.2712
k star	0.0926948
Theta star	824.14274
Nu star	7.4155844
AppChi2	2.4014375
95% Gamma Approximate UCL	235.90216
95% Adjusted Gamma UCL	246.75699

Data Distribution Test with Detected Values Only

Data do not follow a Discernible Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	76.451342
SD	216.49208
SE of Mean	35.03604
95% KM (t) UCL	135.48209
95% KM (z) UCL	134.0805
95% KM (jackknife) UCL	134.8602
95% KM (bootstrap t) UCL	169.89667
95% KM (BCA) UCL	138.23157
95% KM (Percentile Bootstrap) UCL	137.35195
95% KM (Chebyshev) UCL	229.1899
97.5% KM (Chebyshev) UCL	295.25134
99% KM (Chebyshev) UCL	425.05553

Potential UCLs to Use

99% KM (Chebyshev) UCL 425.05553

Ethylbenzene

General Statistics

Number of Valid Data	53
Number of Distinct Detected Data	22
Number of Missing Values	11

Number of Detected Data	23
Number of Non-Detect Data	30
Percent Non-Detects	56.60%

Raw Statistics

Minimum Detected	0.002
Maximum Detected	2200
Mean of Detected	102.57852
SD of Detected	457.34963
Minimum Non-Detect	0.005
Maximum Non-Detect	0.8

Note: Data have multiple DLs - Use of KM Method is recommended

For other methods (except KM, DL/2, and ROS Methods),

Observations < Largest ND are treated as NDs

Log-transformed Statistics

Minimum Detected	-6.214608
Maximum Detected	7.6962126
Mean of Detected	0.4333248
SD of Detected	3.320159
Minimum Non-Detect	-5.298317
Maximum Non-Detect	-0.223144
Number treated as Non-Detect	36
Number treated as Detected	17
Single DL Non-Detect Percentage	67.92%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.2308794
5% Shapiro Wilk Critical Value	0.914

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	44.551217
SD	301.87016
95% DL/2 (t) UCL	113.9923
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.9239698
5% Shapiro Wilk Critical Value	0.914

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean	-2.625969
SD	3.7300144
95% H-Stat (DL/2) UCL	1872.6454

Log ROS Method

Mean in Log Scale	-2.94035
SD in Log Scale	4.0390786
Mean in Original Scale	44.52544
SD in Original Scale	301.87402
95% t UCL	113.96741
95% Percentile Bootstrap UCL	127.16876
95% BCA Bootstrap UCL	170.31005
95% H-UCL	7684.0566

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.1841517
Theta Star	557.03261
nu star	8.4709799
A-D Test Statistic	2.470889
5% A-D Critical Value	0.9025134
K-S Test Statistic	0.9025134
5% K-S Critical Value	0.2019858

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data

Minimum	0.000001
Maximum	2200
Mean	44.515208
Median	0.000001
SD	301.87555
k star	0.0820795
Theta star	542.3428
Nu star	8.7004235
AppChi2	3.1470409
95% Gamma Approximate UCL	123.06836
95% Adjusted Gamma UCL	126.81631

Data Distribution Test with Detected Values Only

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	44.518492
SD	299.01362
SE of Mean	41.995777
95% KM (t) UCL	114.84837
95% KM (z) UCL	113.5954
95% KM (jackknife) UCL	113.9607
95% KM (bootstrap t) UCL	2728.0459
95% KM (BCA) UCL	128.02327
95% KM (Percentile Bootstrap) UCL	126.96411
95% KM (Chebyshev) UCL	227.57384
97.5% KM (Chebyshev) UCL	306.78203
99% KM (Chebyshev) UCL	462.37119

Potential UCLs to Use

99% KM (Chebyshev) UCL	462.37119

Methyl cyclohexane

General Statistics

Number of Valid Data	35	Number of Detected Data	29
Number of Distinct Detected Data	25	Number of Non-Detect Data	6
Number of Missing Values	10	Percent Non-Detects	17.14%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.001	Minimum Detected	-6.907755
Maximum Detected	56.6	Maximum Detected	4.038009
Mean of Detected	8.3038621	Mean of Detected	-1.324321
SD of Detected	14.413025	SD of Detected	3.6511978
Minimum Non-Detect	0.01	Minimum Non-Detect	-4.60517
Maximum Non-Detect	0.6	Maximum Non-Detect	-0.510826
Note: Detection limits DLs - Use of KM Methods is recommended		Number treated as Non-Detect	22
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	13
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	62.86%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.648575G	Shapiro Wilk Test Statistic	0.8892512
5% Shapiro Wilk Critical Value	0.926	5% Shapiro Wilk Critical Value	0.926
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	6.8930571	Mean	-1.742712
SD	13.452922	SD	3.5089266
95% DL/2 (t) UCL	10.738149	95% H-Stat (DL/2) UCL	3794.629
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.939561
		SD in Log Scale	3.6238916
		Mean in Original Scale	6.8823875
		SD in Original Scale	13.458438
		95% t UCL	10.720056
		95% Percentile Bootstrap UCL	10.843163
		95% BCA Bootstrap UCL	11.373242
		95% H-UCL	6003.4261

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only
k star (bias corrected)	0.2129958	Data do not follow a Discernable Distribution (0.05)
Theta Star	38.986038	
nu star	12.353756	
A-D Test Statistic	1.526777	**Nonparametric Statistics**
5% A-D Critical Value	0.8926417	Kaplan-Meier (KM) Method
K-S Test Statistic	0.8926417	Mean 6.8827116
5% K-S Critical Value	0.179746	SD 13.264622
Data not Gamma Distributed at 5% Significance Level		SE of Mean 2.2818186
		95% KM (t) UCL 10.741094
Assuming Gamma Distribution		95% KM (z) UCL 10.635969
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL 10.729337
Minimum	0.000001	95% KM (bootstrap t) UCL 12.077146
Maximum	56.6	95% KM (BCA) UCL 10.758495
Mean	6.880343	95% KM (Percentile Bootstrap) UCL 11.018457
Median	0.03	95% KM (Chebyshev) UCL 16.828928
SD	13.459512	97.5% KM (Chebyshev) UCL 21.132864
k star	0.1501624	99% KM (Chebyshev) UCL 29.58652
Theta star	45.819355	
Nu star	10.511366	Potential UCLs to Use
ApoChi2	4.263845	99% KM (Chebyshev) UCL 29.58652
95% Gamma Approximate UCL	16.96164	
95% Adjusted Gamma UCL	17.743608	

Tetrahydrofuran

General Statistics

Number of Valid Data	37	Number of Detected Data	9
Number of Distinct Detected Data	9	Number of Non-Detect Data	28
Number of Missing Values	20	Percent Non-Detects	75.68%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.007	Minimum Detected	-4.961845
Maximum Detected	1	Maximum Detected	0
Mean of Detected	0.2815111	Mean of Detected	-2.190567
SD of Detected	0.3180841	SD of Detected	1.7437218
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	1	Maximum Non-Detect	0
Note: Detections make Data - Use of KM Methods is recommended		Number treated as Non-Detect	36
For all methods (except KM, DL/2, and ROS Methods)		Number treated as Detected	1
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	97.30%

Warning: There are only 9 Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.8251304	Shapiro Wilk Test Statistic	0.9079701
5% Shapiro Wilk Critical Value	0.829	5% Shapiro Wilk Critical Value	0.829
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.1244892	Mean	-4.104669
SD	0.217252	SD	2.1796943
95% DL/2 (t) UCL	0.1847684	95% H-Stat (DL/2) UCL	0.7577416
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-5.812549
		SD in Log Scale	2.6136054
		Mean in Original Scale	0.0700688
		SD in Original Scale	0.1930235
		95% t UCL	0.1236433
		95% Percentile Bootstrap UCL	0.1286661
		95% BCA Bootstrap UCL	0.1432215
		95% H-UCL	0.6915724

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only
k star (bias corrected)	0.5142102	Data appear Gamma Distributed at 5% Significance Level
Theta Star	0.5474631	
nu star	9.2557841	
A-D Test Statistic	0.3505467	
5% A-D Critical Value	0.7583671	
K-S Test Statistic	0.7583671	
5% K-S Critical Value	0.2910041	
Data appear Gamma Distributed at 5% Significance Level		

Assuming Gamma Distribution	
Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	1
Mean	0.0684764
Median	0.000001
SD	0.1935891
k star	0.1080852
Theta star	0.6335412
Nu star	7.9983055
AppChi2	2.7340364
95% Gamma Approximate UCL	0.2003248
95% Adjusted Gamma UCL	0.2105012

Nonparametric Statistics	
Kaplan-Meier (KM) Method	
Mean	0.0803976
SD	0.1923877
SE of Mean	0.034525
95% KM (t) UCL	0.1386861
95% KM (z) UCL	0.1371862
95% KM (jackknife) UCL	0.1315516
95% KM (bootstrap t) UCL	0.1721658
95% KM (BCA) UCL	0.1870816
95% KM (Percentile Bootstrap) UCL	0.1556206
95% KM (Chebyshev) UCL	0.2308885
97.5% KM (Chebyshev) UCL	0.2960061
99% KM (Chebyshev) UCL	0.4239169
Potential UCLs to Use	
95% KM (t) UCL	0.1386861

Thallium

General Statistics

Number of Valid Data	32	Number of Detected Data	11
Number of Distinct Detected Data	4	Number of Non-Detect Data	21
Number of Missing Values	32	Percent Non-Detects	65.63%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.1	Minimum Detected	-2.302585
Maximum Detected	0.13	Maximum Detected	-2.040221
Mean of Detected	0.1081818	Mean of Detected	-2.227501
SD of Detected	0.0098165	SD of Detected	0.0874061
Minimum Non-Detect	0.05	Minimum Non-Detect	-2.995732
Maximum Non-Detect	0.5	Maximum Non-Detect	-0.693147
		Number treated as Non-Detect	32
		Number treated as Detected	0
		Single DL Non-Detect Percentage	100.00%

Note: Data representing DL1 = Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods)
Observations < Largest ND are treated as NDs

Warning: There are only 4 Distinct Detected Values in this data

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.8029849	Shapiro Wilk Test Statistic	0.8126837
5% Shapiro Wilk Critical Value	0.85	5% Shapiro Wilk Critical Value	0.85
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.1309375	Mean	-2.395017
SD	0.0941553	SD	0.9557738
95% DL/2 (t) UCL	0.1591585	95% H-Stat (DL/2) UCL	0.2166066
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-2.341913
		SD in Log Scale	0.1406367
		Mean in Original Scale	0.0970708
		SD in Original Scale	0.013727
		95% t UCL	0.1011851
		95% Percentile Bootstrap UCL	0.1011254
		95% BCA Bootstrap UCL	0.1011535
		95% H-UCL	0.101405

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only
k star (bias corrected)	102.3584	Data do not follow a Discernable Distribution (0.05)
Theta Star	0.0010569	
nu star	2251.8847	
A-D Test Statistic	0.9313237	**Nonparametric Statistics**
5% A-D Critical Value	0.72567	Kaplan-Meier (KM) Method
K-S Test Statistic	0.72567	Mean 0.1042857
5% K-S Critical Value	0.25443	SD 0.0079111
Data not Gamma Distributed at 5% Significance Level		SE of Mean 0.0018106
		95% KM (t) UCL 0.1073556
Assuming Gamma Distribution		95% KM (z) UCL 0.1072639
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL 0.1073107
Minimum	0.0111938	95% KM (bootstrap t) UCL 0.1093754
Maximum	0.13	95% KM (BCA) UCL 0.1073333
Mean	0.0854831	95% KM (Percentile Bootstrap) UCL 0.1073913
Median	0.0959123	95% KM (Chebyshev) UCL 0.1121779
SD	0.0291341	97.5% KM (Chebyshev) UCL 0.1158929
k star	5.1044615	99% KM (Chebyshev) UCL 0.1223009
Theta star	0.0167467	
Nu star	326.68553	Potential UCLs to Use
AppChi2	285.80857	95% KM (t) UCL 0.1073556
95% Gamma Approximate UCL	0.0977091	95% KM (% Bootstrap) UCL 0.1073913
95% Adjusted Gamma UCL	0.0984121	

Toluene

General Statistics

Number of Valid Data	56	Number of Detected Data	23
Number of Distinct Detected Data	22	Number of Non-Detect Data	33
Number of Missing Values	8	Percent Non-Detects	58.93%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0005	Minimum Detected	-7.600902
Maximum Detected	56800	Maximum Detected	10.947292
Mean of Detected	3172.224	Mean of Detected	2.1203294
SD of Detected	11758.661	SD of Detected	5.9174225
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	1	Maximum Non-Detect	0
		Number treated as Non-Detect	42
		Number treated as Detected	14
		Single DL Non-Detect Percentage	75.00%

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.2839349
5% Shapiro Wilk Critical Value	0.914

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	1302.9341
SD	7601.7171
95% DL/2 (t) UCL	3002.4391
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.899724
5% Shapiro Wilk Critical Value	0.914

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-1.840551
SD	5.272101
95% H-Stat (DL/2) UCL	94977022
Log ROS Method	
Mean in Log Scale	-3.678065
SD in Log Scale	6.7589905
Mean in Original Scale	1302.8844
SD in Original Scale	7601.7258
95% t UCL	3002.3912
95% Percentile Bootstrap UCL	3302.5169
95% BCA Bootstrap UCL	4428.8683
95% H-UCL	5.022E+12

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.1435607
Theta Star	22096.749
nu star	6.6037905
A-D Test Statistic	0.6519562
5% A-D Critical Value	0.9211199
K-S Test Statistic	0.9211199
5% K-S Critical Value	0.2035355

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.000001
Maximum	56800
Mean	1302.8777
Median	0.000001
SD	7601.7269
k star	0.068308
Theta star	19073.585
Nu star	7.6504916
AppChi2	2.534328
95% Gamma Approximate UCL	3933.0565
95% Adjusted Gamma UCL	4056.5984

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	1302.8811
SD	7533.5481
SE of Mean	1029.3383
95% KM (t) UCL	3024.9989
95% KM (z) UCL	2995.9919
95% KM (jackknife) UCL	3002.3881
95% KM (bootstrap t) UCL	16601.721
95% KM (BCA) UCL	3365.1548
95% KM (Percentile Bootstrap) UCL	3310.0344
95% KM (Chebyshev) UCL	5789.6626
97.5% KM (Chebyshev) UCL	7731.0966
99% KM (Chebyshev) UCL	11544.668

Potential UCLs to Use

95% KM (t) UCL 3024.9989

Vanadium

General Statistics

Number of Valid Observations 22
Number of Missing Values 13
Number of Distinct Observations 21

Raw Statistics

Minimum 4.74
Maximum 15.5
Mean 9.3481818
Median 9.25
SD 2.4909008
Std. Error of Mean 0.5310618
Coefficient of Variation 0.2664583
Skewness 0.2842105

Log-transformed Statistics

Minimum of Log Data 1.5560371
Maximum of Log Data 2.74084
Mean of log Data 2.1987471
SD of log Data 0.2844596

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.9632004
Shapiro Wilk Critical Value 0.911
Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 10.262003

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 10.256085
95% Modified-t UCL (Johnson-1978) 10.267366

Gamma Distribution Test

k star (bias corrected) 12.024275
Theta Star 0.7774424
MLE of Mean 9.3481818
MLE of Standard Deviation 2.6958622
nu star 529.06812
Approximate Chi Square Value (.05) 476.72359
Adjusted Level of Significance 0.0386
Adjusted Chi Square Value 473.02221

Anderson-Darling Test Statistic 0.4537062
Anderson-Darling 5% Critical Value 0.7423287
Kolmogorov-Smirnov Test Statistic 0.160877
Kolmogorov-Smirnov 5% Critical Value 0.1851467
Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL 10.374618
95% Adjusted Gamma UCL 10.455799

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.9361121
Shapiro Wilk Critical Value 0.911
Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL 10.513514
95% Chebyshev (MVUE) UCL 11.878987
97.5% Chebyshev (MVUE) UCL 12.962618
99% Chebyshev (MVUE) UCL 15.095129

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL 10.221701
95% Jackknife UCL 10.262003
95% Standard Bootstrap UCL 10.178251
95% Bootstrap-t UCL 10.269874
95% Hall's Bootstrap UCL 10.359581
95% Percentile Bootstrap UCL 10.200455
95% BCA Bootstrap UCL 10.224091
95% Chebyshev(Mean, Sd) UCL 11.663027
97.5% Chebyshev(Mean, Sd) UCL 12.664662
99% Chebyshev(Mean, Sd) UCL 14.63218

Potential UCL to Use

Use 95% Student's-t UCL 10.262003

Xylene (total)_laboratory reported total

General Statistics

Number of Valid Data	22	Number of Detected Data	11
Number of Distinct Detected Data	11	Number of Non-Detect Data	11
Number of Missing Values	42	Percent Non-Detects	50.00%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.97	Minimum Detected	-0.030459
Maximum Detected	10800	Maximum Detected	9.2873014
Mean of Detected	1046.9718	Mean of Detected	3.981697
SD of Detected	3235.7107	SD of Detected	2.3360571
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	0.007	Maximum Non-Detect	-4.961845
		Number treated as Non-Detect	11
		Number treated as Detected	11
		Single DL Non-Detect Percentage	50.00%

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < reported ND are treated as ND's

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.3648734	Shapiro Wilk Test Statistic	0.9306142
5% Shapiro Wilk Critical Value	0.85	5% Shapiro Wilk Critical Value	0.85
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	523.48732	Mean	-0.950714
SD	2296.2395	SD	5.300702
95% DL/2 (t) UCL	1365.894	95% H-Stat (DL/2) UCL	7.005E+10
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	0.7641702
		SD in Log Scale	3.8744808
		Mean in Original Scale	523.60816
		SD in Original Scale	2296.2106
		95% t UCL	1366.0043
		95% Percentile Bootstrap UCL	1504.3749
		95% BCA Bootstrap UCL	2002.7051
		95% H-UCL	2396260.7

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only
k star (bias corrected)	0.2355099	Data appear Lognormal at 5% Significance Level
Theta Star	4445.5527	
nu star	5.1812186	
A-D Test Statistic	1.6149452	
5% A-D Critical Value	0.843901	
K-S Test Statistic	0.843901	
5% K-S Critical Value	0.2794821	
Data not Gamma Distributed at 5% Significance Level		

Assuming Gamma Distribution		Nonparametric Statistics	
Gamma ROS Statistics using Extrapolated Data		Kaplan-Meier (KM) Method	
Minimum	0.000001	Mean	523.97091
Maximum	10800	SD	2243.3325
Mean	523.48591	SE of Mean	501.6244
Median	0.4850005	95% KM (t) UCL	1387.1375
SD	2296.2398	95% KM (z) UCL	1349.0696
k star	0.0952105	95% KM (jackknife) UCL	1361.3117
Theta star	5498.1956	95% KM (bootstrap t) UCL	27664.743
Nu star	4.1892617	95% KM (BCA) UCL	1540.5909
AppChi2	0.7978646	95% KM (Percentile Bootstrap) UCL	1501.1214
95% Gamma Approximate UCL	2748.6111	95% KM (Chebyshev) UCL	2710.501
95% Adjusted Gamma UCL	3144.9489	97.5% KM (Chebyshev) UCL	3656.6143
		99% KM (Chebyshev) UCL	5515.0707
		Potential UCLs to Use	
		99% KM (Chebyshev) UCL	5515.0707

Xylenes (total) calculated from detected isomers

General Statistics

Number of Valid Observations 26
Number of Missing Values 36
Number of Distinct Observations 26

Raw Statistics

Minimum 0.0007
Maximum 10800
Mean 438.47371
Median 1.144
SD 2114.1967
Std. Error of Mean 414.62808
Coefficient of Variation 4.8217182
Skewness 5.0924217

Log-transformed Statistics

Minimum of Log Data -7.26443
Maximum of Log Data 9.2873014
Mean of log Data -0.979275
SD of log Data 4.8581659

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.2156443
Shapiro Wilk Critical Value 0.92
Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 1146.7168

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 1562.9391
95% Modified-t UCL (Johnson-1978) 1215.7321

Gamma Distribution Test

k star (bias corrected) 0.1257512
Theta Star 3486.8341
MLE of Mean 438.47371
MLE of Standard Deviation 1236.4809
nu star 6.5390645
Approximate Chi Square Value (.05) 1.9212631
Adjusted Level of Significance 0.0398
Adjusted Chi Square Value 1.7608177

Anderson-Darling Test Statistic 2.4998623
Anderson-Darling 5% Critical Value 0.9333035
Kolmogorov-Smirnov Test Statistic 0.2470327
Kolmogorov-Smirnov 5% Critical Value 0.1928094
Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL 1492.3557
95% Adjusted Gamma UCL 1628.3388

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.9067115
Shapiro Wilk Critical Value 0.92
Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL 304650000
95% Chebyshev (MVUE) UCL 12806.881
97.5% Chebyshev (MVUE) UCL 17286.224
99% Chebyshev (MVUE) UCL 26085.025

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL 1120.4762
95% Jackknife UCL 1146.7168
95% Standard Bootstrap UCL 1093.4427
95% Bootstrap-t UCL 24906.355
95% Hall's Bootstrap UCL 23300.362
95% Percentile Bootstrap UCL 1263.554
95% BCA Bootstrap UCL 1690.1122
95% Chebyshev(Mean, Sd) UCL 2245.7956
97.5% Chebyshev(Mean, Sd) UCL 3027.8252
99% Chebyshev(Mean, Sd) UCL 4563.971

Potential UCL to Use

Use 95% Hall's Bootstrap UCL 23300.362

Recommended UCL exceeds the maximum observation

In Case Bootstrap t and/or Hall's Bootstrap yields an unreasonably large UCL value, use 97.5% or 99% Chebyshev (Mean, Sd) UCL

Xylenes (total) rpt'ed and calc'ed combined

General Statistics

Number of Valid Data	43	Number of Detected Data	32
Number of Distinct Detected Data	32	Number of Non-Detect Data	11
Number of Missing Values	21	Percent Non-Detects	25.58%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0007	Minimum Detected	-7.26443
Maximum Detected	10800	Maximum Detected	9.2873014
Mean of Detected	364.0402	Mean of Detected	-0.211209
SD of Detected	1905.1636	SD of Detected	4.7023249
Minimum Non-Detect	0.005	Minimum Non-Detect	-5.298317
Maximum Non-Detect	0.007	Maximum Non-Detect	-4.961845
		Number treated as Non-Detect	20
		Number treated as Detected	23
		Single DL Non-Detect Percentage	46.51%

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.1964417	Shapiro Wilk Test Statistic	0.9025590
5% Shapiro Wilk Critical Value	0.93	5% Shapiro Wilk Critical Value	0.93
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	270.91436	Mean	-1.662164
SD	1644.6445	SD	4.7535994
95% DL/2 (t) UCL	692.75798	95% H-Stat (DL/2) UCL	5013375.7
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-1.614010
		SD in Log Scale	4.8172451
		Mean in Original Scale	270.91675
		SD in Original Scale	1644.6441
		95% t UCL	692.76028
		95% Percentile Bootstrap UCL	771.71423
		95% BCA Bootstrap UCL	1034.4218
		95% H-UCL	8308824.9

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only
k star (bias corrected)	0.1373777	Data do not follow a Discernable Distribution (0.05)
Theta Star	2649.9226	
nu star	8.792171	
A-D Test Statistic	2.4579187	**Nonparametric Statistics**
5% A-D Critical Value	0.9357707	Kaplan-Meier (KM) Method
K-S Test Statistic	0.9357707	Mean 270.91422
5% K-S Critical Value	0.1748152	SD 1625.4083
Data not Gamma Distributed at 5% Significance Level		SE of Mean 251.83865
		95% KM (t) UCL 694.49482
Assuming Gamma Distribution		95% KM (z) UCL 685.15193
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL 692.75785
Minimum	0.000001	95% KM (bootstrap t) UCL 16863.462
Maximum	10800	95% KM (BCA) UCL 774.37962
Mean	270.91364	95% KM (Percentile Bootstrap) UCL 770.7118
Median	0.027	95% KM (Chebyshev) UCL 1368.6534
SD	1644.6446	97.5% KM (Chebyshev) UCL 1843.6461
k star	0.0980025	99% KM (Chebyshev) UCL 2776.6771
Theta star	2764.3558	
Nu star	8.4282107	Potential UCLs to Use
AppChi2	2.985428	99% KM (Chebyshev) UCL 2776.6771
95% Gamma Approximate UCL	764.82073	
95% Adjusted Gamma UCL	794.57864	

GROUNDWATER

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aroclor-1242

General Statistics

Number of Valid Data	7	Number of Detected Data	2
Number of Distinct Detected Data	2	Number of Non-Detect Data	5
		Percent Non-Detects	71.43%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.6	Minimum Detected	-0.510826
Maximum Detected	2.9	Maximum Detected	1.0647107
Mean of Detected	1.75	Mean of Detected	0.2769426
SD of Detected	1.6263456	SD of Detected	1.1140724
Minimum Non-Detect	0.1	Minimum Non-Detect	-2.302585
Maximum Non-Detect	0.6	Maximum Non-Detect	-0.510826

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	5
Number treated as Detected	2
Single DL Non-Detect Percentage	71.43%

Warning: Data set has only 2 Distinct Detected Values.

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	N/A	Shapiro Wilk Test Statistic	N/A
5% Shapiro Wilk Critical Value	N/A	5% Shapiro Wilk Critical Value	N/A
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.5714286	Mean	-1.804717
SD	1.0475595	SD	1.6300682
95% DL/2 (t) UCL	1.3408119	95% H-Stat (DL/2) UCL	25.554964
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	N/A
		SD in Log Scale	N/A
		Mean in Original Scale	N/A
		SD in Original Scale	N/A
		95% t UCL	N/A
		95% Percentile Bootstrap UCL	N/A
		95% BCA Bootstrap UCL	N/A
		95% H-UCL	N/A

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	N/A	Data do not follow a Discernable Distribution (0.05)	
Theta Star	N/A		
nu star	N/A		
A-D Test Statistic	N/A	**Nonparametric Statistics**	
5% A-D Critical Value	N/A	Kaplan-Meier (KM) Method	
K-S Test Statistic	N/A	Mean	0.9285714
5% K-S Critical Value	N/A	SD	0.8048323
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.430201
		95% KM (t) UCL	1.7645295
Assuming Gamma Distribution		95% KM (z) UCL	1.6361891
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	N/A
Minimum	N/A	95% KM (bootstrap t) UCL	N/A
Maximum	N/A	95% KM (BCA) UCL	N/A
Mean	N/A	95% KM (Percentile Bootstrap) UCL	N/A
Median	N/A	95% KM (Chebyshev) UCL	2.803774
SD	N/A	97.5% KM (Chebyshev) UCL	3.6151757
k star	N/A	99% KM (Chebyshev) UCL	5.2090172
Theta star	N/A		
Nu star	N/A	Potential UCLs to Use	
AppChi2	N/A	95% KM (BCA) UCL	N/A
95% Gamma Approximate UCL	N/A		
95% Adjusted Gamma UCL	N/A		

Note: DL/2 is not a recommended method.

Attachment C

Modeling

Particulate Emission Factor

CALCULATION OF THE PARTICULATE EMISSION FACTOR - SOIL TO AMBIENT AIR

EQUATIONS:

$$\text{PEF } (m^3/kg) = Q/C \times [(3600 \text{ s/hr}) / ((0.036 \times (1-V) \times (U_m/U_t)^3 \times F(x))]$$

PARAMETER/DEFINITION	UNITS	DEFAULT
PEF / particulate emission factor	m^3/kg	**1.41E+09** Calculated
Q/C / inverse of the mean concentration at the center of a 0.5-acre-square source	g/m^2-s per kg/m^3	85.6 USEPA, 1996 (0.5 acre value for Cleveland)
V / Fraction of vegetative cover	unitless	0.5 Default
U_m / mean annual windspeed	m/s	4.49 Default
U_t / equivalent threshold value of windspeed at 7 m	m/s	11.3 USEPA, 1996
F(x) / function dependant on U_m/U_t derived using Cowherd et al. (1985)	unitless	1.94E-01 USEPA, 1996

Source: USEPA, 1996. Soil Screening Guidance. EPA/540/R-95/128.
Ut and Fx values are the default values from (USEPA, 1996). Those values were derived for a Um of 4.69, which is nearly identitical to the Site-specifc Um. Therefore, the default values for Ut and Fx are applicable.

Volatilization Factor – Construction

CALCULATION OF THE VOLATILIZATION FACTOR - SOIL TO AMBIENT AIR - CONSTRUCTIO

EQUATIONS:

$$VF\ (m^3/kg) = Q/C \times (3.14 \times D_A \times T)^{1/2} \times 10^{-4} (m^2/cm^2) / (2 \times P_b \times D_A)$$

where

$$DA = [(O_a^{10/3} D_i H' + O_w^{10/3} D_w)/n^2] / P_b K_d + O_w + O_a H'$$

PARAMETER/DEFINITION	UNITS	DEFAULT
VF / volatilization factor	m^3/kg	Calculated
D_A / apparent diffusivity	cm^2/s	Calculated
Q/C / inverse of the mean concentration at the center of a 0.5-acre-square source	g/m^2-s per kg/m^3	85.6 USEPA, 1996 (0.5 acre value for Cleveland
T / exposure interva	s	3.2E+07 (1 year for const. worker)
Π_b / dry soil bulk density	g/cm^3	1.5 USEPA, 1996
O_a / air-filled soil porosity	L_{air}/L_{soil}	0.13 USEPA, 1996
n / total soil porosity	L_{pore}/L_{soil}	0.43 USEPA, 1996
O_w / water-filled soil porosity	L_{water}/L_{soil}	0.3 USEPA, 1996
Ψ_s / soil particle density	g/cm^3	2.65 USEPA, 1996
D_i / diffusivity in air	cm^2/s	chemical-specific
H' / Henry's Law constant	dimensionless	chemical-specific
D_w / diffusivity in water	cm^2/s	chemical-specific
K_d / soil-water partition coefficient ($K_{oc} \times f_{oc}$) organics	cm^3/g	chemical-specific
K_{oc} / soil organic carbon partition coefficien	cm^3/g	chemical-specific
f_{oc} / fraction organic carbon in soi	g/g	0.006 Default

Source: USEPA, 1996. Soil Screening Guidance. EPA/540/R-95/128.

CALCULATION OF THE VOLATILIZATION FACTOR - SOIL TO AMBIENT AIR - CONSTRUCTION

CHEMICAL	D_i (cm^2/s)	H'	D_w (cm^2/s)	K_d (cm^3/g)	K_{oc} (cm^3/g)	D_A (cm^2/s)	VF (m^3/kg)
Benzene	8.80E-02	2.28E-01	9.80E-06	3.53E-01	5.89E+01	1.42E-04	**2386**
Ethylbenzene	7.50E-02	3.23E-01	7.80E-06	2.18E+00	3.63E+02	4.06E-05	**4456**
Methyl cyclohexane	6.97E-02	1.76E+01	7.59E-06	7.63E+01	1.27E+04	6.31E-05	**3576**
Tetrachloroethene	7.20E-02	7.54E-01	8.20E-06	9.29E-01	1.55E+02	1.83E-04	**2100**
Tetrahydrofuran	9.80E-02	4.50E-03	1.05E-05	1.56E-01	2.60E+01	6.88E-06	**10826**
Toluene	8.70E-02	2.72E-01	8.60E-06	1.09E+00	1.82E+02	7.26E-05	**3332**
Xylene (total)	7.00E-02	3.05E-01	7.80E-06	2.44E+00	4.07E+02	3.23E-05	**4998**

Source of Di, H, Dw, and Koc values:

USEPA, 1996. Soil Screening Guidance. EPA/540/R-95/128.

Methyl cyclohexane: http://www.gsi-net.com/en/publications/gsi-chemical-database/single/353.html

Volatilization Factor – Non-Construction

CALCULATION OF THE VOLATILIZATION FACTOR - SOIL TO AMBIENT AIR - NON-CONSTRUCTION

EQUATIONS:

$$VF\ (m^3/kg) = Q/C \times (3.14 \times D_A \times T)^{1/2} \times 10^{-4} (m^2/cm^2) / (2 \times P_b \times D_A)$$

where

$$DA = [(O_a^{10/3} D_i H' + O_w^{10/3} D_w)/n^2] / P_b K_d + O_w + O_a H'$$

PARAMETER/DEFINITION	UNITS	DEFAULT
VF / volatilization factor	m^3/kg	Calculated
D_A / apparent diffusivity	cm^2/s	Calculated
Q/C / inverse of the mean concentration at the center of a 0.5-acre-square source	g/m^2-s per kg/m^3	85.6 USEPA, 1996 (0.5 acre value for Cleveland)
T / exposure interva	s	7.9E+08 (25year for com. worker)
Π_b / dry soil bulk density	g/cm^3	1.5 USEPA, 1996
O_a / air-filled soil porosity	L_{air}/L_{soil}	0.13 USEPA, 1996
n / total soil porosity	L_{pore}/L_{soil}	0.43 USEPA, 1996
O_w / water-filled soil porosity	L_{water}/L_{soil}	0.3 USEPA, 1996
Ψ_s / soil particle density	g/cm^3	2.65 USEPA, 1996
D_i / diffusivity in air	cm^2/s	chemical-specific
H' / Henry's Law constant	dimensionless	chemical-specific
D_w / diffusivity in water	cm^2/s	chemical-specific
K_d / soil-water partition coefficient ($K_{oc} \times f_{oc}$) organics	cm^3/g	chemical-specific
K_{oc} / soil organic carbon partition coefficient	cm^3/g	chemical-specific
f_{oc} / fraction organic carbon in soil	g/g	0.006 Default

Source: USEPA, 1996. Soil Screening Guidance. EPA/540/R-95/128.

ALCULATION OF THE VOLATILIZATION FACTOR - SOIL TO AMBIENT AIR - NON-CONSTRUCTION

CHEMICAL	D_i (cm^2/s)	H'	D_w (cm^2/s)	K_d (cm^3/g)	K_{oc} (cm^3/g)	D_A (cm^2/s)	VF (m^3/kg)
Benzene	8.80E-02	2.28E-01	9.80E-06	3.53E-01	5.89E+01	1.42E-04	**11930**
Ethylbenzene	7.50E-02	3.23E-01	7.80E-06	2.18E+00	3.63E+02	4.06E-05	**22279**
Methyl cyclohexane	6.97E-02	1.76E+01	7.59E-06	7.63E+01	1.27E+04	6.31E-05	**17878**
Tetrachloroethene	7.20E-02	7.54E-01	8.20E-06	9.29E-01	1.55E+02	1.83E-04	**10500**
Tetrahydrofuran	9.80E-02	4.50E-03	1.05E-05	1.56E-01	2.60E+01	6.88E-06	**54131**
Toluene	8.70E-02	2.72E-01	8.60E-06	1.09E+00	1.82E+02	7.26E-05	**16660**
Xylene (total)	7.00E-02	3.05E-01	7.80E-06	2.44E+00	4.07E+02	3.23E-05	**24992**

Source of Di, H, Dw, and Koc values:

USEPA, 1996. Soil Screening Guidance. EPA/540/R-95/128.

Volatilization from Groundwater to Excavation Trench – Construction

For Mass-Transfer Coefficients			For Emission Flux and Concentration in Trench			Trench dimensions		
Kg,H2O	0.833	cm/s	CF1	1.00E-03	L/cm3	Length	**30**	ft
MWH2O	18		CF2	1.00E+04	cm2/m2		9.14	m
Kg,O2	0.002	cm/s	CF3	3600	s/hr	Width	**30**	ft
MWO2	32		F	**0.1**			9.14	m
T	**65**	F	ACH	360	hr-1	Depth	**15**	ft
T	291	K	WIDTH/DEPTH = 2				4.57	m
R	8.20E-05	atm-m3/mol-K	IF VALUE IS <1, ACH = 1,			Width/Depth	2.00	
			IF VALUE IS >1, ACH = 360					

For information, background, and instructions, see:
http://www.deq.virginia.gov/vrprisk/raguide.html
(cited Nov 2004)

Studies of urban canyons suggest that if the ratio of trench width -- relative to wind direction -- to trench depth is less than or equal to 1, a circulation cell or cells will be set up within the trench that limits the degree of gas exchange with the atmosphere. In consultation with USEPA Region III, VDEQ has assumed an ACH in this case of 2/hr -- based upon measured ventilation rates of buildings. If the ratio of trench width to trench depth is greater than one, air exchange between the trench and above-ground atmosphere is not restricted, thus ACH is assumed to be 360/hr -- based upon the ratio of trench depth to the average wind speed.

Table 3.8 Exposure-point concentrations (inhalation) for construction/utility workers in a trench: Groundwater less than 15 feet deep	CAS No.	Molecular Weight MWi g/mol	Henry's Law Constant Hi atm-m3/mol	Gas-Phase Mass Transfer Coefficient KiG cm/s	Liquid-Phase Mass Transfer Coefficient KiL cm/s	Overall Mass Transfer Coefficient Ki cm/s	Concentration of Contaminant in Groundwater Cgw ug/L	Volatilization Factor VF L/m3	Concentration of Contaminant in Trench Ctrench ug/m3
Inorganics									
Aluminum	7429-90-5	26.98							
Antimony	7440-36-0	121.76							
Arsenic	7440-38-2	74.92							
Barium	7440-39-3	137.33							
Beryllium	7440-41-7	9.01							
Cadmium (water)	7440-43-9	112.41							
Calcium	7440-70-2	40.08							
Chromium	7440-47-3	52.00							
Cobalt	7440-48-4	58.93							
Copper	7440-50-8	63.55							
Cyanide	57-12-5	26.02							
Iron	7439-89-6	55.85							
Lead	7439-92-1	207.20							
Magnesium	7439-95-4	24.31							
Manganese (nonfood)	7439-96-5	54.94							
Mercuric chloride	7487-94-7	271.50							
Mercury	7439-97-6	200.59	1.14E-02	3.63E-01	7.80E-04	7.77E-04			
Methylmercury	22967-92-6	215.63							
Nickel	7440-02-0	58.69							
Potassium	7440-09-7	39.10							
Selenium	7782-49-2	78.96							
Silver	7440-22-4	107.87							
Sodium	7440-23-5	22.99							
Thallium	7440-28-0	204.38							
Vanadium	7440-62-2	50.94							
Zinc	7440-66-6	65.39							
Volatile Organic Compounds (VOCs)									
Acetone	67-64-1	58.08	3.88E-05	5.49E-01	1.45E-03	5.53E-04			
Benzene	71-43-2	78.11	5.55E-03	4.97E-01	1.25E-03	1.24E-03			
Bromochloromethane	74-97-5	139.38	1.46E-03	4.10E-01	9.36E-04	9.02E-04			
Bromodichloromethane	75-27-4	163.83	1.60E-03	3.88E-01	8.63E-04	8.35E-04			
Bromoform	75-25-2	252.73	5.35E-04	3.36E-01	6.95E-04	6.36E-04			
Bromomethane	74-83-9	94.94	6.24E-03	4.66E-01	1.13E-03	1.12E-03			
2-Butanone (methyl ethyl ketone)	78-93-3	72.11	5.59E-05	5.11E-01	1.30E-03	6.23E-04			
Carbon disulfide	75-15-0	76.14	3.03E-02	5.02E-01	1.27E-03	1.26E-03			
Carbon tetrachloride	56-23-5	153.82	3.04E-02	3.96E-01	8.91E-04	8.89E-04			
Chlorobenzene	108-90-7	112.56	3.70E-03	4.40E-01	1.04E-03	1.03E-03			
Chloroethane	75-00-3	64.51	8.82E-03	5.30E-01	1.38E-03	1.37E-03			
Chloroform	67-66-3	119.38	3.67E-03	4.32E-01	1.01E-03	9.96E-04			
Chloromethane	74-87-3	50.49	8.82E-03	5.76E-01	1.55E-03	1.54E-03			
Cyclohexane	110-82-7	84.16	1.95E-01	4.85E-01	1.20E-03	1.20E-03			
1,2-Dibromo-3-chloropropane	96-12-8	236.33	1.47E-04	3.43E-01	7.19E-04	5.36E-04			
Dibromochloromethane	124-48-1	208.28	7.83E-04	3.58E-01	7.66E-04	7.19E-04			
1,2-Dibromoethane	106-93-4	187.86	7.43E-04	3.71E-01	8.06E-04	7.53E-04			
1,2-Dichlorobenzene (ortho)	95-50-1	147.00	1.90E-03	4.02E-01	9.11E-04	8.86E-04			
1,3-Dichlorobenzene (meta)	541-73-1	147.00	3.10E-03	4.02E-01	9.11E-04	8.96E-04			
1,4-Dichlorobenzene (para)	106-46-7	147.00	2.43E-03	4.02E-01	9.11E-04	8.91E-04			
Dichlorodifluoromethane	75-71-8	120.91	3.43E-01	4.30E-01	1.00E-03	1.00E-03			
1,1-Dichloroethane	75-34-3	98.96	5.62E-03	4.60E-01	1.11E-03	1.10E-03			
1,2-Dichloroethane	107-06-2	98.96	9.79E-04	4.60E-01	1.11E-03	1.05E-03			
1,1-Dichloroethene	75-35-4	96.94	2.61E-02	4.63E-01	1.12E-03	1.12E-03			
1,2-Dichloroethene (total)	540-59-0	96.94	4.51E-03	4.63E-01	1.12E-03	1.11E-03			
cis-1,2-Dichloroethene	156-59-2	96.94	4.08E-03	4.63E-01	1.12E-03	1.11E-03			
trans-1,2-Dichloroethene	156-60-5	96.94	9.38E-03	4.63E-01	1.12E-03	1.12E-03			
1,2-Dichloropropane	78-87-5	112.99	2.80E-03	4.40E-01	1.04E-03	1.02E-03			
1,3-Dichloropropene (total)	542-75-6	110.97	1.77E-02	4.42E-01	1.05E-03	1.05E-03			
cis-1,3-Dichloropropene	10061-01-5	110.97	1.20E-03	4.42E-01	1.05E-03	1.00E-03			
trans-1,3-Dichloropropene	10061-02-6	110.97	8.00E-04	4.42E-01	1.05E-03	9.79E-04			
Ethylbenzene	100-41-4	106.17	7.88E-03	4.49E-01	1.07E-03	1.06E-03			
Hexane	110-54-3	86.18	1.69E+00	4.81E-01	1.19E-03	1.19E-03			
2-Hexanone	591-78-6	100.16	9.32E-05	4.58E-01	1.10E-03	6.82E-04			
Isopropylbenzene	98-82-8	120.19	1.16E+00	4.31E-01	1.01E-03	1.01E-03			
4-Methyl-2-pentanone (methyl isobutyl ketone)	108-10-1	100.16	1.38E-04	4.58E-01	1.10E-03	7.79E-04			
Methyl acetate	79-20-9	74.08	1.15E-04	5.06E-01	1.28E-03	8.41E-04			
Methyl tert-butyl ether	1634-04-4	88.15	5.87E-04	4.78E-01	1.18E-03	1.07E-03			
Methylcyclohexane	108-87-2	98.19	4.30E-01	4.61E-01	1.11E-03	1.11E-03			
Methylene chloride	75-09-2	84.93	2.19E-03	4.84E-01	1.20E-03	1.17E-03			
Styrene	100-42-5	104.15	2.75E-03	4.52E-01	1.08E-03	1.06E-03			
1,1,2,2-Tetrachloroethane	79-34-5	167.85	3.45E-04	3.85E-01	8.53E-04	7.39E-04			
Tetrachloroethene	127-18-4	165.83	1.84E-02	3.87E-01	8.58E-04	8.55E-04			
Tetrahydrofuan	109-99-9	72.11	7.02E-05	5.11E-01	1.30E-03	6.97E-04			
Toluene	108-88-3	92.14	6.64E-03	4.71E-01	1.15E-03	1.14E-03			
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	187.37	4.81E-01	3.71E-01	8.07E-04	8.07E-04			
1,2,3-Trichlorobenzene	87-61-6	181.45	1.25E-03	3.75E-01	8.20E-04	7.87E-04			
1,2,4-Trichlorobenzene	120-82-1	181.45	1.42E-03	3.75E-01	8.20E-04	7.91E-04			
1,1,1-Trichloroethane	71-55-6	133.40	1.72E-02	4.16E-01	9.57E-04	9.53E-04			
1,1,2-Trichloroethane	79-00-5	133.40	9.13E-04	4.16E-01	9.57E-04	9.02E-04			
Trichloroethene	79-01-6	131.39	1.03E-02	4.18E-01	9.64E-04	9.59E-04			
Trichlorofluoromethane	75-69-4	137.37	9.70E-02	4.12E-01	9.43E-04	9.42E-04			
Vinyl Chloride (commercial, construction)	75-01-4	62.50	2.70E-02	5.36E-01	1.40E-03	1.39E-03	1.70E+01	3.05E-03	5.18E-02
Total Xylenes	1330-20-7	106.16	5.18E-03	4.49E-01	1.07E-03	1.06E-03			
Semivolatile Organic Compounds (SVOCs)									
Acenaphthene	83-32-9	154.21	1.55E-04	3.96E-01	8.90E-04	6.61E-04			
Acenaphthylene	208-96-8	152.19	1.13E-04	3.98E-01	8.96E-04	6.07E-04			
Acetophenone	98-86-2	120.15	1.07E-05	4.31E-01	1.01E-03	1.62E-04			
Anthracene	120-12-7	178.23	6.50E-05	3.77E-01	8.28E-04	4.58E-04			
Atrazine	1912-24-9	215.68	2.36E-09	3.54E-01	7.52E-04	3.50E-08			
Benzaldehyde	100-52-7	106.12	2.67E-05	4.49E-01	1.07E-03	3.42E-04			
Benzo(a)anthracene	56-55-3	228.29	3.35E-06	3.47E-01	7.31E-04	4.57E-05			
Benzo(a)pyrene	50-32-8	252.31	1.13E-06	3.36E-01	6.96E-04	1.55E-05			
Benzo(b)fluoranthene	205-99-2	252.31	1.11E-04	3.36E-01	6.96E-04	4.81E-04			
Benzo(g,h,i)perylene	191-24-2	276.33	1.41E-07	3.26E-01	6.65E-04	1.92E-06			

Volatilization from Groundwater to Indoor Air – Commercial Structure

GW-ADV
Version 3.1; 02/04

Reset to Defaults

CALCULATE RISK-BASED GROUNDWATER CONCENTRATION (enter "X" in "YES" box)

YES [ ]

OR

CALCULATE INCREMENTAL RISKS FROM ACTUAL GROUNDWATER CONCENTRATION (enter "X" in "YES" box and initial groundwater conc. below)

YES [X]

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Initial groundwater conc., C_W (μg/L)	Chemical
75014	1.70E+01	Vinyl chloride (chloroethene)

MORE ↓

ENTER Average soil/ groundwater temperature, T_S (^oC)	ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Depth below grade to water table, L_{WT} (cm)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum directly above water table, (Enter A, B, or C)	ENTER SCS soil type directly above water table	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of L_{WT} (cell G28)							
10	15	304.8	304.8	0	0	A	SI	SI		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s^2)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
15	40	1219	1219	244	0.1	0.25	

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)	ENTER Target risk for carcinogens, TR (unitless)	ENTER Target hazard quotient for noncarcinogens, THQ (unitless)
70	25	25	250	1.0E-06	1
				Used to calculate risk-based groundwater concentration.	

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Pure component water solubility, S (mg/L)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
1.06E-01	1.23E-05	2.69E-02	25	5,250	259.25	432.00	1.86E+01	8.80E+03	8.8E-06	1.0E-01

END

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rg} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Thickness of capillary zone, L_{cz} (cm)	Total porosity in capillary zone, n_{cz} (cm^3/cm^3)	Air-filled porosity in capillary zone, $\theta_{a,cz}$ (cm^3/cm^3)	Water-filled porosity in capillary zone, $\theta_{w,cz}$ (cm^3/cm^3)	Floor-wall seam perimeter, X_{crack} (cm)
7.88E+08	289.8	0.322	ERROR	ERROR	0.267	6.74E-09	0.830	5.60E-09	163.04	0.489	0.107	0.382	4,876

Bldg. ventilation rate, $Q_{building}$ (cm^3/s)	Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. groundwater temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. groundwater temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. groundwater temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D^{eff}_A (cm^2/s)	Stratum B effective diffusion coefficient, D^{eff}_B (cm^2/s)	Stratum C effective diffusion coefficient, D^{eff}_C (cm^2/s)	Capillary zone effective diffusion coefficient, D^{eff}_{cz} (cm^2/s)	Total overall effective diffusion coefficient, D^{eff}_T (cm^2/s)	Diffusion path length, L_d (cm)
2.52E+04	1.49E+06	3.28E-04	15	5,000	1.72E-02	7.41E-01	1.75E-04	1.02E-02	0.00E+00	0.00E+00	2.65E-04	4.62E-04	289.8

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
15	1.26E+04	0.10	6.86E+00	1.02E-02	4.88E+02	9.92E+08	6.99E-05	8.81E-01	8.8E-06	1.0E-01

END

APPENDIX D

Soil Risk Calculations

Trespasser

Unpaved Surface Soil

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

UNPAVED SURFACE SOIL
TRESPASSER (AGE 13 TO 18)
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	7.9	1.5E-06	3.8E-03	100	1.E-06	39	5	1	56	1825	4.0E-04
Arsenic	4.3	8.3E-07	2.8E-03	100	1.E-06	39	5	1	56	1825	3.0E-04
Chromium Total	474	9.0E-05	4.5E-03	100	1.E-06	39	5	1	56	1825	2.0E-02
Lead	157	3.0E-05	NA	100	1.E-06	39	5	1	56	1825	NA
Aroclor-1248 (PCB-1248)	4.7	9.0E-07	3.0E-02	100	1.E-06	39	5	1	56	1825	3.0E-05
Benzo(a)anthracene	0.2	3.8E-08	NA	100	1.E-06	39	5	1	56	1825	NA
Benzo(a)pyrene	0.35	6.7E-08	NA	100	1.E-06	39	5	1	56	1825	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	39	5	1	56	1825	NA
bis(2-Ethylhexyl)phthalate	160	3.1E-05	3.1E-04	100	1.E-06	39	5	1	56	1825	1.0E-01
Carbazole	-	0.0E+00	NA	100	1.E-06	39	5	1	56	1825	NA
Dimethyl phthalate	0.06	1.1E-08	NA	100	1.E-06	39	5	1	56	1825	NA
Di-n-octyl phthalate	20	3.9E-06	3.2E-05	100	1.E-06	39	5	1	56	1825	1.2E-01
Pentachlorophenol	30	5.8E-06	1.2E-03	100	1.E-06	39	5	1	56	1825	5.0E-03
Benzene	0.076	1.5E-08	3.6E-06	100	1.E-06	39	5	1	56	1825	4.0E-03
Ethylbenzene	7	1.3E-06	3.3E-06	100	1.E-06	39	5	1	56	1825	4.0E-01
Methyl cyclohexane	18	3.4E-06	NA	100	1.E-06	39	5	1	56	1825	NA
Toluene	306	5.8E-05	2.9E-05	100	1.E-06	39	5	1	56	1825	2.0E+00
Trichloroethene	0.063	1.2E-08	2.4E-05	100	1.E-06	39	5	1	56	1825	5.0E-04
Xylene (total)	52	9.9E-06	2.5E-05	100	1.E-06	39	5	1	56	1825	4.0E-01
		HAZARD INDEX	4.3E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

UNPAVED SURFACE SOIL
TRESPASSER (AGE 13 TO 18)
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	7.9	1.1E-07	NC	100	1.E-06	39	5	1	56	25550	NC
Arsenic	4.3	5.9E-08	8.9E-08	100	1.E-06	39	5	1	56	25550	1.5E+00
Chromium Total	474	6.5E-06	NC	100	1.E-06	39	5	1	56	25550	NC
Lead	157	2.1E-06	NC	100	1.E-06	39	5	1	56	25550	NC
Aroclor-1248 (PCB-1248)	4.7	-	0.0E+00	100	1.E-06	39	5	1	56	25550	2.0E+00
Benzo(a)anthracene	0.2	7.1E-09	5.2E-09	100	1.E-06	39	5	1	56	25550	7.3E-01
Benzo(a)pyrene	0.35	1.2E-08	9.1E-08	100	1.E-06	39	5	1	56	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	39	5	1	56	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	160	2.2E-06	3.1E-08	100	1.E-06	39	5	1	56	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	39	5	1	56	25550	NC
Dimethyl phthalate	0.06	8.2E-10	NC	100	1.E-06	39	5	1	56	25550	NC
Di-n-octyl phthalate	20	2.8E-07	NC	100	1.E-06	39	5	1	56	25550	NC
Pentachlorophenol	30	4.1E-07	1.7E-07	100	1.E-06	39	5	1	56	25550	4.0E-01
Benzene	0.076	1.0E-09	5.7E-11	100	1.E-06	39	5	1	56	25550	5.5E-02
Ethylbenzene	7	9.5E-08	NC	100	1.E-06	39	5	1	56	25550	NC
Methyl cyclohexane	18	2.5E-07	NC	100	1.E-06	39	5	1	56	25550	NC
Toluene	306	4.2E-06	NC	100	1.E-06	39	5	1	56	25550	NC
Trichloroethene	0.063	2.2E-09	1.1E-10	100	1.E-06	39	5	1	56	25550	5.0E-02
Xylene (total)	52	7.1E-07	NC	100	1.E-06	39	5	1	56	25550	NC
		ELCR	3.8E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF
Intake calculations for PAHs and trichloroethene incorporate an age dependant adjustment factor of 2.6 to account for a mutagenic mode of action. See text.

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

UNPAVED SURFACE SOIL
TRESPASSER (AGE 13 TO 18)
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	7.9	0.0	0.0E+00	5340	0.04	1.E-06	39	5	NA	56	1825	4.0E-04	0.015	6.0E-06
Arsenic	4.3	0.0	1.8E-04	5340	0.04	1.E-06	39	5	0.03	56	1825	3.0E-04	1	3.0E-04
Chromium Total	474	0	0.0E+00	5340	0.04	1.E-06	39	5	NA	56	1825	2.0E-02	0.025	5.0E-04
Lead	157	0.00E+00	NA	5340	0.04	1.E-06	39	5	NA	56	1825	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	4.7	-	0.0E+00	5340	0.04	1.E-06	39	5	0.14	56	1825	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.2	0.00	NA	5340	0.04	1.E-06	39	5	0.13	56	1825	NA	0.89	NA
Benzo(a)pyrene	0.35	0.0	NA	5340	0.04	1.E-06	39	5	0.13	56	1825	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	5340	0.04	1.E-06	39	5	0.13	56	1825	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	160	0.0	6.5E-05	5340	0.04	1.E-06	39	5	0.1	56	1825	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	5340	0.04	1.E-06	39	5	0.1	56	1825	NA	1	NA
Dimethyl phthalate	0.06	2.45E-09	NA	5340	0.04	1.E-06	39	5	0.1	56	1825	NA	1	NA
Di-n-octyl phthalate	20	0	6.9E-06	5340	0.04	1.E-06	39	5	0.1	56	1825	1.2E-01	1	1.2E-01
Pentachlorophenol	30	3.09E-06	6.2E-04	5340	0.04	1.E-06	39	5	0.25	56	1825	5.0E-03	1	5.0E-03
Benzene	0.076	0.0	0.0E+00	5340	0.04	1.E-06	39	5	NA	56	1825	4.0E-03	1	4.0E-03
Ethylbenzene	7	0	0.0E+00	5340	0.04	1.E-06	39	5	NA	56	1825	4.0E-01	1	4.0E-01
Methyl cyclohexane	18	0	NA	5340	0.04	1.E-06	39	5	NA	56	1825	NA	1	NA
Toluene	306	0.00E+00	0.0E+00	5340	0.04	1.E-06	39	5	NA	56	1825	2.0E+00	1	2.0E+00
Trichloroethene	0.063	0.00E+00	0.0E+00	5340	0.04	1.E-06	39	5	NA	56	1825	5.0E-04	1	5.0E-04
Xylene (total)	52	0	0.0E+00	5340	0.04	1.E-06	39	5	NA	56	1825	4.0E-01	1	4.0E-01
		HAZARD INDEX	8.7E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

UNPAVED SURFACE SOIL
TRESPASSER (AGE 13 TO 18)
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	7.9	0.0E+00	NC	5340	0.04	1E-06	39	5	NA	56	25550	NC	0.015	NC
Arsenic	4.3	3.8E-09	5.7E-09	5340	0.04	1E-06	39	5	0.03	56	25550	1.5E+00	1	1.5E+00
Chromium Total	474	0.0E+00	NC	5340	0.04	1E-06	39	5	NA	56	25550	NC	0.025	NC
Lead	157	0.0E+00	NC	5340	0.04	1E-06	39	5	NA	56	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	4.7	-	0.0E+00	5340	0.04	1E-06	39	5	0.14	56	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.2	2.0E-09	1.4E-09	5340	0.04	1E-06	39	5	0.13	56	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.35	3.4E-09	2.5E-08	5340	0.04	1E-06	39	5	0.13	56	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	5340	0.04	1E-06	39	5	0.13	56	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	160	4.7E-07	6.5E-09	5340	0.04	1E-06	39	5	0.1	56	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	5340	0.04	1E-06	39	5	0.1	56	25550	NC	1	NC
Dimethyl phthalate	0.06	1.7E-10	NC	5340	0.04	1E-06	39	5	0.1	56	25550	NC	1	NC
Di-n-octyl phthalate	20	5.9E-08	NC	5340	0.04	1E-06	39	5	0.1	56	25550	NC	1	NC
Pentachlorophenol	30	2.2E-07	8.8E-08	5340	0.04	1E-06	39	5	0.25	56	25550	4.0E-01	1	4.0E-01
Benzene	0.076	0.0E+00	0.0E+00	5340	0.04	1E-06	39	5	NA	56	25550	5.5E-02	1	5.5E-02
Ethylbenzene	7	0.0E+00	NC	5340	0.04	1E-06	39	5	NA	56	25550	NC	1	NC
Methyl cyclohexane	18	0.0E+00	NC	5340	0.04	1E-06	39	5	NA	56	25550	NC	1	NC
Toluene	306	0.0E+00	NC	5340	0.04	1E-06	39	5	NA	56	25550	NC	1	NC
Trichloroethene	0.063	0.0E+00	0.0E+00	5340	0.04	1E-06	39	5	NA	56	25550	5.0E-02	1	5.0E-02
Xylene (total)	52	0.0E+00	NC	5340	0.04	1E-06	39	5	NA	56	25550	NC	1	NC
		ELCR	1.3E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF
Intake calculations for PAHs and trichloroethene incorporate an age dependant adjustment factor of 2.6 to account for a mutagenic mode of action. See text.

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

UNPAVED SURFACE SOIL
TRESPASSER (AGE 13 TO 18)
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	7.9	0.0	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Arsenic	4.3	0.0	-	1.1E-06	0.0E+00	1.14E+09	NV	39	5	0.042	1825	1.5E-05
Chromium Total	474	0	-	1.9E-05	0.0E+00	1.14E+09	NV	39	5	0.042	1825	1.0E-04
Lead	157	6.1E-10	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Aroclor-1248 (PCB-1248)	4.7	-	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Benzo(a)anthracene	0.2	0.00	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Benzo(a)pyrene	0.35	0.0	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
bis(2-Ethylhexyl)phthalate	160	0.0	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Dimethyl phthalate	0.06	2.3E-13	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Di-n-octyl phthalate	20	0	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Pentachlorophenol	30	1.2E-10	-	NA	NA	1.14E+09	NV	39	5	0.042	1825	NA
Benzene	0.076	0.0	1.4E-07	9.9E-12	4.7E-06	1.14E+09	2.39E+03	39	5	0.042	1825	3.0E-02
Ethylbenzene	7	0	7.0E-06	3.1E-12	8.0E-07	1.14E+09	4.46E+03	39	5	0.042	1825	8.7E+00
Methyl cyclohexane	18	0	2.2E-05	NA	NA	1.14E+09	3.58E+03	39	5	0.042	1825	NA
Toluene	306	1.2E-09	4.1E-04	2.4E-10	8.2E-05	1.14E+09	3.33E+03	39	5	0.042	1825	5.0E+00
Trichloroethene	0.063	2.5E-13	8.4E-08	4.6E-13	1.6E-07	1.14E+09	3.33E+03	39	5	0.042	1825	5.4E-01
Xylene (total)	52	0	4.6E-05	2.0E-11	4.6E-06	1.14E+09	5.00E+03	39	5	0.042	1825	1.0E+01
			HAZARD INDEX	2.0E-05	9.2E-05							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

UNPAVED SURFACE SOIL
TRESPASSER (AGE 13 TO 18)
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	7.9	2.2E-09	-	NC	NC	1.14E+09	NV	1.E+03	39	5	0.042	25550	NC
Arsenic	4.3	1.2E-09	-	5.2E-12	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	4.3E-03
Chromium Total	474	1.3E-07	-	1.1E-08	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	8.4E-02
Lead	157	4.4E-08	-	NC	NC	1.14E+09	NV	1.E+03	39	5	0.042	25550	NC
Aroclor-1248 (PCB-1248)	4.7	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	5.7E-04
Benzo(a)anthracene	0.2	1.5E-10	-	1.6E-14	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	1.1E-04
Benzo(a)pyrene	0.35	2.5E-10	-	2.8E-13	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	160	4.5E-08	-	1.1E-13	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	39	5	0.042	25550	NC
Dimethyl phthalate	0.06	1.7E-11	-	NC	NC	1.14E+09	NV	1.E+03	39	5	0.042	25550	NC
Di-n-octyl phthalate	20	5.7E-09	-	NC	NC	1.14E+09	NV	1.E+03	39	5	0.042	25550	NC
Pentachlorophenol	30	8.5E-09	-	4.3E-14	0.0E+00	1.14E+09	NV	1.E+03	39	5	0.042	25550	5.1E-06
Benzene	0.076	2.1E-11	1.0E-05	1.7E-16	7.9E-11	1.14E+09	2.39E+03	1.E+03	39	5	0.042	25550	7.8E-06
Ethylbenzene	7	2.0E-09	5.0E-04	NC	NC	1.14E+09	4.46E+03	1.E+03	39	5	0.042	25550	NC
Methyl cyclohexane	18	5.0E-09	1.6E-03	NC	NC	1.14E+09	3.58E+03	1.E+03	39	5	0.042	25550	NC
Toluene	306	8.5E-08	2.9E-02	NC	NC	1.14E+09	3.33E+03	1.E+03	39	5	0.042	25550	NC
Trichloroethene	0.063	4.6E-11	6.0E-06	1.8E-16	2.4E-11	1.14E+09	3.33E+03	1.E+03	39	5	0.042	25550	4.0E-06
Xylene (total)	52	1.5E-08	3.3E-03	NC	NC	1.14E+09	5.00E+03	1.E+03	39	5	0.042	25550	NC
			ELCR	1.1E-08	1.0E-10								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR
Intake calculations for PAHs and trichloroethene incorporate an age dependant adjustment factor of 2.6 to account for a mutagenic mode of action. See text.

Maintenance Worker

Unpaved Surface Soil

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

UNPAVED - SURFACE SOIL
MAINTENANCE WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	7.9	6.8E-06	1.7E-02	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	4.3	3.7E-06	1.2E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	474	4.1E-04	1.4E-01	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	157	1.3E-04	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	4.7	4.0E-06	2.0E-01	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.2	1.7E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.35	3.0E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	160	1.4E-04	6.9E-03	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	0.06	5.1E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	20	1.7E-05	1.5E-03	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	30	2.6E-05	5.2E-03	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	0.076	6.5E-08	1.6E-05	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	7	6.0E-06	6.0E-05	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	18	1.5E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	306	2.6E-04	3.3E-03	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	0.063	5.4E-08	1.1E-04	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	52	4.5E-05	2.2E-04	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	3.8E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

UNPAVED - SURFACE SOIL
MAINTENANCE WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	7.9	2.4E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	4.3	1.3E-06	2.0E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	474	1.5E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	157	4.8E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	4.7	1.4E-06	2.9E-06	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.2	6.1E-08	4.5E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.35	1.1E-07	7.8E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	160	4.9E-05	6.9E-07	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	0.06	1.8E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	20	6.2E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	30	9.3E-06	3.7E-06	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	0.076	2.3E-08	1.3E-09	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	7	2.1E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	18	5.5E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	306	9.4E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	0.063	1.9E-08	9.6E-10	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	52	1.6E-05	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.0E-05								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

UNPAVED - SURFACE SOIL
MAINTENANCE WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	7.9	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	4.3	7.35E-07	2.4E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	474	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	157	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	4.7	3.72E-06	1.9E-01	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.2	1.47E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.35	2.57E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	160	9.05E-05	4.5E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	0.06	3.39E-08	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	20	1.15E-05	9.6E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	30	4.29E-05	8.6E-03	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	0.076	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	7	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	18	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	306	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	0.063	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	52	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.0E-01											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

UNPAVED - SURFACE SOIL
MAINTENANCE WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	7.9	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	4.3	2.6E-07	3.9E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	474	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	157	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	4.7	1.3E-06	2.7E-06	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.2	5.3E-08	3.8E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.35	9.2E-08	6.7E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	160	3.2E-05	4.5E-07	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	0.06	1.2E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	20	4.1E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	30	1.5E-05	6.1E-06	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.076	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	7	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	18	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	306	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	0.063	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	52	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.0E-05											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

UNPAVED - SURFACE SOIL
MAINTENANCE WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	7.9	1.4E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	4.3	7.5E-10	-	5.0E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	474	8.2E-08	-	8.2E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	157	2.7E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	4.7	8.2E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.2	3.5E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.35	6.1E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	160	2.8E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	0.06	1.0E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	20	3.5E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	30	5.3E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.076	1.3E-11	1.3E-06	4.4E-10	4.2E-05	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	7	1.2E-09	6.2E-05	1.2E-09	6.2E-05	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	18	3.1E-09	2.0E-04	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	306	5.3E-08	3.6E-03	1.1E-08	7.3E-04	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	0.063	1.1E-11	7.5E-07	5.5E-09	3.7E-04	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	52	9.0E-09	4.1E-04	9.0E-08	4.1E-03	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	8.7E-04	5.3E-03							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

UNPAVED - SURFACE SOIL
MAINTENANCE WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	7.9	4.9E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	4.3	2.7E-07	-	1.2E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	474	2.9E-05	-	2.5E-06	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	157	9.7E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	4.7	2.9E-07	-	1.7E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.2	1.2E-08	-	1.4E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.35	2.2E-08	-	2.4E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	160	9.9E-06	-	2.4E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	0.06	3.7E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	20	1.3E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	30	1.9E-06	-	9.6E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	0.076	4.7E-09	4.5E-04	3.7E-14	3.5E-09	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	7	4.3E-07	2.2E-02	1.1E-12	5.6E-08	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	18	1.1E-06	7.1E-02	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	306	1.9E-05	1.3E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	0.063	3.9E-09	2.7E-04	1.6E-14	1.1E-09	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	52	3.2E-06	1.5E-01	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.5E-06	6.0E-08								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

Commercial Worker

Surface Soil

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	0.030	2.6E-08	1.3E-03	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.41	3.5E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.34	2.9E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.3	2.6E-07	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	13	1.1E-05	5.4E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	0.090	7.7E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.080	6.9E-08	5.7E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.8E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.030	9.2E-09	1.8E-08	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.41	1.3E-07	9.2E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.34	1.0E-07	7.6E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.3	9.2E-08	6.7E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	13	3.8E-06	5.4E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	0.090	2.8E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.080	2.4E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	9.9E-07								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	0.030	2.38E-08	1.2E-03	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.41	3.02E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.34	2.50E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.3	2.21E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	13	7.07E-06	3.5E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	0.090	5.09E-08	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.080	4.53E-08	3.8E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	0.030	8.5E-09	1.7E-08	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.41	1.1E-07	7.9E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.34	8.9E-08	6.5E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.3	7.9E-08	5.8E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	13	2.5E-06	3.5E-08	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.090	1.8E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.080	1.6E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	8.4E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	0.030	5.2E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.41	7.1E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.34	5.9E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.3	5.2E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	13	2.2E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	0.090	1.6E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.080	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.030	1.9E-09	-	1.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.41	2.5E-08	-	2.8E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.34	2.1E-08	-	2.3E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.300	1.9E-08	-	2.0E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	13	7.8E-07	-	1.9E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	0.090	5.6E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.080	5.0E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.1E-11	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	3.4	2.9E-06	7.2E-03	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	2.5	2.2E-06	7.3E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	42	3.6E-05	1.2E-02	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	178	1.5E-04	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.9	7.7E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	1.2	1.0E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	1.1	9.4E-07	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	6.3	5.4E-06	2.7E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	0.05	4.3E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	30	2.6E-05	2.1E-03	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	2.3	1.9E-06	4.8E-04	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	38	3.3E-05	3.3E-04	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	12	1.0E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	543	4.7E-04	5.8E-03	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	3	2.6E-06	5.1E-03	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	205	1.8E-04	8.8E-04	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	4.2E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	3.4	1.0E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	2.5	7.8E-07	1.2E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	42	1.3E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	178	5.4E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.9	2.8E-07	2.0E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	1.2	3.6E-07	2.6E-06	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	1.1	3.4E-07	2.5E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	6.3	1.9E-06	2.7E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	0.05	1.5E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	30	9.2E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	2.3	6.9E-07	3.8E-08	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	38	1.2E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	12	3.6E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	543	1.7E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	3	9.2E-07	4.6E-08	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	205	6.3E-05	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	4.3E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	3.4	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	2.5	4.31E-07	1.4E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	42	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	178	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.9	6.62E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	1.2	8.60E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	1.1	8.09E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	6.3	3.54E-06	1.8E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	0.05	2.83E-08	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	30	1.69E-05	1.4E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	2.3	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	38	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	12	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	543	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	3	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	205	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	3.0E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	3.4	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	2.5	1.5E-07	2.3E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	42	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	178	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.9	2.4E-07	1.7E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	1.2	3.1E-07	2.2E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	1.1	2.9E-07	2.1E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	6.3	1.3E-06	1.8E-08	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.05	1.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	30	6.0E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	2.3	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	38	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	12	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	543	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	3	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	205	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.9E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	3.4	5.9E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	2.5	4.4E-10	-	2.9E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	42	7.4E-09	-	7.4E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	178	3.1E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.9	1.6E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	1.2	2.0E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	1.1	1.9E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	6.3	1.1E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	0.05	8.7E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	30	5.2E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	2.3	3.9E-10	3.8E-05	1.3E-08	1.3E-03	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	38	6.7E-09	3.4E-04	6.7E-09	3.4E-04	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	12	2.0E-09	1.3E-04	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	543	9.4E-08	6.5E-03	1.9E-08	1.3E-03	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	3	5.2E-10	3.6E-05	2.6E-07	1.8E-02	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	205	3.6E-08	1.6E-03	3.6E-07	1.6E-02	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.0E-04	3.7E-02							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	3.4	2.1E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	2.5	1.6E-07	-	6.8E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	42	2.6E-06	-	2.2E-07	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	178	1.1E-05	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.9	5.6E-08	-	6.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	1.2	7.3E-08	-	8.0E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	1.1	6.8E-08	-	7.5E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	6.3	3.9E-07	-	9.3E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	0.05	3.1E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	30	1.9E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	2.3	1.4E-07	1.3E-02	1.1E-12	1.0E-07	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	38	2.4E-06	1.2E-01	5.9E-12	3.0E-07	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	12	7.3E-07	4.7E-02	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	543	3.4E-05	2.3E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	3	1.9E-07	1.3E-02	7.4E-13	5.1E-08	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	205	1.3E-05	5.8E-01	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.2E-07	4.6E-07								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	0.08	6.9E-08	3.4E-03	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	6.1	5.2E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	5.9	5.1E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	6.2	5.3E-06	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	12	1.0E-05	5.2E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	1.7	1.5E-06	1.2E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	0.0005	4.3E-10	1.1E-07	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.0006	5.1E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0005	4.3E-10	2.1E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	4.1E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.08	2.4E-08	4.9E-08	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	6.1	1.9E-06	1.4E-06	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	5.9	1.8E-06	1.3E-05	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	6.2	1.9E-06	1.4E-06	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	12	3.7E-06	5.2E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	1.7	5.3E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	0.0005	1.5E-10	8.4E-12	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.0006	1.8E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0005	1.5E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.6E-05								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA		0.0E+00
Aroclor-1248 (PCB-1248)	0.08	6.34E-08	3.2E-03	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	6.1	4.48E-06	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	5.9	4.37E-06	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	6.2	4.52E-06	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	12	6.90E-06	3.5E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	1.7	9.79E-07	8.2E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	0.0005	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.0006	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0005	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	3.6E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC		NC
Aroclor-1248 (PCB-1248)	0.080	2.3E-08	4.5E-08	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	6.1	1.6E-06	1.2E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	5.9	1.6E-06	1.1E-05	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	6.2	1.6E-06	1.2E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	12	2.5E-06	3.5E-08	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	1.7	3.5E-07	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.0005	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0006	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0005	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.4E-05											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	6.1	1.1E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	5.9	1.0E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	6.2	1.1E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	12	2.1E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	1.7	3.0E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.0005	8.7E-14	8.3E-09	2.9E-12	2.8E-07	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.0006	1.0E-13	6.6E-09	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0005	8.7E-14	4.0E-09	8.7E-13	4.0E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.8E-12	3.2E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.08	5.0E-09	-	2.8E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	6.1	3.8E-07	-	4.2E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	5.9	3.7E-07	-	4.1E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	6.2	3.8E-07	-	4.2E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	12	7.6E-07	-	1.8E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	1.7	1.1E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	0.0005	3.1E-11	3.0E-06	2.4E-16	2.3E-11	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.0006	3.7E-11	2.4E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0005	3.1E-11	1.4E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.9E-10	2.3E-11								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.1	8.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.08	6.9E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.08	6.9E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.1	8.6E-08	7.1E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	7.1E-06								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.1	3.1E-08	2.2E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.08	2.4E-08	1.8E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.08	2.4E-08	1.8E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.1	3.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	2.2E-07								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.1	7.35E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.08	5.88E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.08	5.88E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.1	5.66E-08	4.7E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	4.7E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.1	2.6E-08	1.9E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.08	2.1E-08	1.5E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.08	2.1E-08	1.5E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.1	2.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.9E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.1	6.2E-09	-	6.8E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.08	5.0E-09	-	5.5E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.08	5.0E-09	-	5.5E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.1	6.2E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	6.7E-12	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	2.6	2.2E-06	1.1E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	12	1.1E-05	8.8E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	9.9E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	2.6	7.9E-07	1.1E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	12	3.8E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.1E-08								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	2.6	1.46E-06	7.3E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	12	6.96E-06	5.8E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	6.5E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	2.6	5.2E-07	7.3E-09	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	12	2.5E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	7.3E-09											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	2.6	4.5E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	12	2.1E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	2.6	1.6E-07	-	3.8E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	12	7.6E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.8E-13	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	0.15	1.3E-07	3.2E-04	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	1.4	1.2E-06	3.9E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	14	1.2E-05	3.9E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	15	1.3E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.45	3.9E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.68	5.8E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.61	5.2E-07	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	0.07	6.0E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.2	1.7E-07	1.4E-05	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.0004	3.4E-10	4.3E-09	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	0.004	3.4E-09	6.9E-06	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0003	2.6E-10	1.3E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	8.2E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.15	4.6E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	1.4	4.2E-07	6.3E-07	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	14	4.2E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	15.3	4.7E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.45	1.4E-07	1.0E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.68	2.1E-07	1.5E-06	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.61	1.9E-07	1.4E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	0.07	2.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.2	6.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.0004	1.2E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	0.004	1.2E-09	6.1E-11	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0003	9.2E-11	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	2.4E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.15	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	1.4	2.33E-07	7.8E-04	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	14	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	15	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.45	3.31E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.68	5.00E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.61	4.49E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	0.07	3.96E-08	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.2	1.13E-07	9.4E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.0004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	0.004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0003	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	7.8E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.15	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	1.4	8.3E-08	1.2E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	14	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	15	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.45	1.2E-07	8.6E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.68	1.8E-07	1.3E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.61	1.6E-07	1.2E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.07	1.4E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.2	4.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.0004	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	0.004	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0003	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.6E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	0.15	2.6E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	1.4	2.4E-10	-	1.6E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	14	2.4E-09	-	2.4E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	15	2.7E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.45	7.8E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.68	1.2E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.61	1.1E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	0.07	1.2E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.2	3.5E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.0004	6.9E-14	4.8E-09	1.4E-14	9.5E-10	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	0.004	6.9E-13	4.8E-08	3.5E-10	2.4E-05	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0003	5.2E-14	2.4E-09	5.2E-13	2.4E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	4.0E-05	2.4E-05							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.15	9.3E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	1.4	8.5E-08	-	3.7E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	14	8.6E-07	-	7.2E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	15	9.5E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.45	2.8E-08	-	3.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.68	4.2E-08	-	4.6E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.61	3.8E-08	-	4.2E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	0.07	4.3E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.2	1.2E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.0004	2.5E-11	1.7E-06	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	0.004	2.5E-10	1.7E-05	9.9E-16	6.8E-11	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0003	1.9E-11	8.5E-07	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	7.2E-08	6.8E-11								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	0.15	1.3E-07	3.2E-04	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	8.9	7.6E-06	2.5E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	58	5.0E-05	1.7E-02	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	197	1.7E-04	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	145	1.2E-04	6.2E-03	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.59	5.1E-07	4.2E-05	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.004	3.4E-09	3.4E-08	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.022	1.9E-08	9.4E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	4.9E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.15	4.6E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	8.9	2.7E-06	4.1E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	58	1.8E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	197	6.0E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	145	4.4E-05	6.2E-07	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.59	1.8E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.004	1.2E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.022	6.7E-09	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	4.7E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.15	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	8.9	1.51E-06	5.0E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	58	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	197	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	145	8.20E-05	4.1E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.59	3.34E-07	2.8E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.022	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	9.2E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.15	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	8.9	5.4E-07	8.1E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	58	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	197	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	145	2.9E-05	4.1E-07	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.59	1.2E-07	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.004	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.022	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.2E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	0.15	2.6E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	8.9	1.5E-09	-	1.0E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	58	1.0E-08	-	1.0E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	197	3.4E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	145	2.5E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.59	1.0E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.004	6.9E-13	3.6E-08	6.9E-13	3.6E-08	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.022	3.8E-12	1.7E-07	3.8E-11	1.7E-06	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.0E-04	1.8E-06							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.15	9.3E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	8.9	5.5E-07	-	2.4E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	58	3.6E-06	-	3.0E-07	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	197	1.2E-05	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	145	9.0E-06	-	2.2E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.59	3.7E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.004	2.5E-10	1.3E-05	6.2E-16	3.2E-11	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.022	1.4E-09	6.2E-05	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.1E-07	3.2E-11								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	0.51	4.4E-07	1.1E-03	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	16	1.4E-05	4.5E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	32	2.7E-05	9.1E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	58	4.9E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.35	3.0E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.44	3.8E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.41	3.5E-07	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	3.2	2.7E-06	2.3E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	0.002	1.7E-09	4.3E-07	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.0005	4.3E-10	4.3E-09	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.014	1.2E-08	1.5E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0026	2.2E-09	1.1E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	5.6E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.51	1.6E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	16	4.9E-06	7.3E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	32	9.8E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	58	1.8E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.35	1.1E-07	7.8E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.44	1.3E-07	9.8E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.41	1.3E-07	9.2E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	3.2	9.7E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	0.002	6.1E-10	3.4E-11	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.0005	1.5E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.014	4.3E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0026	8.0E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	8.5E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.51	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	16	2.70E-06	9.0E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	32	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	58	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.35	2.57E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.44	3.24E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.41	3.02E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	3.2	1.80E-06	1.5E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	0.002	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.0005	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.014	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0026	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	9.1E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.51	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	16	9.6E-07	1.4E-06	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	32	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	58	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.35	9.2E-08	6.7E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.44	1.2E-07	8.4E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.41	1.1E-07	7.9E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	3.2	6.4E-07	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.002	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0005	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.014	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0026	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.4E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	0.51	8.9E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	16	2.8E-09	-	1.8E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	32	5.5E-09	-	5.5E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	58	1.0E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.35	6.1E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.44	7.6E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.41	7.1E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	3.2	5.5E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.002	3.5E-13	3.3E-08	1.2E-11	1.1E-06	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.0005	8.7E-14	4.4E-09	8.7E-14	4.4E-09	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.014	2.4E-12	1.7E-07	4.9E-13	3.3E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0026	4.5E-13	2.1E-08	4.5E-12	2.1E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.4E-04	1.4E-06							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.51	3.2E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	16	9.9E-07	-	4.2E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	32	2.0E-06	-	1.7E-07	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	58	3.6E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.35	2.2E-08	-	2.4E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.44	2.7E-08	-	3.0E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.41	2.5E-08	-	2.8E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	3.2	2.0E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	0.002	1.2E-10	1.2E-05	9.7E-16	9.2E-11	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.0005	3.1E-11	1.6E-06	7.8E-17	4.0E-12	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.014	8.7E-10	5.9E-05	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0026	1.6E-10	7.4E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	1.7E-07	9.6E-11								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	0.38	3.3E-07	8.1E-04	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	1.3	1.1E-06	3.8E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	2.5	2.1E-06	7.1E-04	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	4.9	4.2E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.08	6.9E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.08	6.9E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.08	6.9E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.0004	3.4E-10	3.4E-09	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.002	1.7E-09	2.1E-08	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0014	1.2E-09	6.0E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	5.3E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.38	1.2E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	1.3	4.0E-07	6.1E-07	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	2.5	7.6E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	4.9	1.5E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.08	2.4E-08	1.8E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.08	2.4E-08	1.8E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.08	2.4E-08	1.8E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.0004	1.2E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.002	6.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0014	4.3E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	8.2E-07								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.38	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	1.3	2.24E-07	7.5E-04	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	2.5	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	4.9	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.08	5.88E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.08	5.88E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.08	5.88E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.0004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.002	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0014	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	7.5E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.38	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	1.3	8.0E-08	1.2E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	2.5	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	4.9	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.08	2.1E-08	1.5E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.08	2.1E-08	1.5E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.08	2.1E-08	1.5E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0004	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.002	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0014	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.0E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	0.38	6.6E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	1.3	2.3E-10	-	1.5E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	2.5	4.3E-10	-	4.3E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	4.9	8.5E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.0004	6.9E-14	3.6E-09	6.9E-14	3.6E-09	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.002	3.5E-13	2.4E-08	6.9E-14	4.8E-09	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0014	2.4E-13	1.1E-08	2.4E-12	1.1E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.0E-05	1.2E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.38	2.4E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	1.3	8.2E-08	-	3.5E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	2.5	1.5E-07	-	1.3E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	4.9	3.0E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.08	5.0E-09	-	5.5E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.08	5.0E-09	-	5.5E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.08	5.0E-09	-	5.5E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.0004	2.5E-11	1.3E-06	6.2E-17	3.2E-12	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.002	1.2E-10	8.5E-06	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0014	8.7E-11	4.0E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	1.3E-08	3.2E-12								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.6	5.1E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.2	1.7E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.2	1.7E-07	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	3.0	2.6E-06	1.3E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	1.4	1.2E-06	1.0E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	0.01	8.6E-09	2.1E-06	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.13	1.1E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.03	2.6E-08	3.2E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.05	4.3E-08	2.1E-07	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.3E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.6	1.8E-07	1.3E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.2	6.1E-08	4.5E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.2	6.1E-08	4.5E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	3.0	9.3E-07	1.3E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	1.4	4.3E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	0.01	3.1E-09	1.7E-10	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.13	4.0E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.03	9.2E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.05	1.5E-08	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	6.4E-07								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.6	4.41E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.2	1.47E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.2	1.47E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	3.0	1.71E-06	8.6E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	1.4	7.92E-07	6.6E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	0.01	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.13	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.03	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.05	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.5E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.6	1.6E-07	1.2E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.2	5.3E-08	3.8E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.2	5.3E-08	3.8E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	3.0	6.1E-07	8.6E-09	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	1.4	2.8E-07	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.01	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.13	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.03	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.05	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	5.5E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.6	1.0E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.2	3.5E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.2	3.5E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	3.0	5.3E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	1.4	2.4E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.01	1.7E-12	1.7E-07	5.8E-11	5.5E-06	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.13	2.3E-11	1.4E-06	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.03	5.2E-12	3.6E-07	1.0E-12	7.1E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.05	8.7E-12	4.0E-07	8.7E-11	4.0E-06	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.5E-10	9.6E-06							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.6	3.7E-08	-	4.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.2	1.2E-08	-	1.4E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.2	1.2E-08	-	1.4E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	3.0	1.9E-07	-	4.5E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	1.4	8.7E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	0.01	6.2E-10	5.9E-05	4.8E-15	4.6E-10	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.13	8.1E-09	5.1E-04	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.03	1.9E-09	1.3E-04	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.05	3.1E-09	1.4E-04	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.0E-11	4.6E-10								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.4	3.4E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.5	4.3E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.6	5.1E-07	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	7.8	6.7E-06	5.6E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	0.02	1.7E-08	4.3E-06	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.07	6.0E-08	6.0E-07	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.0003	2.6E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.13	1.1E-07	5.6E-07	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	5.6E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.4	1.2E-07	8.9E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.5	1.5E-07	1.1E-06	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.6	1.8E-07	1.3E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	7.8	2.4E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	0.02	6.1E-09	3.4E-10	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.07	2.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.0003	9.2E-11	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.13	4.0E-08	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.3E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.4	2.94E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.5	3.68E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.6	4.41E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	7.8	4.42E-06	3.7E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	0.02	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.07	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.0003	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.13	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	3.7E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.4	1.1E-07	7.7E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.5	1.3E-07	9.6E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.6	1.6E-07	1.2E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	7.8	1.6E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.02	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.07	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0003	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.13	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.2E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.4	6.9E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.5	8.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.6	1.0E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	7.8	1.4E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.02	3.5E-12	3.3E-07	1.2E-10	1.1E-05	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.07	1.2E-11	6.2E-07	1.2E-11	6.2E-07	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.0003	5.2E-14	3.3E-09	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.13	2.3E-11	1.0E-06	2.3E-10	1.0E-05	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.5E-10	2.2E-05							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.4	2.5E-08	-	2.7E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.5	3.1E-08	-	3.4E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.6	3.7E-08	-	4.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	7.8	4.8E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	0.02	1.2E-09	1.2E-04	9.7E-15	9.2E-10	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.07	4.3E-09	2.2E-04	1.1E-14	5.6E-10	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.0003	1.9E-11	1.2E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.13	8.1E-09	3.7E-04	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.1E-11	1.5E-09								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.2	1.7E-07	1.4E-05	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.0008	6.9E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.4E-05								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.2	6.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.0008	2.4E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.2	1.13E-07	9.4E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.0008	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	9.4E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.2	4.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0008	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.2	3.5E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.0008	1.4E-13	8.9E-09	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.2	1.2E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.0008	5.0E-11	3.2E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.79	6.8E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.89	7.6E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.98	8.4E-07	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	1.4	1.2E-06	6.0E-05	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	918	7.9E-04	6.6E-02	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.001	8.6E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0012	1.0E-09	5.1E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	6.6E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.79	2.4E-07	1.8E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.89	2.7E-07	2.0E-06	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.98	3.0E-07	2.2E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	1.4	4.3E-07	6.0E-09	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	918	2.8E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.001	3.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0012	3.7E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	2.4E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.79	5.81E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.89	6.55E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.98	7.21E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	1.4	7.92E-07	4.0E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	918	5.19E-04	4.3E-02	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.001	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0012	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	4.3E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.79	2.1E-07	1.5E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.89	2.3E-07	1.7E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.98	2.6E-07	1.9E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	1.4	2.8E-07	4.0E-09	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	918	1.9E-04	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.001	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0012	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.0E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.79	1.4E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.89	1.5E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.98	1.7E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	1.4	2.4E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	918	1.6E-07	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.001	1.7E-13	1.1E-08	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0012	2.1E-13	9.5E-09	2.1E-12	9.5E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.1E-12	9.5E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.79	4.9E-08	-	5.4E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.89	5.5E-08	-	6.1E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.98	6.1E-08	-	6.7E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	1.4	8.7E-08	-	2.1E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	918	5.7E-05	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.001	6.2E-11	4.0E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0012	7.4E-11	3.4E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	7.3E-11	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.09	7.7E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.08	6.9E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.1	8.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.43	3.7E-07	3.1E-05	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	30	2.6E-05	5.2E-03	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.0006	5.1E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0009	7.7E-10	3.9E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	5.2E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.09	2.8E-08	2.0E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.08	2.4E-08	1.8E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.1	3.1E-08	2.2E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.43	1.3E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	30	9.3E-06	3.7E-06	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.0006	1.8E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0009	2.8E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	3.9E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.09	6.62E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.08	5.88E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.1	7.35E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.43	2.43E-07	2.0E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	30	4.29E-05	8.6E-03	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.0006	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0009	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	8.6E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.09	2.4E-08	1.7E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.08	2.1E-08	1.5E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.1	2.6E-08	1.9E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.43	8.7E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	30	1.5E-05	6.1E-06	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0006	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0009	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	6.3E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.09	1.6E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.43	7.5E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	30	5.3E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.0006	1.0E-13	6.6E-09	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0009	1.6E-13	7.1E-09	1.6E-12	7.1E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.6E-12	7.1E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.09	5.6E-09	-	6.1E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.08	5.0E-09	-	5.5E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.1	6.2E-09	-	6.8E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.43	2.7E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	30	1.9E-06	-	9.6E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.0006	3.7E-11	2.4E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0009	5.6E-11	2.5E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	1.6E-11	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	93	7.9E-05	2.0E-01	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	3.7	3.2E-06	1.1E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	810	6.9E-04	2.3E-01	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	3140	2.7E-03	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	4.4E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	93	2.8E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	3.7	1.1E-06	1.7E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	810	2.5E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	3140	9.6E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.7E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	93	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	3.7	6.26E-07	2.1E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	810	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	3140	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.1E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	93	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	3.7	2.2E-07	3.4E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	810	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	3140	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.4E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	93	1.6E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	3.7	6.4E-10	-	4.3E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	810	1.4E-07	-	1.4E-03	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	3140	5.5E-07	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.4E-03	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	93	5.7E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	3.7	2.3E-07	-	9.8E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	810	5.0E-05	-	4.2E-06	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	3140	1.9E-04	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.2E-06	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	1.6	1.4E-06	3.5E-03	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	5.5	4.7E-06	1.6E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	81	7.0E-05	2.3E-02	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	45	3.9E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	0.19	1.6E-07	8.1E-03	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	1.0	8.8E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	1.2	1.0E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	1.2	1.0E-06	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	7.0	6.0E-06	3.0E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	0.3	2.6E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	0.07	6.0E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	13	1.1E-05	8.9E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	5.2E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	1.6	5.0E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	5.5	1.7E-06	2.5E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	81	2.5E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	45	1.4E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.19	5.8E-08	1.2E-07	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	1.0	3.2E-07	2.3E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	1.2	3.6E-07	2.6E-06	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	1.2	3.7E-07	2.7E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	7.0	2.1E-06	3.0E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	0.3	9.2E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	0.07	2.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	13	3.8E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	5.8E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	1.6	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	5.5	9.27E-07	3.1E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	81	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	45	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	0.19	1.50E-07	7.5E-03	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	1.0	7.57E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	1.2	8.60E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	1.2	8.97E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	7.0	3.94E-06	2.0E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	0.3	1.70E-07	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	0.07	3.96E-08	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	13	7.07E-06	5.9E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.1E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	1.6	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	5.5	3.3E-07	5.0E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	81	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	45	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	0.19	5.4E-08	1.1E-07	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	1.0	2.7E-07	2.0E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	1.2	3.1E-07	2.2E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	1.2	3.2E-07	2.3E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	7.0	1.4E-06	2.0E-08	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.3	6.1E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	0.07	1.4E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	13	2.5E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.3E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	1.6	2.8E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	5.5	9.5E-10	-	6.3E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	81	1.4E-08	-	1.4E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	45	7.9E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	0.19	3.3E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	1.0	1.8E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	1.2	2.0E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	1.2	2.1E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	7.0	1.2E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	0.3	5.2E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	0.07	1.2E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	13	2.2E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.0E-04	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	1.6	1.0E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	5.5	3.4E-07	-	1.5E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	81	5.0E-06	-	4.2E-07	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	45	2.8E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.19	1.2E-08	-	6.7E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	1.0	6.4E-08	-	7.0E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	1.2	7.3E-08	-	8.0E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	1.2	7.6E-08	-	8.3E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	7.0	4.3E-07	-	1.0E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	0.3	1.9E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	0.07	4.3E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	13	7.8E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.3E-07	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	1.1	9.5E-07	2.4E-03	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	2.3	2.0E-06	6.6E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	474	4.1E-04	1.4E-01	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	26	2.2E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	0.1	8.6E-08	4.3E-03	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.08	6.9E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.1	8.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.1	8.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	5.2	4.4E-06	3.7E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.002	1.7E-09	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.001	8.6E-10	4.3E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.5E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	1.1	3.4E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	2.3	7.0E-07	1.1E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	474	1.5E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	26	7.9E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.1	3.1E-08	6.1E-08	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.08	2.4E-08	1.8E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.1	3.1E-08	2.2E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.1	3.1E-08	2.2E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	5.2	1.6E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.002	6.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.001	3.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.4E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	1.1	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	2.3	3.90E-07	1.3E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	474	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	26	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	0.1	7.92E-08	4.0E-03	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.08	5.88E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.1	7.35E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.1	7.35E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	5.2	2.91E-06	2.4E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.002	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.001	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	5.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	1.1	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	2.3	1.4E-07	2.1E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	474	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	26	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	0.1	2.8E-08	5.7E-08	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.08	2.1E-08	1.5E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.1	2.6E-08	1.9E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.1	2.6E-08	1.9E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	5.2	1.0E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.002	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.001	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	4.9E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	1.1	1.9E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	2.3	4.0E-10	-	2.7E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	474	8.2E-08	-	8.2E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	26	4.5E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	5.2	8.9E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.002	3.5E-13	2.2E-08	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.001	1.7E-13	7.9E-09	1.7E-12	7.9E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	8.5E-04	7.9E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	1.1	6.9E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	2.3	1.4E-07	-	6.1E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	474	2.9E-05	-	2.5E-06	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	26	1.6E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.1	6.2E-09	-	3.5E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.08	5.0E-09	-	5.5E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.1	6.2E-09	-	6.8E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.1	6.2E-09	-	6.8E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	5.2	3.2E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.002	1.2E-10	7.9E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.001	6.2E-11	2.8E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.5E-06	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	2.0	1.7E-06	4.4E-03	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	4.3	3.7E-06	1.2E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	49	4.2E-05	1.4E-02	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	157	1.3E-04	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	4.7	4.0E-06	2.0E-01	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.07	6.0E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.09	7.7E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.1	8.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	160	1.4E-04	6.9E-03	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	0.06	5.1E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	9.8	8.4E-06	7.0E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.0006	5.1E-10	5.1E-09	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.0009	7.7E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.017	1.5E-08	1.8E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0024	2.1E-09	1.0E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.4E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	2.0	6.2E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	4.3	1.3E-06	2.0E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	49	1.5E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	157	4.8E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	4.7	1.4E-06	2.9E-06	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.07	2.1E-08	1.6E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.09	2.8E-08	2.0E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.1	3.1E-08	2.2E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	160	4.9E-05	6.9E-07	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	0.06	1.8E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	9.8	3.0E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.0006	1.8E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.0009	2.8E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.017	5.2E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0024	7.3E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	5.8E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	2.0	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	4.3	7.35E-07	2.4E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	49	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	157	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	4.7	3.72E-06	1.9E-01	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.07	5.15E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.09	6.62E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.1	7.35E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	160	9.05E-05	4.5E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	0.06	3.39E-08	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	9.8	5.56E-06	4.6E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.0006	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.0009	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.017	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0024	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.9E-01											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	2.0	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	4.3	2.6E-07	3.9E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	49	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	157	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	4.7	1.3E-06	2.7E-06	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.07	1.8E-08	1.3E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.09	2.4E-08	1.7E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.1	2.6E-08	1.9E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	160	3.2E-05	4.5E-07	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	0.06	1.2E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	9.8	2.0E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0006	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0009	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.017	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0024	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.7E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	2.0	3.5E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	4.3	7.5E-10	-	5.0E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	49	8.5E-09	-	8.5E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	157	2.7E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	4.7	8.2E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.07	1.2E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.09	1.6E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	160	2.8E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	0.06	1.0E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	9.8	1.7E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.0006	1.0E-13	5.3E-09	1.0E-13	5.3E-09	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.0009	1.6E-13	1.0E-08	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.017	3.0E-12	2.0E-07	5.9E-13	4.0E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0024	4.2E-13	1.9E-08	4.2E-12	1.9E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.3E-04	2.4E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	2.0	1.3E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	4.3	2.7E-07	-	1.2E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	49	3.0E-06	-	2.5E-07	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	157	9.7E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	4.7	2.9E-07	-	1.7E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.07	4.3E-09	-	4.8E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.09	5.6E-09	-	6.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.1	6.2E-09	-	6.8E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	160	9.9E-06	-	2.4E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	0.06	3.7E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	9.8	6.1E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.0006	3.7E-11	1.9E-06	9.3E-17	4.8E-12	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.0009	5.6E-11	3.6E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.017	1.1E-09	7.2E-05	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0024	1.5E-10	6.8E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.6E-07	4.8E-12								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.03	2.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.03	2.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	21	1.8E-05	1.5E-03	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.5E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	9.2E-09	6.7E-08	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.03	9.2E-09	6.7E-09	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	21	6.5E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	7.4E-08								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.03	2.21E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.03	2.21E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	21	1.20E-05	1.0E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.0E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	7.9E-09	5.8E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.03	7.9E-09	5.8E-09	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	21	4.3E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	6.3E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.03	5.2E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.03	5.2E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	21	3.7E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	1.9E-09	-	2.0E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.03	1.9E-09	-	2.0E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	21	1.3E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.3E-12	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	0.1	8.6E-08	2.1E-04	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	2.3	2.0E-06	6.7E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	5.6	4.8E-06	1.6E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	57	4.8E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.02	1.7E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.04	3.4E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.04	3.4E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.001	8.6E-10	8.6E-09	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.003	2.6E-09	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.046	3.9E-08	4.9E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0049	4.2E-09	2.1E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	8.5E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.1	3.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	2.3	7.1E-07	1.1E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	5.6	1.7E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	57	1.7E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.02	6.1E-09	4.5E-09	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.04	1.2E-08	8.9E-08	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.04	1.2E-08	8.9E-09	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.001	3.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.003	9.2E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.046	1.4E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0049	1.5E-09	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.2E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.1	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	2.3	3.95E-07	1.3E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	5.6	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	57	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.02	1.47E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.04	2.94E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.04	2.94E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.001	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.003	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.046	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0049	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.1	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	2.3	1.4E-07	2.1E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	5.6	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	57	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.02	5.3E-09	3.8E-09	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.04	1.1E-08	7.7E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.04	1.1E-08	7.7E-09	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.001	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.003	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.046	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0049	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.0E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	2.3	4.0E-10	-	2.7E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	5.6	9.7E-10	-	9.7E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	57	9.8E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.02	3.5E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.04	6.9E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.04	6.9E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.001	1.7E-13	8.9E-09	1.7E-13	8.9E-09	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.003	5.2E-13	3.3E-08	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.046	8.0E-12	5.5E-07	1.6E-12	1.1E-07	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0049	8.5E-13	3.9E-08	8.5E-12	3.9E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.7E-05	5.1E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.1	6.2E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	2.3	1.4E-07	-	6.2E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	5.6	3.5E-07	-	2.9E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	57	3.5E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.02	1.2E-09	-	1.4E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.04	2.5E-09	-	2.7E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.04	2.5E-09	-	2.7E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.001	6.2E-11	3.2E-06	1.6E-16	7.9E-12	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.003	1.9E-10	1.2E-05	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.046	2.9E-09	2.0E-04	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0049	3.0E-10	1.4E-05	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.0E-08	7.9E-12								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	0.93	8.0E-07	2.0E-03	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	3.7	3.1E-06	1.0E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	6.0	5.1E-06	1.7E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	38	3.2E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.05	4.3E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.06	5.1E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	0.06	5.1E-08	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0003	2.6E-10	1.3E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.4E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.93	2.8E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	3.7	1.1E-06	1.7E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	6.0	1.8E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	38	1.2E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.05	1.5E-08	1.1E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.06	1.8E-08	1.3E-07	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.06	1.8E-08	1.3E-08	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0003	9.2E-11	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.8E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.93	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	3.7	6.19E-07	2.1E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	6.0	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	38	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.05	3.68E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.06	4.41E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	0.06	4.41E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0003	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.1E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	0.93	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	3.7	2.2E-07	3.3E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	6.0	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	38	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.05	1.3E-08	9.6E-09	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.06	1.6E-08	1.2E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.06	1.6E-08	1.2E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0003	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	4.7E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	0.93	1.6E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	3.7	6.3E-10	-	4.2E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	6.0	1.0E-09	-	1.0E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	38	6.5E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.05	8.7E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.06	1.0E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	0.06	1.0E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0003	5.2E-14	2.4E-09	5.2E-13	2.4E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	5.3E-05	2.4E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.93	5.8E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	3.7	2.3E-07	-	9.7E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	6.0	3.7E-07	-	3.1E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	38	2.3E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.05	3.1E-09	-	3.4E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.06	3.7E-09	-	4.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.06	3.7E-09	-	4.1E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0003	1.9E-11	8.5E-07	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.2E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	4.4	3.8E-06	1.3E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	62	5.3E-05	1.8E-02	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	58	5.0E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.03	2.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.08	6.9E-08	5.7E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.006	5.1E-09	6.4E-08	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.0009	7.7E-10	3.9E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	3.0E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	4.4	1.3E-06	2.0E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	62	1.9E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	58	1.8E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	9.2E-09	6.7E-08	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.08	2.4E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.006	1.8E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.0009	2.8E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	2.1E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	4.4	7.47E-07	2.5E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	62	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	58	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.03	2.21E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.08	4.53E-08	3.8E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.006	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.0009	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	4.4	2.7E-07	4.0E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	62	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	58	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	7.9E-09	5.8E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.08	1.6E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.006	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0009	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	4.6E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	4.4	7.6E-10	-	5.1E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	62	1.1E-08	-	1.1E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	58	1.0E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.03	5.2E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.08	1.4E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.006	1.0E-12	7.1E-08	2.1E-13	1.4E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.0009	1.6E-13	7.1E-09	1.6E-12	7.1E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.6E-04	8.6E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	4.4	2.7E-07	-	1.2E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	62	3.9E-06	-	3.2E-07	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	58	3.6E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	1.9E-09	-	2.0E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.08	5.0E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.006	3.7E-10	2.5E-05	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.0009	5.6E-11	2.5E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.3E-07	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	0.46	3.9E-07	9.9E-04	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	6.9	5.9E-06	2.0E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	13	1.1E-05	3.6E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	57	4.9E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.79	6.8E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	1.1	9.0E-07	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	1.2	1.1E-06	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.01	8.6E-09	8.6E-08	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.07	6.0E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.06	5.1E-08	6.4E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.14	1.2E-07	6.0E-07	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.4E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.46	1.4E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	6.9	2.1E-06	3.1E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	13	3.9E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	57	1.7E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.79	2.4E-07	1.8E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	1.1	3.2E-07	2.3E-06	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	1.2	3.8E-07	2.8E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.01	3.1E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.07	2.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.06	1.8E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.14	4.3E-08	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	5.9E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.46	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	6.9	1.16E-06	3.9E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	13	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	57	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.79	5.81E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	1.1	7.72E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	1.2	9.12E-07	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.01	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.07	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.06	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.14	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	3.9E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.46	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	6.9	4.2E-07	6.2E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	13	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	57	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.79	2.1E-07	1.5E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	1.1	2.8E-07	2.0E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	1.2	3.3E-07	2.4E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.01	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.07	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.06	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.14	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.0E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	0.46	8.0E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	6.9	1.2E-09	-	7.9E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	13	2.2E-09	-	2.2E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	57	9.9E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.79	1.4E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	1.1	1.8E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	1.2	2.2E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.01	1.7E-12	8.9E-08	1.7E-12	8.9E-08	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.07	1.2E-11	7.8E-07	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.06	1.0E-11	7.1E-07	2.1E-12	1.4E-07	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.14	2.4E-11	1.1E-06	2.4E-10	1.1E-05	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.0E-04	1.1E-05							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.46	2.9E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	6.9	4.2E-07	-	1.8E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	13	7.9E-07	-	6.6E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	57	3.5E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.79	4.9E-08	-	5.4E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	1.1	6.5E-08	-	7.2E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	1.2	7.7E-08	-	8.5E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.01	6.2E-10	3.2E-05	1.6E-15	7.9E-11	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	0.07	4.3E-09	2.8E-04	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.06	3.7E-09	2.5E-04	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.14	8.7E-09	4.0E-04	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	6.8E-08	7.9E-11								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-04
Arsenic	3.9	3.4E-06	1.1E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	7.2	6.1E-06	2.0E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Lead	16	1.4E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Carbazole	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Dimethyl phthalate	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Di-n-octyl phthalate	0.1	8.6E-08	7.1E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	5.0E-03
Benzene	0.0004	3.4E-10	8.6E-08	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.002	1.7E-09	1.7E-08	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.032	2.7E-08	3.4E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Trichloroethene	5.3	4.5E-06	9.1E-03	100	1.E-06	219	25	1	70	9125	5.0E-04
Xylene (total)	0.011	9.4E-09	4.7E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.2E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Arsenic	3.9	1.2E-06	1.8E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	7.2	2.2E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Lead	16	4.9E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Di-n-octyl phthalate	0.1	3.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	4.0E-01
Benzene	0.0004	1.2E-10	6.7E-12	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.002	6.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.032	9.8E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Trichloroethene	5.3	1.6E-06	8.1E-08	100	1.E-06	219	25	1	70	25550	5.0E-02
Xylene (total)	0.011	3.4E-09	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.9E-06								

Notes:
NC - Not Carcinogenic
-- - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-04	0.015	6.0E-06
Arsenic	3.9	6.65E-07	2.2E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	7.2	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Lead	16	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Carbazole	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.1	70	9125	NA	1	NA
Di-n-octyl phthalate	0.1	5.66E-08	4.7E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.25	70	9125	5.0E-03	1	5.0E-03
Benzene	0.0004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.002	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.032	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Trichloroethene	5.3	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	5.0E-04	1	5.0E-04
Xylene (total)	0.011	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.2E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.015	NC
Arsenic	3.9	2.4E-07	3.6E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	7.2	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Lead	16	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.1	2.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.0004	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.002	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.032	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Trichloroethene	5.3	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.011	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.6E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
-- - Not detected
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Arsenic	3.9	6.8E-10	-	4.5E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	7.2	1.2E-09	-	1.2E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Lead	16	2.8E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.0004	6.9E-14	6.6E-09	2.3E-12	2.2E-07	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.002	3.5E-13	1.8E-08	3.5E-13	1.8E-08	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.032	5.6E-12	3.8E-07	1.1E-12	7.6E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Trichloroethene	5.3	9.2E-10	6.3E-05	4.6E-07	3.1E-02	1.14E+09	1.67E+04	219	25	0.33	9125	2.0E-03
Xylene (total)	0.011	1.9E-12	8.7E-08	1.9E-11	8.7E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	5.8E-05	3.1E-02							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Arsenic	3.9	2.4E-07	-	1.0E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	7.2	4.4E-07	-	3.7E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Lead	16	1.0E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Di-n-octyl phthalate	0.1	6.2E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.1E-06
Benzene	0.0004	2.5E-11	2.4E-06	1.9E-16	1.8E-11	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.002	1.2E-10	6.3E-06	3.1E-16	1.6E-11	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	2.5E-06
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.032	2.0E-09	1.4E-04	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Trichloroethene	5.3	3.3E-07	2.2E-02	1.3E-12	9.0E-08	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	4.0E-06
Xylene (total)	0.011	6.8E-10	3.1E-05	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.8E-08	9.0E-08								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

Commercial Worker

Subsurface Soil

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	424	3.6E-04	1.8E+01	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	2.5	2.1E-06	1.1E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	1.6	1.4E-06	1.2E-04	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.8E+01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	424	1.3E-04	2.6E-04	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	2.5	7.5E-07	1.1E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	1.6	5.0E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	2.6E-04								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	424	3.36E-04	1.7E+01	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	2.5	1.39E-06	7.0E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	1.6	9.22E-07	7.7E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.7E+01											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	424	1.2E-04	2.4E-04	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	2.5	5.0E-07	7.0E-09	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	1.6	3.3E-07	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.4E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	424	7.4E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	2.5	4.3E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	1.6	2.8E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	424	2.6E-05	-	1.5E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	2.5	1.5E-07	-	3.7E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	1.6	1.0E-07	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	1.5E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	23	2.0E-05	6.5E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	10	8.6E-06	2.9E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	73	6.2E-05	3.1E-03	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	425	3.6E-04	3.0E-02	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	0.64	5.5E-07	1.4E-04	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	426	3.7E-04	3.7E-03	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	30	2.5E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	3025	2.6E-03	3.2E-02	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	2777	2.4E-03	1.2E-02	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.5E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	23	7.0E-06	1.0E-05	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	10	3.1E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	73	2.2E-05	3.1E-07	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	425	1.3E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	0.64	2.0E-07	1.1E-08	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	426	1.3E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	30	9.1E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	3025	9.3E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	2777	8.5E-04	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.1E-05								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	23	3.88E-06	1.3E-02	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	10	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	73	4.10E-05	2.1E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	425	2.40E-04	2.0E-02	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	0.64	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	426	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	30	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	3025	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	2777	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	3.5E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	23	1.4E-06	2.1E-06	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	10	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	73	1.5E-05	2.1E-07	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	425	8.6E-05	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	0.64	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	426	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	30	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	3025	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	2777	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.3E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	23	4.0E-09	-	2.6E-04	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	10	1.7E-09	-	1.7E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	73	1.3E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	425	7.4E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.64	1.1E-10	1.1E-05	3.7E-09	3.6E-04	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	426	7.4E-08	3.8E-03	7.4E-08	3.8E-03	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	30	5.1E-09	3.3E-04	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	3025	5.3E-07	3.6E-02	1.1E-07	7.2E-03	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	2777	4.8E-07	2.2E-02	4.8E-06	2.2E-01	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.9E-04	2.3E-01							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	23	1.4E-06	-	6.1E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	10	6.2E-07	-	5.2E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	73	4.5E-06	-	1.1E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	425	2.6E-05	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	0.64	4.0E-08	3.8E-03	3.1E-13	3.0E-08	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	426	2.6E-05	1.4E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	30	1.8E-06	1.2E-01	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	3025	1.9E-04	1.3E+01	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	2777	1.7E-04	7.9E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	5.8E-08	3.0E-08								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	2.8	2.4E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	2.5	2.1E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	2.9	2.5E-06	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.0005	4.3E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	0.0E+00								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	2.8	8.5E-07	6.2E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	2.5	7.5E-07	5.5E-06	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	2.9	8.9E-07	6.5E-07	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.0005	1.5E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	6.7E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	2.8	2.04E-06	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	2.5	1.80E-06	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	2.9	2.13E-06	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.0005	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	2.8	7.3E-07	5.3E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	2.5	6.4E-07	4.7E-06	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	2.9	7.6E-07	5.6E-07	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0005	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	5.8E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	2.8	4.8E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	2.5	4.3E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	2.9	5.0E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.0005	8.7E-14	5.5E-09	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	2.8	1.7E-07	-	1.9E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	2.5	1.5E-07	-	1.7E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	2.9	1.8E-07	-	2.0E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	0.0005	3.1E-11	2.0E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.1E-10	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	0.0E+00								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	30	2.6E-05	1.3E-03	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	0.2	1.7E-07	1.4E-05	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.3E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	30	9.2E-06	1.3E-07	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.2	6.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.3E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	30	1.71E-05	8.5E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	0.2	1.13E-07	9.4E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	8.6E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	30	6.1E-06	8.5E-08	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.2	4.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	8.5E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	30	5.2E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.2	3.5E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	30	1.9E-06	-	4.5E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.2	1.2E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.5E-12	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	4.3	3.7E-06	1.2E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	45	3.9E-05	1.3E-02	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	0.77	6.6E-07	3.3E-05	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.0005	4.3E-10	5.4E-09	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.5E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	4.3	1.3E-06	2.0E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	45	1.4E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	0.77	2.4E-07	3.3E-09	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.0005	1.5E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	2.0E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	4.3	7.23E-07	2.4E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	45	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	0.77	4.36E-07	2.2E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.0005	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.4E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	4.3	2.6E-07	3.9E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	45	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	0.77	1.6E-07	2.2E-09	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.0005	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.9E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	4.3	7.4E-10	-	4.9E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	45	7.8E-09	-	7.8E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	0.77	1.3E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.0005	8.7E-14	5.9E-09	1.7E-14	1.2E-09	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.3E-04	1.2E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	4.3	2.6E-07	-	1.1E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	45	2.8E-06	-	2.3E-07	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	0.77	4.8E-08	-	1.1E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.0005	3.1E-11	2.1E-06	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.4E-07	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	3.5	3.0E-06	9.9E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	9.1	7.8E-06	2.6E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	0.06	5.1E-08	4.3E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.0003	2.6E-10	2.6E-09	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.0014	1.2E-09	6.0E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.2E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	3.5	1.1E-06	1.6E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	9.1	2.8E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.06	1.8E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.0003	9.2E-11	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.0014	4.3E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.6E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	3.5	5.86E-07	2.0E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	9.1	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	0.06	3.39E-08	2.8E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.0003	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.0014	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.0E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	3.5	2.1E-07	3.1E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	9.1	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.06	1.2E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0003	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.0014	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.1E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	3.5	6.0E-10	-	4.0E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	9.1	1.6E-09	-	1.6E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.06	1.0E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.0003	5.2E-14	2.7E-09	5.2E-14	2.7E-09	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.0014	2.4E-13	1.1E-08	2.4E-12	1.1E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	5.6E-05	1.1E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	3.5	2.1E-07	-	9.2E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	9.1	5.7E-07	-	4.7E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.06	3.7E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.0003	1.9E-11	9.5E-07	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.0014	8.7E-11	4.0E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.8E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.6	2.2E-06	7.4E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	7.9	6.8E-06	2.3E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.017	1.5E-08	1.8E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.0004	3.4E-10	1.7E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	9.7E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.6	8.0E-07	1.2E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	7.9	2.4E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.017	5.2E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.0004	1.2E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.2E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.6	4.41E-07	1.5E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	7.9	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.017	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.0004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.6	1.6E-07	2.4E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	7.9	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.017	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.0004	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.4E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	2.6	4.5E-10	-	3.0E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	7.9	1.4E-09	-	1.4E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.017	3.0E-12	2.0E-07	5.9E-13	4.0E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.0004	6.9E-14	3.2E-09	6.9E-13	3.2E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	4.4E-05	7.2E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.6	1.6E-07	-	6.9E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	7.9	4.9E-07	-	4.1E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.017	1.1E-09	7.2E-05	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.0004	2.5E-11	1.1E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.2E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.1	1.8E-06	6.1E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	4.9	4.2E-06	1.4E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	0.05	4.3E-08	3.6E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.0004	3.4E-10	4.3E-09	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.0003	2.6E-10	1.3E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	7.5E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	6.5E-07	9.8E-07	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	4.9	1.5E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.05	1.5E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.0004	1.2E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.0003	9.2E-11	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	9.8E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.1	3.61E-07	1.2E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	4.9	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	0.05	2.83E-08	2.4E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.0004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.0003	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.2E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	1.3E-07	1.9E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.9	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.05	1.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.0004	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.0003	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.9E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	2.1	3.7E-10	-	2.5E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	4.9	8.5E-10	-	8.5E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.05	8.7E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.0004	6.9E-14	4.8E-09	1.4E-14	9.5E-10	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.0003	5.2E-14	2.4E-09	5.2E-13	2.4E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.3E-05	2.5E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.1	1.3E-07	-	5.7E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	4.9	3.0E-07	-	2.5E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.05	3.1E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.0004	2.5E-11	1.7E-06	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.0003	1.9E-11	8.5E-07	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.6E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	15	1.3E-05	6.4E-04	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	2900	2.5E-03	2.1E-01	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	5	4.3E-06	1.1E-03	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	4	3.4E-06	3.4E-05	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	1.2	1.0E-06	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	1060	9.1E-04	1.1E-02	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	12	1.0E-05	5.1E-05	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.2E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	15	4.6E-06	6.4E-08	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	2900	8.9E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	5	1.5E-06	8.4E-08	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	4	1.2E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	1.2	3.7E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	1060	3.2E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	12	3.7E-06	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.5E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	15	8.49E-06	4.2E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	2900	1.64E-03	1.4E-01	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	5	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	4	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	1.2	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	1060	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	12	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.4E-01											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	15	3.0E-06	4.2E-08	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	2900	5.9E-04	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	5	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	4	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	1.2	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	1060	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	12	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	4.2E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	15	2.6E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	2900	5.0E-07	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	5	8.7E-10	8.3E-05	2.9E-08	2.8E-03	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	4	6.9E-10	3.6E-05	6.9E-10	3.6E-05	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	1.2	2.1E-10	1.3E-05	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	1060	1.8E-07	1.3E-02	3.7E-08	2.5E-03	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	12	2.1E-09	9.5E-05	2.1E-08	9.5E-04	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	8.7E-08	6.3E-03							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	15	9.3E-07	-	2.2E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	2900	1.8E-04	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	5	3.1E-07	3.0E-02	2.4E-12	2.3E-07	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	4	2.5E-07	1.3E-02	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	1.2	7.4E-08	4.7E-03	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	1060	6.6E-05	4.5E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	12	7.4E-07	3.4E-02	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.7E-12	2.3E-07								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	36	3.1E-05	2.6E-03	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	0.5	4.3E-07	1.1E-04	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.04	3.4E-08	3.4E-07	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.01	8.6E-09	4.3E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.7E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	36	1.1E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	0.5	1.5E-07	8.4E-09	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.04	1.2E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.01	3.1E-09	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	8.4E-09								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	36	2.05E-05	1.7E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	0.5	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.04	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.01	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.7E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	36	7.3E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	0.5	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.04	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.01	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	36	6.3E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	0.5	8.7E-11	8.3E-06	2.9E-09	2.8E-04	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.04	6.9E-12	3.6E-07	6.9E-12	3.6E-07	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.01	1.7E-12	7.9E-08	1.7E-11	7.9E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.9E-09	2.8E-04							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	36	2.2E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	0.5	3.1E-08	3.0E-03	2.4E-13	2.3E-08	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.04	2.5E-09	1.3E-04	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.01	6.2E-10	2.8E-05	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.4E-13	2.3E-08								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	2800	2.4E-03	2.0E-01	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.006	5.1E-09	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.006	5.1E-09	6.4E-08	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.007	6.0E-09	3.0E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.0E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	2800	8.6E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.006	1.8E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.006	1.8E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.007	2.1E-09	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	2800	1.58E-03	1.3E-01	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.006	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.006	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.007	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.3E-01											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	2800	5.7E-04	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.006	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.006	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.007	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	2800	4.9E-07	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.006	1.0E-12	6.6E-08	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.006	1.0E-12	7.1E-08	2.1E-13	1.4E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.007	1.2E-12	5.5E-08	1.2E-11	5.5E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	1.2E-11	5.7E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	2800	1.7E-04	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	0.006	3.7E-10	2.4E-05	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.006	3.7E-10	2.5E-05	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.007	4.3E-10	2.0E-05	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	16	1.4E-05	1.2E-03	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	41	3.5E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.2E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	16	5.0E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	41	1.3E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	16	9.16E-06	7.6E-04	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	41	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	7.6E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	16	3.3E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	41	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	16	2.8E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	41	7.2E-09	4.6E-04	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	16	1.0E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	41	2.6E-06	1.6E-01	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	0.05	4.3E-08	3.6E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	3.6E-06								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.05	1.5E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	0.05	2.83E-08	2.4E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.4E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.05	1.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.05	8.7E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.05	3.1E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.7	2.3E-06	7.7E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	4.0	3.5E-06	1.2E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	8.8E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	8.2E-07	1.2E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	4.0	1.2E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.2E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.7	4.55E-07	1.5E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	4.0	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	1.6E-07	2.4E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.0	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.4E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	2.7	4.7E-10	-	3.1E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	4.0	7.0E-10	-	7.0E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.8E-05	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK ($(ug/m^3)^{-1}$)
Arsenic	2.7	1.7E-07	-	7.1E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	4.0	2.5E-07	-	2.1E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.2E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.8	2.4E-06	7.9E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	3.5	3.0E-06	1.0E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	8.9E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.8	8.4E-07	1.3E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	3.5	1.1E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.3E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.8	4.67E-07	1.6E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	3.5	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.6E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.8	1.7E-07	2.5E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	3.5	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.5E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	2.8	4.8E-10	-	3.2E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	3.5	6.1E-10	-	6.1E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.8E-05	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.8	1.7E-07	-	7.3E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	3.5	2.2E-07	-	1.8E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	1.9E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	6.5	5.6E-06	1.9E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	4.6	3.9E-06	1.3E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.03	2.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	1010	8.7E-04	7.2E-02	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.01	8.6E-09	8.6E-08	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.005	4.3E-09	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.0008	6.9E-10	3.4E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	9.2E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	6.5	2.0E-06	3.0E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	4.6	1.4E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	9.2E-09	6.7E-08	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	1010	3.1E-04	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.01	3.1E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.005	1.5E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.0008	2.4E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	3.1E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	6.5	1.11E-06	3.7E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	4.6	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.03	2.21E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	1010	5.71E-04	4.8E-02	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.01	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.005	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.0008	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	5.1E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	6.5	4.0E-07	5.9E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.6	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	7.9E-09	5.8E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	1010	2.0E-04	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.01	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.005	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.0008	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	6.5E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	6.5	1.1E-09	-	7.5E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	4.6	8.0E-10	-	8.0E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.03	5.2E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	1010	1.8E-07	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.01	1.7E-12	8.9E-08	1.7E-12	8.9E-08	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.005	8.7E-13	5.5E-08	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.0008	1.4E-13	6.3E-09	1.4E-12	6.3E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	8.3E-05	1.5E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	6.5	4.0E-07	-	1.7E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	4.6	2.8E-07	-	2.4E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	1.9E-09	-	2.0E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	1010	6.3E-05	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.01	6.2E-10	3.2E-05	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	0.005	3.1E-10	2.0E-05	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.0008	5.0E-11	2.3E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.6E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	3.6	3.0E-06	1.0E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	4.1	3.5E-06	1.2E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	0.03	2.6E-08	1.3E-03	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.03	2.6E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	147	1.3E-04	6.3E-03	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	37	3.1E-05	2.6E-03	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.0005	4.3E-10	4.3E-09	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.04	3.4E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.0004	3.4E-10	4.3E-09	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.002	1.7E-09	8.6E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	2.2E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	3.6	1.1E-06	1.6E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	4.1	1.3E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	0.03	9.2E-09	1.8E-08	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	9.2E-09	6.7E-08	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	147	4.5E-05	6.3E-07	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	37	1.1E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.0005	1.5E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.04	1.2E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.0004	1.2E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.002	6.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	2.3E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	3.6	6.02E-07	2.0E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	4.1	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	0.03	2.38E-08	1.2E-03	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.03	2.21E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	147	8.32E-05	4.2E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	37	2.07E-05	1.7E-03	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.0005	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.04	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.0004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.002	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	9.1E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	3.6	2.2E-07	3.2E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.1	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	0.03	8.5E-09	1.7E-08	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	7.9E-09	5.8E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	147	3.0E-05	4.2E-07	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	37	7.4E-06	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0005	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.04	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.0004	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.002	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	8.1E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	3.6	6.2E-10	-	4.1E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	4.1	7.1E-10	-	7.1E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	0.03	5.2E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.03	5.2E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	147	2.6E-08	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	37	6.4E-09	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.0005	8.7E-14	4.4E-09	8.7E-14	4.4E-09	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.04	6.9E-12	4.4E-07	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.0004	6.9E-14	4.8E-09	1.4E-14	9.5E-10	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.002	3.5E-13	1.6E-08	3.5E-12	1.6E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	4.8E-05	1.6E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	3.6	2.2E-07	-	9.5E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	4.1	2.5E-07	-	2.1E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	0.03	1.9E-09	-	1.1E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	1.9E-09	-	2.0E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	147	9.1E-06	-	2.2E-11	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	37	2.3E-06	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.0005	3.1E-11	1.6E-06	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	0.04	2.5E-09	1.6E-04	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.0004	2.5E-11	1.7E-06	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.002	1.2E-10	5.7E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.2E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	0.02	1.7E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	1.3	1.1E-06	8.9E-05	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	8.9E-05								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	0.02	6.1E-09	4.5E-09	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	1.3	3.8E-07	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	4.5E-09								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	0.02	1.47E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	1.3	7.07E-07	5.9E-05	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	5.9E-05											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.02	5.3E-09	3.8E-09	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	1.3	2.5E-07	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.8E-09											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	0.02	3.5E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	1.3	2.2E-10	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	0.02	1.2E-09	-	1.4E-13	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	1.3	7.8E-08	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	1.4E-13	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.3	1.9E-06	6.4E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	5.0	4.3E-06	1.4E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	0.0008	6.9E-10	6.9E-09	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	37	3.2E-05	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.016	1.4E-08	1.7E-07	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.0029	2.5E-09	1.2E-08	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	7.9E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.3	6.9E-07	1.0E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	5.0	1.5E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	0.0008	2.4E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	37	1.1E-05	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.016	4.9E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.0029	8.9E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.0E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.3	3.82E-07	1.3E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	5.0	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	0.0008	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	37	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.016	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.0029	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.3	1.4E-07	2.0E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	5.0	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0008	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	37	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.016	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.0029	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.0E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	2.3	3.9E-10	-	2.6E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	5.0	8.7E-10	-	8.7E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	0.0008	1.4E-13	7.1E-09	1.4E-13	7.1E-09	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	37	6.4E-09	4.1E-04	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.016	2.8E-12	1.9E-07	5.6E-13	3.8E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.0029	5.0E-13	2.3E-08	5.0E-12	2.3E-07	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.5E-05	2.7E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.3	1.4E-07	-	6.0E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	5.0	3.1E-07	-	2.6E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	0.0008	5.0E-11	2.5E-06	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	37	2.3E-06	1.5E-01	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.016	9.9E-10	6.8E-05	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.0029	1.8E-10	8.2E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	2.7E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	1.4	1.2E-06	3.9E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	5.7	4.9E-06	1.6E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	0.0009	7.7E-10	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.001	8.6E-10	4.3E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	5.5E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	1.4	4.1E-07	6.2E-07	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	5.7	1.7E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	0.0009	2.8E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.001	3.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	6.2E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	1.4	2.29E-07	7.6E-04	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	5.7	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	0.0009	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.001	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	7.6E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	1.4	8.2E-08	1.2E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	5.7	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0009	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.001	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	1.2E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	1.4	2.3E-10	-	1.6E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	5.7	9.8E-10	-	9.8E-06	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	0.0009	1.6E-13	1.0E-08	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.001	1.7E-13	7.9E-09	1.7E-12	7.9E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	2.5E-05	7.9E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	1.4	8.4E-08	-	3.6E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	5.7	3.5E-07	-	3.0E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	0.0009	5.6E-11	3.6E-06	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.001	6.2E-11	2.8E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.0E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	4.2	3.6E-06	1.2E-02	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	12	1.0E-05	3.4E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	0.1	8.6E-08	7.1E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.005	4.3E-09	5.4E-08	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.5E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	4.2	1.3E-06	1.9E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	12	3.6E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.1	3.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.005	1.5E-09	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.9E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	4.2	7.16E-07	2.4E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	12	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	0.1	5.66E-08	4.7E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.005	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	2.4E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	4.2	2.6E-07	3.8E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	12	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.1	2.0E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.005	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	3.8E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	4.2	7.3E-10	-	4.9E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	12	2.1E-09	-	2.1E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.1	1.7E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.005	8.7E-13	5.9E-08	1.7E-13	1.2E-08	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	7.0E-05	1.2E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	4.2	2.6E-07	-	1.1E-09	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	12	7.4E-07	-	6.2E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.1	6.2E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.005	3.1E-10	2.1E-05	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	6.3E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.1	1.8E-06	5.9E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	6.9	5.9E-06	2.0E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	0.04	3.4E-08	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	0.07	6.0E-08	5.0E-06	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	7.8E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	6.3E-07	9.5E-07	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	6.9	2.1E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	0.04	1.2E-08	8.9E-08	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.07	2.1E-08	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.0E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.1	3.50E-07	1.2E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	6.9	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	0.04	2.94E-08	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	0.07	3.96E-08	3.3E-06	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.2E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	1.2E-07	1.9E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	6.9	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.04	1.1E-08	7.7E-08	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.07	1.4E-08	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.6E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	2.1	3.6E-10	-	2.4E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	6.9	1.2E-09	-	1.2E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	0.04	6.9E-12	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	0.07	1.2E-11	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	3.6E-05	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.1	1.3E-07	-	5.5E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	6.9	4.2E-07	-	3.6E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	0.04	2.5E-09	-	2.7E-12	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.07	4.3E-09	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	3.6E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.7	2.3E-06	7.7E-03	100	1.E-06	219	25	1	70	9125	3.0E-04
Chromium Total	8.6	7.4E-06	2.5E-03	100	1.E-06	219	25	1	70	9125	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(a)pyrene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	2.0E-02
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.2E-02
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	9125	1.0E-01
Methyl cyclohexane	-	0.0E+00	NA	100	1.E-06	219	25	1	70	9125	NA
Toluene	0.001	8.6E-10	1.1E-08	100	1.E-06	219	25	1	70	9125	8.0E-02
Xylene (total)	0.0004	3.4E-10	1.7E-09	100	1.E-06	219	25	1	70	9125	2.0E-01
		HAZARD INDEX	1.0E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
COMMERCIAL WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	8.3E-07	1.2E-06	100	1.E-06	219	25	1	70	25550	1.5E+00
Chromium Total	8.6	2.6E-06	NC	100	1.E-06	219	25	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	100	1.E-06	219	25	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	100	1.E-06	219	25	1	70	25550	NC
Toluene	0.001	3.1E-10	NC	100	1.E-06	219	25	1	70	25550	NC
Xylene (total)	0.0004	1.2E-10	NC	100	1.E-06	219	25	1	70	25550	NC
		ELCR	1.2E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CHRONIC ORAL RfD (mg/kg*day)	Oral ABS	CHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.7	4.60E-07	1.5E-03	3300	0.2	1.E-06	219	25	0.03	70	9125	3.0E-04	1	3.0E-04
Chromium Total	8.6	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.14	70	9125	2.0E-05	0.8	2.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	0.13	70	9125	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	2.0E-02	1	2.0E-02
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	0.1	70	9125	1.2E-02	1	1.2E-02
Benzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	1.0E-01	1	1.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.2	1.E-06	219	25	NA	70	9125	NA	1	NA
Toluene	0.001	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	8.0E-02	1	8.0E-02
Xylene (total)	0.0004	0.00E+00	0.0E+00	3300	0.2	1.E-06	219	25	NA	70	9125	2.0E-01	1	2.0E-01
		HAZARD INDEX	1.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
COMMERCIAL WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	1.6E-07	2.5E-07	3300	0.2	1E-06	219	25	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	8.6	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.2	1E-06	219	25	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.2	1E-06	219	25	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Toluene	0.001	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
Xylene (total)	0.0004	0.0E+00	NC	3300	0.2	1E-06	219	25	NA	70	25550	NC	1	NC
		ELCR	2.5E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Arsenic	2.7	4.7E-10	-	3.1E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.5E-05
Chromium Total	8.6	1.5E-09	-	1.5E-05	0.0E+00	1.14E+09	NV	219	25	0.33	9125	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	219	25	0.33	9125	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	219	25	0.33	9125	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.23E+04	219	25	0.33	9125	1.0E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	1.79E+04	219	25	0.33	9125	NA
Toluene	0.001	1.7E-13	1.2E-08	3.5E-14	2.4E-09	1.14E+09	1.67E+04	219	25	0.33	9125	5.0E+00
Xylene (total)	0.0004	6.9E-14	3.2E-09	6.9E-13	3.2E-08	1.14E+09	2.50E+04	219	25	0.33	9125	1.0E-01
			HAZARD INDEX	4.6E-05	3.4E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
COMMERCIAL WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.7	1.7E-07	-	7.2E-10	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	4.3E-03
Chromium Total	8.6	5.3E-07	-	4.5E-08	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	219	25	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	219	25	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	1.19E+04	1.E+03	219	25	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	2.23E+04	1.E+03	219	25	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	1.79E+04	1.E+03	219	25	0.33	25550	NC
Toluene	0.001	6.2E-11	4.2E-06	NC	NC	1.14E+09	1.67E+04	1.E+03	219	25	0.33	25550	NC
Xylene (total)	0.0004	2.5E-11	1.1E-06	NC	NC	1.14E+09	2.50E+04	1.E+03	219	25	0.33	25550	NC
			ELCR	4.5E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

Construction Worker

Surface Soil

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-01 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	0.030	9.7E-08	3.2E-03	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.41	1.3E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.34	1.1E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.3	9.7E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	13	4.0E-05	4.0E-04	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	0.090	2.9E-07	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.080	2.6E-07	2.2E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.6E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-01 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.030	1.4E-09	2.8E-09	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.41	1.9E-08	1.4E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.34	1.6E-08	1.1E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.3	1.4E-08	1.0E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	13	5.8E-07	8.1E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	0.090	4.2E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.080	3.7E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.5E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-01 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	0.030	4.07E-08	1.4E-03	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.41	5.16E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.34	4.28E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.3	3.78E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	13	1.21E-05	1.2E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	0.090	8.72E-08	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.080	7.75E-08	6.5E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-01 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	0.030	5.8E-10	1.2E-09	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.41	7.4E-09	5.4E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.34	6.1E-09	4.5E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.3	5.4E-09	3.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	13	1.7E-07	2.4E-09	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.090	1.2E-09	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.080	1.1E-09	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	5.8E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-01 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	0.030	5.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.41	8.1E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.34	6.7E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.3	5.9E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	13	2.5E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	0.090	1.8E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.080	1.6E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-01 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.030	8.5E-11	-	4.8E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.41	1.2E-09	-	1.3E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.34	9.6E-10	-	1.1E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.3	8.5E-10	-	9.3E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	13	3.5E-08	-	8.5E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	0.090	2.5E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.080	2.3E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.4E-12	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-02 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	3.4	1.1E-05	2.7E-02	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	2.5	8.2E-06	2.7E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	42	1.4E-04	6.8E-03	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	178	5.7E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.9	2.9E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	1.2	3.8E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	1.1	3.6E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	6.3	2.0E-05	2.0E-04	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	0.05	1.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	30	9.7E-05	8.1E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	2.3	7.3E-06	1.8E-03	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	38	1.2E-04	3.1E-04	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	12	3.8E-05	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	543	1.8E-03	8.8E-04	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	3	9.7E-06	1.9E-02	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	205	6.6E-04	1.7E-03	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	8.7E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-02 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	3.4	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	2.5	0.0	1.8E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	42	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	178	8.2E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.9	0.00	3.0E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	1.2	0.0	3.9E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	1.1	5.1E-08	3.7E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	6.3	0.0	4.0E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	0.05	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	30	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	2.3	0.0	5.7E-09	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	38	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	12	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	543	2.5E-05	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	3	1.4E-07	6.9E-09	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	205	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	6.5E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-02 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	3.4	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	2.5	0.0	2.5E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	42	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	178	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.9	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	1.2	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	1.1	1.39E-06	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	6.3	0.0	6.1E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	0.05	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	30	0	2.4E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	2.3	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	38	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	12	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	543	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	3	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	205	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.8E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-02 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	3.4	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	2.5	0.0	1.6E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	42	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	178	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.9	0.00	1.2E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	1.2	0.0	1.5E-07	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	1.1	2.0E-08	1.4E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	6.3	0.0	1.2E-09	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.05	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	30	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	2.3	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	38	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	12	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	543	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	3	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	205	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.0E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-02 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	3.4	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	2.5	0.0	-	3.4E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	42	0	-	8.4E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	178	3.5E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.9	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	1.2	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	1.1	2.2E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	6.3	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	0.05	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	30	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	2.3	0.0	2.1E-04	1.5E-08	7.1E-03	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	38	0	1.9E-03	8.7E-10	2.2E-04	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	12	0	7.5E-04	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	543	1.1E-07	3.7E-02	2.2E-08	7.4E-03	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	3	5.9E-10	2.0E-04	1.1E-09	3.8E-04	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	205	0	9.3E-03	4.1E-09	9.3E-04	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.2E-04	1.6E-02							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-02 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	3.4	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	2.5	0.0	-	3.1E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	42	0	-	1.0E-08	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	178	5.0E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.9	0.00	-	2.8E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	1.2	0.0	-	3.6E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	1.1	3.1E-09	-	3.4E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	6.3	0.0	-	4.3E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	0.05	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	30	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	2.3	0.0	3.1E-03	5.0E-14	2.4E-08	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	38	0	2.8E-02	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	12	0	1.1E-02	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	543	1.5E-06	5.3E-01	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	3	8.5E-09	2.9E-03	3.4E-14	1.2E-08	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	205	0	1.3E-01	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.0E-08	3.5E-08								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-03 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	0.08	2.6E-07	8.6E-03	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	6.1	2.0E-05	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	5.9	1.9E-05	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	6.2	2.0E-05	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	12	3.9E-05	3.9E-04	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	1.7	5.6E-06	4.7E-05	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	0.0005	1.6E-09	4.0E-07	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.0006	1.9E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0005	1.6E-09	4.0E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	9.1E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-03 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.08	3.7E-09	7.4E-09	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	6.1	0.0	2.1E-07	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	5.9	0.0	2.0E-06	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	6.2	0.0	2.1E-07	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	12	5.6E-07	7.9E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	1.7	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	0.0005	2.3E-11	1.3E-12	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.0006	2.8E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0005	2.3E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.4E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-03 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	0.08	1.08E-07	3.6E-03	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	6.1	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	5.9	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	6.2	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	12	1.18E-05	1.2E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	1.7	0.0	1.4E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	0.0005	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.0006	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0005	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	3.7E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-03 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	0.08	1.5E-09	3.1E-09	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	6.1	0.0	8.0E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	5.9	0.0	7.8E-07	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	6.2	0.0	8.1E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	12	1.7E-07	2.4E-09	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	1.7	0.0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.0005	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0006	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0005	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	9.5E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-03 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	0.08	1.6E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	6.1	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	5.9	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	6.2	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	12	2.4E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	1.7	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	0.0005	9.9E-14	4.7E-08	3.3E-12	1.6E-06	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.0006	1.2E-13	3.8E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0005	9.9E-14	2.3E-08	9.9E-15	2.3E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	3.3E-12	1.6E-06							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-03 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.08	2.3E-10	-	1.3E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	6.1	0.0	-	1.9E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	5.9	0.0	-	1.9E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	6.2	0.0	-	1.9E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	12	3.5E-08	-	8.3E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	1.7	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	0.0005	1.4E-12	6.8E-07	1.1E-17	5.3E-12	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.0006	1.7E-12	5.4E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0005	1.4E-12	3.2E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	2.3E-11	5.3E-12								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-04 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.1	3.2E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.08	2.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.08	2.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.1	3.2E-07	2.7E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	2.7E-06								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-04 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.1	0.00	3.4E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.08	0.0	2.7E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.08	3.7E-09	2.7E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.1	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	3.3E-08								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-04 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.1	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.08	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.08	1.01E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.1	0	8.1E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	8.1E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-04 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.1	0.00	1.3E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.08	0.0	1.1E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.08	1.4E-09	1.1E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.1	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.3E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-04 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.1	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.08	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.08	1.6E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.1	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-04 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.1	0.00	-	3.1E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.08	0.0	-	2.5E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.08	2.3E-10	-	2.5E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.1	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	-	0	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	3.1E-13	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-05 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	2.6	8.3E-06	8.3E-05	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	12	4.0E-05	3.3E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	4.1E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-05 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	2.6	0.0	1.7E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	12	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.7E-09								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-05 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	2.6	0.0	2.5E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	12	0	9.9E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.2E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-05 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	2.6	0.0	5.0E-10	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	12	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	5.0E-10											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-05 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	2.6	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	12	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-05 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	2.6	0.0	-	1.8E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	12	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	-	0	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.8E-14	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-08 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	0.15	4.8E-07	1.2E-03	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	1.4	4.4E-06	1.5E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	14	4.5E-05	2.2E-03	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	15	4.9E-05	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.45	1.5E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.68	2.2E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.61	2.0E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	0.07	2.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.2	6.5E-07	5.4E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.0004	1.3E-09	6.5E-10	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	0.004	1.3E-08	2.6E-05	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0003	9.7E-10	2.4E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.8E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-08 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.15	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	1.4	0.0	9.5E-08	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	14	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	15	7.1E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.45	0.00	1.5E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.68	0.0	2.3E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.61	2.8E-08	2.1E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	0.07	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.2	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.0004	1.8E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	0.004	1.8E-10	9.2E-12	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0003	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	3.6E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-08 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.15	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	1.4	0.0	1.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	14	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	15	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.45	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.68	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.61	7.68E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	0.07	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.2	0	1.6E-06	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.0004	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	0.004	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0003	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-08 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	0.15	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	1.4	0.0	8.5E-09	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	14	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	15	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.45	0.00	5.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.68	0.0	8.9E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.61	1.1E-08	8.0E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.07	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.2	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.0004	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	0.004	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0003	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.1E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-08 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	0.15	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	1.4	0.0	-	1.8E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	14	0	-	2.7E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	15	3.0E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.45	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.68	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.61	1.2E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	0.07	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.2	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.0004	7.9E-14	2.7E-08	1.6E-14	5.4E-09	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	0.004	7.9E-13	2.7E-07	1.5E-12	5.0E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0003	0	1.4E-08	5.9E-15	1.4E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	4.5E-05	5.1E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-08 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.15	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	1.4	0.0	-	1.7E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	14	0	-	3.3E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	15	4.3E-08	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.45	0.00	-	1.4E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.68	0.0	-	2.1E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.61	1.7E-09	-	1.9E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	0.07	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.2	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.0004	1.1E-12	3.9E-07	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	0.004	1.1E-11	3.9E-06	4.5E-17	1.6E-11	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0003	0	1.9E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	3.3E-09	1.6E-11								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-09 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	0.15	4.8E-07	1.2E-03	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	8.9	2.9E-05	9.6E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	58	1.9E-04	9.4E-03	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	197	6.4E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	145	4.7E-04	4.7E-03	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.59	1.9E-06	1.6E-05	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.004	1.3E-08	3.2E-08	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.022	7.1E-08	1.8E-07	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.1E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-09 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.15	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	8.9	0.0	6.2E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	58	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	197	9.1E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	145	0.0	9.4E-08	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.59	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.004	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.022	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	7.1E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-09 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.15	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	8.9	0.0	8.6E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	58	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	197	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	145	0.0	1.4E-03	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.59	0	4.8E-06	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.004	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.022	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.0E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-09 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	0.15	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	8.9	0.0	5.5E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	58	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	197	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	145	0.0	2.8E-08	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.59	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.004	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.022	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	8.4E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-09 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	0.15	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	8.9	0.0	-	1.2E-04	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	58	0	-	1.2E-04	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	197	3.9E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	145	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.59	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.004	0	2.0E-07	9.1E-14	2.3E-08	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.022	0	9.9E-07	4.4E-13	9.9E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	2.3E-04	1.2E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-09 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.15	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	8.9	0.0	-	1.1E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	58	0	-	1.4E-08	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	197	5.6E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	145	0.0	-	9.9E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.59	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.004	0	2.9E-06	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.022	0	1.4E-05	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.4E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-10 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	0.51	1.6E-06	4.1E-03	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	16	5.1E-05	1.7E-01	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	32	1.0E-04	5.2E-03	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	58	1.9E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.35	1.1E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.44	1.4E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.41	1.3E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	3.2	1.0E-05	8.6E-05	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	0.002	6.5E-09	1.6E-06	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.0005	1.6E-09	4.0E-09	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.014	4.5E-08	2.3E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0026	8.4E-09	2.1E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.8E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-10 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.51	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	16	0.0	1.1E-06	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	32	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	58	2.7E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.35	0.00	1.2E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.44	0.0	1.5E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.41	1.9E-08	1.4E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	3.2	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	0.002	0.0	5.1E-12	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.0005	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.014	6.5E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0026	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.3E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-10 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.51	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	16	0.0	1.5E-02	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	32	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	58	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.35	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.44	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.41	5.16E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	3.2	0	2.6E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	0.002	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.0005	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.014	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0026	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.5E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-10 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	0.51	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	16	0.0	9.9E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	32	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	58	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.35	0.00	4.6E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.44	0.0	5.8E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.41	7.4E-09	5.4E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	3.2	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.002	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0005	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.014	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0026	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.7E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-10 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	0.51	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	16	0.0	-	2.1E-04	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	32	0	-	6.3E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	58	1.1E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.35	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.44	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.41	8.1E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	3.2	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	0.002	0.0	1.9E-07	1.3E-11	6.3E-06	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.0005	0	2.5E-08	1.1E-14	2.9E-09	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.014	2.8E-12	9.5E-07	5.6E-13	1.9E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0026	0	1.2E-07	5.2E-14	1.2E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	2.7E-04	6.5E-06							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-10 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.51	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	16	0.0	-	1.9E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	32	0	-	7.6E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	58	1.6E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.35	0.00	-	1.1E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.44	0.0	-	1.4E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.41	1.2E-09	-	1.3E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	3.2	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	0.002	0.0	2.7E-06	4.4E-17	2.1E-11	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.0005	0	3.6E-07	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.014	4.0E-11	1.4E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0026	0	1.7E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	7.8E-09	2.1E-11								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-11 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	0.38	1.2E-06	3.1E-03	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	1.3	4.3E-06	1.4E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	2.5	8.0E-06	4.0E-04	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	4.9	1.6E-05	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.08	2.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.08	2.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.08	2.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.0004	1.3E-09	3.2E-09	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.002	6.5E-09	3.2E-09	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0014	4.5E-09	1.1E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.8E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-11 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.38	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	1.3	0.0	9.1E-08	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	2.5	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	4.9	2.3E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.08	0.00	2.7E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.08	0.0	2.7E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.08	3.7E-09	2.7E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.0004	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.002	9.2E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0014	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.2E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-11 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.38	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	1.3	0.0	1.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	2.5	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	4.9	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.08	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.08	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.08	1.01E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	-	0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.0004	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.002	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0014	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-11 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.38	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	1.3	0.0	8.2E-09	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	2.5	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	4.9	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.08	0.00	1.1E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.08	0.0	1.1E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.08	1.4E-09	1.1E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0004	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.002	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0014	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.1E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-11 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	0.38	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	1.3	0.0	-	1.7E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	2.5	0	-	4.9E-06	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	4.9	9.7E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.08	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.08	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.08	1.6E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.0004	0	2.0E-08	9.1E-15	2.3E-09	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.002	4.0E-13	1.4E-07	7.9E-14	2.7E-08	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0014	0	6.3E-08	2.8E-14	6.3E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	2.2E-05	3.6E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-11 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.38	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	1.3	0.0	-	1.6E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	2.5	0	-	5.9E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	4.9	1.4E-08	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.08	0.00	-	2.5E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.08	0.0	-	2.5E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.08	2.3E-10	-	2.5E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	-	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.0004	0	2.9E-07	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.002	5.7E-12	1.9E-06	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0014	0	9.0E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	6.0E-10	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-13 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.6	1.9E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.2	6.5E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.2	6.5E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	3.0	9.8E-06	9.8E-05	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	1.4	4.5E-06	3.8E-05	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	0.01	3.2E-08	8.1E-06	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.13	4.2E-07	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.03	9.7E-08	4.8E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.05	1.6E-07	4.0E-07	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.4E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-13 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.6	0.00	2.0E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.2	0.0	6.7E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.2	9.2E-09	6.7E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	3.0	0.0	2.0E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	1.4	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	0.01	0.0	2.5E-11	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.13	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.03	1.4E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.05	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	9.6E-08								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-13 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.6	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.2	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.2	2.52E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	3.0	0.0	2.9E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	1.4	0	1.1E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	0.01	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.13	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.03	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.05	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	4.1E-05											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-13 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.6	0.00	7.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.2	0.0	2.6E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.2	3.6E-09	2.6E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	3.0	0.0	5.9E-10	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	1.4	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.01	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.13	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.03	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.05	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	3.7E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-13 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.6	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.2	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.2	4.0E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	3.0	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	1.4	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	0.01	0.0	9.5E-07	6.6E-11	3.2E-05	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.13	0	8.2E-06	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.03	5.9E-12	2.0E-06	1.2E-12	4.1E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.05	0	2.3E-06	9.9E-13	2.3E-07	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	6.8E-11	3.2E-05							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-13 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.6	0.00	-	1.9E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.2	0.0	-	6.2E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.2	5.7E-10	-	6.2E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	3.0	0.0	-	2.1E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	1.4	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	0.01	0.0	1.4E-05	2.2E-16	1.1E-10	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.13	0	1.2E-04	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.03	8.5E-11	2.9E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.05	0	3.2E-05	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	8.9E-13	1.1E-10								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-14 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.4	1.3E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.5	1.6E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.6	1.9E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	7.8	2.5E-05	2.1E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	0.02	6.5E-08	1.6E-05	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.07	2.3E-07	5.7E-07	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.0003	9.7E-10	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.13	4.2E-07	1.0E-06	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	2.3E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-14 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.4	0.00	1.3E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.5	0.0	1.7E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.6	2.8E-08	2.0E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	7.8	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	0.02	0.0	5.1E-11	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.07	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.0003	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.13	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.0E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-14 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.4	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.5	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.6	7.56E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	7.8	0	6.3E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	0.02	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.07	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.0003	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.13	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	6.3E-05											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-14 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.4	0.00	5.3E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.5	0.0	6.6E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.6	1.1E-08	7.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	7.8	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.02	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.07	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0003	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.13	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	7.9E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-14 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.4	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.5	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.6	1.2E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	7.8	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	0.02	0.0	1.9E-06	1.3E-10	6.3E-05	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.07	0	3.6E-06	1.6E-12	4.1E-07	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.0003	0	1.9E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.13	0	5.9E-06	2.6E-12	5.9E-07	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.4E-10	6.4E-05							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-14 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.4	0.00	-	1.2E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.5	0.0	-	1.6E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.6	1.7E-09	-	1.9E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	7.8	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	0.02	0.0	2.7E-05	4.4E-16	2.1E-10	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.07	0	5.1E-05	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.0003	0	2.7E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.13	0	8.4E-05	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.9E-12	2.1E-10								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-15 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.2	6.5E-07	5.4E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.0008	2.6E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	5.4E-06								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-15 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.2	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.0008	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-15 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.2	0	1.6E-06	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.0008	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.6E-06											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-15 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.2	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0008	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-15 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.2	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.0008	0	5.1E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-15 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.2	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.0008	0	7.2E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	-	0	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-16 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.79	2.6E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.89	2.9E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.98	3.2E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	1.4	4.5E-06	4.5E-05	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	918	3.0E-03	2.5E-02	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.001	3.2E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0012	3.9E-09	9.7E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	2.5E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-16 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.79	0.00	2.7E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.89	0.0	3.0E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.98	4.5E-08	3.3E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	1.4	0.0	9.0E-10	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	918	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.001	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0012	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	3.6E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-16 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.79	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.89	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.98	1.23E-06	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	1.4	0.0	1.4E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	918	0	7.4E-03	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.001	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0012	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	7.4E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-16 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.79	0.00	1.0E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.89	0.0	1.2E-07	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.98	1.8E-08	1.3E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	1.4	0.0	2.7E-10	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	918	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.001	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0012	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.4E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-16 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.79	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.89	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.98	1.9E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	1.4	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	918	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.001	0	6.3E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0012	0	5.4E-08	2.4E-14	5.4E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	2.4E-14	5.4E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-16 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.79	0.00	-	2.5E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.89	0.0	-	2.8E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.98	2.8E-09	-	3.1E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	1.4	0.0	-	9.5E-15	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	918	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.001	0	9.0E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0012	0	7.8E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	3.3E-12	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-17 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.09	2.9E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.08	2.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.1	3.2E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.43	1.4E-06	1.2E-05	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	30	9.8E-05	2.0E-02	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.0006	1.9E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0009	2.9E-09	7.3E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	2.0E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-17 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.09	0.00	3.0E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.08	0.0	2.7E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.1	4.6E-09	3.4E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.43	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	30	1.4E-06	5.6E-07	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.0006	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0009	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	5.9E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-17 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.09	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.08	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.1	1.26E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.43	0	3.5E-06	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	30	7.34E-05	1.5E-02	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.0006	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0009	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.5E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-17 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.09	0.00	1.2E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.08	0.0	1.1E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.1	1.8E-09	1.3E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.43	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	30	1.0E-06	4.2E-07	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0006	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0009	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	4.3E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-17 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.09	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.08	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.1	2.0E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.43	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	30	6.0E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.0006	0	3.8E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0009	0	4.1E-08	1.8E-14	4.1E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.8E-14	4.1E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-17 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.09	0.00	-	2.8E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.08	0.0	-	2.5E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.1	2.8E-10	-	3.1E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.43	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	30	8.6E-08	-	4.4E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.0006	0	5.4E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0009	0	5.8E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	7.5E-13	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-19 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	93	3.0E-04	7.5E-01	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	3.7	1.2E-05	4.0E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	810	2.6E-03	1.3E-01	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	3140	1.0E-02	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	9.2E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-19 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	93	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	3.7	0.0	2.6E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	810	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	3140	1.4E-04	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.6E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-19 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	93	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	3.7	0.0	3.6E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	810	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	3140	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	-	0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	3.6E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-19 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	93	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	3.7	0.0	2.3E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	810	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	3140	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.3E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-19 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	93	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	3.7	0.0	-	4.9E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	810	0	-	1.6E-03	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	3140	6.2E-07	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.7E-03	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-19 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	93	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	3.7	0.0	-	4.5E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	810	0	-	1.9E-07	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	3140	8.9E-06	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	-	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	-	0	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.9E-07	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-20 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	1.6	5.2E-06	1.3E-02	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	5.5	1.8E-05	5.9E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	81	2.6E-04	1.3E-02	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	45	1.5E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	0.19	6.1E-07	2.0E-02	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	1.0	3.3E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	1.2	3.8E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	1.2	3.9E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	7.0	2.2E-05	2.2E-04	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	0.3	9.7E-07	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	0.07	2.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	13	4.0E-05	3.4E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.1E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-20 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	1.6	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	5.5	0.0	3.8E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	81	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	45	2.1E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.19	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	1.0	0.00	3.5E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	1.2	0.0	3.9E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	1.2	5.6E-08	4.1E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	7.0	0.0	4.5E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	0.3	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	0.07	3.2E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	13	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	8.5E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-20 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	1.6	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	5.5	0.0	5.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	81	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	45	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	0.19	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	1.0	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	1.2	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	1.2	1.54E-06	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	7.0	0.0	6.7E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	0.3	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	0.07	6.78E-08	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	13	0	1.0E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	5.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-20 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	1.6	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	5.5	0.0	3.4E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	81	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	45	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	0.19	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	1.0	0.00	1.4E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	1.2	0.0	1.5E-07	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	1.2	2.2E-08	1.6E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	7.0	0.0	1.3E-09	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	0.3	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	0.07	9.7E-10	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	13	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.2E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-20 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	1.6	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	5.5	0.0	-	7.2E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	81	0	-	1.6E-04	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	45	9.0E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	0.19	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	1.0	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	1.2	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	1.2	2.4E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	7.0	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	0.3	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	0.07	1.4E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	13	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	2.3E-04	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-20 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	1.6	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	5.5	0.0	-	6.6E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	81	0	-	1.9E-08	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	45	1.3E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.19	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	1.0	0.00	-	3.2E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	1.2	0.0	-	3.6E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	1.2	3.5E-09	-	3.8E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	7.0	0.0	-	4.7E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	0.3	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	0.07	2.0E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	13	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	-	0	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.9E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-21 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	1.1	3.6E-06	9.0E-03	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	2.3	7.4E-06	2.5E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	474	1.5E-03	7.7E-02	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	26	8.4E-05	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	0.1	3.2E-07	1.1E-02	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.08	2.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.1	3.2E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.1	3.2E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	5.2	1.7E-05	1.4E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.002	6.5E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.001	3.2E-09	8.1E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.2E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-21 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	1.1	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	2.3	0.0	1.6E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	474	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	26	1.2E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	0.1	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.08	0.00	2.7E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.1	0.0	3.4E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.1	4.6E-09	3.4E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	5.2	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.002	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.001	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.0E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-21 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	1.1	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	2.3	0.0	2.2E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	474	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	26	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	0.1	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.08	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.1	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.1	1.26E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	5.2	0	4.2E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.002	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.001	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-21 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	1.1	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	2.3	0.0	1.4E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	474	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	26	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	0.1	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.08	0.00	1.1E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.1	0.0	1.3E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.1	1.8E-09	1.3E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	5.2	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.002	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.001	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	3.0E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-21 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	1.1	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	2.3	0.0	-	3.0E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	474	0	-	9.4E-04	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	26	5.1E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	0.1	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.08	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.1	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.1	2.0E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	5.2	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.002	0	1.3E-07	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.001	0	4.5E-08	2.0E-14	4.5E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	9.7E-04	4.5E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-21 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	1.1	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	2.3	0.0	-	2.8E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	474	0	-	1.1E-07	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	26	7.3E-08	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	0.1	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.08	0.00	-	2.5E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.1	0.0	-	3.1E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.1	2.8E-10	-	3.1E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	5.2	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.002	0	1.8E-06	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.001	0	6.5E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.1E-07	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-22 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	2.0	6.6E-06	1.6E-02	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	4.3	1.4E-05	4.7E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	49	1.6E-04	7.9E-03	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	157	5.1E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	4.7	1.5E-05	5.1E-01	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.07	2.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.09	2.9E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.1	3.2E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	160	5.2E-04	5.2E-03	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	0.06	1.9E-07	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	9.8	3.2E-05	2.6E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.0006	1.9E-09	4.8E-09	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.0009	2.9E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.017	5.5E-08	2.7E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0024	7.7E-09	1.9E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	5.8E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-22 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	2.0	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	4.3	0.0	3.0E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	49	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	157	7.2E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	4.7	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.07	0.00	2.4E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.09	0.0	3.0E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.1	4.6E-09	3.4E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	160	0.0	1.0E-07	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	0.06	2.8E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	9.8	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.0006	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.0009	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.017	7.8E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0024	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	4.4E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-22 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	2.0	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	4.3	0.0	4.2E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	49	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	157	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	4.7	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.07	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.09	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.1	1.26E-07	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	160	0.0	1.5E-03	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	0.06	5.81E-08	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	9.8	0	7.9E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.0006	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.0009	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.017	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0024	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	5.8E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-22 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	2.0	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	4.3	0.0	2.7E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	49	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	157	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	4.7	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.07	0.00	9.2E-10	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.09	0.0	1.2E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.1	1.8E-09	1.3E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	160	0.0	3.1E-08	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	0.06	8.3E-10	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	9.8	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0006	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0009	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.017	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0024	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	7.2E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-22 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	2.0	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	4.3	0.0	-	5.7E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	49	0	-	9.7E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	157	3.1E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	4.7	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.07	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.09	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.1	2.0E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	160	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	0.06	1.2E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	9.8	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.0006	0	3.0E-08	1.4E-14	3.5E-09	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.0009	0	5.7E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.017	3.4E-12	1.2E-06	6.7E-13	2.3E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0024	0	1.1E-07	4.8E-14	1.1E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.5E-04	2.4E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-22 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	2.0	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	4.3	0.0	-	5.3E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	49	0	-	1.2E-08	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	157	4.4E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	4.7	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.07	0.00	-	2.2E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.09	0.0	-	2.8E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.1	2.8E-10	-	3.1E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	160	0.0	-	1.1E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	0.06	1.7E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	9.8	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.0006	0	4.3E-07	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.0009	0	8.1E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.017	4.8E-11	1.6E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0024	0	1.6E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.2E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-23 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.03	9.7E-08	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.03	9.7E-08	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	21	6.9E-05	5.7E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	5.7E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-23 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	0.0	1.0E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.03	1.4E-09	1.0E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	21	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.1E-08								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-23 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.03	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.03	3.78E-08	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	21	0	1.7E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.7E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-23 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	0.0	3.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.03	5.4E-10	3.9E-10	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	21	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	4.3E-09											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-23 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.03	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.03	5.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	21	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-23 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	0.0	-	9.3E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.03	8.5E-11	-	9.3E-15	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	21	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	-	0	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.0E-13	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-24 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	0.1	3.2E-07	8.1E-04	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	2.3	7.5E-06	2.5E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	5.6	1.8E-05	9.0E-04	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	57	1.8E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.02	6.5E-08	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.04	1.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.04	1.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.001	3.2E-09	8.1E-09	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.003	9.7E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.046	1.5E-07	7.4E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0049	1.6E-08	4.0E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	2.7E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-24 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.1	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	2.3	0.0	1.6E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	5.6	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	57	2.6E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.02	0.00	6.7E-10	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.04	0.0	1.3E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.04	1.8E-09	1.3E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.001	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.003	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.046	2.1E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0049	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.8E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-24 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.1	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	2.3	0.0	2.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	5.6	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	57	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.02	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.04	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.04	5.04E-08	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	-	0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.001	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.003	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.046	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0049	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-24 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.1	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	2.3	0.0	1.5E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	5.6	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	57	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.02	0.00	2.6E-10	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.04	0.0	5.3E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.04	7.2E-10	5.3E-10	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.001	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.003	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.046	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0049	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.1E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-24 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	0.1	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	2.3	0.0	-	3.1E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	5.6	0	-	1.1E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	57	1.1E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.02	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.04	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.04	7.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.001	0	5.1E-08	2.3E-14	5.8E-09	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.003	0	1.9E-07	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.046	9.1E-12	3.1E-06	1.8E-12	6.2E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0049	0	2.2E-07	9.7E-14	2.2E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	4.2E-05	6.5E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-24 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.1	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	2.3	0.0	-	2.8E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	5.6	0	-	1.3E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	57	1.6E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.02	0.00	-	6.2E-15	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.04	0.0	-	1.2E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.04	1.1E-10	-	1.2E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	-	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.001	0	7.2E-07	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.003	0	2.7E-06	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.046	1.3E-10	4.5E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0049	0	3.2E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.4E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-25 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	0.93	3.0E-06	7.5E-03	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	3.7	1.2E-05	3.9E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	6.0	1.9E-05	9.6E-04	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	38	1.2E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.05	1.6E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.06	1.9E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	0.06	1.9E-07	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0003	9.7E-10	2.4E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	4.8E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-25 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.93	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	3.7	0.0	2.5E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	6.0	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	38	1.7E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.05	0.00	1.7E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.06	0.0	2.0E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	0.06	2.8E-09	2.0E-09	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0003	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.8E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-25 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.93	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	3.7	0.0	3.5E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	6.0	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	38	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.05	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.06	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	0.06	7.56E-08	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	-	0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0003	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	3.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-25 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.93	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	3.7	0.0	2.3E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	6.0	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	38	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.05	0.00	6.6E-10	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.06	0.0	7.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	0.06	1.1E-09	7.9E-10	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0003	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	3.2E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-25 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	0.93	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	3.7	0.0	-	4.8E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	6.0	0	-	1.2E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	38	7.5E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.05	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.06	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	0.06	1.2E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0003	0	1.4E-08	5.9E-15	1.4E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	6.0E-05	1.4E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-25 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.93	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	3.7	0.0	-	4.4E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	6.0	0	-	1.4E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	38	1.1E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.05	0.00	-	1.6E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.06	0.0	-	1.9E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	0.06	1.7E-10	-	1.9E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	-	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0003	0	1.9E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.5E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-26 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	4.4	1.4E-05	4.7E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	62	2.0E-04	1.0E-02	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	58	1.9E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.03	9.7E-08	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.08	2.6E-07	2.2E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.006	1.9E-08	9.7E-09	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.0009	2.9E-09	7.3E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	5.7E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-26 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	4.4	0.0	3.0E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	62	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	58	2.7E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	0.0	1.0E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.08	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.006	2.8E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.0009	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	3.1E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-26 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	4.4	0.0	4.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	62	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	58	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.03	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.08	0	6.5E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.006	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.0009	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	4.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-26 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	4.4	0.0	2.7E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	62	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	58	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	0.0	3.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.08	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.006	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.0009	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	3.1E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-26 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	4.4	0.0	-	5.8E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	62	0	-	1.2E-04	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	58	1.2E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.03	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.08	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.006	1.2E-12	4.1E-07	2.4E-13	8.1E-08	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.0009	0	4.1E-08	1.8E-14	4.1E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.8E-04	8.5E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-26 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	4.4	0.0	-	5.4E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	62	0	-	1.5E-08	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	58	1.6E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	0.0	-	9.3E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.08	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.006	1.7E-11	5.8E-06	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.0009	0	5.8E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.5E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-27 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	0.46	1.5E-06	3.7E-03	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	6.9	2.2E-05	7.4E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	13	4.1E-05	2.1E-03	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	57	1.8E-04	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.79	2.6E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	1.1	3.4E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	1.2	4.0E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.01	3.2E-08	8.1E-08	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.07	2.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.06	1.9E-07	9.7E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.14	4.5E-07	1.1E-06	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	7.9E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-27 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	0.46	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	6.9	0.0	4.7E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	13	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	57	2.6E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.79	0.00	2.7E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	1.1	0.0	3.5E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	1.2	5.7E-08	4.2E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.01	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.07	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.06	2.8E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.14	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	9.0E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-27 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	0.46	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	6.9	0.0	6.6E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	13	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	57	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.79	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	1.1	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	1.2	1.56E-06	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	-	0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.01	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.07	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.06	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.14	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	6.6E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-27 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF (mg/kg*day)$^{-1}$	Oral ABS	DERMAL CSF (mg/kg*day)$^{-1}$
Antimony	0.46	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	6.9	0.0	4.3E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	13	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	57	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.79	0.00	1.0E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	1.1	0.0	1.4E-07	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	1.2	2.2E-08	1.6E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	-	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.01	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.07	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.06	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.14	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.1E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-27 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	0.46	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	6.9	0.0	-	9.1E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	13	0	-	2.5E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	57	1.1E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.79	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	1.1	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	1.2	2.5E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.01	0	5.1E-07	2.3E-13	5.8E-08	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.07	0	4.4E-06	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.06	1.2E-11	4.1E-06	2.4E-12	8.1E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.14	0	6.3E-06	2.8E-12	6.3E-07	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.2E-04	1.5E-06							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-27 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	0.46	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	6.9	0.0	-	8.3E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	13	0	-	3.0E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	57	1.6E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.79	0.00	-	2.5E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	1.1	0.0	-	3.3E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	1.2	3.5E-09	-	3.9E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	-	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	-	0.0	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.01	0	7.2E-06	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.07	0	6.3E-05	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.06	1.7E-10	5.8E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.14	0	9.0E-05	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	3.1E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-28 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Antimony	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-04
Arsenic	3.9	1.3E-05	4.2E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	7.2	2.3E-05	1.2E-03	330	1.E-06	250	1	1	70	365	2.0E-02
Lead	16	5.2E-05	NA	330	1.E-06	250	1	1	70	365	NA
Aroclor-1248 (PCB-1248)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Carbazole	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Dimethyl phthalate	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Di-n-octyl phthalate	0.1	3.2E-07	2.7E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	5.0E-03
Benzene	0.0004	1.3E-09	3.2E-07	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.002	6.5E-09	1.6E-08	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.032	1.0E-07	5.2E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Trichloroethene	5.3	1.7E-05	3.4E-02	330	1.E-06	250	1	1	70	365	5.0E-04
Xylene (total)	0.011	3.6E-08	8.9E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	7.7E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-28 SURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	330	1.E-06	250	1	1	70	25550	NC
Arsenic	3.9	0.0	2.7E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	7.2	0	NC	330	1.E-06	250	1	1	70	25550	NC
Lead	16	7.4E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Carbazole	-	0.000	NC	330	1.E-06	250	1	1	70	25550	NC
Dimethyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Di-n-octyl phthalate	0.1	0	NC	330	1.E-06	250	1	1	70	25550	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	4.0E-01
Benzene	0.0004	0.0	1.0E-12	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.002	0	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.032	1.5E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Trichloroethene	5.3	2.4E-07	1.2E-08	330	1.E-06	250	1	1	70	25550	5.0E-02
Xylene (total)	0.011	0	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.8E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-28 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-04	0.015	6.0E-06
Arsenic	3.9	0.0	3.8E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	7.2	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E-02	0.025	5.0E-04
Lead	16	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	NA	0.0E+00
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.0	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Carbazole	-	0.000	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Dimethyl phthalate	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.1	70	365	NA	1	NA
Di-n-octyl phthalate	0.1	0	8.1E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Pentachlorophenol	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.25	70	365	5.0E-03	1	5.0E-03
Benzene	0.0004	0.0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.002	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.032	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Trichloroethene	5.3	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	5.0E-04	1	5.0E-04
Xylene (total)	0.011	0	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	3.8E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-28 SURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Antimony	-	0.0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.015	NC
Arsenic	3.9	0.0	2.4E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	7.2	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Lead	16	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	NC	NC
Aroclor-1248 (PCB-1248)	-	-	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Carbazole	-	0.000	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Dimethyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Di-n-octyl phthalate	0.1	0	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Pentachlorophenol	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.25	70	25550	4.0E-01	1	4.0E-01
Benzene	0.0004	0.0	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.002	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.032	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Trichloroethene	5.3	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.0E-02	1	5.0E-02
Xylene (total)	0.011	0	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.4E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-28 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Antimony	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Arsenic	3.9	0.0	-	5.2E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	7.2	0	-	1.4E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Lead	16	3.2E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Aroclor-1248 (PCB-1248)	-	-	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Carbazole	-	0.000	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Dimethyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.1	0	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Pentachlorophenol	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	0.0004	0.0	3.8E-08	2.6E-12	1.3E-06	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.002	0	1.0E-07	4.6E-14	1.2E-08	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.032	6.3E-12	2.2E-06	1.3E-12	4.3E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Trichloroethene	5.3	1.0E-09	3.6E-04	1.9E-09	6.6E-04	1.14E+09	3.33E+03	250	1	0.33	365	5.4E-01
Xylene (total)	0.011	0	5.0E-07	2.2E-13	5.0E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	6.6E-05	6.7E-04							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OH

AOI-28 SURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Antimony	-	0.0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Arsenic	3.9	0.0	-	4.8E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	7.2	0	-	1.7E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Lead	16	4.6E-08	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Aroclor-1248 (PCB-1248)	-	-	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Carbazole	-	0.000	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Dimethyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Di-n-octyl phthalate	0.1	0	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Pentachlorophenol	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.1E-06
Benzene	0.0004	0.0	5.4E-07	8.8E-18	4.2E-12	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.002	0	1.4E-06	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.032	9.1E-11	3.1E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Trichloroethene	5.3	1.5E-08	5.1E-03	6.0E-14	2.0E-08	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	4.0E-06
Xylene (total)	0.011	0	7.1E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.8E-09	2.0E-08								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

Construction Worker

Subsurface Soil

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	424	1.4E-03	4.6E+01	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	2.5	8.0E-06	8.0E-05	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	1.6	5.3E-06	4.4E-05	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	4.6E+01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	424	2.0E-05	3.9E-05	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	2.5	1.1E-07	1.6E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	1.6	7.5E-08	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	3.9E-05								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	424	5.75E-04	1.9E+01	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	2.5	2.39E-06	2.4E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	1.6	1.58E-06	1.3E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.9E+01											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	424	8.2E-06	1.6E-05	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	2.5	3.4E-08	4.8E-10	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	1.6	2.3E-08	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.6E-05											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	424	8.4E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	2.5	4.9E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	1.6	3.2E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-01 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	424	1.2E-06	-	6.8E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	2.5	7.0E-09	-	1.7E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	1.6	4.6E-09	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	6.8E-10	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	23	7.4E-05	2.5E-01	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	10	3.2E-05	1.1E-02	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	73	2.3E-04	2.3E-03	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	425	1.4E-03	1.1E-02	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	0.64	2.1E-06	5.2E-04	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	426	1.4E-03	3.4E-03	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	30	9.6E-05	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	3025	9.8E-03	4.9E-03	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	2777	9.0E-03	2.2E-02	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.0E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	23	1.1E-06	1.6E-06	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	10	4.6E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	73	3.3E-06	4.7E-08	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	425	2.0E-05	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	0.64	3.0E-08	1.6E-09	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	426	2.0E-05	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	30	1.4E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	3025	1.4E-04	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	2777	1.3E-04	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.6E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	23	6.64E-06	2.2E-02	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	10	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	73	7.03E-05	7.0E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	425	4.12E-04	3.4E-03	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	0.64	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	426	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	30	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	3025	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	2777	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.6E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	23	9.5E-08	1.4E-07	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	10	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	73	1.0E-06	1.4E-08	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	425	5.9E-06	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	0.64	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	426	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	30	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	3025	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	2777	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.6E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	23	4.5E-09	-	3.0E-04	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	10	2.0E-09	-	2.0E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	73	1.4E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	425	8.4E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	0.64	1.3E-10	6.1E-05	4.3E-09	2.0E-03	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	426	8.5E-08	2.2E-02	9.7E-09	2.5E-03	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	30	5.9E-09	1.9E-03	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	3025	6.0E-07	2.1E-01	1.2E-07	4.1E-02	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	2777	5.5E-07	1.3E-01	5.5E-08	1.3E-02	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	3.2E-04	5.8E-02							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-02 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	23	6.5E-08	-	2.8E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	10	2.8E-08	-	2.4E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	73	2.1E-07	-	4.9E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	425	1.2E-06	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	0.64	1.8E-09	8.7E-04	1.4E-14	6.8E-09	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	426	1.2E-06	3.1E-01	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	30	8.4E-08	2.7E-02	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	3025	8.6E-06	2.9E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	2777	7.9E-06	1.8E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	2.7E-09	6.8E-09								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	2.8	9.0E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	2.5	7.9E-06	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	2.9	9.4E-06	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.0005	1.6E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	0.0E+00								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	2.8	1.3E-07	9.4E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	2.5	1.1E-07	8.3E-07	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	2.9	1.3E-07	9.8E-08	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.0005	2.3E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.0E-06								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	2.8	3.50E-06	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	2.5	3.09E-06	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	2.9	3.65E-06	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.0005	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	2.8	5.0E-08	3.7E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	2.5	4.4E-08	3.2E-07	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	2.9	5.2E-08	3.8E-08	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0005	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	4.0E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	2.8	5.5E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	2.5	4.9E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	2.9	5.7E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.0005	9.9E-14	3.2E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-03 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	2.8	7.9E-09	-	8.7E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	2.5	6.9E-09	-	7.6E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	2.9	8.2E-09	-	9.0E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.0005	1.4E-12	4.5E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	9.4E-12	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	0.0E+00								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-04 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	30	9.8E-05	9.8E-04	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	0.2	6.5E-07	5.4E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	9.8E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	30	1.4E-06	2.0E-08	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.2	9.2E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.0E-08								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	30	2.93E-05	2.9E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	0.2	1.94E-07	1.6E-06	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.9E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	30	4.2E-07	5.9E-09	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.2	2.8E-09	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	5.9E-09											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	30	6.0E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.2	4.0E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-05 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	30	8.6E-08	-	2.1E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.2	5.7E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	2.1E-13	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	4.3	1.4E-05	4.6E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	45	1.5E-04	4.8E-02	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	0.77	2.5E-06	2.5E-05	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.0005	1.6E-09	8.1E-10	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	9.4E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	4.3	2.0E-07	2.9E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	45	2.1E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	0.77	3.6E-08	5.0E-10	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.0005	2.3E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	3.0E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	4.3	1.24E-06	4.1E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	45	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	0.77	7.46E-07	7.5E-06	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.0005	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	4.1E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	4.3	1.8E-08	2.7E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	45	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	0.77	1.1E-08	1.5E-10	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.0005	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.7E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	4.3	8.4E-10	-	5.6E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	45	8.9E-09	-	8.9E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	0.77	1.5E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.0005	9.9E-14	3.4E-08	2.0E-14	6.8E-09	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	1.5E-04	6.8E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-08 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	4.3	1.2E-08	-	5.2E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	45	1.3E-07	-	1.1E-08	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	0.77	2.2E-09	-	5.2E-15	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.0005	1.4E-12	4.8E-07	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.1E-08	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	3.5	1.1E-05	3.7E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	9.1	2.9E-05	9.8E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	0.06	1.9E-07	1.6E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.0003	9.7E-10	2.4E-09	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.0014	4.5E-09	1.1E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	4.7E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	3.5	1.6E-07	2.4E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	9.1	4.2E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.06	2.8E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.0003	1.4E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.0014	6.5E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.4E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	3.5	1.00E-06	3.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	9.1	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	0.06	5.81E-08	4.8E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.0003	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.0014	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	3.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	3.5	1.4E-08	2.1E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	9.1	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.06	8.3E-10	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0003	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.0014	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.1E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	3.5	6.8E-10	-	4.6E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	9.1	1.8E-09	-	1.8E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.06	1.2E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.0003	5.9E-14	1.5E-08	6.8E-15	1.7E-09	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.0014	2.8E-13	6.3E-08	2.8E-14	6.3E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	6.4E-05	8.1E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-09 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	3.5	9.8E-09	-	4.2E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	9.1	2.6E-08	-	2.2E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.06	1.7E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.0003	8.5E-13	2.2E-07	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.0014	4.0E-12	9.0E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	2.2E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.6	8.4E-06	2.8E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	7.9	2.6E-05	8.5E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.017	5.5E-08	2.7E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.0004	1.3E-09	3.2E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.7E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.6	1.2E-07	1.8E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	7.9	3.7E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.017	7.8E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.0004	1.8E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.8E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.6	7.56E-07	2.5E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	7.9	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.017	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.0004	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.6	1.1E-08	1.6E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	7.9	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.017	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.0004	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.6E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	2.6	5.2E-10	-	3.4E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	7.9	1.6E-09	-	1.6E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.017	3.4E-12	1.2E-06	6.7E-13	2.3E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.0004	7.9E-14	1.8E-08	7.9E-15	1.8E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	5.0E-05	2.3E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-10 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.6	7.4E-09	-	3.2E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	7.9	2.2E-08	-	1.9E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.017	4.8E-11	1.6E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.0004	1.1E-12	2.6E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.9E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.1	6.9E-06	2.3E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	4.9	1.6E-05	5.3E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	0.05	1.6E-07	1.3E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.0004	1.3E-09	6.5E-10	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.0003	9.7E-10	2.4E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	2.8E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	9.8E-08	1.5E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	4.9	2.3E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.05	2.3E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.0004	1.8E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.0003	1.4E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.5E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.1	6.19E-07	2.1E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	4.9	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	0.05	4.84E-08	4.0E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.0004	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.0003	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.1E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	8.8E-09	1.3E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.9	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.05	6.9E-10	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.0004	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.0003	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.3E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	2.1	4.2E-10	-	2.8E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	4.9	9.7E-10	-	9.7E-06	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.05	9.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.0004	7.9E-14	2.7E-08	1.6E-14	5.4E-09	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.0003	5.9E-14	1.4E-08	5.9E-15	1.4E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	3.8E-05	6.8E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-11 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.1	6.0E-09	-	2.6E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	4.9	1.4E-08	-	1.2E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.05	1.4E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.0004	1.1E-12	3.9E-07	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.0003	8.5E-13	1.9E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.2E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	15	4.8E-05	4.8E-04	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	2900	9.4E-03	7.8E-02	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	5	1.6E-05	4.0E-03	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	4	1.3E-05	3.2E-05	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	1.2	3.9E-06	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	1060	3.4E-03	1.7E-03	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	12	3.9E-05	9.7E-05	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	8.4E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	15	6.9E-07	9.7E-09	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	2900	1.3E-04	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	5	2.3E-07	1.3E-08	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	4	1.8E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	1.2	5.5E-08	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	1060	4.9E-05	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	12	5.5E-07	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.2E-08								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	15	1.45E-05	1.5E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	2900	2.81E-03	2.3E-02	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	5	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	4	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	1.2	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	1060	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	12	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.4E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	15	2.1E-07	2.9E-09	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	2900	4.0E-05	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	5	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	4	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	1.2	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	1060	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	12	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.9E-09											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	15	3.0E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	2900	5.7E-07	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	5	9.9E-10	4.7E-04	3.3E-08	1.6E-02	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	4	7.9E-10	2.0E-04	9.1E-11	2.3E-05	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	1.2	2.4E-10	7.6E-05	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	1060	2.1E-07	7.2E-02	4.2E-08	1.4E-02	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	12	2.4E-09	5.4E-04	2.4E-10	5.4E-05	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	7.5E-08	3.0E-02							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-13 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	15	4.2E-08	-	1.0E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	2900	8.2E-06	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	5	1.4E-08	6.8E-03	1.1E-13	5.3E-08	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	4	1.1E-08	2.9E-03	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	1.2	3.4E-09	1.1E-03	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	1060	3.0E-06	1.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	12	3.4E-08	7.8E-03	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	2.1E-13	5.3E-08								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	36	1.2E-04	9.7E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	0.5	1.6E-06	4.0E-04	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.04	1.3E-07	3.2E-07	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.01	3.2E-08	8.1E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.4E-03								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	36	1.7E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	0.5	2.3E-08	1.3E-09	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.04	1.8E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.01	4.6E-10	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.3E-09								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	36	3.51E-05	2.9E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	0.5	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.04	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.01	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.9E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	36	5.0E-07	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	0.5	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.04	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.01	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	36	7.2E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	0.5	9.9E-11	4.7E-05	3.3E-09	1.6E-03	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.04	7.9E-12	2.0E-06	9.1E-13	2.3E-07	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.01	2.0E-12	4.5E-07	2.0E-13	4.5E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	3.3E-09	1.6E-03							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-14 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	36	1.0E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	0.5	1.4E-09	6.8E-04	1.1E-14	5.3E-09	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.04	1.1E-10	2.9E-05	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.01	2.8E-11	6.5E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.1E-14	5.3E-09								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	2800	9.0E-03	7.5E-02	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.006	1.9E-08	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.006	1.9E-08	9.7E-09	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.007	2.3E-08	5.7E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	7.5E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	2800	1.3E-04	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.006	2.8E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.006	2.8E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.007	3.2E-10	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	2800	2.71E-03	2.3E-02	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.006	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.006	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.007	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.3E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	2800	3.9E-05	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.006	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.006	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.007	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	2800	5.6E-07	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.006	1.2E-12	3.8E-07	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.006	1.2E-12	4.1E-07	2.4E-13	8.1E-08	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.007	1.4E-12	3.2E-07	1.4E-13	3.2E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	3.8E-13	1.1E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-15 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	2800	7.9E-06	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.006	1.7E-11	5.4E-06	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.006	1.7E-11	5.8E-06	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.007	2.0E-11	4.5E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	16	5.2E-05	4.4E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	41	1.3E-04	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	4.4E-04								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	16	7.5E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	41	1.9E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	16	1.57E-05	1.3E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	41	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.3E-04											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	16	2.2E-07	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	41	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	16	3.2E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	41	8.2E-09	2.6E-03	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-16 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	16	4.6E-08	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	41	1.2E-07	3.7E-02	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	0.05	1.6E-07	1.3E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.3E-06								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.05	2.3E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	0.0E+00								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	0.05	4.84E-08	4.0E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	4.0E-07											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.05	6.9E-10	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	0.0E+00											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.05	9.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-17 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.05	1.4E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	0.0E+00	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.7	8.7E-06	2.9E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	4.0	1.3E-05	4.3E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.3E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	1.2E-07	1.9E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	4.0	1.9E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.9E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.7	7.79E-07	2.6E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	4.0	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.6E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	1.1E-08	1.7E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.0	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.7E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	2.7	5.3E-10	-	3.5E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	4.0	8.0E-10	-	8.0E-06	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	4.3E-05	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-19 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.7	7.6E-09	-	3.3E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	4.0	1.1E-08	-	9.6E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	9.9E-10	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.8	8.9E-06	3.0E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	3.5	1.1E-05	3.8E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.3E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.8	1.3E-07	1.9E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	3.5	1.6E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.9E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.8	7.99E-07	2.7E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	3.5	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.7E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.8	1.1E-08	1.7E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	3.5	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.7E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	2.8	5.5E-10	-	3.6E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	3.5	6.9E-10	-	6.9E-06	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	4.3E-05	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-20 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.8	7.8E-09	-	3.3E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	3.5	9.9E-09	-	8.3E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	8.6E-10	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	6.5	2.1E-05	7.0E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	4.6	1.5E-05	4.9E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.03	9.7E-08	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	1010	3.3E-03	2.7E-02	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.01	3.2E-08	8.1E-08	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.005	1.6E-08	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.0008	2.6E-09	6.5E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	1.0E-01								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	6.5	3.0E-07	4.5E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	4.6	2.1E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	1.4E-09	1.0E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	1010	4.7E-05	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.01	4.6E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.005	2.3E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.0008	3.7E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	4.6E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	6.5	1.89E-06	6.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	4.6	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.03	3.78E-08	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	1010	9.78E-04	8.2E-03	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.01	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.005	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.0008	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.4E-02											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	6.5	2.7E-08	4.1E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.6	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	5.4E-10	3.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	1010	1.4E-05	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.01	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.005	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.0008	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	4.5E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	6.5	1.3E-09	-	8.6E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	4.6	9.1E-10	-	9.1E-06	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.03	5.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	1010	2.0E-07	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.01	2.0E-12	5.1E-07	2.3E-13	5.8E-08	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.005	9.9E-13	3.2E-07	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.0008	1.6E-13	3.6E-08	1.6E-14	3.6E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	9.5E-05	6.2E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-21 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	6.5	1.8E-08	-	7.9E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	4.6	1.3E-08	-	1.1E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	8.5E-11	-	9.3E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	1010	2.9E-06	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.01	2.8E-11	7.2E-06	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.005	1.4E-11	4.5E-06	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.0008	2.3E-12	5.2E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.2E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	3.6	1.1E-05	3.8E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	4.1	1.3E-05	4.4E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	0.03	9.7E-08	3.2E-03	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.03	9.7E-08	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	147	4.7E-04	4.7E-03	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	37	1.2E-04	9.8E-04	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.0005	1.6E-09	4.0E-09	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.04	1.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.0004	1.3E-09	6.5E-10	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.002	6.5E-09	1.6E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	5.2E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	3.6	1.6E-07	2.5E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	4.1	1.9E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	0.03	1.4E-09	2.8E-09	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.03	1.4E-09	1.0E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	147	6.8E-06	9.5E-08	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	37	1.7E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.0005	2.3E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.04	1.8E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.0004	1.8E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.002	9.2E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	3.5E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	3.6	1.03E-06	3.4E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	4.1	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	0.03	4.07E-08	1.4E-03	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.03	3.78E-08	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	147	1.42E-04	1.4E-03	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	37	3.55E-05	3.0E-04	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.0005	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.04	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.0004	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.002	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	6.5E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	3.6	1.5E-08	2.2E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	4.1	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	0.03	5.8E-10	1.2E-09	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.03	5.4E-10	3.9E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	147	2.0E-06	2.8E-08	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	37	5.1E-07	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0005	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.04	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.0004	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.002	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	5.6E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	3.6	7.0E-10	-	4.7E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	4.1	8.1E-10	-	8.1E-06	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	0.03	5.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.03	5.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	147	2.9E-08	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	37	7.3E-09	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.0005	9.9E-14	2.5E-08	1.1E-14	2.9E-09	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.04	7.9E-12	2.5E-06	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.0004	7.9E-14	2.7E-08	1.6E-14	5.4E-09	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.002	4.0E-13	9.0E-08	4.0E-14	9.0E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	5.5E-05	1.7E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-22 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	3.6	1.0E-08	-	4.3E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	4.1	1.2E-08	-	9.8E-10	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	0.03	8.5E-11	-	4.8E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.03	8.5E-11	-	9.3E-14	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	147	4.2E-07	-	1.0E-12	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	37	1.0E-07	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.0005	1.4E-12	3.6E-07	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.04	1.1E-10	3.6E-05	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.0004	1.1E-12	3.9E-07	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.002	5.7E-12	1.3E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.0E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	0.02	6.5E-08	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	1.3	4.0E-06	3.4E-05	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.4E-05								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	0.02	9.2E-10	6.7E-10	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	1.3	5.8E-08	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	6.7E-10								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	0.02	2.52E-08	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	1.3	1.21E-06	1.0E-05	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.0E-05											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	0.02	3.6E-10	2.6E-10	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	1.3	1.7E-08	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.6E-10											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	0.02	4.0E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	1.3	2.5E-10	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	0.0E+00	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-23 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	0.02	5.7E-11	-	6.2E-15	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	1.3	3.5E-09	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	6.2E-15	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.3	7.3E-06	2.4E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	5.0	1.6E-05	5.4E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	0.0008	2.6E-09	6.5E-09	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	37	1.2E-04	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.016	5.2E-08	2.6E-08	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.0029	9.4E-09	2.3E-08	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.0E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.3	1.0E-07	1.6E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	5.0	2.3E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	0.0008	3.7E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	37	1.7E-06	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.016	7.4E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.0029	1.3E-10	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.6E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.3	6.54E-07	2.2E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	5.0	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	0.0008	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	37	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.016	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.0029	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.2E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.3	9.3E-09	1.4E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	5.0	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	0.0008	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	37	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.016	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.0029	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.4E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	2.3	4.5E-10	-	3.0E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	5.0	9.9E-10	-	9.9E-06	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	0.0008	1.6E-13	4.1E-08	1.8E-14	4.7E-09	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	37	7.3E-09	2.3E-03	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.016	3.2E-12	1.1E-06	6.3E-13	2.2E-07	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.0029	5.7E-13	1.3E-07	5.7E-14	1.3E-08	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	4.0E-05	2.3E-07							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-24 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.3	6.4E-09	-	2.7E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	5.0	1.4E-08	-	1.2E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	0.0008	2.3E-12	5.8E-07	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	37	1.0E-07	3.3E-02	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.016	4.5E-11	1.6E-05	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.0029	8.2E-12	1.9E-06	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.2E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	1.4	4.4E-06	1.5E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	5.7	1.8E-05	6.1E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	0.0009	2.9E-09	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.001	3.2E-09	8.1E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	2.1E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	1.4	6.2E-08	9.3E-08	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	5.7	2.6E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	0.0009	4.2E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.001	4.6E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	9.3E-08								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	1.4	3.92E-07	1.3E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	5.7	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	0.0009	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.001	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	1.3E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	1.4	5.6E-09	8.4E-09	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	5.7	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	0.0009	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.001	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	8.4E-09											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	1.4	2.7E-10	-	1.8E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	5.7	1.1E-09	-	1.1E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	0.0009	1.8E-13	5.7E-08	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.001	2.0E-13	4.5E-08	2.0E-14	4.5E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	2.9E-05	4.5E-09							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-25 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	1.4	3.8E-09	-	1.6E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	5.7	1.6E-08	-	1.3E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	0.0009	2.5E-12	8.1E-07	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.001	2.8E-12	6.5E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.4E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	4.2	1.4E-05	4.5E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	12	3.8E-05	1.3E-02	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	0.1	3.2E-07	2.7E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.005	1.6E-08	8.1E-09	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	5.8E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	4.2	1.9E-07	2.9E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	12	5.5E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.1	4.6E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.005	2.3E-10	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	2.9E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	4.2	1.23E-06	4.1E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	12	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	0.1	9.69E-08	8.1E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.005	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	4.1E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	4.2	1.8E-08	2.6E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	12	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.1	1.4E-09	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.005	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	2.6E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	4.2	8.4E-10	-	5.6E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	12	2.4E-09	-	2.4E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.1	2.0E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.005	9.9E-13	3.4E-07	2.0E-13	6.8E-08	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	7.9E-05	6.8E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-26 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	4.2	1.2E-08	-	5.1E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	12	3.4E-08	-	2.8E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.1	2.8E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.005	1.4E-11	4.8E-06	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	2.9E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.1	6.7E-06	2.2E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	6.9	2.2E-05	7.4E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	0.04	1.3E-07	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	0.07	2.3E-07	1.9E-06	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.0E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	9.5E-08	1.4E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	6.9	3.2E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	0.04	1.8E-09	1.3E-08	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	0.07	3.2E-09	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.6E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.1	5.99E-07	2.0E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	6.9	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	0.04	5.04E-08	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	0.07	6.78E-08	5.7E-07	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.0E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.1	8.6E-09	1.3E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	6.9	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	0.04	7.2E-10	5.3E-09	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	0.07	9.7E-10	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.8E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	2.1	4.1E-10	-	2.7E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	6.9	1.4E-09	-	1.4E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	0.04	7.9E-12	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	0.07	1.4E-11	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	4.1E-05	0.0E+00							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-27 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.1	5.8E-09	-	2.5E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	6.9	1.9E-08	-	1.6E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	0.04	1.1E-10	-	1.2E-13	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	0.07	2.0E-10	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	1.7E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)
Arsenic	2.7	8.8E-06	2.9E-02	330	1.E-06	250	1	1	70	365	3.0E-04
Chromium Total	8.6	2.8E-05	9.2E-03	330	1.E-06	250	1	1	70	365	3.0E-03
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	3.0E-05
Benzo(a)anthracene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(a)pyrene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Benzo(b)fluoranthene	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.0E-01
Di-n-octyl phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	1.2E-01
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-03
Ethylbenzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	365	4.0E-01
Methyl cyclohexane	-	0.0E+00	NA	330	1.E-06	250	1	1	70	365	NA
Toluene	0.001	3.2E-09	1.6E-09	330	1.E-06	250	1	1	70	365	2.0E+00
Xylene (total)	0.0004	1.3E-09	3.2E-09	330	1.E-06	250	1	1	70	365	4.0E-01
		HAZARD INDEX	3.8E-02								

Notes:
NA - Not Available
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
CONSTRUCTION WORKER
INCIDENTAL INGESTION OF SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	INGESTION RATE (mg soil/day)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	FRACTION INGESTED (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	1.3E-07	1.9E-07	330	1.E-06	250	1	1	70	25550	1.5E+00
Chromium Total	8.6	4.0E-07	NC	330	1.E-06	250	1	1	70	25550	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Benzene	-	0.0E+00	0.0E+00	330	1.E-06	250	1	1	70	25550	5.5E-02
Ethylbenzene	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Methyl cyclohexane	-	0.0E+00	NC	330	1.E-06	250	1	1	70	25550	NC
Toluene	0.001	4.6E-11	NC	330	1.E-06	250	1	1	70	25550	NC
Xylene (total)	0.0004	1.8E-11	NC	330	1.E-06	250	1	1	70	25550	NC
		ELCR	1.9E-07								

Notes:
NC - Not Carcinogenic
ND - Not detected
Average daily dose = EPC x IR x CF x EF x ED x FI / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	HAZARD INDEX	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC ORAL RfD (mg/kg*day)	Oral ABS (unitless)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Arsenic	2.7	7.88E-07	2.6E-03	3300	0.3	1.E-06	250	1	0.03	70	365	3.0E-04	1	3.0E-04
Chromium Total	8.6	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	3.0E-03	0.025	7.5E-05
Aroclor-1242 (PCB-1242)	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.14	70	365	3.0E-05	0.8	3.0E-05
Benzo(a)anthracene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(a)pyrene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
Benzo(b)fluoranthene	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	0.13	70	365	NA	0.89	NA
bis(2-Ethylhexyl)phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.0E-01	1	1.0E-01
Di-n-octyl phthalate	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	0.1	70	365	1.2E-01	1	1.2E-01
Benzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-03	1	4.0E-03
Ethylbenzene	-	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
Methyl cyclohexane	-	0.00E+00	NA	3300	0.3	1.E-06	250	1	NA	70	365	NA	1	NA
Toluene	0.001	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	2.0E+00	1	2.0E+00
Xylene (total)	0.0004	0.00E+00	0.0E+00	3300	0.3	1.E-06	250	1	NA	70	365	4.0E-01	1	4.0E-01
		HAZARD INDEX	2.6E-03											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal RfD is calculated by mutliplying the oral RfD by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NA - Not Available
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
HI = Average daily dose / RfD

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
CONSTRUCTION WORKER
DERMAL CONTACT WITH SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY DOSE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	SKIN SURFACE AREA (cm^2/day)	SOIL TO SKIN ADHERENCE FACTOR (mg/cm^2)	CONVERSION FACTOR (kg/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	ABSd (unitless)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF $(mg/kg*day)^{-1}$	Oral ABS	DERMAL CSF $(mg/kg*day)^{-1}$
Arsenic	2.7	1.1E-08	1.7E-08	3300	0.3	1E-06	250	1	0.03	70	25550	1.5E+00	1	1.5E+00
Chromium Total	8.6	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	0.025	NC
Aroclor-1242 (PCB-1242)	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.14	70	25550	2.0E+00	0.8	2.0E+00
Benzo(a)anthracene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
Benzo(a)pyrene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E+00	0.89	7.3E+00
Benzo(b)fluoranthene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.13	70	25550	7.3E-01	0.89	7.3E-01
bis(2-Ethylhexyl)phthalate	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	0.1	70	25550	1.4E-02	1	1.4E-02
Di-n-octyl phthalate	-	0.0E+00	NC	3300	0.3	1E-06	250	1	0.1	70	25550	NC	1	NC
Benzene	-	0.0E+00	0.0E+00	3300	0.3	1E-06	250	1	NA	70	25550	5.5E-02	1	5.5E-02
Ethylbenzene	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Methyl cyclohexane	-	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Toluene	0.001	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
Xylene (total)	0.0004	0.0E+00	NC	3300	0.3	1E-06	250	1	NA	70	25550	NC	1	NC
		ELCR	1.7E-08											

Notes:
ABSd from RAGS Part E (USEPA, 2004); a value of 0.1 was used for all organics for which a value was not otherwise published in RAGS Part E.
Oral ABS from RAGS Part E (USEPA, 2004); per RAGS Part E, the dermal CSF is calculated by dividing the oral CSF by the oral ABS for constituents with oral ABS values less than 0.5.
ND - Not detected
NC - Not Carcinogenic
Average daily dose = EPC x SA x AF x ABSd x CF x EF x ED / BW / AP
ELCR = Average daily dose x CSF

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - NON-CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (mg/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX PARTICULATE	HAZARD INDEX VAPOR	PEF (m^3/kg)	VF (m^3/kg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Arsenic	2.7	5.4E-10	-	3.6E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.5E-05
Chromium Total	8.6	1.7E-09	-	1.7E-05	0.0E+00	1.14E+09	NV	250	1	0.33	365	1.0E-04
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)anthracene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(a)pyrene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzo(b)fluoranthene	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Di-n-octyl phthalate	-	0.0E+00	-	NA	NA	1.14E+09	NV	250	1	0.33	365	NA
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	250	1	0.33	365	3.0E-02
Ethylbenzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	4.46E+03	250	1	0.33	365	8.7E+00
Methyl cyclohexane	-	0.0E+00	0.0E+00	NA	NA	1.14E+09	3.58E+03	250	1	0.33	365	NA
Toluene	0.001	2.0E-13	6.8E-08	4.0E-14	1.4E-08	1.14E+09	3.33E+03	250	1	0.33	365	5.0E+00
Xylene (total)	0.0004	7.9E-14	1.8E-08	7.9E-15	1.8E-09	1.14E+09	5.00E+03	250	1	0.33	365	1.0E+01
			HAZARD INDEX	5.3E-05	1.5E-08							

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

AOI-28 SUBSURFACE SOIL
CONSTRUCTION WORKER
INHALATION OF PARTICULATES AND VAPOR FROM SOIL - CARCINOGENIC

COMPOUND	SOIL EXPOSURE POINT CONCENTRATION (mg/kg)	AVERAGE DAILY EXPOSURE PARTICULATE (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR PARTICULATE	ELCR VAPOR	PEF (m^3/kg)	VF (m^3/kg)	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Arsenic	2.7	7.7E-09	-	3.3E-11	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	4.3E-03
Chromium Total	8.6	2.4E-08	-	2.0E-09	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	8.4E-02
Aroclor-1242 (PCB-1242)	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	5.7E-04
Benzo(a)anthracene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
Benzo(a)pyrene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-03
Benzo(b)fluoranthene	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	1.1E-04
bis(2-Ethylhexyl)phthalate	-	0.0E+00	-	0.0E+00	0.0E+00	1.14E+09	NV	1.E+03	250	1	0.33	25550	2.4E-06
Di-n-octyl phthalate	-	0.0E+00	-	NC	NC	1.14E+09	NV	1.E+03	250	1	0.33	25550	NC
Benzene	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.14E+09	2.39E+03	1.E+03	250	1	0.33	25550	7.8E-06
Ethylbenzene	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	4.46E+03	1.E+03	250	1	0.33	25550	NC
Methyl cyclohexane	-	0.0E+00	0.0E+00	NC	NC	1.14E+09	3.58E+03	1.E+03	250	1	0.33	25550	NC
Toluene	0.001	2.8E-12	9.7E-07	NC	NC	1.14E+09	3.33E+03	1.E+03	250	1	0.33	25550	NC
Xylene (total)	0.0004	1.1E-12	2.6E-07	NC	NC	1.14E+09	5.00E+03	1.E+03	250	1	0.33	25550	NC
			ELCR	2.1E-09	0.0E+00								

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x (1/VF or 1/PEF) x ET x EF x ED / AP
ELCR = Average daily exposure x UR

Attachment E

Air Risk Calculations

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

GROUNDWATER - VAPOR INTRUSION TO INDOOR AIR
COMMERCIAL WORKER - INDOOR
INHALATION - NON-CARCINOGENIC

COMPOUND	EPC (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX VAPOR	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Vinyl chloride	0.88	2.0E-04	2.0E-03	250	25	0.33	9125	1.0E-01
		HAZARD INDEX	2.0E-03					

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x ET x EF x ED / AP / 1000
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

GROUNDWATER - VAPOR INTRUSION TO INDOOR AIR
COMMERCIAL WORKER - INDOOR
INHALATION - CARCINOGENIC

COMPOUND	EPC (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR VAPOR	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Vinyl chloride	0.88	7.1E-02	3.1E-07	250	25	0.33	25550	4.4E-06
		ELCR	3.1E-07					

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x ET x EF x ED / AP / 1000
ELCR = Average daily exposure x UR

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

GROUNDWATER - VAPOR INTRUSION TO EXCAVATION AIR
CONSTRUCTION WORKER
INHALATION - NON-CARCINOGENIC

COMPOUND	EPC (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX VAPOR	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	SUBCHRONIC RfC (mg/m^3)
Vinyl chloride	0.052	9.4E-07	9.4E-06	20	1	0.33	365	1.0E-01
		HAZARD INDEX	9.4E-06					

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x ET x EF x ED / AP / 1000
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

GROUNDWATER - VAPOR INTRUSION TO EXCAVATION AIR
CONSTRUCTION WORKER
INHALATION - CARCINOGENIC

COMPOUND	EPC (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR VAPOR	CONVERSION FACTOR (ug/mg)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Vinyl chloride	0.052	1.3E-05	5.9E-11	1.E+03	20	1	0.33	25550	4.4E-06
		ELCR	5.9E-11						

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x ET x EF x ED / AP / 1000
ELCR = Average daily exposure x UR

Attachment F

Storm Water Risk Calculations

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OH

ADOLESCENT TRESPASSER (13-18 YRS OLD) - SUBCHRONIC EXPOSURES
DERMAL CONTACT WITH STORMWATER - NON-CARCINOGENIC

COMPOUND	EXPOSURE POINT CONCENTRATION IN STORMWATER **(mg/L)**	DERMAL INTAKE (mg/kg*day)	HAZARD INDEX	DAevent (mg/cm3*event)	SKIN SURFACE AREA (cm^2)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (years)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	SUBCHRONIC DERMAL RfD (mg/kg*day)
Antimony	1.5E-02	5.0E-08	8.3E-04	1.5E-08	5240	13	5	56	1825	6.0E-05
Arsenic	4.2E-03	1.4E-08	4.7E-05	4.2E-09	5240	13	5	56	1825	3.0E-04
Vanadium	1.1E-03	3.7E-09	1.4E-05	1.1E-09	5240	13	5	56	1825	2.6E-04
Aroclor-1248 (PCB-1248)	1.3E-03	1.1E-05	3.8E-01	3.4E-06	5240	13	5	56	1825	3.0E-05
Benzo(a)anthracene	1.8E-04	1.1E-06		3.4E-07	5240	13	5	56	1825	NA
Benzo(a)pyrene	1.9E-04	2.0E-06		6.0E-07	5240	13	5	56	1825	NA
Benzo(b)fluoranthene	3.5E-04	3.8E-06		1.1E-06	5240	13	5	56	1825	NA
Benzo(k)fluoranthene	1.6E-04	1.7E-06		5.2E-07	5240	13	5	56	1825	NA
Chrysene	2.7E-04	1.7E-06		5.0E-07	5240	13	5	56	1825	NA
Di-n-octyl phthalate	1.3E-03	9.9E-10	8.3E-09	3.0E-10	5240	13	5	56	1825	1.2E-01
Indeno(1,2,3-cd)pyrene	1.3E-04	1.5E-06		4.4E-07	5240	13	5	56	1825	NA
Tetrahydrofuran	6.8E+00	4.3E-05	4.8E-05	1.3E-05	5240	13	5	56	1825	9.0E-01
		HAZARD INDEX	4E-01							

ADOLESCENT TRESPASSER (13-18 YRS OLD) - SUBCHRONIC EXPOSURES
DERMAL CONTACT WITH STORMWATER - CARCINOGENIC

COMPOUND	EXPOSURE POINT CONCENTRATION IN STORMWATER **(mg/L)**	DERMAL INTAKE (mg/kg*day)	EXCESS LIFETIME CANCER RISK	DAevent (mg/cm3*event)	SKIN SURFACE AREA (cm^2)	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (years)	BODY WEIGHT (kg)	AVERAGING PERIOD (days)	CSF DERMAL $(mg/kg*day)^{-1}$
Antimony	1.5E-02	3.6E-09	---	1.5E-08	5240	13	5	56	25550	---
Arsenic	4.2E-03	1.0E-09	1.5E-09	4.2E-09	5240	13	5	56	25550	1.5E+00
Vanadium	1.1E-03	2.6E-10	---	1.1E-09	5240	13	5	56	25550	---
Aroclor-1248 (PCB-1248)	1.3E-03	8.1E-07	1.6E-06	3.4E-06	5240	13	5	56	25550	2.0E+00
Benzo(a)anthracene	1.8E-04	2.1E-07	1.5E-07	3.4E-07	5240	13	5	56	25550	7.3E-01
Benzo(a)pyrene	1.9E-04	3.7E-07	2.7E-06	6.0E-07	5240	13	5	56	25550	7.3E+00
Benzo(b)fluoranthene	3.5E-04	7.0E-07	5.1E-07	1.1E-06	5240	13	5	56	25550	7.3E-01
Benzo(k)fluoranthene	1.6E-04	3.2E-07	2.3E-08	5.2E-07	5240	13	5	56	25550	7.3E-02
Chrysene	2.7E-04	3.1E-07	2.3E-09	5.0E-07	5240	13	5	56	25550	7.3E-03
Di-n-octyl phthalate	1.3E-03	7.1E-11	---	3.0E-10	5240	13	5	56	25550	---
Indeno(1,2,3-cd)pyrene	1.3E-04	2.7E-07	2.0E-07	4.4E-07	5240	13	5	56	25550	7.3E-01
Tetrahydrofuran	6.8E+00	3.1E-06	---	1.3E-05	5240	13	5	56	25550	---
		ELCR	5E-06							

NOTES & ABBREVIATIONS:
" --- " = Not considered to be a class A, B, or C carcinogen with quantitative estimates of carcinogenic risk (toxicity values).
NA = Not available/not applicable.
Intake calculations for PAHs incorporate an age dependant adjustment factor of 2.6 to account for a mutagenic mode of action. See text.

CALCULATION OF DA Event
TEXTILEATHER CORPORATION
TEXTILEATHER FACILITY
TOLEDO, OH

FOR ORGANIC CHEMICALS IN WATER (latest version 04/01)

Worksheet to Calculate Dermal Absorption of Organic Chemicals from Aqueous Media (latest version 04/01)

Concentration (mg/L*L/1000 cm3):	Conc =	Maximum	mg/cm3
Input site specific concentrations in Column marked "Conc"		= 1 mg/L (1 ppm)	= 1 ug/cm3
Event time (hr/event):	t_event =	1.00	hr/event
Skin thickness (assumed to be 10 um):	lsc =	1.00E-03	cm

CHEMICAL	CAS No.	MWT	logKow	Kp (cm/hr) predicted	Kp (cm/hr) measured	Kp 95% UCI	Special Chemicals (*) or (**)	B	tau (hr)	t_star (hr)	FA	Conc (mg/cm3)	Kp used in DA_event (cm/hr)	DA_event (mg/cm2-evt)
Aroclor-1248 (PCB-1248)	12672-29-6	327.0	6.30	3.5E-01				2.4	7.28	30.22	1.0	1.3E-06	3.5E-01	3.4E-06
Benzo(a)anthracene	56-55-3	228.3	5.66	4.7E-01		1.3E+01	*	2.8	2.03	8.53	1.0	1.8E-07	4.7E-01	3.4E-07
Benzo(a)pyrene	50-32-8	250.0	6.10	7.0E-01		2.0E+01	*	4.3	2.69	11.67	1.0	1.9E-07	7.0E-01	6.0E-07
Benzo(b)fluoranthene	205-99-2	252.3	6.12	7.0E-01		2.0E+01	*	4.3	2.77	12.03	1.0	3.5E-07	7.0E-01	1.1E-06
Benzo(k)fluoranthene	207-08-9	252.3	6.12	7.0E-01		2.0E+01	*	4.3	2.77	12.03	1.0	1.6E-07	7.0E-01	5.2E-07
Chrysene	218-01-9	228.3	5.66	4.7E-01		1.3E+01	*	2.8	2.03	8.53	1.0	2.7E-07	4.7E-01	5.0E-07
Indeno(1,2,3-cd)pyrene	193-39-5	276.3	6.58	1.0E+00		3.1E+01	*	6.7	3.78	16.83	0.6	1.3E-07	1.0E+00	4.4E-07
Tetrahydrofuran	109-99-9	72.1	0.46	1.2E-03				0.0041	0.27	0.65	1.0	6.8E-03	1.2E-03	1.3E-05
Di-n-octyl phthalate	117-84-0	390.6	0.46	2.0E-05				0.0002	16.55	39.73	1.0	1.3E-06	2.0E-05	3.0E-10
Antimony	7440-36-0			1.0E-03								1.5E-05	1.0E-03	1.5E-08
Arsenic	7440-38-2			1.0E-03								4.2E-06	1.0E-03	4.2E-09
Vanadium	7440-62-2			1.0E-03								1.1E-06	1.0E-03	1.1E-09

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

SOIL GAS - VAPOR INTRUSION TO INDOOR AIR
FUTURE AOI-28 COMMERCIAL/ INDUSTRIAL WORKER - INDOOR
INHALATION - NON-CARCINOGENIC

COMPOUND	EPC (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (mg/m^3)	HAZARD INDEX VAPOR	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	CHRONIC RfC (mg/m^3)
Tetrachloroethene	3100	7.0E-01	1.8E+01	250	25	0.33	9125	4.0E-02
Trichloroethene	640	1.4E-01	7.2E+01	250	25	0.33	9125	2.0E-03
		HAZARD INDEX	9.0E+01					

Notes:
NA - Not Available
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x ET x EF x ED / AP / 1000
HI = Average daily exposure / RfC

CALCULATION OF CUMULATIVE RECEPTOR RISK
TEXTILEATHER CORPORATION
TEXTILEATHER FACILTIY
TOLEDO, OHIO

SOIL GAS - VAPOR INTRUSION TO INDOOR AIR
FUTURE AOI-28 COMMERCIAL/ INDUSTRIAL WORKER - INDOOR
INHALATION - CARCINOGENIC

COMPOUND	EPC (ug/m^3)	AVERAGE DAILY EXPOSURE VAPOR (ug/m^3)	ELCR VAPOR	EXPOSURE FREQUENCY (days/yr)	EXPOSURE DURATION (yrs)	EXPOSURE TIME (hr/hr)	AVERAGING PERIOD (days)	UNIT RISK $(ug/m^3)^{-1}$
Tetrachloroethene	3100	2.5E+02	6.5E-05	250	25	0.33	25550	2.6E-07
Trichloroethene	640	5.2E+01	2.1E-04	250	25	0.33	25550	4.0E-06
		ELCR	2.7E-04					

Notes:
NC - Not Carcinogenic
NV - Not Volatile
ND - Not detected
Average daily exposure = EPC x ET x EF x ED / AP / 1000
ELCR = Average daily exposure x UR

Attachment G

NAPL Risk Calculations