

Five-Year Review Report
Third Five-Year Review Report
(Years 2005 through 2010)
for

Pinette's Salvage Yard Superfund Site
Aroostook County, Maine

Superfund Records Center
SITE: PINETTE'S SALVAGE YARD 21.00
BREAK: 8.3
OTHER: 470 819 RECEIVABLE

September 2010

PREPARED BY:

United States Environmental Protection Agency
Region 1, New England
Boston, Massachusetts

Date:

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TABLE OF CONTENTS

	<u>Page</u>
List of Acronyms and Abbreviations	iii
EXECUTIVE SUMMARY	ES-1
SECTION 1.0 INTRODUCTION	1-1
SECTION 2.0 SITE CHRONOLOGY	2-1
SECTION 3.0 BACKGROUND	3-1
3.1 PHYSICAL CHARACTERISTICS	3-1
3.2 LAND AND RESOURCE USE	3-1
3.3 SITE HISTORY	3-1
3.4 INITIAL RESPONSE	3-1
3.5 BASIS FOR TAKING ACTION	3-2
SECTION 4.0 REMEDIAL ACTIONS	4-1
4.1 REMEDY SELECTION	4-1
4.1.1 Remedy Components	4-1
4.1.2 OU 1 - Source Control	4-1
4.1.3 OU 2 - Management of Migration	4-2
4.2 REMEDY IMPLEMENTATION	4-3
4.2.1 OU 1 - Source Control	4-3
4.2.2 OU 2 - Management of Migration	4-4
4.3 SYSTEM OPERATIONS and Maintenance	4-5
SECTION 5.0 PROGRESS SINCE THE LAST FIVE-YEAR REVIEW	5-1
SECTION 6.0 FIVE-YEAR REVIEW PROCESS	6-1
6.1 COMMUNITY NOTIFICATION AND INVOLVEMENT	6-1
6.2 DOCUMENT REVIEW	6-1
6.3 DATA REVIEW	6-1
6.3.1 Review and Evaluation	6-1
6.3.2 Longer Term Trends	6-3
6.4 SITE INSPECTION	6-4
6.5 SITE INTERVIEWS	6-4
SECTION 7.0 TECHNICAL ASSESSMENT	7-1
7.1 QUESTION A: IS THE REMEDY FUNCTIONING AS INTENDED BY THE DECISION DOCUMENTS?	7-1
7.1.1 Institutional Control	7-1
7.1.2 Remedial Action Performance	7-1
7.1.3 Cost of System Operations/O&M	7-2
7.1.4 Early Indicators of Potential Remedy Failure	7-2
7.2 QUESTION B: ARE THE EXPOSURE ASSUMPTIONS, TOXICITY DATA, CLEANUP LEVELS, AND REMEDIAL ACTION OBJECTIVES (RAOs) USED AT THE TIME OF REMEDY SELECTION STILL VALID?	7-2
7.2.1 ARARs Review	7-2
7.2.2 Standards Related to Groundwater	7-3
7.2.3 Changes in Expected Land Use	7-4
7.2.4 New Routes of Exposure or New Receptors	7-4
7.2.5 Newly Identified Contaminants	7-4
7.2.6 Unanticipated Toxic Byproducts of the Remedy	7-5
7.2.7 Changes in Site Conditions	7-5
7.2.8 Changes in Toxicity Values or Other Contaminant Characteristics	7-5
7.2.9 Changes in Risk Assessment Methods	7-5
7.3 QUESTION C: HAS ANY OTHER INFORMATION COME TO LIGHT THAT COULD CALL INTO QUESTION THE PROTECTIVENESS OF THE REMEDY?	7-6
7.4 TECHNICAL ASSESSMENT SUMMARY	7-6
SECTION 8.0 ISSUES	8-1
SECTION 9.0 RECOMMENDATIONS AND FOLLOW-UP ACTIONS	9-1
SECTION 10.0 PROTECTIVENESS STATEMENT	10-1
SECTION 11.0 NEXT REVIEW	11-1

TABLES

Table 1	Chronology of Site Events
Table 2	Groundwater Cleanup Levels
Table 3	Summary of PCB Data
Table 4	Summary of 2009 Groundwater Sampling Results
Table 5	Issues
Table 6	Recommendations and Follow-up Actions

FIGURES

Figure 1	Site Locus Map
Figure 2	Site Plan

ATTACHMENTS

Attachment 1	List of Documents Reviewed and Referenced
Attachment 2	Data Validation Memoranda
Attachment 3	October 2009 VOC Data
Attachment 4	Site Inspection Checklist and Photographs
Attachment 5	Interview Record Forms
Attachment 6	Maine DEP Site Trip Report & Residential Well Sampling Results

List of Acronyms and Abbreviations

Acronym	Definition
ARAR	Applicable or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substance and Disease Registry
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act, as amended
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
COPC	Contaminant of Potential Concern
cy	Cubic Yard
DEP	Department of Environmental Protection
DRI	Deletion Remedial Investigation
ECD	Electron Capture Detector
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
FS	Feasibility Study
GC	Gas Chromatography
HRGC	High Resolution Gas Chromatography
HRMS	High Resolution Mass Spectroscopy
IRA	Immediate Removal Action
LRMS	Low Resolution Mass Spectroscopy
MCLs	Maximum Contaminant Levels
MCLGs	Maximum Contaminant Level Goals
MEG	Maximum Exposure Guideline
mg/Kg	Milligrams per Kilogram
MOM	Management of Migration
MTBE	Methyl-tert-butyl-ether
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
ng/L	Nanograms per liter
NPL	National Priorities List
O&M	Operations and Maintenance
OUs	Operable Units
PCBs	Polychlorinated Biphenyls
PHE	Public Health Evaluation
ppm	Parts per million
RAO	Remedial Action Objective
PRPs	Potentially Responsible Parties
RfC	Reference Concentration
RfD	Reference Dose
RA	Remedial Action
ROD	Record of Decision
SRI	Supplemental Remedial Investigation
TSCA	Toxic Substances Control Act
ug/L	Micrograms per liter
VOCs	Volatile Organic Compounds

EXECUTIVE SUMMARY

This third Five-Year Review finds that the Pinette's Salvage Yard Superfund Site (the "Pinette's Site" or the "Site") in Washburn, Maine (see Figures 1 and 2 for location) remains in compliance with the remedy for the Site as presented in the Record of Decision (ROD), the ROD Amendment, and the Explanation of Significant Differences (ESD). The ROD for the Pinette's Site was issued in 1989. A ROD Amendment was issued in 1993. The Source Control remedy for the Site was completed in 1994. Subsequently, an ESD amending the original ROD remedy for groundwater at the Site was issued in 1996. The first and second Five-Year Reviews of the Site (performed in 2000 and 2005, respectively) determined that the Site was in compliance with the requirements of the ROD and ESD as they pertained to groundwater. In September 2002, the Site was delisted from the National Priorities List (NPL). The results of this third Five-Year Review indicate that the remedy continues to function appropriately and is protective of human health and the environment.

The primary component of the groundwater remedy at the Pinette's Site has been the establishment of institutional controls restricting site and aquifer use. Specifically, Roger Pinette, owner of property within the Site, entered with the Maine Department of Environmental Protection (Maine DEP), and recorded in the Aroostook County Register of Deeds, a Declaration of Restrictive Covenant in 2002 that limits land and water use within an area 260 feet in diameter around well cluster #5 at the Site. These restrictions were imposed in response to the continuing detection of polychlorinated biphenyls (PCBs) at well DMW-5 at concentrations that exceed the cleanup level established by the ROD.

Groundwater sampling conducted in October 2009 indicated that the only site contaminant remaining at concentrations above the ROD cleanup goals was PCBs. PCBs were detected in six monitoring wells (SMW-5A, SMW-7A, DMW-5, BMW-5, SMW-2, and SMW-8). However, only the PCB concentration reported for well DMW-5 exceeded the ROD cleanup goal of 0.5 ug/L (with a concentration of 2.1 ug/L). Overall, PCBs in groundwater continue to be predominantly localized in the vicinity of well cluster #5. PCB concentrations are generally similar to the levels reported in the previous (2004) sampling round. No evidence was found of significant changes in groundwater withdrawals in the surrounding area that would question the previous conclusion that groundwater at the Site does not migrate toward the domestic wells that have been identified on properties near the Site.

During the October 2009 groundwater sampling event, monitoring wells were found to be in generally acceptable condition. The site inspection indicated that the property owner appears to be abiding by the Restrictive Covenant established in 2002. Some limited expansion in the area used for vehicle storage was noted; however, all of these activities were observed to be outside of the area controlled by the Restrictive Covenant.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (from WasteLAN): Pinette's Salvage Yard Superfund Site		
EPA ID (from WasteLAN): MED980732291		
Region: 01	State: ME	City/County: Washburn, Aroostook
SITE STATUS		
NPL status: <input type="checkbox"/> Final <input checked="" type="checkbox"/> Deleted <input type="checkbox"/> Other (specify)		
Remediation status (choose all that apply): <input type="checkbox"/> Under Construction <input checked="" type="checkbox"/> Operating <input checked="" type="checkbox"/> Complete		
Multiple OUs?* <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Construction completion date: 11/94	
Has site been put into reuse? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Partial use.		
REVIEW STATUS		
Lead agency: <input checked="" type="checkbox"/> EPA <input checked="" type="checkbox"/> State <input type="checkbox"/> Tribe <input type="checkbox"/> Other Federal Agency		
Author name: Almerinda Silva		
Author title: Remedial Project Manager	Author affiliation: U.S. EPA Region 1	
Review period:** October 2009 – September 2010		
Date(s) of site inspection: October 14, 2009		
Type of review: <input checked="" type="checkbox"/> Post-SARA <input type="checkbox"/> Pre-SARA <input type="checkbox"/> NPL-Removal only <input type="checkbox"/> Non-NPL Remedial Action Site <input type="checkbox"/> NPL State/Tribe-lead <input type="checkbox"/> Regional Discretion		
Review number: <input type="checkbox"/> 1 (first) <input type="checkbox"/> 2 (second) <input checked="" type="checkbox"/> 3 (third) <input type="checkbox"/> Other (specify)		
Triggering action: <input type="checkbox"/> Actual RA Onsite Construction at OU1 <input type="checkbox"/> Actual RA Start at OU# ____ <input type="checkbox"/> Construction Completion <input checked="" type="checkbox"/> Previous Five-Year Review Report <input type="checkbox"/> Other (specify)		
Triggering action date (from WasteLAN): 9/27/2005		
Due date (five years after triggering action date): 9/27/2010		

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd

Issues:

The results of this third Five-Year Review indicate that the remedy continues to be protective, and there are relatively few issues associated with the Pinette's Site. The principal concern is adherence to the institutional control for the Site, the Restrictive Covenant limiting land and aquifer use in the vicinity of the residual PCB contamination in groundwater. In the past, some difficulties have arisen regarding maintenance of monitoring wells, and land use by the property owner has been a concern. Observations made during the October 2009 sampling event indicate a limited amount of expansion in the area used for auto salvage and storage operations including some ground clearing. Although this area is within Roger Pinette's property, it is not part of the Site. To date, this expansion has occurred outside of the Site area affected by the Restrictive Covenant.

The principal concern associated with expansion of auto salvage operations is the possibility of increased risk of spillage of petroleum products at the Site. This could cause concentrations of benzene in Site groundwater to rise above the ROD cleanup levels. In addition, any significant spillage of petroleum products might tend to solubilize residual PCBs in site soils and enhance groundwater PCB migration, particularly downgradient of well cluster #5. The 5 year reviews serve as a mechanism to verify that the auto salvage and storage operations are not adversely impacting the Site.

Recommendations and Follow-Up Actions:

It is recommended that the 5 year reviews continue to serve as a means, to ensure that the provisions of the Restrictive Covenant are not being violated; that auto salvage operations have not increased or changed in such a manner that threatens groundwater; and that no new groundwater withdrawals are occurring near the Site that could alter the direction of groundwater flow.

Protectiveness Statement(s):

The source control and management of migration remedies for the Pinette's Site are functioning effectively, and overall the remedy is protective of human health and the environment. The implementation of institutional controls involving the establishment of a Restrictive Covenant for certain portions of the Site has effectively prevented ingestion of and contact with PCB-contaminated groundwater at the Site.

Groundwater monitoring data indicates that the residual levels of only one site contaminant (PCBs) remain above the ROD groundwater cleanup level. In addition, monitoring data indicates that PCBs exceed the ROD groundwater cleanup level in only one well, DMW-5, near the center of the Site. This localized contamination lies within the Site area controlled by the Restrictive Covenant.

Long -Term Protectiveness:

The long term protectiveness of the remedial action at the Pinette's Site will continue to be verified through ongoing site inspections and continued groundwater monitoring, as appropriate. These activities will effectively monitor the residual groundwater contamination, as well as ensuring adherence to the Restrictive Covenant for the Site.

SECTION 1.0 INTRODUCTION

EPA Region 1, conducted the third Five-Year Review for the Pinette's Salvage Yard Superfund Site (Pinette's Site) in the town of Washburn in Aroostook County, Maine. This review was conducted from October 2009 to May 2010. This report documents the results of the review.

The purpose of a Five-Year Review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of a review are documented in a Five-Year Review Report. In addition, Five-Year Review Reports identify deficiencies found during the review, if any, and identify recommendations to address them.

This review is required by statute. EPA must implement Five-Year Reviews consistent with the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA §121(c), states:

"If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented."

The NCP, in Part 300.430(f)(4)(ii) of Title 40 of the Code of Federal Regulations (CFR), states:

"If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action."

This is the third Five-Year Review for the Pinette's Salvage Yard Superfund Site. The triggering action for this review was the completion of the second Five-Year Review for the Pinette's Site on September 27, 2005. Due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unrestricted use and unlimited exposure, the Five-Year Review is required.

In conducting this Five-Year Review, relevant existing documents related to project objectives, cleanup goals, and implementation of the remedial actions at the Site have been examined. A comprehensive list of all of the documents that have been reviewed during the preparation of this report is presented in Attachment 1.

This Five-Year Review has been prepared in accordance with the EPA guidance document: Comprehensive Five-Year Review Guidance (EPA, June 2001). The report reflects the fact that the Pinette's Site has been delisted from the NPL.

SECTION 2.0 SITE CHRONOLOGY

The chronology of the Site, including significant site events and dates, is included in Table 1.

Table 1: Chronology of Site Events	
Event	Date
Initial discovery of the problem by Maine DEP	April 1980
NPL listing by EPA	December 1982
Removal Action initiated by EPA Region 1	October 1983
Remedial Investigation initiated	1985
Phase I Supplemental Remedial Investigation complete	November 1987
Phase II Supplemental Remedial Investigation complete	November 1988
Remedial Investigation and Feasibility Study complete	March 1989
ROD issued	May 1989
ROD Amendment for Source Control issued	June 1993
Completion of the Source Control Remedial Action work	November 1993
Explanation of Significant Differences for Groundwater issued	June 1996
First Five-Year Review report	September 2000
Final Remedial Action Report for Groundwater	July 2002
Restrictive Covenant establishes Institutional Controls for land and groundwater use	August 2002
Site deletion from NPL	September 2002
Second Five-Year Review report	September 2005
Maine DEP Site Visit	August 2008
EPA Site Visit and Groundwater Sampling	October 2009
EPA Interviews	October 2009
Maine DEP Site Trip & Residential Well Sampling	June 2010

SECTION 3.0 BACKGROUND

3.1 PHYSICAL CHARACTERISTICS

The Pinette's Salvage Yard Superfund Site is located on Gardner Creek Road (a.k.a. Wade Road) approximately one mile southwest of the town of Washburn, Aroostook County, Maine, in the northeastern corner of the state (Figures 1 and 2). The Town of Washburn has an estimated population of approximately 1,600 residents, and consists of various family-owned and operated stores, an elementary school and high school, Town Hall and medical center.

3.2 LAND AND RESOURCE USE

A portion of Roger Pinette's property has been utilized as a vehicle repair and salvage yard. Damaged vehicles have been stored and/or dismantled, and parts recovered from those vehicles have been sold. This portion of land is situated within the parcel currently owned by Roger J. Pinette, which consists of approximately 9.45 acres. These 9.45 acres bounded within a 260 foot diameter, referred to as the Restrictive Area, is part of the Site. Land use within a one mile radius of the Site includes residential, agricultural, forest, and wetland. The area immediately surrounding the Site is primarily farmland. Since Site delisting in September 2002, Roger Pinette has continued to operate an auto and appliance salvage business outside of the Restrictive Area. To date, the salvage business has not impacted the Site.

3.3 SITE HISTORY

In June 1979, three electrical transformers from Loring Air Force Base located near Limestone, Maine, were removed from the base under a written agreement with a private electrical contractor. Allegedly, the transformers were brought to Pinette's Site, where they apparently ruptured while being removed from the delivery vehicle. Approximately 900 to 1,000 gallons of dielectric fluid containing polychlorinated biphenyls (PCBs) spilled directly onto the ground.

In April 1980, the Maine DEP determined that the Site was contaminated with PCBs and associated volatile organic contaminants (VOCs). Additional sampling by the Maine DEP in August 1981 and the EPA in May 1982 confirmed the presence of PCB contamination at the Site. In December 1982, the Site was placed on the National Priorities List (NPL).

3.4 INITIAL RESPONSE

On October 4, 1983, EPA Region 1 authorized an Immediate Removal Action (IRA) for the Pinette's Site. Approximately 1,050 tons (800 cu.yds.) of PCB-contaminated soil and assorted debris were removed for disposal during the period from October 4 to November 4, 1983. The IRA was performed to excavate those soils grossly contaminated by PCBs, i.e., soils containing 50 parts per million (ppm) or greater of PCBs, as determined by on-site analysis. Those soils that were excavated were then transported to the Model City, New York secure hazardous waste landfill facility.

In 1985, a Remedial Investigation (RI) was initiated at the Pinette's Site to determine if any residual PCB contamination existed and whether this residual contamination was reduced sufficiently to warrant the deletion of the Site from the NPL. This investigation resulted in the determination by the EPA, in consultation with the Maine DEP, that the Site was not suitable for deletion from the NPL. The results of the RI were released to the public in October 1987.

Based on the levels of residual PCB contamination discovered during the RI, the EPA, in consultation with the Maine DEP, determined that a Supplemental Remedial Investigation (SRI) was warranted at the Pinette's Site. The SRI was performed using a two-phased approach. Phase I and Phase II field investigations were conducted to address any outstanding data requirements and objectives, so that the data would be of sufficient quality and quantity to support the preparation of a Feasibility Study (FS). The Phase I field investigations were performed from September 1987 through November 1987. Phase II field activities were completed in November 1988. The Final SRI and Public Health Evaluation Report (Ebasco, 1989a) and the Draft Final Feasibility Study Report (Ebasco, 1989b) were distributed for public comment in March 1989.

The results of Phase I and Phase II of the SRI revealed the presence of a wide range of PCB concentrations in the surface (0-6 inch) and subsurface (6 inch to 6 foot) soils. The majority of the PCBs in soil were located in a generally elliptical area measuring approximately 150 feet by 80 feet. PCB concentrations in surface soils were found to be as high as 92 ppm, while subsurface concentrations were as high as 11,000 ppm at a depth between 6 inches and two feet.

During the SRI, a total of 19 monitoring wells were installed throughout the Site, at nine separate locations. Detectable concentrations of PCBs, benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and chloromethane were identified in groundwater within both the shallow and deep till aquifers at the Site (Ebasco, 1989a). These detectable concentrations of organic chemicals were found to be localized within and slightly downgradient of the spill area, in the vicinity of monitoring well cluster #5, but north of Gardner Creek Road. No detectable concentrations of PCBs were identified in filtered samples obtained at the Site, although PCBs were detected in unfiltered samples. The distribution of PCBs detected in the groundwater was limited to the approximate spill area.

3.5 BASIS FOR TAKING ACTION

In conjunction with the SRI, a Public Health Evaluation (PHE) was performed to estimate the probability and magnitude of potential adverse human health risks and environmental impacts from exposure to those contaminants associated with the Site. A suite of 26 contaminants of concern identified at the Site during the SRI were selected for evaluation in the PHE. Exposure evaluations in the PHE reflected the fact that the Site was located in an area of both residential and agricultural use. The PHE also emphasized the fact that in the immediate site area, potable groundwater is obtained through private wells. The following contaminants of potential concern (COPCs) were identified in the PHE for groundwater at the Pinette's Site:

- Benzene
- Toluene
- Chlorobenzene
- Chloroethane
- Chloromethane
- 1,2-Dichlorobenzene
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 1,2,4-Trichlorobenzene
- Lead
- PCB Aroclor -1260
- Acetone

Results of the PHE evaluation indicated that the greatest site risks were associated with the following groundwater exposure pathways:

- Ingestion of groundwater from the shallow aquifer (maximum upper bound excess cancer risk

- estimate - 5×10^{-3})
- Ingestion of groundwater from the deep aquifer (maximum upper bound excess cancer risk estimate - 7×10^{-2})
- Ingestion of groundwater from the bedrock aquifer (maximum upper bound cancer risk estimate - 2×10^{-3})

In the shallow, deep, and bedrock aquifers, PCBs were identified as the contaminants responsible for the majority of the estimated risks. Hazard index estimates for groundwater ingestion ranged from 1×10^{-1} to $1 \times 10^{+2}$.

Human health risks associated with direct contact with Site soils were also identified but were generally lower than those estimated for Site groundwater. PCBs represented 90 to 95 percent of the current/future excess lifetime cancer risk to humans.

SECTION 4.0 REMEDIAL ACTIONS

4.1 REMEDY SELECTION

On May 30, 1989, the EPA issued a ROD for the Pinette's Salvage Yard Superfund Site. In support of development of the ROD, a number of potential exposure pathways were analyzed for risk and threats to public health and the environment in the Public Health Evaluation (Ebasco, 1989a). As a result of these assessments, remedial response objectives were developed to mitigate existing and future threats to public health and the environment. These response objectives were:

- provide adequate protectiveness to human health against risks associated with direct contact or incidental ingestion of contaminants in the surface and subsurface soil, sediments, and from current and potential future migration of contaminants from soils to groundwater, sediments and surface water;
- provide adequate protectiveness to human health from potential risks associated with inhalation of VOCs and PCBs potentially released from the Site;
- provide adequate protectiveness to human health from risks associated with potential future consumption of groundwater;
- provide adequate protectiveness to the environment, including plants and terrestrial and aquatic wildlife, from potential adverse impacts associated with contact with contaminated surface soils/sediments, and from current and future distribution of contaminants migrating in groundwater, sediments, and surface water;
- ensure adequate protection of groundwater, air, and surface water from the continued release of contaminants from soils/sediments; and
- comply with chemical-specific, location-specific, and action-specific Applicable or Relevant and Appropriate Requirements (ARARs) and other guidance for surface and subsurface soils, groundwater, air, and surface water for both existing and future site conditions.

4.1.1 Remedy Components

The cleanup approach selected in the ROD divided the Site into two operable units (OUs): OU 1 - Source Control, and OU 2 - Management of Migration (MOM).

4.1.2 OU 1 - Source Control

Approximately 1,050 tons of contaminated on-site soils were removed in an Immediate Removal Action in 1983. Further investigation over the period from 1985 to 1987 showed that there was additional remaining soil contamination. The Source Control component of the 1989 ROD established a target cleanup goal of 5 mg/Kg for PCBs for soil to be protective of human health. Target cleanup levels were also established for benzene, several chlorobenzene compounds, chloromethane, and PCBs in unsaturated and in saturated soils based on leaching potential. In order to provide protectiveness to the environment, EPA (in consultation with the U.S. Fish & Wildlife Service) determined that no soils containing greater than 1 mg/Kg of PCBs would be left in the top 10 inches of soil at the Site, where it would be readily accessible to terrestrial wildlife. The source control remedy also included construction of a fence around the main part of the Site to temporarily limit access during remediation.

The 1989 ROD called for different means of treatment or disposal of soils based on the contaminant levels. Soils with PCB concentrations of 50 mg/Kg or greater were to be taken off-site for incineration. Soils with PCB concentrations between 5 and 50 mg/Kg, and/or with concentrations of other organic compounds in excess of the groundwater protection cleanup levels, were to be treated on-site using solvent extraction. Soils with PCB concentrations between 1 and 5 mg/Kg were to be removed to a minimum depth of 10 inches, placed at the bottom of the deeper excavations, and covered with remediated soils from the solvent extraction system. As a final step, the entire Site was to be covered

with new native soil containing <1 mg/Kg PCBs.

4.1.3 OU 2 - Management of Migration

The MOM component of the 1989 ROD required that contaminated groundwater containing concentrations above specified target cleanup goals be extracted from the ground and treated on-site using filtration and carbon adsorption. The 1989 ROD required active groundwater treatment to reduce the concentration of VOCs to their cleanup goals as a means of reducing the migration of PCBs.

The MOM remedy required that groundwater contamination at the Site be actively addressed by utilizing groundwater collection and carbon adsorption treatment. The system was to first entail construction of shallow interceptor trenches and deep extraction wells to collect the contaminated groundwater. Collected groundwater was to then be pumped through a granular filter to remove suspended/colloidal particulate matter.

Following this preliminary filtration step, the groundwater was to be treated by carbon adsorption to remove the organic contaminants found in the groundwater. All treated groundwater was to then be discharged back into the shallow aquifer through the use of shallow recharge trenches. The entire groundwater collection system was to extract approximately eight to sixteen gallons per minute for approximately two years. In addition, the ROD required the establishment of institutional controls on the Site for groundwater. These controls were to include a complete prohibition on the use of the on-site groundwater for drinking water purposes both during and, if necessary, following overall Site remediation.

The MOM portion of the selected remedial action was designed primarily to provide adequate protectiveness to human health from effects associated with potential future use of on-site groundwater, if left untreated. This was and is important since residents living in the immediate vicinity of the Site use residential well water as a source of potable drinking water, and no municipal water supply system currently serves the area of the Site. In addition, the continued presence and/or migration of the other organic contaminants in the on-site groundwater could potentially mobilize the relatively immobile particulate-bound PCBs also present in the aquifer.

The groundwater cleanup levels specified in the ROD focused on the levels of groundwater contamination at the Site, the current (at the time of the ROD) and potential future use of the groundwater, and the time required to achieve the overall site remediation goals. Based on the contaminants found in the on-site groundwater, and as discussed in the ROD, the following contaminants and their respective Maximum Contaminant Level (MCL) or State of Maine Maximum Exposure Guideline (MEG) were identified as appropriate groundwater cleanup goals (as stated in the 1989 ROD):

Contaminant	MCL/MEG
Benzene	5 ug/L
Chlorobenzene	47 ug/L
1,4-Dichlorobenzene	27 ug/L
PCBs	0.5 ug/L

A ROD Cleanup Level for 1,2,4-trichlorobenzene of 680 ug/L was also established. Finally, groundwater cleanup goals were established for lead (5 ug/L), based on the then-proposed MCL for lead; and for chloromethane (10 ug/L), based upon the analytical detection limit of this compound in water. The ROD indicated that because the PCBs in the groundwater at the Pinette's Site were found to be largely adsorbed onto soil particles, they were likely to be difficult to collect for groundwater treatment. The ROD also indicated that while EPA would collect and treat as much of the PCBs as technically feasible, it would probably be impossible to collect enough particulate-bound PCBs to reach the target cleanup goal. Therefore, in accordance with Section 117(a)(2) of CERCLA, the ROD invoked a waiver from compliance with the State of Maine Maximum Exposure Guideline for PCBs of 0.5 ug/L based on the technical impracticability, from an engineering perspective, of attaining this level.

4.2 REMEDY IMPLEMENTATION

The OU 1 Source Control component of the remedy (as amended in June 1993) was substantially completed in November 1993. The OU 2 Management of Migration component of the remedy was essentially completed in May 1996, when the requirement for active treatment of groundwater at the site was determined to be unnecessary and deleted.

4.2.1 OU 1 - Source Control

It was anticipated in the 1989 ROD that approximately 300 cubic yards (cy) of soils at the Site contained >50 mg/Kg PCBs and would be removed for off-site incineration, and that 1,700 to 1,900 cy of soils contained 5 to 50 mg/Kg PCBs and would be treated on-site by solvent extraction.

During the construction seasons of 1991 and 1992, only minimal success was achieved with on-site solvent extraction technologies. It was also determined that soils with greater than 50 mg/Kg PCBs were more widespread than anticipated. Due to the difficulties associated with the ROD-designated treatment process, the ROD was amended in 1993. Under the amended plan, soils with PCB concentrations of 500 mg/Kg or greater were to be incinerated off-site, and soils with 50 to 500 mg/Kg PCBs or 5 to 50 mg/Kg PCBs were to be handled by off-site land disposal, in either TSCA secure facilities or (for soils with 5 to 50 mg/Kg PCBs only) special waste landfills.

During the 1993 construction season, the extent of soil requiring removal continued to expand in response to the results of confirmation sampling at the edges of the excavation. Also, a layer of gravel from which PCB-containing liquid seeped was exposed on one side of the excavation. By the end of the excavation phase of the remediation in October 1993, about 1,000 tons of soils had been shipped off-site for incineration, and about 5,100 tons of soils had been shipped to an off-site landfill. The final activities of the 1993 construction season included backfilling and rough grading, decontamination and partial demolition and disposal of the concrete pad that had been constructed for the remedial action, and demobilization.

The approximate limits of the areas in which soils were excavated are shown on Figure 2. The excavation on the southeast side of Gardner Creek Road was mostly shallow, although it was extended to a depth of 2 feet in small areas where the depth of PCB contamination was found to be greater than the anticipated 6 inches. On the main part of the Site northwest of Gardner Creek Road, the excavation was 6 feet deep over a large area. For the most part, the confirmatory sample results indicated that the target soil cleanup levels had been attained at the limit of the excavation. However, at a small number of locations, the goals were not reached for several reasons.

A silt/clay layer occurs at a depth of about 6 feet beneath much of the main part of the Site. Since it was recognized that this layer would retard downward movement of contaminants, there were five locations where the excavation was not continued into that layer even though the soil cleanup levels had not been attained. Soil cleanup levels were also not attained in confirmatory samples in several locations on the perimeter of the excavation, where buildings, roads, wetlands, or a pond blocked further excavation.

Dewatering was required during the deeper excavation. Approximately one million gallons of groundwater were removed from the excavation throughout the remediation, treated, and returned to the ground in recharge trenches or surface drains. The standards for the discharged water were basically the same as the groundwater cleanup goals for the Site.

The fence that had been built surrounding the area of remediation to limit access during remediation was left in place when active remediation was completed. In the summer of 1994, the final cover for the Site was established by placing topsoil and final grading.

4.2.2 OU 2 – Management of Migration

As discussed in the subsequent EPA Explanation of Significant Differences (issued in 1996 for groundwater at the Site), monitoring results subsequently demonstrated that the primary objective of the MOM component of the ROD (to reduce the migration of PCBs) was achieved prior to the implementation of the MOM remedy.

Groundwater data collected during the MOM Pre-design studies (1993, 1994 and 1995) following the completion of the source control remedy (see the 1996 Summary of Environmental Data and Evaluation Report) indicated that the concentrations of VOCs had decreased to below or near the cleanup level established in the 1989 ROD. Decreases in VOC levels were attributable to the natural attenuation/degradation of contaminants, to the extraction and treatment of over one million gallons of contaminated groundwater during Source Control remedial activities, and to improved groundwater sampling techniques.

The ESD formally changed the cleanup level for lead in groundwater from 5 ug/L to 15 ug/L, making it equal to the final MCL. The ESD noted that in monitoring wells, the maximum concentration of lead detected in unfiltered samples since EPA began using low flow sampling in 1995 was 14.5 ug/L, below the cleanup level of 15 ug/L. Also as indicated in the ESD, the maximum concentration of PCBs detected in unfiltered monitoring well samples since the low flow sampling method was introduced was 8.5 ug/L, which was still above the ROD Cleanup Level of 0.5 ug/L. VOCs for which ROD Cleanup Levels had been established for the Site were not detected in unfiltered samples above cleanup levels after low flow sampling began.

The 1989 ROD required active groundwater treatment to reduce the concentration of VOCs to their ROD Cleanup Levels as a means of reducing the migration of PCBs. The Pre-Design monitoring results demonstrated that the primary objective of the MOM component of the ROD had been achieved – PCB migration had been sufficiently reduced. The concentrations of VOCs were already below their cleanup levels. Furthermore, the migration of PCBs was sufficiently reduced; downgradient wells had not shown any contamination. Consequently, the ESD determined that there was no need to actively treat the groundwater.

The ESD recognized that despite the noted improvements, groundwater at the Pinette's Site still contained concentrations of PCB contaminants which would pose an unacceptable risk if ingested. Therefore, to prevent the ingestion and use of contaminated groundwater, the ESD indicated that institutional controls (e.g., deed restrictions and/or easements) would have to be established to prevent the installation of domestic wells on the Site.

Institutional controls in the form of a Restrictive Covenant were implemented at the Pinette's Site in August 2002. The Covenant defined the Restricted Area of the Site as a circle, 260 feet in diameter with its center at monitoring well cluster 5. The overall purpose of the Covenant is 1) to restrict access to the groundwater at the Site that contains PCBs at concentrations that exceed the MCL and MEG of 0.5 ug/L, and 2) to restrict access to the soils at the Site that contains PCBs at concentrations that exceed the Maine DEP's Remedial Action Guidelines residential standard of 2 mg/Kg. To accomplish these overall objectives, the Covenant prohibits numerous activities within the Restricted Area including withdrawal or injection of water; change in land use; removal or tampering with monitoring wells and associated structures, including fencing; activities that might disturb the contaminated soil or impair the integrity of the overlying soil cover materials including construction of buildings, roads, or fills; excavation, grading, or drilling or any other disturbance of the ground; or removal, compaction, or erosion of soil or subsoil.

Based upon a recommendation from the Agency for Toxic Substance and Disease Registry (ATSDR), the ESD indicated that residential well sampling did not need to be continued. Contaminants in residential wells were determined not to be at levels of public health concern. In addition, it was noted that the site-related groundwater had been shown not to flow toward domestic wells in the surrounding area.

Finally, the ESD required that Five-Year Reviews of the Site be conducted to ensure that the remedy remains protective. At a minimum, groundwater sample collection from the monitoring well network was to continue to support Five-Year Reviews. The Five-Year Reviews were to determine whether the institutional controls were being effective and enforced; whether residential wells should be sampled; whether site conditions changed over time with respect to potential migration which would warrant a different remedial approach; and whether the institutional controls could be removed.

4.3 SYSTEM OPERATIONS and MAINTENANCE

As discussed above, the ESD indicated that active groundwater treatment was not required for the Pinette's Site. However, in accordance with the ESD, groundwater monitoring has continued at the Site to support the Five-Year Review process. Groundwater monitoring was conducted during multiple sampling rounds in 1999, during a single sampling round in September 2004, and another single sampling round in October 2009. The results of the October 2009 sampling round are further discussed in Section VI.

When the Site is inspected, typically during five-year reviews, compliance with the provisions of the Restrictive Covenant is confirmed. In general, the inspections focus on the fencing that surrounds the monitoring well cluster 5; the monitoring wells throughout the Site (but particularly those within the Restricted Area); and the condition of the ground surface and the land use within the Restricted Area.

The site inspection associated with the five-year review in 2000 revealed some deficiencies in the monitoring well network at the Site. Following an evaluation of the status of the monitoring wells and the monitoring program, EPA performed a number of activities at the Site in 2001 and 2002 including repair of some monitoring wells; installation of several new monitoring wells; construction of a fence around monitoring well cluster no. 5, where the most contaminated groundwater was located; sampling of the remaining portions of the concrete pad to determine PCB concentrations; and completion of the Final Remedial Action Report for Groundwater. EPA formally announced initiation of the delisting process for the Pinette's site in July 2002. Following implementation of the Declaration of Restrictive Covenant by the Maine DEP in August 2002, the Site was delisted from the NPL in September 2002.

SECTION 5.0 PROGRESS SINCE THE LAST FIVE-YEAR REVIEW

The October 2009 site inspection performed in support of the third Five-Year Review identified one Operation and Maintenance (O&M) concern related to the existing monitoring well array. Some lock tabs on wells in the MW-10 cluster were missing. EPA made arrangements with Maine DEP to have the well lock tabs replaced. Maine DEP replaced the well caps in June 2010.

The fence around monitoring well cluster 5 was in good condition and secured. The locks on the gate to this fence, as well as the locks on all appropriately-configured monitoring wells, were replaced. There was no evidence that soils or groundwater had been disturbed within the Restricted Area, or that land use had changed.

In 2009 a new residential well was installed at the residence occupied by Ms. Gardiner. The Gardiner residence is located on Gardner Creek Road just northeast of the Site. The well was located using a GPS unit. The well is located over 150 feet east of the 260 foot diameter restrictive area, it is approximately 160 feet deep, and groundwater is approximately 6 feet below ground surface. Maine DEP sampled the tap water for PCBs at the Gardiner residence using its standard operating procedure "Collection of Household Water Samples Protocol, SOP: DR#001". PCBs were not detected above the State's safe detection limits. See Attachment 6 for the Maine DEP report including a map showing the location of the well.

There were no other recommendations or issues identified in the 2005 Five-Year Review that has been carried over to this review.

SECTION 6.0 FIVE-YEAR REVIEW PROCESS

This section describes the activities performed during the Five-Year Review process and provides a summary of findings. The Pinette's Five-Year Review team was led by Almerinda Silva of EPA, Remedial Project Manager for the Site. David Wright of Maine DEP assisted in the review as the representative for the support agency.

6.1 COMMUNITY NOTIFICATION AND INVOLVEMENT

Community involvement pertaining to the Site has historically been somewhat limited. Prior to the October, 2009 groundwater sampling event, EPA notified the owners of the Pinette's property that the Five-Year Review of Pinette's Site was occurring. During the preparation of the Five-Year Review report, code enforcement officers from the towns of Washburn and Wade were contacted about the ongoing Five-Year Review of the Site. A public notice informing the community about the Five-Year Review was published in the Star Herald and Aroostook Republican newspapers on June 9, 2010.

6.2 DOCUMENT REVIEW

This Five-Year Review included of a review of relevant documents, such as decision documents and status reports. The documents that were reviewed are listed in Attachment 1.

6.3 DATA REVIEW

6.3.1 Review and Evaluation

Groundwater samples at the Pinette's Site have been collected using the EPA Region 1 low flow groundwater sampling procedures since 1995. The low flow procedure provides the most representative sample of the groundwater from the monitoring wells. During the October 2009 sampling event, groundwater samples were collected from twelve monitoring wells at the Site - DMW-5, SMW-5A, BMW-5, DMW-7, SMW-7A, BMW-7, DMW-2, SMW-2, DMW-6, SMW-6, DMW-8, and SMW-8 (see Figure 2). The samples were collected using submersible bladder pumps in all cases except DMW-5, DMW-8, and SMW-2, where the samples were collected using peristaltic pumps.

The samples were analyzed for total PCBs, dissolved PCBs (filtered samples), and VOCs. To replicate the 2004 sampling round, samples were analyzed using gas chromatography/low resolution mass spectrometry (GC/LRMS) for target PCB congeners and PCB homologue groups.

The scope originally included Tier 1 data validation of the 2009 analytical results. However, during Tier 1 validation, it was noted that for the PCB data, the validation should be upgraded to Tier 2 to qualify the data for blank contamination. EPA agreed with and approved this upgrade of the validation for the PCB data. The data validation memoranda for the VOC data (Tier 1) and the PCB data (Tier 2) are included in Attachment 2.

During the October 2009 sampling round, only PCBs were found to exceed the ROD Cleanup Levels. As noted in Table 3 below, PCBs were detected at six of the sampled wells: SMW-5A, SMW-7A, DMW-5, BMW-5, SMW-2, and SMW-8. Only the concentration in the unfiltered sample from DMW-5 (2.1 ug/L) exceeded the ROD cleanup goal for total PCBs of 0.5 ug/L. The filtered sample collected from monitoring well DMW-5 had a concentration of 0.031 ug/L for PCBs, below the ROD cleanup goal.

Table 3. Summary of PCB Data		
Well ID	Total PCB Homologues (ug/L)	ROD Cleanup Goal (ug/L)
SMW-5A (unfiltered)	0.0037 J	0.5
SMW-7A (unfiltered)	0.0048 J	0.5
SMW-7A (filtered)	0.0025 J	0.5
DMW-5 (unfiltered)	2.1 J	0.5
DMW-5 (filtered)	0.0031 J	0.5
BMW-5 (unfiltered)	0.03 J	0.5
BMW-5 (filtered)	0.009 J	0.5
SMW-2 (unfiltered)	0.04 J	0.5
SMW-8 (filtered)	0.0012 J	0.5
SMW-8 (unfiltered)	0.01 J	0.5
2.1 – Indicates that value exceeds ROD cleanup goal		
J – Value is estimated		

The VOCs detected in groundwater samples collected during the 2009 groundwater sampling event were acetone, benzene, MTBE, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene. The 1989 ROD established cleanup goals for four (benzene, chlorobenzene, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene) of these compounds, but none of the concentrations exceeded those cleanup goals.

The complete VOC results for 2009 are included in Attachment 3. Table 4 summarizes the maximum concentrations for compounds detected in the samples collected in 2009. The maximum concentrations detected in previous groundwater sampling rounds since the completion of the Remedial Action (RA) are included for comparison. PCBs were the only contaminant of concern that was found to exceed the ROD cleanup goal in groundwater for samples collected in 2009. The maximum concentration, and the only result above the cleanup goal, was at monitoring well DMW-5 (unfiltered sample), which has historically had the highest concentration for PCBs in groundwater since the completion of the RA. This well cluster is located at the center of the Restricted Area and thus covered by the Restrictive Covenant. The concentration detected in October 2009 (2.1 ug/L) is slightly lower than the concentrations detected in 1999 (2.2 ug/L) and 2004 (2.5 ug/L), and significantly less than the concentration detected during the post RA sampling (8.5 ug/L).

The concentration of PCBs in bedrock well BMW-5 decreased from 0.044 ug/L in 2004 to 0.03 ug/L in 2009. The other two locations with detections of PCBs in 2004 were wells SMW-5A and SMW-7A, with concentrations reported at 0.0073 ug/L and 0.018 ug/L, respectively. The October 2009 results for PCBs in these two wells were 0.0037 ug/l and 0.0048 ug/L respectively, indicating relatively little change has occurred since the 2004 sampling rounds. Overall, it appears that any migration of PCBs from the original area of contamination around DMW-5 is proceeding at a slow rate.

It should be noted that acetone, methyl-tert-butyl-ether (MTBE), 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,2,3-trichlorobenzene were detected during the 2009 groundwater sampling event. The chlorobenzene compounds are typically associated with PCBs and may function to solubilize/mobilize PCBs in groundwater. Therefore, future trends in these compounds should be monitored.

In comparing the 2009 results to earlier data, it should be recognized that, prior to 1999, samples for

PCBs were analyzed for PCB Aroclors using gas chromatography/electron capture detector (GC/ECD) methodologies. In 1999, the samples collected for PCB analysis were analyzed for target PCB congeners and homologue groups using high resolution gas chromatography/high resolution mass spectrometry (HRGC/HRMS). This method allowed for the identification of individual PCB congeners, and reporting limits of ng/L versus ug/L for GC/ECD. For the 2009 sampling round, PCB samples were analyzed using gas chromatography/low resolution mass spectrometry (GC/LRMS) for target PCB congeners and PCB homologue groups at reporting limits of 1 ng/L.

Table 4. Summary of 2009 Groundwater Sampling Results

	PCBs	Chloro-benzene	Acetone	Benzene	MTBE	1,2-Dichloro-benzene	1,3-Dichloro-benzene	1,4-Dichloro-benzene	1,2,4-Trichloro-benzene	1,2,3-Trichloro-benzene
Cleanup Level	0.5	47	NA	5	NA	NA	NA	27	680	NA
Maximum Concentration Post RA	8.5	12	ND	ND	ND	ND	ND	ND	ND	NA
Location	DMW-5	SMW-5/5A	NA	NA	NA	NA	NA	NA	NA	NA
Maximum Concentration 1999	2.2	8.0	ND	ND	ND	ND	ND	ND	ND	NA
Location	DMW-5	SMW-5/5A	NA	NA	NA	NA	NA	NA	NA	NA
Maximum Concentration 2004	2.5	14	ND	ND	ND	ND	ND	11	13	NA
Location	DMW-5	SMW-5/5A	NA	NA	NA	NA	NA	SMW-5/5A	DMW-5	NA
Maximum Concentration 2009	2.1 J	8.9	7.2	0.39 J	1.4	0.29 J	3.0	6.0	7.1	0.52
Location	DMW-5	SMW-5A	SMW-5A	SMW-5A	SMW-2	SMW-5A	SMW-5A	SMW-5A	DMW-5	DMW-5

Results are in ug/L.
 PCB results for Post RA are Total PCB Aroclors. For 1999, 2004, and 2009 the results are Total PCB Homologue groups.
 ND - Analyte not detected.
 NA - Not applicable.
 J - Value is estimated

6.3.2 Longer Term Trends

Following completion of the Source Control Remedial Action, PCBs were detected above the ROD Cleanup Level only in wells DMW-5 and BMW-5 and on a single occurrence in well SMW-2. After the implementation of low flow sampling procedures in 1995, PCB concentrations only exceeded the ROD Cleanup Level in well DMW-5. Results from the two limited 1999 sampling rounds indicated that concentrations of PCBs decreased slightly in well DMW-5 from concentrations ranging from 3 to 9 ug/L in 1995 to an average of 2 ug/L in 1999. The 2004 results for PCBs in well DMW-5 were 2.5 ug/L, and the October 2009 results were 2.1 ug/L.

Concentrations of PCBs in well BMW-5 increased slightly from less than 0.5 ug/L in 1995 to an average of 0.7 ug/L in 1999. However, the 2004 results for PCBs in well BMW-5 were much lower at 0.044 ug/L, and the October 2009 results were 0.03J ug/L.

PCBs were detected at low concentrations (0.001 to 0.006 ug/L) in certain other wells (SMW-2, SMW-5/5A, and DMW-4) sampled in 1999. The detection of these low concentrations was likely due to the greater sensitivity of the HRMS analytical method. In 2004, PCBs were detected in well SMW-5A at a concentration of 0.007 ug/L; in 2009, PCBs were detected in well SMW-5A at a concentration of 0.0037J ug/L, and in well SMW-2 at a concentration of 0.04J ug/L.

Benzene, chlorobenzene, and chloromethane were not detected above their cleanup goals (5, 47, and 10 ug/L, respectively) in groundwater samples collected in 1995. Chlorobenzene and chloromethane were not detected above ROD Cleanup Levels in 1999 or 2004, and benzene was not detected in the wells

sampled in 1999 or 2004. Neither 1,4-dichlorobenzene nor 1,2,4-trichlorobenzene has been detected above ROD Cleanup Levels (27 ug/L and 680 ug/L, respectively) in any groundwater samples following completion of the Source Control RA.

In summary, the results from the 1999, 2004, and 2009 sampling rounds indicate that PCBs are the only contaminant of concern remaining at concentrations above ROD Cleanup Levels. For the 2009 data, PCB concentrations exceed cleanup levels only in well DMW-5, located near the original source of contamination.

6.4 SITE INSPECTION

The monitoring well array at the Pinette's Site was inspected during the October 2009 sampling round. The results of this inspection indicated that all of the monitoring wells in the existing array continue to be operational, although not all of the wells in the array were sampled during the October 2009 event. Some minor O&M issues were noted. Several monitoring wells had slightly bent protective pipes, and the lock tabs on the two wells in the MW-10 cluster were broken off. It did not appear that these are recently occurring problems.

While conducting the October 2009 Site inspection, several additional observations concerning the Site were made. Specifically, it was noted that Roger Pinette may be expanding the size of the area in which he is conducting auto salvage and storage operations (in the area of his property located west of DMW-1). At the time of the Site inspection, evidence of some clearing and earth moving activities was observed in this area (which is outside the area within which institutional controls had been imposed).

The results of this inspection and photographs of the Site are presented in Attachment 4. Overall, the monitoring well array was observed to be in relatively good condition and usable, although a few defects were noted (see Attachment 4). During this inspection, it was observed that some portions of the Site's old perimeter fencing were missing or down. This fence was built as a temporary measure for use during active remediation back in November 1993 but is no longer necessary. Thus repairs to this fence are not necessary. Therefore any impact to this fence does not adversely affect the Site's remedy. It was also noted that given the remoteness of the Site, trespassing did not appear to be a significant concern. The perimeter fencing for well cluster #5 and boundary markers of the Restricted Area are intact.

6.5 SITE INTERVIEWS

During the site inspection, Mr. Roger Pinette was ill and was not interviewed. Mr. Pinette was subsequently interviewed by telephone on January 29, 2010 and indicated that although he is retired, a few vehicles are accepted at the Site each year, and some appliances are taken in and subsequently sold for their scrap metal value. Mr. Pinette stated that no change in land use is anticipated at this time.

Mr. Adam Doody and Mr. George Howe, code enforcement officials for the Town of Washburn and the adjoining Town of Wade, were interviewed. Neither was aware of any problems at the Site. Ms. Tracy Weston of the Maine DEP was also interviewed and was unaware of any problems related to the Site.

Ms. Theresa Gardiner, who occupies the dwelling just northeast of the Site, was interviewed during the sampling event. She indicated that a new supply well had recently been drilled behind her house in the last year or so. Mr. Pinette had also mentioned during his interview that a new well had been drilled and that it is about 200 feet deep. Since the well apparently replaced an existing well and does not represent an increase in groundwater withdrawal, it is not expected to have any significant effect on patterns of groundwater flow in the vicinity of the Site.

A record of each interview was produced and has been included in this report as Attachment 5.

SECTION 7.0 TECHNICAL ASSESSMENT

This section discusses the technical assessment of the remedy and provides answers to the three questions posed in the EPA Guidance (USEPA, 2001).

7.1 QUESTION A: IS THE REMEDY FUNCTIONING AS INTENDED BY THE DECISION DOCUMENTS?

Yes, the reviews of documents, ARARs, and risk assumptions, as well as the 2009 groundwater sampling data and site inspection, indicate that the Pinette's Salvage Yard Site remedy is functioning as intended by the ROD Amendment and ESD.

7.1.1 Institutional Controls

Institutional controls to prevent the disturbance of soil and water within the area of groundwater contamination and former soil contamination on the Site have been implemented. In August 2002, the Maine DEP developed and implemented a Declaration of Restrictive Covenant for a portion of the property owned by Roger Pinette. Roger Pinette signed and recorded the Declaration of Restrictive Covenant with the County Registry of Deeds. This Restrictive Covenant establishes institutional controls regarding land and groundwater use within a circle 260 feet in diameter, surrounding well cluster #5. As previously noted, activities prohibited within the institutional control area include:

- Alteration of surface water, groundwater or the water table;
- Change in use from the present land use;
- Tampering with or removing monitoring wells;
- Tampering with or removing survey markers; and
- Any activity which might disturb the contaminated soil or impair the integrity of the overlying soil cover materials in the restricted Area.

During groundwater sampling and the October 2009 site inspection, the property owner appeared to be observing the requirements of the Restrictive Covenant. There were no obvious violations of the Restrictive Covenant within the area of institutional controls although some site alterations were observed outside the 260 foot diameter institutional control area. There are no known current or planned changes in land use at the Site that would suggest that the institutional controls will not continue to be effective.

7.1.2 Remedial Action Performance

Recent (October 2009) groundwater data from site monitoring wells indicates that the concentrations of most contaminants of concern remain below ROD Cleanup Levels. Concentrations of PCBs remain slightly above the ROD Cleanup Level in the center of the Site at well cluster #5. This indicates that the source control remedy to remove contaminated soil was effective, and that minimal contamination is migrating into the groundwater from site soils. In addition, since no evidence of new extraction wells near the Site was found, it is assumed that groundwater at the Site continues, in general, to migrate away from domestic wells in the area.

The October 2009 groundwater results included low level detections for acetone, benzene, MTBE, chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2,3-trichlorobenzene, and 1,2,4-trichlorobenzene. The 1989 ROD established cleanup goals for four (benzene, chlorobenzene, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene) of these compounds, but none of the concentrations exceeded those cleanup goals.

7.1.3 Cost of System Operations/O&M

Costs for site O&M are currently low and limited to maintaining institutional controls, and maintaining the monitoring well array and associated fencing.

7.1.4 Early Indicators of Potential Remedy Failure

Evaluation of the recent October 2009 groundwater data does not indicate any contaminant concentration changes which appear to be a cause for future concern. ROD cleanup levels are exceeded only for PCBs and only at well DMW-5. The groundwater sampling data did not indicate evidence of any significant downgradient migration of PCBs from well cluster #5.

7.2 QUESTION B: ARE THE EXPOSURE ASSUMPTIONS, TOXICITY DATA, CLEANUP LEVELS, AND REMEDIAL ACTION OBJECTIVES (RAOs) USED AT THE TIME OF REMEDY SELECTION STILL VALID?

Yes. The exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy selection are still valid. Subsequent changes in toxicity values and risk assessment methods have occurred since remedy selection; however, these changes do not impact the protectiveness of the remedy.

7.2.1 ARARs Review

ARARs for the Pinette's Site were identified in the ROD (1989) and include the following:

Chemical-Specific

- Federal Safe Drinking Water Act Maximum Contaminant Levels (MCLs)
- Maine Bureau of Health Maximum Exposure Guidelines (MEGs)

Action-Specific

- RCRA Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- RCRA Standards Applicable to Generators and Transporters of Hazardous Wastes
- Federal Department of Transportation (DOT) Rules for Transportation of Hazardous Materials
- Toxic Substances Control Act (TSCA) Storage and Disposal Requirements for PCB Wastes
- Occupational Safety and Health Act (OSHA) General Industry Standards, Safety and Health Standards, and Record Keeping, Reporting and Related Regulations
- Federal Clean Air Act (CAA) National Primary and Secondary Ambient Air Quality Standards
- Federal Clean Water Act (CWA) Section 404
- Maine Freshwater Wetlands Act
- Maine Hazardous Waste Regulations
- Maine Groundwater Protection Regulations
- Maine Ambient Air Quality Standards
- Maine Bureau of Water Quality Control Regulations

Location-Specific

- CWA Section 404
- Executive Order 11990, Wetlands Protection
- Maine Freshwater Wetlands Act
- Maine Hazardous Waste Management Rules
- Maine Site Location Law

Additionally, the ROD identifies the following as "To Be Considered" policies:

- Toxic Substances Control Act (TSCA) PCB Spill Cleanup Policy (40 CFR 761 Subpart G)
- EPA Interim Policy for Planning and Implementing CERCLA Response Actions, Proposed Rule

The ROD indicated that the selected remedy would meet or attain all ARARs, with the exception of the Maine MEG for PCBs. Since no technology existed which was capable of ensuring the collection of particulate-bound PCBs to meet the Maine MEG, EPA invoked a waiver of this ARAR in the ROD, on the grounds that its attainment was technically impracticable from an engineering standpoint. However, the groundwater at the Site was to be treated for target organic contaminants of concern, including PCBs to the degree that was technically practicable.

Most of the ARARs cited in the ROD were related to the source control remedy and were met with the completion of source control remedy. OSHA regulations are no longer considered ARAR by EPA, since they are worker safety rules that must always be complied with. The Federal MCLs and Maine MEGs remain relevant and appropriate for Site groundwater and were used to derive many of the groundwater cleanup levels. A review of changes to these standards for those contaminants with target groundwater cleanup levels is provided in the following section. These ARARs are being complied with or will be complied with upon remedy completion. Institutional controls will remain in place, and groundwater quality will be monitored until groundwater cleanup goals are attained. Based on the ARARs review, there have been no changes in these ARARs and no new standards or TBCs affecting the protectiveness of the remedy.

7.2.2 Standards Related to Groundwater

A review of the current Federal MCLs and Maine MEGs for the constituents with groundwater cleanup levels indicated the following:

- PCBs - Both the current MCL and the current MEG are 0.5 ug/L, the same as the ROD Target MOM Cleanup Level for groundwater. Recent groundwater sampling results indicate that the target cleanup level has not yet been met in all wells at the Pinette's Site. (Well DMW-5 contained a PCB concentration of 2.1 ug/L in 2009.)
- Benzene – The current MEG is 6 ug/L. The current MCL is 5 ug/L, which is the same as the ROD Target MOM Cleanup Level for groundwater. Recent groundwater sampling results indicate that the target cleanup level is being met.
- 1,4-Dichlorobenzene – The current MEG is 21 ug/L and the current MCL is 75 ug/L. The current MEG is lower (more stringent) than the ROD Target MOM Cleanup Level for groundwater (27 ug/L). Recent groundwater sampling results indicate that the target cleanup level and the more stringent MEG are currently being met.
- Chlorobenzene - The current MCL is 100 ug/L and the current MEG is 140 ug/L, both of which are higher (less stringent) than the ROD Target MOM Cleanup Level for groundwater (47 ug/L). Recent groundwater sampling results indicate that the target cleanup level is being met.
- 1,2,4-Trichlorobenzene - Both the current MCL and the current MEG are 70 ug/L, which is lower (more stringent) than the ROD Target MOM Cleanup Level for groundwater (680 ug/L). Recent groundwater sampling results indicate that the target cleanup level and the more stringent MCL / MEG are both being met.
- Chloromethane –There is currently no MCL for this constituent. The current MEG is 3 ug/L, which is lower (more stringent) than the ROD Target MOM Cleanup Level for groundwater (10 ug/L), which was set at the Contract Laboratory Program (CLP) analytical detection limit at the time. Recent groundwater sampling results indicate that the target cleanup level and

the more stringent MEG are being met. Note that current analytical detection limit is well below the current MEG for chloromethane.

- Lead – The current MEG is 10 ug/L. Both the current MCL and the ROD Target MOM Cleanup Level for groundwater are 15 ug/L. Following the implementation of low-flow sampling at the Site, the highest concentration of lead detected in groundwater was 14.5 ug/L. In 1999, lead was undetected in groundwater at reporting limits of 1.7 to 2 ug/L, indicating that the ROD Target MOM Cleanup Level was met at that time.

Based on this review, changes to MCLs and MEGs have occurred, but they do not impact the protectiveness of the remedy, since groundwater monitoring has shown that contaminant concentrations are below the ROD Target MOM Cleanup Levels and the more stringent standards that currently exist for 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, chloromethane, and lead.

7.2.3 Changes in Expected Land Use

The Restrictive Covenant signed in August of 2002 prohibits any change in land use within the Restricted Area of the Pinette's without the prior written approval of the Maine DEP. The Restricted Area of the Site appears to continue to be used to stage junk automobiles.

While conducting the October 2009 monitoring well sampling program, it was noted that Roger Pinette may be expanding the size of the area in which he is conducting auto salvage and storage operations. This salvage and storage area is approximately 100 feet west of DMW-1 well and is outside of the Site, in particular the Restrictive Area where the institutional controls are in place.

Continued expansion of the auto salvage operations at Roger Pinette's property or this Site might, if improperly implemented, result in some increased groundwater contamination at the Site (from petroleum products). This conceivably might impact site monitoring in one of two ways. First, any spillage of petroleum products could increase levels of aromatic hydrocarbons, including benzene, in groundwater. Since there is a ROD Cleanup Level for benzene, any petroleum spills could result in exceedances. Second, petroleum spills could, depending upon location, act to mobilize any residual PCBs in soils, facilitating migration to groundwater. Petroleum related volatile organics in groundwater could also accelerate PCB migration downgradient from monitoring well cluster #5. Therefore, it is appropriate to continue monitoring of salvage operations at Roger Pinette's property and the Site to ensure that conditions that could adversely impact the Site do not arise.

7.2.4 New Routes of Exposure or New Receptors

No new extraction wells are known to have been installed within the Restricted Area, and no water is known to be extracted from the remaining monitoring wells for consumptive or non-consumptive use. No previously unconsidered receptors are known to be accessing the Restricted Area of the Site.

7.2.5 Newly Identified Contaminants

Of the original COPCs for the Site, benzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,2,3-trichlorobenzene were detected during the 2009 sampling round after not having been detected during the 1999 and 2004 sampling rounds. Benzene, which has a ROD Target MOM Cleanup Level, was detected at only one well and at a concentration below the target cleanup level. The compounds 1,2-dichlorobenzene and 1,2,3-trichlorobenzene were detected at three well locations, and 1,3-dichlorobenzene was detected at two well locations. These three compounds do not have target cleanup levels. Two of these compounds (1,2-dichlorobenzene and 1,3-dichlorobenzene) have MEGs (63 and 60 ug/L, respectively); however, the detected concentrations (<3 ug/L) were well below those standards.

Also worth noting was the detection of acetone (in one well) and MTBE (in four wells), never before detected at the Site. There is currently no federal MCL for either compound, but both have MEGs. The

detected concentrations were well below the MEGs of 6,300 ug/L for acetone and 35 ug/L for MTBE.

7.2.6 Unanticipated Toxic Byproducts of the Remedy

No treatment or active remedial activity that may create toxic byproducts has been performed on-site since the first Five-Year Review (all active treatment and response activities were conducted prior to this review period).

7.2.7 Changes in Site Conditions

No significant changes in Site conditions have been observed since the last Five-Year Review. The perimeter fencing for well cluster #5 and boundary markers of the Restricted Area are intact. Some ruts in the ground surface (likely from vehicle traffic) were observed. However, none of these changes in Site conditions jeopardizes the protectiveness of the selected remedy as modified by the ROD Amendment and the ESD.

7.2.8 Changes in Toxicity Values or Other Contaminant Characteristics

Since the second Five-Year Review was performed in 2005, there have been no published changes to relevant toxicity values.

The first Five-Year Review (EPA, 2000) noted a change, since the 1989 ROD, in the Reference Dose (RfD) for 1,2,4-trichlorobenzene, which was used as a basis for the ROD groundwater cleanup level. The current RfD is a factor of two lower than the 1989 value (current: 1×10^{-2} mg/kg-day, 1989: 2×10^{-2} mg/kg-day). This change does not affect the protectiveness of the remedy, because groundwater monitoring has shown that maximum groundwater concentrations are 50 to 100-fold lower than the ROD cleanup level.

The second Five-Year Review (EPA, 2005) noted subsequent changes to relevant toxicity values for two groundwater contaminants of concern: benzene and chloromethane (methyl chloride). Benzene was assigned a new oral Reference Dose (RfD) and inhalation Reference Concentration (RfC) by EPA in 2003. However, these changes in relation to the non-carcinogenic effects were not significant relative to the carcinogenic effects of benzene, and the other non-risk considerations incorporated into the setting of the MCL for benzene. Neither the MCL nor the MEG was adjusted based on these toxicological changes. Chloromethane was assigned a new inhalation RfC, and its carcinogenicity was reassessed in 2001 by EPA. As the ROD Target MOM Cleanup Level for chloromethane was established based on the CLP analytical detection limit, the most conservative revision of the ROD Cleanup Level would be the latest detection limit. Since chloromethane was not detected (detection limit = 0.5 ppb), this change in the toxicity value does not affect the protectiveness of the remedy.

7.2.9 Changes in Risk Assessment Methods

Draft guidance was published by EPA in November 2002 on the evaluation of the vapor intrusion to indoor air exposure pathway. This guidance has raised the level of awareness about, and focused greater attention on, this potential pathway. However, potential vapor intrusion into indoor air is not a concern with regard to protectiveness because: (1) the remaining levels of VOCs in the groundwater at the Site have been measured to be very low; (2) there are no occupied buildings currently within the Restricted Area; and (3) the Restrictive Covenant prohibits the construction or placement of any buildings within the Restricted Area without prior written permission of the Maine DEP.

Subsequent to when groundwater cleanup levels were established in the 1989 ROD, dermal absorption and inhalation of volatile contaminants were incorporated into the development of risk-based groundwater cleanup levels, rather than ingestion alone. The impact of this change is negligible because the ROD cleanup levels for most VOCs were based on state or federal drinking water standards and not risk-based

values. Any analytes which had risk-based cleanup levels now have state and/or federal drinking water standards. Furthermore, VOCs with cleanup levels have currently been either not detected or detected at concentrations well below existing or potential drinking water standards. As the Restrictive Covenant is in place and preventing exposure pathways to the groundwater, the protectiveness of the remedy is not impacted by this change.

Finally, a new method to evaluate compounds with mutagenic modes of action is now recommended by EPA. The current methodology calls for the use of age-specific adjustment factors to account for an increased sensitivity during early life. This supplemental early-life calculation was not performed as part of the Public Health Evaluation since the EPA carcinogen risk assessment guidance was published subsequent to the completion of the site-specific risk evaluation. None of the contaminants detected in the 2009 monitoring round are considered to have mutagenic modes of action. Therefore, this change in methodology is not expected to impact the protectiveness of the remedy.

7.3 QUESTION C: HAS ANY OTHER INFORMATION COME TO LIGHT THAT COULD CALL INTO QUESTION THE PROTECTIVENESS OF THE REMEDY?

No. No additional information has been identified that would call into question the protectiveness of the remedy. There have been no additional changes in Site ARARs as identified in the ROD, the ROD Amendment, and the ESD other than the items noted in Question B above.

7.4 TECHNICAL ASSESSMENT SUMMARY

According to the data reviewed and the site inspection, the remedy is functioning as intended by the ROD, the ROD Amendment, and the ESD. There have been no changes in the physical conditions of the Site that would adversely affect the protectiveness of the remedy.

The October 2009 monitoring data indicate that PCB contaminated groundwater remains predominantly in the immediate vicinity of well cluster #5. Field observations indicate that the property owner appears to be abiding by the Restrictive Covenant which controls land and water use within the 260-foot diameter area surrounding well cluster #5.

Site inspection results indicate that the Restrictive Covenant implemented as an institutional control for the Site appears to be functioning appropriately. The monitoring well array remains in an overall workable condition. There is no evidence of significant damage to the well array. There is also no evidence of improper excavation within the restricted area.

There is no other information that calls into question the protectiveness of the remedy.

SECTION 8.0 ISSUES

Table 5 summarizes one potential future issue that is noted concerning the status of the Pinette's site. It should be emphasized that this issue has not impacted the Site to date. The overall remedy is considered to be protective of human health and the environment.

As noted in Table 5, the property owner currently appears to have slightly expanded auto salvage and storage operations in an area of his property located outside of the Site, approximately 100 feet west of DMW-1. At the time of the site visit, some evidence of recent clearing and earth moving activities was observed in this area, which is outside of the area within which institutional controls (Restrictive Covenant) has been imposed. This work is not a direct concern as long as the Restrictive Covenant is strictly adhered to and excavation does not occur within the 260 foot diameter circle within which institutional controls have been established.

Outstanding Issues	Currently Affects Protectiveness	Affects Future Protectiveness
Site property owner appears to be slightly expanding auto salvage/storage operations in rear portion of the property.	No. Expansion thus far has remained outside of area of institutional controls.	Yes, if future spillage of any organic compounds from expanded operations might cause ROD cleanup goal for benzene to be exceeded, or enhance the migration of PCBs in groundwater.

SECTION 9.0 RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Based upon the results of the site inspection and the most recent groundwater sampling data, there are no near-term follow-up steps that are required at the Pinette's Site.

Table 6: Recommendations and Follow-up Actions						
Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness	
					Current	Future
Site property owner appears to be slightly expanding auto salvage/storage operations in rear portion of the property.	Increase site inspection frequency to at least twice per every five years instead of once.	EPA and Maine DEP	EPA and Maine DEP	2015	N	Y, if future spillage of any organic compounds from expanded operations might cause ROD cleanup goal for benzene to be exceeded, or enhance the migration of PCBs in groundwater.

SECTION 10.0 PROTECTIVENESS STATEMENT

OU-1: The remedy for OU-1 is currently protective of human health and the environment. During the OU-1 active RA, soils with contaminant concentrations in excess of cleanup levels were excavated and shipped off-site for treatment or disposal. Soils with PCB concentrations below the cleanup level of 5 mg/Kg but above 1 ug/L were removed from the top one foot of soil and placed below that depth in the excavation. The remediated areas were then covered with at least one foot of soil with <1 mg/Kg PCBs.

Institutional controls were implemented by Mr. Roger Pinette, the Site owner, in 2002 in the form of a Declaration of Restrictive Covenant. The institutional controls appear to be functioning appropriately. No apparent disturbance of soil has occurred within the restricted area, and the property owner appears to be complying with the provisions of the Restrictive Covenant.

OU-2: The remedy for OU-2 is currently protective of human health and the environment. Since it was deemed unlikely that the PCBs in groundwater could be reduced everywhere on the Site to less than the cleanup goal of 0.5 ug/L, the 1989 ROD invoked a waiver from that requirement and instead established a goal of limiting the migration of PCBs. Groundwater sampling results have indicated that PCB concentrations at well DMW-5 continue to marginally exceed the ROD target cleanup level of 0.5 ug/L; however, the sampling results also show no evidence of significant downgradient PCB migration from the MW-5 well cluster, which is located at the center of the area governed by the Restrictive Covenant. Since the Restrictive Covenant prohibits disturbance of groundwater within that area, incidental ingestion of contaminated groundwater is not a concern.

With respect to off-site residential supply wells, they are well beyond the limits of PCB migration. Furthermore, the groundwater flow direction was determined to be to the southeast in previous investigations, and no changes in physical conditions that could alter groundwater flow in the vicinity of the Site have been observed. Available information indicates that all of the nearby residential wells continue to be located to the northeast and southwest of the Site. Therefore, even if migration of groundwater contaminants from the Site were to unexpectedly occur, it would not pose any immediate risk to residential wells.

Because the remedial actions at OU-1 and OU-2 are protective, the Site is currently protective of human health and the environment.

Short Term Protectiveness:

The source control and management of migration remedies for the Pinette's Site are functioning effectively, and overall the remedy is protective of human health and the environment. The implementation of institutional controls involving the establishment of a Restrictive Covenant for certain portions of the Site has effectively prevented ingestion of and contact with PCB-contaminated groundwater at the Site.

Groundwater monitoring data indicates that the residual levels of only one site contaminant (PCBs) remain above the ROD groundwater cleanup level. In addition, monitoring data indicate that PCBs exceed the ROD groundwater cleanup level in only one well, DMW-5, near the center of the Site. This localized contamination lies within the site area controlled by the Restrictive Covenant.

Long Term Protectiveness:

The long term protectiveness of the remedial action at the Pinette's Site will continue to be verified through ongoing site inspections and continued groundwater monitoring, as appropriate. These activities will effectively monitor the residual groundwater contamination, as well as ensuring adherence to the Restrictive Covenant for the Site.

SECTION 11.0 NEXT REVIEW

This is a statutory site that requires ongoing Five-Year Reviews. The next review will be conducted within five years of the signature date of this Five-Year Review report.

FIGURE 1
Site Locus Map

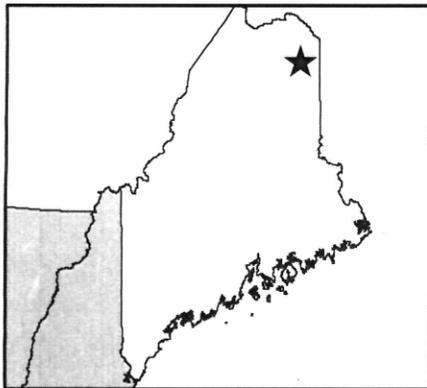
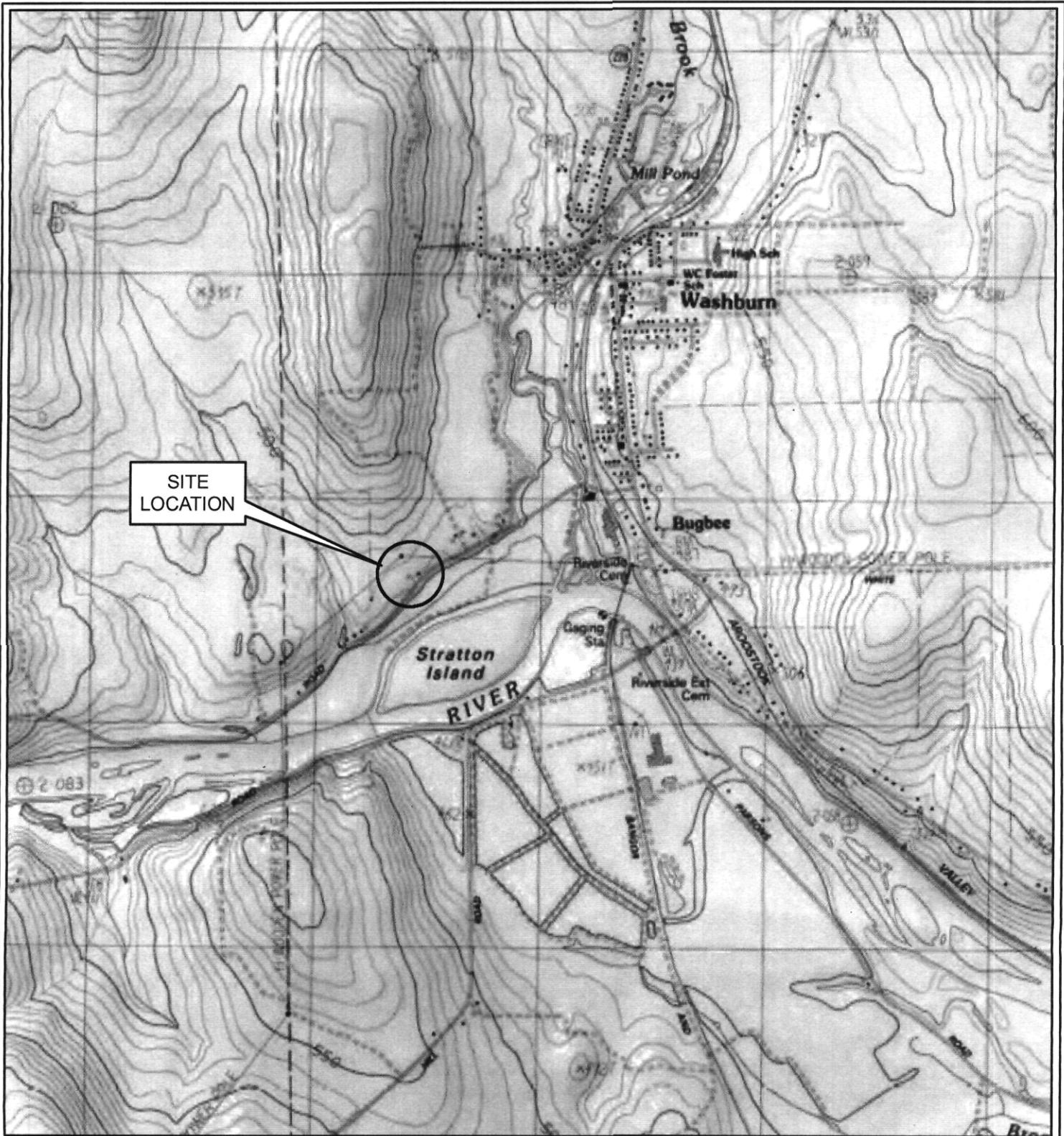


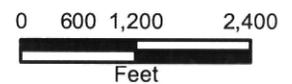
FIGURE 1.

SITE LOCATION MAP

Pinette's Salvage Yard
 Superfund Site
 Washburn, Maine



1 inch = 2,000 feet



AECOM



Legend

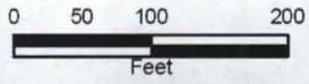
- Approximate Property Line
- Approximate Limit of Restricted Area (as defined in Declaration of Restrictive Covenant)
- Residential Water Supply Well (installed in 2009)
- ▭ Area of Salvage Yard Operations
- Well Cluster No. 5 (center of Restricted Area)
- General Direction of Groundwater Flow

Note: Parcels A and B are owned by Roger Pinette; Parcel B is sometimes rented to other occupants.

FIGURE 3.

AERIAL MAP - PINETTE'S SALVAGE YARD SITE

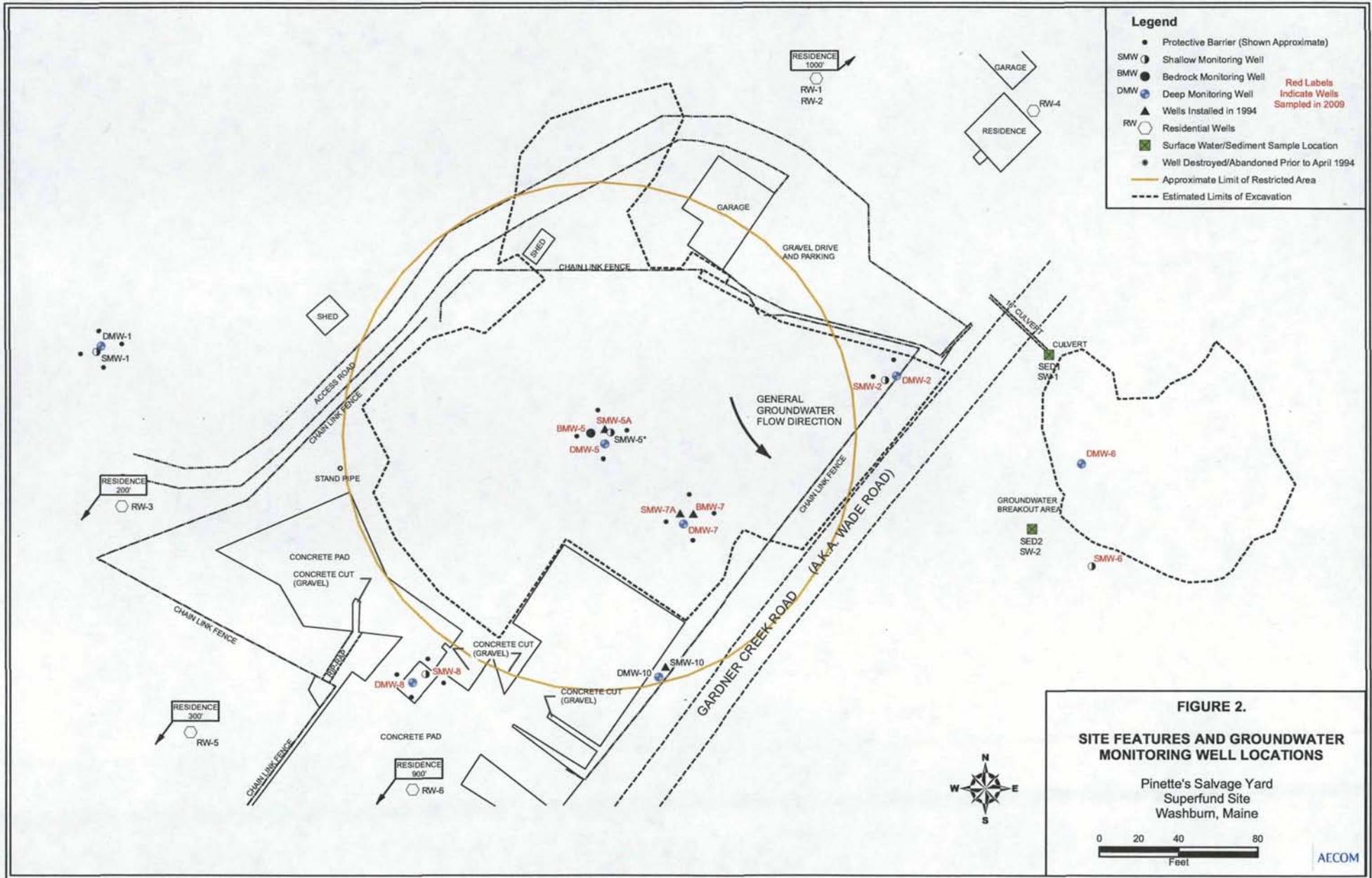
Pinette's Salvage Yard
Superfund Site
Washburn, Maine



AECOM

FIGURE 2

Site Plan



ATTACHMENT 1

List of Documents Reviewed/References

Documents Reviewed

CERCLA Record of Decision Amendment for Pinette's Salvage Yard Superfund Site, Washburn, Aroostook County, Maine, June 2, 1993.

CERCLA Record of Decision for Pinette's Salvage Yard Superfund Site, Washburn, Aroostook County, Maine, May 30, 1989.

Comprehensive Five-Year Review Guidance, EPA Report 540R-98-050, EPA, Washington, DC, June 2001.

EPA, 1996. Declaration for the Explanation of Significant Differences for Pinette's Salvage Yard Superfund Site, Washburn, Aroostook County, Maine, June 2, 1996.

EPA, 2000. Five-Year Review Report for the Pinette's Salvage Yard Superfund Site, Aroostook County, Maine, Prepared by EPA Region 1, September 2000.

EPA, 2005. Five-Year Review Report for the Pinette's Salvage Yard Superfund Site, Aroostook County, Maine, Prepared by EPA Region 1, September 2005.

EPA, 2002b. National Primary Drinking Water Regulations, List of Contaminants and their MCLs, EPA 816-F-00-004, EPA, Groundwater and Drinking Water, <http://www.epa.gov/safewater/mcl.html>, May, 2009.

Maine DEP, 2002. Declaration of Restrictive Covenant, State of Maine, County of Aroostook, Regarding the Pinette's Salvage Yard, Washburn, Maine, Between Roger Pinette (Owner) and Martha Kirkpatrick (Commissioner Maine DEP), August 30, 2002.

MEGS, 2008. Maine Department of Human Services, Bureau of Health, Maximum Exposure Guidelines (MEG) for Drinking Water, December 5, 2008.

Documents Referenced

Final Supplemental Remedial Investigation and Public Health Evaluation Report for the Pinette's Salvage Yard Superfund Site, prepared for EPA Region 1 by Ebasco, Inc., March 1989a.

Draft Final Feasibility Study Report for the Pinette's Salvage Yard Superfund Site, prepared for EPA Region 1 by Ebasco, Inc., March 1989b.

Summary of Environmental Data and Evaluation Report, Pinette's Salvage Yard Superfund Site, prepared for EPA by Tetra Tech EC, Inc. (formerly Foster Wheeler Environmental Corporation), Boston, MA, June 1996.

ATTACHMENT 2

Data Validation Memoranda

Metcalf & Eddy, Inc.

701 Edgewater Drive, Wakefield, Massachusetts 01880
T 781.246.5200 F 781.245.6293 www.m-e.aecom.com

Ms. Christine Clark
Regional Sample Control Center
U.S. EPA Region I
Office of Environmental Measurement and Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

January 15, 2010

Subject: Task Order No. 0043-FR-FE-0134
Case 39120, SDG A2JB5
TestAmerica, South Burlington, Vermont
Pinette's Salvage Yard Superfund Site, Washburn, Maine
Tier I Organic Data Validation

Trace Volatile Organic Compounds (SOM01.2):

13 / Groundwater Samples / A2W03, A2W04, A2W05, A2W06, A2W07, A2W08, A2W09,
A2W10, A2W11, A2W12, A2W13, A2W14, A2W15
(1 / Field Duplicate Pair / A2W11 and A2W15)
3 / Trip Blanks / A2JB5, A2JB6, A2JB7
2 / Equipment Blanks / A2W00, A2W01
1 / Performance Evaluation Sample / A2W02

Dear Ms. Clark:

Metcalf & Eddy, Inc. (M&E) performed a Tier I data validation on the volatile organic compound analytical data for 13 groundwater samples (including one field duplicate pair), 3 trip blank samples, 2 equipment blanks, and 1 performance evaluation (PE) sample collected by M&E from the Pinette's Salvage Yard in Washburn, Maine on October 13, 14, and 15, 2009. The samples were analyzed for trace concentration volatile organic compounds (VOCs) through the Contract Laboratory Program (CLP) Routine Analytical Service (RAS) program in accordance with the EPA *Statement of Work for Organic Analysis, Multi-Media, Multi-Concentration, SOM01.2*. M&E evaluated the data using the *Region I, EPA NE Data Validation Functional Guidelines for Evaluating Environmental Analyses*, December 1996 criteria modified as appropriate for the methods.

Tier I validation of the data package was deemed sufficient at this time. If problems with the data, analyses, or laboratory are identified at a future date, or should the data quality objectives for the data change, further validation of the data will be considered.

The Tier I validation for VOC data was based on an evaluation of the following parameters:

- * Data Completeness (CSF Audit - Tier I)
- * = All criteria met for this parameter

Copies of the field logbook and field sampling notes are included in this data validation memorandum.

Overall Evaluation of Data and Potential Usability Issues

The following is a summary of the site Data Quality Objectives:

To determine (1) whether the nature and extent of the contaminants of concern in the groundwater have changed compared to the data collected from the previous Five-Year Review; (2) how the concentrations compare to the Groundwater Cleanup Levels (GCLs) identified in the 1989 ROD, and; (3) whether a different remedial approach is necessary for the protection of human health, or whether the institutional controls can be removed.

Based on a Tier I data evaluation, all sample results in this SDG are usable for project objectives.

PE Samples/Accuracy Check

The PE sample A2W02 (EPA ampoule number VT00667) was evaluated with this SDG. For the target compounds evaluated in this PE sample, 30 out of 31 compounds were scored "Within Limits." One additional compound, 1,1,1,2-tetrachloroethane, was scored "TIC Found." One additional compound, methyl acetate, was scored "Contaminant," and another additional compound, dimethoxymethane was scored, "Non-spiked TIC." If a Tier II or Tier III validation was performed, no validation actions would be required based on these scores.

Please contact Constance Lapite at 781.224.6628 or at constance.lapite@aecom.com if you have any questions regarding this information.

Very truly yours,



Kristin Rutherford
Data Validator



Constance Lapite
Senior Reviewer, RAC2 Lead Chemist and
Project Chemist

cc: Almerinda Silva, EPA Task Order Project Officer (validation letter only)
Warren Diesl, M&E Task Order Manager (validation letter only)
Pinette's Salvage Yard Project File, TO No. 0043-FR-FE-0134 (validation letter and attachment)

Tier I Attachments: Accuracy Check / DV Worksheet XI
PE Score Report(s)
Copy of Non-CLP Analytical Method (not applicable)
Copies of Telephone Logs/Communication Forms
Supporting Data for Reduced Payment Recommendations (not applicable)
Copies of Field Sampling Notes
Copies of EPA-approved Amendments to QAPjP or SAP (not applicable)
CSF Completeness Evidence Audit (DC-2 Form)
DQO Summary Form

Metcalf & Eddy, Inc.

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Ms. Christine Clark
Regional Sample Control Center
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11 Technology Drive
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March 3, 2010

Subject: Task Order No. 0043-FR-FE-0134
Case 0306M, SDG D09202
Alpha Analytical Laboratories, Inc., Mansfield, Massachusetts
Pinette's Salvage Yard Superfund Site, Washburn, Maine
Tier II Organic Data Validation

Polychlorinated Biphenyl Homologs (D027.2):

14 / Groundwater Samples / D09205, D09207, D09208, D09209, D09212, D09213,
D09216, D09224, D09226, D09227, D09228, D09231, D09232, D09236
2 / Field Duplicate Pairs/ D09212 and D09216; D09231 and D09236
3 / Equipment Blanks / D09202, D09221, and D09222
3 / Performance Evaluation Samples / D09200, D09201, D09240 (all reported in Case
0306M, SDG D09210)

Dear Ms. Clark:

A Tier II data validation was performed by Metcalf & Eddy, Inc. (M&E) on the organic analytical data for 14 groundwater samples (including 2 field duplicate pairs), 3 equipment blanks, and 3 performance evaluation (PE) samples (reported in Case 0306M, SDG D09210). The samples were collected by M&E from the Pinette's Salvage Yard in Washburn, Maine on October 15, 2009. The samples were analyzed for polychlorinated biphenyl (PCB) homologs through the Response Action Contract 2 (RAC2) Delivery of Analytical Services (DAS) program using M&E DAS *Analytical Specification for the Analysis of Low Concentration Polychlorinated Biphenyls (as Homologs) in Aqueous Samples (D-027.2)*. M&E evaluated these data using the *Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses*, December 1996 criteria, updated with the *Pesticide/PCB Data Validation Functional Guidelines – Part III, February 2004 criteria*, with additional guidance provided by the *National Functional Guidelines for Superfund Organic Methods Data Review, July 2007 criteria*. Validation guidelines were modified for the method.

In accordance with the EPA-approved sampling and analysis plan and data quality objectives (DQOs) for the site, Tier I validation of the data was to be performed. With the approval of the EPA Task Order Project Manager, validation was upgraded to a Tier II level in order to qualify the data for blank contamination.

The Tier II validation for the VOC data was based on an evaluation of the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
 - Data Completeness (CSF Audit - Tier I)
 - Preservation and Technical Holding Times
 - * • Gas Chromatograph/Mass Spectrometer (GC/MS) Instrument Performance Check
 - Initial and Continuing Calibrations
 - Blanks
 - Surrogate Recoveries
 - * • Internal Standards
 - NA • Matrix Spike/Matrix Spike Duplicate
 - * • Field Duplicates
 - Sensitivity Check
 - PE Samples/Accuracy Check
 - NA • Target Compound Identification
 - * • Compound Quantitation and Reported Quantitation Limits
 - NA • Tentatively Identified Compounds
 - NA • PCB Cleanup
 - NA • System Performance
- * - All criteria were met for this parameter.
NA - Not Applicable

Note: Worksheets are not included for parameters that have met criteria, for criteria that are not applicable to Tier II data validation, or for criteria that are not applicable to the analysis.

Copies of the field logbook and field sampling notes are included in the validation memorandum for Case 39120, SDG A2JB5, previously submitted to EPA.

The following information was used to generate the Tier II Data Validation Memorandum attachments:

- Table I: Recommendation Summary Table - summarizes validation recommendations
Table II: Overall Evaluation of Data - summarizes site DQOs and potential usability issues
Data Summary Tables - summarizes accepted, qualified and rejected data

Tentatively Identified Compounds (TICs) are not reported for this analysis. Therefore, Table III is not included in this memorandum.

Overall Evaluation of Data and Potential Usability Issues

The following is a summary of the site Data Quality Objectives:

To determine (1) whether the nature and extent of the contaminants of concern in the groundwater have changed compared to the data collected from the previous Five-Year Review; (2) how the concentrations compare to the Groundwater Cleanup Levels (GCLs) identified in the 1989 ROD, and; (3) whether a different remedial approach is necessary for the protection of human health, or whether the institutional controls can be removed.

In accordance with the requirements of a Tier II validation, the data were evaluated with respect to sampling and analytical error. The following list summarizes the sampling error associated with the PCB analyses:

- The positive results for hexachlorobiphenyls in samples D09205, D09207, and D09213 are qualified as nondetect (U) at the reported concentration because of equipment blank contamination. The results are usable for project objectives as nondetect results with an elevated reporting limit. The qualification has a minor impact on the data usability.
- The positive result for total homologs in sample D09213 is qualified as nondetect (U) at the reporting limit after blank actions based on the equipment blank were applied for the individual homolog groups. The result is usable for project objectives as nondetect result. The qualification has a minor impact on the data usability.
- The positive results for total homologs in samples D09205 and D09207 are recalculated after blank actions based on the equipment blank were applied for the individual homolog groups. The results are usable for project objectives as detected results. The qualification has a minor impact on the data usability.

The following list summarizes the analytical error associated with the PCB analyses:

- The positive results for pentachlorobiphenyls in samples D09207 and D09213 are qualified as nondetect (U) at the sample concentration because of blank contamination in the PE sample. The results are usable for project objectives as nondetect results with an elevated reporting limit. The qualification has a minor impact on the data usability.
- The positive and nondetected results for all target analytes in all samples were qualified as estimated (J and UJ, respectively) because the samples were extracted outside of holding time. The results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on the data usability.
- The positive and nondetected results for sample D09202 are qualified as estimated (J and UJ, respectively) because of low recovery for one of the surrogates. The results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on the data usability.
- The positive and nondetected results for the following compounds are qualified as estimated (J and UJ, respectively) in all samples because of LCS and /or LCSD recovery below criteria: C12-BZ#5/#8, C13-BZ#18, C15-BZ#95, C14-BZ#56/#60, C16-BZ#138/#163, C15-BZ#105, C15-BZ#126, C17-BZ#170/#190. Results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on the data usability.
- The positive and nondetect results for C14-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) due to PE sample nonconformances. The results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on the data usability.

The attached Table I summarizes the Tier II validation recommendations which were based on the following information:

Data Completeness

On March 1, 2010, the laboratory was contacted missing raw data evaluating interference from higher homologs. The laboratory responded on March 1, 2010, adequately addressing these issues.

The reporting limits and nondetected results reported for total homologs for the following samples were revised by the data validator to reflect the reporting limit for each individual homolog group: D09209, D09221, D09222, D09231, and D09232.

Preservation and Technical Holding Times

All samples were re-extracted 16 or 17 days from the date of collection, which is outside of the 7-day holding time for extraction. Positive and non-detected results for all results in the re-extracted, re-analyzed samples are therefore qualified as estimated (J and UJ, respectively).

Initial and Continuing Calibrations

The closing continuing calibration verifications (CCVs) were not analyzed within 12 hours of the opening CCV for the following batches: For the analytical batch begun on October 23, 2009 at 16:21, the closing CCV was analyzed 1 hour and 7 minutes past the 12-hour limit. For the analytical batch begun on November 3, 2009 at 18:20, the closing CCV was analyzed 1 hour and 14 minutes past the 12-hour limit. Because both of these closing CCVs met all remaining criteria, qualification of the data was not required based on professional judgment.

Surrogate Recoveries

Recoveries for the surrogate Cl8-BZ#202-C13 were below the 50-125% criteria in samples D09202 (39%), and in the re-extract and reanalysis of the sample (D09202RE, 44%). All results for sample D09202 are qualified as estimated (J and UJ, respectively).

Blanks

The following table summarizes the level of blank contamination detected in the laboratory, associated equipment, and PE sample blanks; the affected samples; and the actions taken. If a contaminant was detected in more than one blank, the highest concentration was used to qualify associated sample results. The validation actions are summarized in the following table:

Compound	Blank Type	Maximum Concentration	BAL	Sample QL	Affected Samples
Trichlorobiphenyls	Equipment Blank EB01	2.7 ng/L	13.5 ng/L	1.0 ng/L	None: Positive results not detected in the associated samples.
Tetrachlorobiphenyls	Equipment Blank EB01	1.4 ng/L	7.0 ng/L	1.0 ng/L	None: Positive results not detected in the associated samples.
Hexachlorobiphenyls	Equipment Blank EB01	1.7 ng/L	8.5 ng/L	1.0 ng/L	The positive results in samples D09205, D09207, D09213 were qualified U at the reported concentration.

Compound	Blank Type	Maximum Concentration	BAL	Sample QL	Affected Samples
Total homologs	Equipment Blank EB01	7.0 ng/L	NA	1.0 ng/L	Blank actions were not applied based on total homologs. Results for total homologs were recalculated after blank actions for the homolog groups were applied. The positive results in D09205 and D09207 were recalculated after blank actions were applied for homolog groups. The positive result for D09213 is qualified as nondetected at the reporting limit after blank actions were applied for the homolog groups.
Pentachlorobiphenyls	Performance Evaluation Blank	2.0 ng/L	10.0 ng/L	1.0 ng/L	The positive results in samples D09207 and D09213 were qualified U at the reported concentration.

BAL - blank action level

RL - Reporting Limit

Sample results were qualified as follows:

- If the sample result was <BAL and <RL, the result was qualified as a nondetect (U) at the RL.
- If the sample result was <BAL and >RL, the result was qualified as a nondetect (U) at the reported concentration.
- If the sample result was >BAL, but <RL, the result was qualified as estimated (J).
- If the sample result was >BAL and >RL, qualification of the data was not required.

PE Samples/Accuracy Check

Laboratory Control Sample

More than 50% of the target analytes in the laboratory control sample (LCS) and LCS duplicate (LCSD) were below the 70-130% recovery criteria. Therefore, all detect and nondetect results were qualified estimated (J and UJ, respectively) in all samples in the original extraction batch.

Based on professional judgment, the results for the re-extracted analyses are reported since all results for the original extracts would be qualified as estimated with a low bias because of low recoveries in the LCS. Although the EPA validation guidelines indicate that the data should be qualified as estimated based on exceeded holding times, also with a low bias, it is our professional judgment that the bias introduced by exceeded holding times is likely less than that suggested by the low recoveries for the LCS. Results are therefore reported from the re-extraction batch for all samples.

For the re-extraction batch, the following table presents the LCS/LCSD criteria that were not met and the validation actions applied.

Compound	LCS %Rec	LCSD %Rec	RPD	Method QC Limit: % Rec	Method QC Limit: RPD	Affected Samples
C12-BZ#5/#8	63	64	--	70 - 130%	≤ 40%	Estimate positive and nondetected results in all samples (J and UJ, respectively)
C13-BZ#18	66	67	--	70 - 130%	≤ 40%	
C15-BZ#95	68	69	--	70 - 130%	≤ 40%	
C14-BZ#56/#60	69	--	--	70 - 130%	≤ 40%	
C16-BZ#138/#163	69	--	--	70 - 130%	≤ 40%	
C15-BZ#105	68	69	--	70 - 130%	≤ 40%	

Compound	LCS %Rec	LCSD %Rec	RPD	Method QC Limit: % Rec	Method QC Limit: RPD	Affected Samples
C15-BZ#126	58	59	--	70 - 130%	≤ 40%	
C17- BZ#170/#190	69	69	--	70 - 130%	≤ 40%	

PE Samples

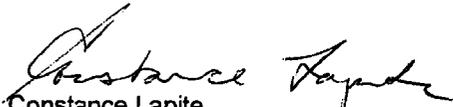
The PE sample D09200 (ERA Catalog No. 093, Lot No. 1009-09-01.1) was evaluated with this SDG. Of 18 target analytes, 15 were within 60-140% of the true value. Three compounds, C14-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls, were below 60%, but above 10%. As a result of these recoveries, the positive and nondetect results for C14-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) and may be biased low.

The PE sample D09201 (ERA Catalog No. 093, Lot No. 1009-09-01.1) was evaluated with this SDG. Of 18 target analytes, 15 were within the vendor's QC performance acceptance limits. Three compounds, C14-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls, were below 60%, but above 10%. As a result of these recoveries, the positive and nondetect results for C14-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) and may be biased low.

The PE sample D09240 (ERA Deionized Ultra-filtered Water) was evaluated with this SDG. The two target analytes detected (pentachlorobiphenyls and total homologs) were evaluated as part of the blank assessment.

Please contact Constance Lapite at (781) 224-6628 or at constance.lapite@aecom.com if you have any questions regarding this information.

Very truly yours,


Constance Lapite
Data Validator, RAC2 Lead Chemist,
and Project Chemist


Andrew Schkuta
Senior Reviewer

cc: Almerinda Silva, EPA Task Order Project Officer (validation letter only)
Warren Diesl, M&E Task Order Manager (validation letter only)
Pinette's Salvage Yard Project File, TO No. 0043-FR-FE-0134 (validation letter and attachments)

Tier II Attachments: ORDA Form
Table I: Recommendations Summary Table
Table II: Overall Evaluation of Data
Table III: Tentatively Identified Compound Summary (NA)
Data Summary Tables

Data Validation Worksheets
PE Score Report(s)
Copy of non-CLP Analytical Methods (M&E DAS D-027.2)
Copies of Telephone Logs/Communication Forms
Supporting Data for Reduced Payment Recommendations (not applicable)
Copies of Field Sampling Notes (previously submitted)
Copies of EPA-Approved Amendments to QAPjP or SAP (not applicable)
CSF Completeness Evidence File Audit (DC-2 Form)
DQO Summary Form

REGION 1, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT (ORDA) *

CASE #: 0306M
 LAB NAME: Alpha Analytical
 SDG #: D09202
 SOW #/CONTRACT #: D-027
 EPA-NE DV TIER LEVEL II
 TPO/PO: ****ACTION** _____ **FYI** X

SITE NAME: Pinette's Salvage Yard
 # OF SAMPLES/MATRIX: 14 GW, 3EB
 VALIDATION CONTRACTOR: M&E
 VALIDATOR'S NAME: C. Lapite
 DATE DP REC'D BY EPA-NE: 11/23/09
 DV COMPLETION DATE: 3/3/10

ANALYTICAL DATA QUALITY SUMMARY

	<u>VOA</u>	<u>SVOA</u>	<u>Pest/PCB</u>
1. Preservation and Contractual Holding Times	_____	_____	0 ¹
2. GC/MS / GC/ECD Instrument Performance Check	_____	_____	NA
3. Initial Calibration	_____	_____	0
4. Continuing Calibration	_____	_____	0
5. Blanks	_____	_____	0
6. Surrogate Compounds	_____	_____	6
7. Internal Standards	_____	_____	0
8. Matrix Spike/Matrix Spike Duplicate	_____	_____	NA
9. Sensitivity Check	_____	_____	0
10. PE Samples/Accuracy Check	_____	_____	0
11. Target Compound Identification	_____	_____	NA
12. Compound Quantitation and Reported QLs	_____	_____	0
13. Tentatively Identified Compounds	_____	_____	NA
14. Semivolatile Cleanup / Pesticide/PCB Cleanup	_____	_____	0-NA
15. Data Completeness	_____	_____	0-NA
16. Overall Evaluation of Data	_____	_____	0

o = Data had no problems or were qualified due to minor contractual problems.
 m = Data were qualified due to major contractual problems
 z = Data were rejected as unusable due to major contractual problems

ACTION ITEMS: (z items) _____

AREAS OF CONCERN: (m items) _____

Comments: 0¹ all samples reextracted outside H.T.; 0² several reporting and format issues

* This form assesses the analytical data quality in terms of contractual compliance only. It does not assess sampling errors and/or non-contractual analytical issues that affect data quality.

** Check "ACTION" only if contractual defects resulted in reduced payment/data rejection recommendations.

Validator C. Lapite

Date: 3/1/10

Table I
Recommendation Summary for PCB Homologs (D-027.2)
Pinette's Salvage Yard Superfund Site
Case 0306M, SDG D09202

Sample Numbers	Matrix	Qualifiers
D09202	EB	J ¹ J ² J ³ J ⁴
D09205	GW	A ² A ⁴ J ¹ J ³ J ⁴
D09207	GW	A ¹ A ² A ⁴ J ¹ J ³ J ⁴
D09208	GW	J ¹ J ³ J ⁴
D09209	GW	J ¹ J ³ J ⁴
D09212	GW	J ¹ J ³ J ⁴
D09213	GW	A ¹ A ² A ³ J ¹ J ³ J ⁴
D09216	GW	J ¹ J ³ J ⁴
D09221	EB	J ¹ J ³ J ⁴
D09222	EB	J ¹ J ³ J ⁴
D09224	GW	J ¹ J ³ J ⁴
D09226	GW	J ¹ J ³ J ⁴
D09227	GW	J ¹ J ³ J ⁴
D09228	GW	J ¹ J ³ J ⁴
D09231	GW	J ¹ J ³ J ⁴
D09232	GW	J ¹ J ³ J ⁴
D09236	GW	J ¹ J ³ J ⁴

GW - Groundwater

EB - Equipment Blank

- A¹ Qualify the positive results for pentachlorobiphenyls as nondetect (U) at the reported concentration because of blank contamination.
- A² Qualify the positive results for hexachlorobiphenyls as nondetect (U) at the reported concentration because of blank contamination.
- A³ Qualify the positive results for total homologs as nondetect (U) at the reported concentration because of blank contamination.
- A⁴ Recalculate the positive results for total homologs after blank qualification of the individual homolog groups.
- J¹ Qualify all positive and nondetected results as estimated (J and UJ, respectively) because of extraction outside of technical holding time.

- J² Qualify all positive and nondetected results as estimated because of low surrogate recovery.
- J³ Qualify the positive and nondetected results as estimated (J and UJ, respectively) for the following compounds because of low recovery in the LCS and/or the LCSD: C12-BZ#5/#8, C13-BZ#18, C15-BZ#95, C14-BZ#56/#60, C16-BZ#138/#163, C15-BZ#105, C15-BZ#126, C17-BZ#170/#190.
- J⁴ Qualify the positive and nondetected results for C14-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls as estimated (J and UJ, respectively) because of PE sample nonconformances.

Table II
Overall Evaluation of Data for PCB Homologs (D-027.2)
Pinette's Salvage Yard Superfund Site
Case 0306M, SDG D09202

DQO	Sampling* and/or Analytical Method Appropriate Yes or No	Measurement Error		Sampling Variability **	Potential Usability Issues
		Analytical Error	Sampling Error*		
To determine (1) whether the nature and extent of the contaminants of concern in the groundwater have changed compared to the data collected from the previous Five-Year Review; (2) how the concentrations compare to the Groundwater Cleanup Levels (GCLs) identified in the 1989 ROD, and; (3) whether a different remedial approach is necessary for the protection of human health, or whether the institutional controls can be removed.	Analytical - yes Sampling - yes	Refer to qualifications in Table I. A ¹ J ¹ J ² J ³ J ⁴	Refer to qualifications in Table I. A ² A ³ A ⁴	Not applicable for Tier II	<p>The following qualifications have a minor impact on data usability:</p> <p>The positive results for pentachlorobiphenyls in samples D09207 and D09213 are qualified as nondetect (U) at the sample concentration because of blank contamination. The results are usable for project objectives as nondetect results with an elevated reporting limit.</p> <p>The positive results for hexachlorobiphenyls in samples D09205, D09207, and D09213 are qualified as nondetect (U) at the reported concentration because of blank contamination. The results are usable for project objectives as nondetect results with an elevated reporting limit.</p> <p>The positive results for total homologs in sample D09213 is qualified as nondetected at the reporting limit after blank actions were applied for the individual homolog groups. The result is usable for project objectives as nondetect result.</p> <p>The positive results for total homologs in samples D09205 and D09207 are recalculated after blank actions were applied for the individual homolog groups. The results are usable for project objectives as nondetect results.</p> <p>The positive and nondetected results for all target analytes in all samples were qualified as estimated (J and UJ, respectively) because the samples were extracted outside of holding time. The results are usable for project objectives as estimated results that may be biased low.</p> <p>The positive and nondetected results for sample D09202 are qualified as estimated (J and UJ, respectively) because of low recovery for one of the surrogates. The results are usable for project objectives as estimated results that may be biased low.</p>

* The evaluation of "sampling error" cannot be completely assessed in data validation.
 ** Sampling variability is not assessed in data validation.

Table II
Overall Evaluation of Data for PCB Homologs (D-027.2)
Pinette's Salvage Yard Superfund Site
Case 0306M, SDG D09202

DQO	Sampling* and/or Analytical Method Appropriate Yes or No	Measurement Error		Sampling Variability **	Potential Usability Issues
		Analytical Error	Sampling Error*		
To determine (1) whether the nature and extent of the contaminants of concern in the groundwater have changed compared to the data collected from the previous Five-Year Review; (2) how the concentrations compare to the Groundwater Cleanup Levels (GCLs) identified in the 1989 ROD, and; (3) whether a different remedial approach is necessary for the protection of human health, or whether the institutional controls can be removed.	Analytical - yes Sampling - yes	Refer to qualifications in Table I. A ¹ J ¹ J ² J ³ J ⁴	Refer to qualifications in Table I. A ² A ³ A ⁴	Not applicable for Tier II	The positive and nondetected results for the following compounds are qualified as estimated (J and UJ, respectively) in all samples because of LCS and /or LCSD recovery below criteria: C12-BZ#5/#8, C13-BZ#18, C15-BZ#95, C14-BZ#56/#60, C16-BZ#138/#163, C15-BZ#105, C15-BZ#126, C17-BZ#170/#190. Results are usable for project objectives as estimated results that may be biased low. The positive and nondetect results for C14-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) due to PE sample nonconformances. The results are usable for project objectives as estimated results that may be biased low.

* The evaluation of "sampling error" cannot be completely assessed in data validation.
 ** Sampling variability is not assessed in data validation.

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09202

DATA SUMMARY TABLE
Polychlorinated Biphenyl Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.	D09205	D09207	D09208	D09209	D09212	D09216	D09213	D09224
M&E Sample ID	SMW-5A-0910	SMW-7A-0910	DMW-7-0910	BMW-7-0910	DMW-6-0910	DMW-6-RS-0910	SMW-6-0910	SMW-5A-0910F
Lab Sample ID	L0914777-10RE	L0914777-02RE	L0914777-14RE	L0914777-11RE	L0914777-03RE	L0914777-06RE	L0914777-15RE	L0914777-08RE
Date Sampled	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09
Date Received	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09
Date Extracted	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09
Date Analyzed	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09
Dilution Factor	1	1	1	1	1	1	1	1
Mass/Volume of Sample	1000 mL	1000 mL	960 mL	1000 mL	1000 mL	1000 mL	1000 mL	1000 mL
Comments					FD of D09216	FD of D09212		
Analyte	RL							
C10-BZ#209	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C12-BZ#5/#8	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C13-BZ#18	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C13-BZ#28/#31	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C14-BZ#43/#49	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C14-BZ#44	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#45	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#47/#48	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C14-BZ#52	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#56/#60	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C14-BZ#66	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#70	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#74	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#77	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#81	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#101/#84	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C15-BZ#105	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#110	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#114	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#118	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#123	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#126	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#87	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#95	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#99	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#138/#163	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C16-BZ#146	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#149	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#151	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#153	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#156	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#157	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#158	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#167/#128	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C16-BZ#169	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C17-BZ#170/#190	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ
C17-BZ#174	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C17-BZ#177	1.0	3.5 J	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C17-BZ#180	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C17-BZ#182/#187	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.2 UJ	2.1 UJ	2.0 UJ	2.0 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09202

DATA SUMMARY TABLE
Polychlorinated Biphenyl Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.	D09205	D09207	D09208	D09209	D09212	D09216	D09213	D09224
M&E Sample ID	SMW-5A-0910	SMW-7A-0910	DMW-7-0910	BMW-7-0910	DMW-6-0910	DMW-6-RS-0910	SMW-6-0910	SMW-5A-0910F
Lab Sample ID	L0914777-10RE	L0914777-02RE	L0914777-14RE	L0914777-11RE	L0914777-03RE	L0914777-06RE	L0914777-15RE	L0914777-08RE
Date Sampled	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09
Date Received	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09
Date Extracted	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09
Date Analyzed	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09
Dilution Factor	1	1	1	1	1	1	1	1
Mass/Volume of Sample	1000 mL	1000 mL	960 mL	1000 mL	1000 mL	1000 mL	1000 mL	1000 mL
Comments					FD of D09216	FD of D09212		
Analyte	RL							
C17-BZ#183	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C17-BZ#189	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C18-BZ#194	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C18-BZ#195	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C18-BZ#201	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
C19-BZ#206	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Monochlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Dichlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Trichlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Tetrachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Pentachlorobiphenyls	1.0	1.0 UJ	2.6 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.8 UJ
Hexachlorobiphenyls	1.0	7.4 UJ	4.5 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.2 UJ
Heptachlorobiphenyls	1.0	3.7 J	3.6 J	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Octachlorobiphenyls	1.0	1.0 UJ	1.2 J	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Nonachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Decachlorobiphenyl	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Total Homologs	1.0	3.7 J	4.8 J	1.0 UJ	1.1 UJ	1.0 UJ	1.0 UJ	2.8 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09202

DATA SUMMARY TABLE
Polychlorinated Biphenyl Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.	D09226	D09227	D09228	D09231	D09236	D09232	
M&E Sample ID	SMW-7A-0910F	DMW-7-0910F	BMW-7-0910F	DMW-6-0910F	DMW-6-RS-0910F	SMW-6-0910F	
Lab Sample ID	L0914777-04RE	L0914777-16RE	L0914777-13RE	L0914777-09RE	L0914777-05RE	L0914777-17RE	
Date Sampled	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	
Date Received	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09	
Date Extracted	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	
Date Analyzed	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	
Dilution Factor	1	1	1	1	1	1	
Mass/Volume of Sample	1000 mL	950 mL	1000 mL	1000 mL	980 mL	930 mL	
Comments				FD of D09236	FD of D09231		
Analyte	RL						
C10-BZ#209	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C12-BZ#5/#8	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C13-BZ#18	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C13-BZ#28/#31	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C14-BZ#43/#49	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C14-BZ#44	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C14-BZ#45	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C14-BZ#47/#48	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C14-BZ#52	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C14-BZ#56/#60	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C14-BZ#66	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C14-BZ#70	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C14-BZ#74	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C14-BZ#77	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C14-BZ#81	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#101/#84	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C15-BZ#105	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#110	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#114	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#118	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#123	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#126	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#87	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#95	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C15-BZ#99	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#138/#163	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C16-BZ#146	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#149	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#151	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#153	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#156	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#157	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#158	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C16-BZ#167/#128	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C16-BZ#169	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C17-BZ#170/#190	2.0	2.0 UJ	2.0 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ
C17-BZ#174	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C17-BZ#177	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C17-BZ#180	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
C17-BZ#182/#187	2.0	2.0 UJ	2.1 UJ	2.0 UJ	2.2 UJ	2.0 UJ	2.2 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09202

DATA SUMMARY TABLE
Polychlorinated Biphenyl Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.		D09226	D09227	D09228	D09231	D09236	D09232
M&E Sample ID		SMW-7A-0910F	DMW-7-0910F	BMW-7-0910F	DMW-6-0910F	DMW-6-RS-0910F	SMW-6-0910F
Lab Sample ID		L0914777-04RE	L0914777-16RE	L0914777-13RE	L0914777-09RE	L0914777-05RE	L0914777-17RE
Date Sampled		10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09
Date Received		10/18/09	10/16/09	10/16/09	10/16/09	10/16/09	10/16/09
Date Extracted		10/30/09	10/30/09	10/30/09	10/30/09	10/30/09	10/30/09
Date Analyzed		11/04/09	11/04/09	11/04/09	11/04/09	11/04/09	11/04/09
Dilution Factor		1	1	1	1	1	1
Mass/Volume of Sample		1000 mL	950 mL	1000 mL	1000 mL	980 mL	930 mL
Comments					FD of D09236	FD of D09231	
Analyte	RL						
Cl7-BZ#183	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Cl7-BZ#189	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Cl8-BZ#194	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Cl8-BZ#195	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Cl8-BZ#201	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Cl9-BZ#206	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Monochlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Dichlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Trichlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Tetrachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Pentachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Hexachlorobiphenyls	1.0	1.1 J	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Heptachlorobiphenyls	1.0	1.4 J	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Octachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Nonachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Decachlorobiphenyl	1.0	1.0 UJ	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ
Total Homologs	1.0	2.5 J	1.0 UJ	1.0 UJ	1.1 UJ	1.0 UJ	1.1 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09202

DATA SUMMARY TABLE
Polychlorinated Biphenyl Analysis (D-027.2)
Aqueous QC Samples (ng/l)

Traffic Report Sample No.	D09202	D09221	D09222	
M&E Sample ID	EB-GW-01-0910	EB-GW-03-0910F	EB-GW-04-0910F	
Lab Sample ID	L0914777-01RE	L0914777-07RE	L0914777-12RE	
Date Sampled	10/15/09	10/15/09	10/15/09	
Date Received	10/16/09	10/16/09	10/16/09	
Date Extracted	10/30/09	10/30/09	10/30/09	
Date Analyzed	11/04/09	11/04/09	11/04/09	
Dilution Factor	1	1	1	
Mass/Volume of Sample	990 mL	1000 mL	1000 mL	
Comments	Equipment Blank	Equipment Blank	Equipment Blank	
Analyte	RL			
Cl10-BZ#209	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl2-BZ#5/#8	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl3-BZ#18	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl3-BZ#28/#31	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl4-BZ#43/#49	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl4-BZ#44	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl4-BZ#45	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl4-BZ#47/#48	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl4-BZ#52	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl4-BZ#56/#60	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl4-BZ#66	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl4-BZ#70	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl4-BZ#74	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl4-BZ#77	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl4-BZ#81	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#101/#84	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl5-BZ#105	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#110	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#114	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#118	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#123	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#126	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#87	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#95	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl5-BZ#99	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#138/#163	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl6-BZ#146	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#149	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#151	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#153	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#156	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#157	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#158	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl6-BZ#167/#128	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl6-BZ#169	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl7-BZ#170/#190	2.0	2.0 UJ	2.2 UJ	2.1 UJ
Cl7-BZ#174	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl7-BZ#177	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl7-BZ#180	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Cl7-BZ#182/#187	2.0	2.0 UJ	2.2 UJ	2.1 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09202

DATA SUMMARY TABLE
Polychlorinated Biphenyl Analysis (D-027.2)
Aqueous QC Samples (ng/l)

Traffic Report Sample No.		D09202	D09221	D09222
M&E Sample ID		EB-GW-01-0910	EB-GW-03-0910F	EB-GW-04-0910F
Lab Sample ID		L0914777-01RE	L0914777-07RE	L0914777-12RE
Date Sampled		10/15/09	10/15/09	10/15/09
Date Received		10/16/09	10/16/09	10/16/09
Date Extracted		10/30/09	10/30/09	10/30/09
Date Analyzed		11/04/09	11/04/09	11/04/09
Dilution Factor		1	1	1
Mass/Volume of Sample		990 mL	1000 mL	1000 mL
Comments		Equipment Blank	Equipment Blank	Equipment Blank
Analyte	RL			
C17-BZ#183	1.0	1.0 UJ	1.1 UJ	1.1 UJ
C17-BZ#189	1.0	1.0 UJ	1.1 UJ	1.1 UJ
C18-BZ#194	1.0	1.0 UJ	1.1 UJ	1.1 UJ
C18-BZ#195	1.0	1.0 UJ	1.1 UJ	1.1 UJ
C18-BZ#201	1.0	1.0 UJ	1.1 UJ	1.1 UJ
C19-BZ#206	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Monochlorobiphenyls	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Dichlorobiphenyls	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Trichlorobiphenyls	1.0	2.7 J	1.1 UJ	1.1 UJ
Tetrachlorobiphenyls	1.0	1.4 J	1.1 UJ	1.1 UJ
Pentachlorobiphenyls	1.0	1.2 J	1.1 UJ	1.1 UJ
Hexachlorobiphenyls	1.0	1.7 J	1.1 UJ	1.1 UJ
Heptachlorobiphenyls	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Octachlorobiphenyls	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Nonachlorobiphenyls	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Decachlorobiphenyl	1.0	1.0 UJ	1.1 UJ	1.1 UJ
Total Homologs	1.0	7.0 J	1.1 UJ	1.1 UJ

Metcalf & Eddy, Inc.

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Ms. Christine Clark
Regional Sample Control Center
U.S. EPA Region I
Office of Environmental Measurement and Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

March 3, 2010

Subject: Task Order No. 0043-FR-FE-0134
Case 0306M, SDG D09210
Alpha Analytical Laboratories, Inc., Mansfield, Massachusetts
Pinette's Salvage Yard Superfund Site, Washburn, Maine
Tier II Organic Data Validation

Polychlorinated Biphenyl Homologs (D027.2):

12 / Groundwater Samples / D09204, D09206, D09210, D09211, D09214, D09215,
D09223, D09225, D09229, D09230, D09233, D09234
4 / Equipment Blank / D09202 (reported in Case 0306M, SDG D09202), D09203, D09221
(reported in Case 0306M, SDG D09202), D09222 (reported in Case 0306M, SDG
D09202)
3 / Performance Evaluation Samples / D09200, D09201, D09240

Dear Ms. Clark:

A Tier II data validation was performed by Metcalf & Eddy, Inc. (M&E) on the organic analytical data for 12 groundwater samples, 4 equipment blanks (3 reported in Case 0306M, SDG D09202), and 3 performance evaluation (PE) samples. The samples were collected by M&E from the Pinette's Salvage Yard in Washburn, Maine on October 13 and 14, 2009. The samples were analyzed for polychlorinated biphenyl (PCB) homologs through the Response Action Contract 2 (RAC2) Delivery of Analytical Services (DAS) program using M&E DAS *Analytical Specification for the Analysis of Low Concentration Polychlorinated Biphenyls (as Homologs) in Aqueous Samples (D-027.2)*. M&E evaluated these data using the *Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses*, December 1996 criteria, updated with the *Pesticide/PCB Data Validation Functional Guidelines – Part III, February 2004 criteria*, with additional guidance provided by the *National Functional Guidelines for Superfund Organic Methods Data Review*, July 2007 criteria. Validation guidelines were modified for the method.

In accordance with the EPA-approved sampling and analysis plan and data quality objectives (DQOs) for the site, Tier I validation of the data was to be performed. With the approval of the EPA Task Order Project Manager, validation was upgraded to a Tier II level in order to qualify the data for blank contamination.

The Tier II validation for the VOC data was based on an evaluation of the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
- Data Completeness (CSF Audit - Tier I)
- * • Preservation and Technical Holding Times
- * • Gas Chromatograph/Mass Spectrometer (GC/MS) Instrument Performance Check
- Initial and Continuing Calibrations
- Blanks
- * • Surrogate Recoveries
- * • Internal Standards
- Matrix Spike/Matrix Spike Duplicate
- NA • Field Duplicates
- * • Sensitivity Check
- PE Samples/Accuracy Check
- NA • Target Compound Identification
- Compound Quantitation and Reported Quantitation Limits
- NA • Tentatively Identified Compounds
- NA • Semivolatile Cleanup
- NA • System Performance

- * - All criteria were met for this parameter.
- NA - Not Applicable

Note: Worksheets are not included for parameters that have met criteria, for criteria that are not applicable to Tier II data validation, or for criteria that are not applicable to the analysis.

Copies of the field logbook and field sampling notes are included in the validation memorandum for Case 39120, SDG A2JB5, previously submitted to EPA.

The following information was used to generate the Tier II Data Validation Memorandum attachments:

- Table I: Recommendation Summary Table - summarizes validation recommendations
Table II: Overall Evaluation of Data - summarizes site DQOs and potential usability issues
Data Summary Tables - summarizes accepted, qualified and rejected data

Tentatively Identified Compounds (TICs) are not reported for this analysis. Therefore, Table III is not included in this memorandum.

Overall Evaluation of Data and Potential Usability Issues

The following is a summary of the site Data Quality Objectives:

To determine (1) whether the nature and extent of the contaminants of concern in the groundwater have changed compared to the data collected from the previous Five-Year Review; (2) how the concentrations compare to the Groundwater Cleanup Levels (GCLs) identified in the 1989 ROD, and; (3) whether a different remedial approach is necessary for the protection of human health, or whether the institutional controls can be removed.

In accordance with the requirements of a Tier II validation, the data were evaluated with respect to sampling and analytical error. The following list summarizes the sampling error associated with the PCB analyses:

- The positive results for trichlorobiphenyls, tetrachlorobiphenyls, and hexachlorobiphenyls in sample D09215 were qualified as nondetect (U) at the sample concentration because of equipment blank contamination. The results are usable for project objectives as nondetect results with an elevated reporting limit. The qualification has a minor impact on data usability.

The following list summarizes the analytical error associated with the PCB analyses:

- The positive results for pentachlorobiphenyls in samples D09206, D09215, D09225, D09229, D09230, D09233 and D09234 were qualified as nondetect (U) at the reported concentration because of blank contamination in the PE sample. The results are usable for project objectives as nondetect results with an elevated reporting limit. The qualification has a minor impact on data usability.
- The positive results for total homologs in samples D09229, D09230, and D09233 were qualified as nondetect (U) at the reported concentration because of blank contamination in the PE sample. The results are usable for project objectives as nondetect results with an elevated reporting limit. The qualification has a minor impact on data usability.
- The nondetect results for Cl2-BZ#5/#8 and Cl3-BZ#18 in sample D09204 were qualified as estimated (UJ) because of low matrix spike recovery. The results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on data usability.
- The positive results for Cl6-BZ#146 in sample D09204 was qualified as estimated (J) because of low matrix spike recovery. The results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on data usability.
- The nondetect results for Cl2-BZ#5/#8 Cl3-BZ#18 in sample D09223 was qualified as estimated (UJ) because of low matrix spike recovery. The results are usable for project objectives as an estimated result that may be biased low. The qualification has a minor impact on data usability.
- The positive results for Cl5-BZ#95 in sample D09223 was qualified as estimated (J) because of low matrix spike recovery. The result is usable for project objectives as an estimated result that may be biased low. The qualification has a minor impact on data usability.
- The positive and nondetect results for all target analytes in all samples were qualified as estimated (J and UJ, respectively) due to low laboratory control standard recovery. The results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on data usability.
- The positive and nondetect results for Cl4-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) due to PE sample nonconformances. The results are usable for project objectives as estimated results that may be biased low. The qualification has a minor impact on data usability.

The attached Table I summarizes the Tier II validation recommendations which were based on the following information:

Data Completeness

On March 1, 2010, the laboratory was contacted missing raw data evaluating interference from higher homologs. The laboratory responded on March 1, 2010 adequately addressing these issues.

Initial and Continuing Calibrations

The closing continuing calibration verifications (CCVs) exceeded the 12-hour limit. For the analytical batch begun on October 22, 09 at 11:39 the closing CCV was analyzed 2 hours and 19 minutes past the 12-hour limit. For the analytical batch begun on October 23, at 01:58, the closing CCV was analyzed 2 hours and 57 minutes past the 12-hour limit. Because both of these closing CCVs met all other criteria, no validation action was required based on professional judgment.

Blanks

The following table summarizes the level of blank contamination detected in the laboratory, associated equipment, and PE sample blanks; the affected samples; and the actions taken. If a contaminant was detected in more than one blank, the highest concentration was used to qualify associated sample results. The validation actions are summarized in the following table:

Compound	Blank Type	Maximum Concentration	BAL	Sample QL	Affected Samples
Pentachlorobiphenyls	Performance Evaluation Blank	2.0 ng/L	10.0 ng/L	1.0 ng/L	The positive result in D09206, D09215, D09225, D09229, D09230, D09233 and D09234 was qualified U at the reported concentration.
Total homologs		2.0 ng/L	NA	1.0 ng/L	Blank actions were not applied based on total homologs. Results for total homologs were recalculated after blank actions for the homolog groups were applied. The positive result in D09229, D09230 and D09233 was qualified U at the reported concentration. The positive result in D09206, D09215, D09225, and D09234 was recalculated after blank qualification of the pentachlorobiphenyl homolog group.
Trichlorobiphenyls	Equipment Blank EB01	2.7 ng/L	13.5 ng/L	1.0 ng/L	The positive result in D09215 was qualified U at the reported concentration.
Tetrachlorobiphenyls		1.4 ng/L	7.0 ng/L	1.0 ng/L	The positive result in D09215 was qualified U at the reported concentration.
Hexachlorobiphenyls		1.7 ng/L	8.5 ng/L	1.0 ng/L	The positive result in D09215 were qualified U at the reported concentration.

Compound	Blank Type	Maximum Concentration	BAL	Sample QL	Affected Samples
Total homologs	Equipment Blank EB01	7 ng/L	NA	1.0 ng/L	Blank actions were not applied based on total homologs. Results for total homologs were recalculated after blank actions for the homolog groups were applied. The result for D09215 was recalculated after blank qualification of trichloro-, tetrachloro-, and hexachlorobiphenyl homolog groups

BAL - blank action level

NA - not applicable

QL - Quantitation Limit

Sample results were qualified as follows:

- If the sample result was <BAL and <QL, the result was qualified as a nondetect (U) at the CRQL.
- If the sample result was <BAL and >QL, the result was qualified as a nondetect (U) at the reported concentration.
- If the sample result was >BAL, but <QL, the result was qualified as estimated (J).
- If the sample result was >BAL and >QL, qualification of the data was not required.

Matrix Spike/Matrix Spike Duplicate

Samples D09204 and D09223 were analyzed as MS/MSD pairs in this data set. The compounds that did not meet the MS/MSD criteria (60% - 140% recovery, RPD ≤ 40%) and the validation actions taken are summarized in the following table:

Sample	Compound	MS %R	MSD %R	RPD	Actions
D09204	Cl2-BZ#5/#8	55	56	--	Estimate the nondetect result (UJ) in D09204
	Cl3-BZ#18	55	58		Estimate the nondetect result (UJ) in D09204
	Cl5-BZ#101/#84	--	150		None, sample concentration > 4x spiking level
	Cl6-BZ#149	--	150		None, sample concentration > 4x spiking level
	Cl6-BZ#146	--	150		Estimate the positive (J) in D09204
	Cl6-BZ#153	--	170		None, sample concentration > 4x spiking level
D09223	Cl2-BZ#5/#8	53	58	--	Estimate the nondetect result (UJ) in D09223
	Cl3-BZ#18	53	58		Estimate the nondetect result (UJ) in D09223
	Cl5-BZ#95	58	--		Estimate the positive (J) in D09223

-- QC acceptance criteria were not exceeded for this compound.

PE Samples/Accuracy Check

Laboratory Control Sample

More than 50% of the target analytes in the laboratory control sample (LCS) and LCS duplicate (LCSD) were below the 70-130% recovery criteria. Therefore, all detect and nondetect results were qualified estimated (J and

UJ, respectively) in all samples.

PE Samples

The PE sample D09200 (ERA Catalog No. 093, Lot No. 1009-09-01.1) was evaluated with this SDG. Of 18 target analytes, 15 were within 60-140% of the true value. Three compounds, Cl4-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls, were below 60%, but above 10%. As a result of these recoveries, the positive and nondetect results for Cl4-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) and may be biased low.

The PE sample D09201 (ERA Catalog No. 093, Lot No. 1009-09-01.1) was evaluated with this SDG. Of 18 target analytes, 15 were within the vendor's QC performance acceptance limits. Three compounds, Cl4-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls, were below 60%, but above 10%. As a result of these recoveries, the positive and nondetect results for Cl4-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) and may be biased low.

The PE sample D09240 (ERA Deionized Ultra-filtered Water) was evaluated with this SDG. The two target analytes detected (pentachlorobiphenyls and total homologs) were evaluated as part of the blank assessment.

Please contact Constance Lapite at (781) 224-6628 or at constance.lapite@aecom.com if you have any questions regarding this information.

Very truly yours,



Andrew Schkuta
Data Validator



Constance Lapite
Senior Reviewer, RAC2 Lead Chemist,
and Project Chemist

cc: Almerinda Silva, EPA Task Order Project Officer (validation letter only)
Warren Diesl, M&E Task Order Manager (validation letter only)
Pinette's Salvage Yard Project File, TO No. 0043-FR-FE-0134 (validation letter and attachment)

Tier II Attachments: ORDA Form
Table I: Recommendations Summary Table
Table II: Overall Evaluation of Data
Table III: Tentatively Identified Compound Summary (NA)
Data Summary Tables
Data Validation Worksheets
PE Score Report(s)
Copy of non-CLP Analytical Methods (M&E DAS D-027.2)
Copies of Telephone Logs/Communication Forms
Supporting Data for Reduced Payment Recommendations (not applicable)

Ms. Christine Clark
March 3, 2010

Page 7
Case 0306M SDG D09210

Copies of Field Sampling Notes (previously submitted)
Copies of EPA-Approved Amendments to QAPjP or SAP (not applicable)
CSF Completeness Evidence File Audit (DC-2 Form)
DQO Summary Form

REGION 1, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT (ORDA) *

CASE #: 0306m
 LAB NAME: ALPHA
 SDG #: D09210
 SOW #/CONTRACT #: D-027.2
 EPA-NE DV TIER LEVEL II
 TPO/PO: **ACTION FYI ✓

SITE NAME: DINETTES
 # OF SAMPLES/MATRIX: 12/GW
 VALIDATION CONTRACTOR: m&E
 VALIDATOR'S NAME: SCHWETA
 DATE DP REC'D BY EPA-NE: 11/23/09
 DV COMPLETION DATE: 3/1/10

ANALYTICAL DATA QUALITY SUMMARY

	<u>VOA</u>	<u>SVOA</u>	<u>Pest/PCB</u>
1. Preservation and Contractual Holding Times	<u>NA</u>	<u>NA</u>	<u>0</u>
2. GC/MS / GC/ECD Instrument Performance Check			
3. Initial Calibration			
4. Continuing Calibration			
5. Blanks			
6. Surrogate Compounds			
7. Internal Standards			
8. Matrix Spike/Matrix Spike Duplicate			
9. Sensitivity Check			
10. PE Samples/Accuracy Check			
11. Target Compound Identification			
12. Compound Quantitation and Reported QLs			↓
13. Tentatively Identified Compounds			<u>NA</u>
14. Semivolatile Cleanup / Pesticide/PCB Cleanup			<u>NA</u>
15. Data Completeness			<u>0</u>
16. Overall Evaluation of Data	↓	↓	<u>0</u>

o = Data had no problems or were qualified due to minor contractual problems.
 m = Data were qualified due to major contractual problems
 z = Data were rejected as unusable due to major contractual problems

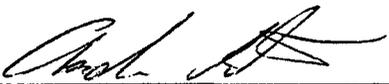
ACTION ITEMS: (z items) _____

AREAS OF CONCERN: (m items) _____

Comments: _____

* This form assesses the analytical data quality in terms of contractual compliance only. It does not assess sampling errors and/or non-contractual analytical issues that affect data quality.

** Check "ACTION" only if contractual defects resulted in reduced payment/data rejection recommendations.

Validator 

Date: 3/1/10

Table I
Recommendation Summary for PCB Homologs (D-027.2)
Pinette's Salvage Yard Superfund Site
Case 0306M, SDG D09210

Sample Numbers	Matrix	Qualifiers
D09203	EB	J ⁵ , J ⁶
D09204	GW	J ¹ , J ² , J ⁵ , J ⁶
D09206	GW	A ¹ , A ³ , J ⁵ , J ⁶
D09210	GW	J ⁵ , J ⁶
D09211	GW	J ⁵ , J ⁶
D09214	GW	J ⁵ , J ⁶
D09215	GW	A ¹ , A ³ , A ⁴ , A ⁵ , J ⁵ , J ⁶
D09223	GW	J ¹ , J ³ , J ⁴ , J ⁵ , J ⁶
D09225	GW	A ¹ , A ³ , J ⁵ , J ⁶
D09229	GW	A ¹ , A ² , J ⁵ , J ⁶
D09230	GW	A ¹ , A ² , J ⁵ , J ⁶
D09233	GW	A ¹ , A ² , J ⁵ , J ⁶
D09234	GW	A ¹ , A ³ , J ⁵ , J ⁶

GW - Groundwater

EB - Equipment Blank

- A¹ Qualify the positive results for pentachlorobiphenyls as nondetect (U) at the reported concentration because of blank contamination in the PE sample.
- A² Qualify the positive results for total homologs as nondetect (U) at the reported concentration because of blank contamination in the PE sample.
- A³ Recalculate the positive results for total homologs after blank qualification of the pentachlorobiphenyls homolog group.
- A⁴ Qualify the positive results for trichlorobiphenyls, tetrachlorobiphenyls, and hexachlorobiphenyls as nondetect (U) at the reported concentration because of equipment blank contamination.
- A⁵ Recalculate the positive results for total homologs after blank qualification of the trichlorobiphenyls, tetrachlorobiphenyls, and hexachlorobiphenyls homolog group.
- J¹ Qualify the nondetect results for Cl2-BZ#5/#8 and Cl3-BZ#18 as estimated (UJ) because of matrix spike nonconformances.
- J² Qualify the detect result for Cl6-BZ#146 as estimated (J) because of matrix spike nonconformances.
- J³ Qualify the nondetect result for Cl3-BZ#18 as estimated (UJ) because of matrix spike nonconformances.
- J⁴ Qualify the detect result for Cl5-BZ#95 as estimated (J) because of matrix spike nonconformances.

- J⁵ Qualify the detect and nondetect results for all target analytes as estimated (J and UJ, respectively) because of low laboratory control sample recoveries.
- J⁶ Qualify the detect and nondetect results for Cl4-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls as estimated (J and UJ, respectively) because of PE sample nonconformances.

Table II
Overall Evaluation of Data for PCB Homologs (D-027.2)
Pinette's Salvage Yard Superfund Site
Case 0306M, SDG D09210

DQO	Sampling* and/or Analytical Method Appropriate Yes or No	Measurement Error		Sampling Variability **	Potential Usability Issues
		Analytical Error	Sampling Error*		
To determine (1) whether the nature and extent of the contaminants of concern in the groundwater have changed compared to the data collected from the previous Five-Year Review; (2) how the concentrations compare to the Groundwater Cleanup Levels (GCLs) identified in the 1989 ROD, and; (3) whether a different remedial approach is necessary for the protection of human health, or whether the institutional controls can be removed.	Analytical - yes Sampling - yes	Refer to qualifications in Table I. A ¹ A ² A ³ J ¹ J ² J ³ J ⁴ J ⁵ J ⁶	Refer to qualifications in Table I. A ⁴ A ⁵	Not applicable for Tier II	The following qualifications have a minor impact on data usability: The positive results for trichlorobiphenyls, tetrachlorobiphenyls, and hexachlorobiphenyls in sample D09215 were qualified as nondetect (U) at the sample concentration because of equipment blank contamination. The results are usable for project objectives as nondetect results with an elevated reporting limit. The positive results for pentachlorobiphenyls in samples D09206, D09215, D09225, D09229, D09230, D09233 and D09234 were qualified as nondetect (U) at the reported concentration because of blank contamination in the PE sample. The results are usable for project objectives as nondetect results with an elevated reporting limit. The positive results for total homologs in samples D09229, D09230, and D09233 were qualified as nondetect (U) at the reported concentration because of blank contamination in the PE sample. The results are usable for project objectives as nondetect results with an elevated reporting limit. The nondetect results for Cl2-BZ#5/#8 and Cl3-BZ#18 in sample D09204 were qualified as estimated (UJ) because of low matrix spike recovery. The results are usable for project objectives as estimated results that may be biased low. The positive results for Cl6-BZ#146 in sample D09204 was qualified as estimated (J) because of low matrix spike recovery. The results are usable for project objectives as estimated results that may be biased low. The nondetect results for Cl2-BZ#5/#8 and Cl3-BZ#18 in sample D09223 were qualified as estimated (UJ) because of low matrix spike recovery. The results are usable for project objectives as an estimated result that may be biased low. The positive results for Cl5-BZ#95 in sample D09223 was qualified as estimated (J) because of low matrix spike recovery. The result is usable for project objectives as an estimated result that may be biased low.

* The evaluation of "sampling error" cannot be completely assessed in data validation.
 ** Sampling variability is not assessed in data validation.

Table II
Overall Evaluation of Data for PCB Homologs (D-027.2)
Pinette's Salvage Yard Superfund Site
Case 0306M, SDG D09210

DQO	Sampling* and/or Analytical Method Appropriate Yes or No	Measurement Error		Sampling Variability **	Potential Usability Issues
		Analytical Error	Sampling Error*		
To determine (1) whether the nature and extent of the contaminants of concern in the groundwater have changed compared to the data collected from the previous Five-Year Review; (2) how the concentrations compare to the Groundwater Cleanup Levels (GCLs) identified in the 1989 ROD, and; (3) whether a different remedial approach is necessary for the protection of human health, or whether the institutional controls can be removed.	Analytical - yes Sampling - yes	Refer to qualifications in Table I. A ¹ A ² A ³ J ¹ J ² J ³ J ⁴ J ⁵ J ⁶	Refer to qualifications in Table I. A ⁴ A ⁵	Not applicable for Tier II	The positive and nondetect results for all target analytes in all samples were qualified as estimated (J and UJ, respectively) due to low laboratory control standard recovery. The results are usable for project objectives as estimated results that may be biased low. The positive and nondetect results for Cl4-BZ#66, tetrachlorobiphenyls, and heptachlorobiphenyls in all samples were qualified as estimated (J and UJ, respectively) due to PE sample nonconformances. The results are usable for project objectives as estimated results that may be biased low.

* The evaluation of "sampling error" cannot be completely assessed in data validation.
 ** Sampling variability is not assessed in data validation.

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09210

DATA SUMMARY TABLE
Polychlorinated Biphenyls Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.	D09204	D09206	D09210	D09211	D09214	D09215	D09223	D09225
M&E Sample ID	DMW-5-0910	BMW-5-0910	SMW-2-0910	DMW-2-0910	DMW-8-0910	SMW-8-0910	DMW-5-0910F	BMW-5-0910F
Lab Sample ID	L0914775-15	L0914775-16	L0914775-01	L0914775-02	L0914775-05	L0914775-06	L0914775-09	L0914775-10
Date Sampled	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09
Date Extracted	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09
Date Analyzed	10/23/09	10/23/09	10/22/09	10/22/09	10/22/09	10/22/09	10/23/09	10/23/09
Dilution Factor	1	1	1	1	1	1	1	1
Mass/Volume of Sample	1000 ml	980 ml	950 ml	950 ml	960 ml	960 ml	1000 ml	960 ml
Comments								
Analyte	RL							
Cl10-BZ#209	1.0	1.0 UJ						
Cl2-BZ#5/#8	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
Cl3-BZ#18	1.0	1.0 UJ						
Cl3-BZ#28/#31	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
Cl4-BZ#43/#49	2.0	12 J	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
Cl4-BZ#44	1.0	1.3 J	1.0 UJ					
Cl4-BZ#45	1.0	1.0 UJ						
Cl4-Bz#47/#48	2.0	6.2 J	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
Cl4-BZ#52	1.0	11 J	1.0 UJ	2.0 J	2.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cl4-BZ#56/#60	2.0	2.0 UJ	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
Cl4-BZ#66	1.0	1.0 UJ						
Cl4-BZ#70	1.0	1.0 UJ						
Cl4-BZ#74	1.0	1.0 UJ						
Cl4-BZ#77	1.0	1.0 UJ						
Cl4-BZ#81	1.0	1.0 UJ						
Cl5-BZ#101/#84	2.0	190 J	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.7 J	2.1 UJ
Cl5-BZ#105	1.0	1.0 UJ						
Cl5-BZ#110	1.0	34 J	1.0 UJ	1.9 J	1.9 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Cl5-BZ#114	1.0	1.0 UJ						
Cl5-BZ#118	1.0	4.8 J	1.0 UJ					
Cl5-BZ#123	1.0	1.0 UJ						
Cl5-BZ#126	1.0	1.0 UJ						
Cl5-BZ#87	1.0	3.8 J	1.0 UJ					
Cl5-BZ#95	1.0	140 J	2.0 J	1.1 J	1.1 UJ	1.0 UJ	2.0 J	1.0 UJ
Cl5-BZ#99	1.0	98 J	1.0 UJ	1.0 J	1.0 UJ	1.0 UJ	1.5 J	1.0 UJ
Cl6-BZ#138/#163	2.0	110 J	3.0 J	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
Cl6-BZ#146	1.0	130 J	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.6 J	1.0 UJ
Cl6-BZ#149	1.0	260 J	3.4 J	2.1 J	2.1 UJ	1.0 UJ	3.2 J	1.0 UJ
Cl6-BZ#151	1.0	100 J	1.3 J	1.0 UJ	1.0 UJ	1.0 UJ	1.3 J	1.0 UJ
Cl6-BZ#153	1.0	190 J	3.3 J	1.7 J	1.7 UJ	1.0 UJ	2.4 J	1.0 UJ
Cl6-BZ#156	1.0	2.2 J	1.0 UJ					
Cl6-BZ#157	1.0	1.0 UJ						
Cl6-BZ#158	1.0	4.3 J	1.0 UJ					
Cl6-BZ#167/#128	2.0	4.6 J	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09210

DATA SUMMARY TABLE
Polychlorinated Biphenyls Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.	D09204	D09206	D09210	D09211	D09214	D09215	D09223	D09225
M&E Sample ID	DMW-5-0910	BMW-5-0910	SMW-2-0910	DMW-2-0910	DMW-8-0910	SMW-8-0910	DMW-5-0910F	BMW-5-0910F
Lab Sample ID	L0914775-15	L0914775-16	L0914775-01	L0914775-02	L0914775-05	L0914775-06	L0914775-09	L0914775-10
Date Sampled	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09	10/13/09
Date Extracted	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09
Date Analyzed	10/23/09	10/23/09	10/22/09	10/22/09	10/22/09	10/22/09	10/23/09	10/23/09
Dilution Factor	1	1	1	1	1	1	1	1
Mass/Volume of Sample	1000 ml	980 ml	950 ml	950 ml	960 ml	960 ml	1000 ml	960 ml
Comments								
Analyte	RL							
C16-BZ#169	1.0	1.0 UJ						
C17-BZ#170/#190	2.0	18 J	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
C17-BZ#174	1.0	36 J	1.7 J	1.0 UJ				
C17-BZ#177	1.0	30 J	1.0 UJ					
C17-BZ#180	1.0	43 J	3.6 J	1.0 UJ				
C17-BZ#182/#187	2.0	59 J	2.0 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.0 UJ	2.1 UJ
C17-BZ#183	1.0	14 J	1.0 UJ					
C17-BZ#189	1.0	1.0 UJ						
C18-BZ#194	1.0	4.7 J	1.0 UJ					
C18-BZ#195	1.0	2.1 J	1.0 UJ					
C18-BZ#201	1.0	6.3 J	1.0 UJ					
C19-BZ#206	1.0	1.0 UJ						
Monochlorobiphenyls	1.0	1.0 UJ						
Dichlorobiphenyls	1.0	1.0 UJ						
Trichlorobiphenyls	1.0	2.6 J	1.0 UJ	4.2 J	4.2 UJ	1.0 UJ	1.2 UJ	1.0 UJ
Tetrachlorobiphenyls	1.0	40 J	1.0 UJ	11 J	11 UJ	1.0 UJ	2.1 UJ	1.0 UJ
Pentachlorobiphenyls	1.0	710 J	9.6 UJ	15 J	15 UJ	1.0 UJ	3.2 UJ	12 J
Hexachlorobiphenyls	1.0	1100 J	17 J	8.0 J	8.0 UJ	1.0 UJ	1.6 UJ	15 J
Heptachlorobiphenyls	1.0	190 J	10 J	1.8 J	1.8 UJ	1.0 UJ	1.2 J	4.0 J
Octachlorobiphenyls	1.0	19 J	3.4 J	1.0 UJ				
Nonachlorobiphenyls	1.0	2.2 J	1.0 UJ					
Decachlorobiphenyl	1.0	1.0 UJ						
Total Homologs	1.0	2100 J	30 J	40 J	40 UJ	1.0 UJ	1.2 J	31 J

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09210

DATA SUMMARY TABLE
Polychlorinated Biphenyls Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.	D09229	D09230	D09233	D09234
M&E Sample ID	SMW-2-0910F	DMW-2-0910F	DMW-8-0910F	SMW-8-0910F
Lab Sample ID	L0914775-03	L0914775-04	L0914775-07	L0914775-08
Date Sampled	10/13/09	10/13/09	10/13/09	10/13/09
Date Extracted	10/19/09	10/19/09	10/19/09	10/19/09
Date Analyzed	10/22/09	10/22/09	10/22/09	10/23/09
Dilution Factor	1	1	1	1
Mass/Volume of Sample	960 ml	950 ml	960 ml	960 ml
Comments				
Analyte	RL			
C110-BZ#209	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C12-BZ#5/#8	2.0	2.1 UJ	2.1 UJ	2.1 UJ
C13-BZ#18	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C13-BZ#28/#31	2.0	2.1 UJ	2.1 UJ	2.1 UJ
C14-BZ#43/#49	2.0	2.1 UJ	2.1 UJ	2.1 UJ
C14-BZ#44	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#45	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C14-Bz#47/#48	2.0	2.1 UJ	2.1 UJ	2.1 UJ
C14-BZ#52	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#56/#60	2.0	2.1 UJ	2.1 UJ	2.1 UJ
C14-BZ#66	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#70	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#74	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#77	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C14-BZ#81	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#101/#84	2.0	2.1 UJ	2.1 UJ	2.1 UJ
C15-BZ#105	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#110	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#114	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#118	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#123	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#126	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#87	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#95	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C15-BZ#99	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#138/#163	2.0	2.1 UJ	2.1 UJ	2.1 UJ
C16-BZ#146	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#149	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#151	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#153	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#156	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#157	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#158	1.0	1.0 UJ	1.0 UJ	1.0 UJ
C16-BZ#167/#128	2.0	2.1 UJ	2.1 UJ	2.1 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09210

DATA SUMMARY TABLE
Polychlorinated Biphenyls Analysis (D-027.2)
Groundwater (ng/l)

Traffic Report Sample No.	D09229	D09230	D09233	D09234
M&E Sample ID	SMW-2-0910F	DMW-2-0910F	DMW-8-0910F	SMW-8-0910F
Lab Sample ID	L0914775-03	L0914775-04	L0914775-07	L0914775-08
Date Sampled	10/13/09	10/13/09	10/13/09	10/13/09
Date Extracted	10/19/09	10/19/09	10/19/09	10/19/09
Date Analyzed	10/22/09	10/22/09	10/22/09	10/23/09
Dilution Factor	1	1	1	1
Mass/Volume of Sample	960 ml	950 ml	960 ml	960 ml
Comments				
Analyte	RL			
Cl6-BZ#169	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl7-BZ#170/#190	2.0	2.1 UJ	2.1 UJ	2.1 UJ
Cl7-BZ#174	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl7-BZ#177	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl7-BZ#180	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl7-BZ#182/#187	2.0	2.1 UJ	2.1 UJ	2.1 UJ
Cl7-BZ#183	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl7-BZ#189	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl8-BZ#194	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl8-BZ#195	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl8-BZ#201	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Cl9-BZ#206	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Monochlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Dichlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Trichlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.8 J
Tetrachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	4.1 J
Pentachlorobiphenyls	1.0	2.2 UJ	2.5 UJ	4.8 UJ
Hexachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	3.1 J
Heptachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.1 J
Octachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Nonachlorobiphenyls	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Decachlorobiphenyl	1.0	1.0 UJ	1.0 UJ	1.0 UJ
Total Homologs	1.0	2.2 UJ	2.5 UJ	10 J

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09210

DATA SUMMARY TABLE
Polychlorinated Biphenyls Analysis (D-027.2)
Aqueous Quality Control (ng/l)

Traffic Report Sample No.	D09203	
M&E Sample ID	EB-GW-02-0910	
Date Sampled	10/13/09	
Date Extracted	10/19/09	
Date Analyzed	10/23/09	
Dilution Factor	1	
Mass/Volume of Sample	910 ml	
Comments	Equipment Blank	
Analyte	RL	
Cl10-BZ#209	1.0	1.1 UJ
Cl2-BZ#5/#8	2.0	2.2 UJ
Cl3-BZ#18	1.0	1.1 UJ
Cl3-BZ#28/#31	2.0	2.2 UJ
Cl4-BZ#43/#49	2.0	2.2 UJ
Cl4-BZ#44	1.0	1.1 UJ
Cl4-BZ#45	1.0	1.1 UJ
Cl4-Bz#47/#48	2.0	2.2 UJ
Cl4-BZ#52	1.0	1.1 UJ
Cl4-BZ#56/#60	2.0	2.2 UJ
Cl4-BZ#66	1.0	1.1 UJ
Cl4-BZ#70	1.0	1.1 UJ
Cl4-BZ#74	1.0	1.1 UJ
Cl4-BZ#77	1.0	1.1 UJ
Cl4-BZ#81	1.0	1.1 UJ
Cl5-BZ#101/#84	2.0	2.2 UJ
Cl5-BZ#105	1.0	1.1 UJ
Cl5-BZ#110	1.0	1.1 UJ
Cl5-BZ#114	1.0	1.1 UJ
Cl5-BZ#118	1.0	1.1 UJ
Cl5-BZ#123	1.0	1.1 UJ
Cl5-BZ#126	1.0	1.1 UJ
Cl5-BZ#87	1.0	1.1 UJ
Cl5-BZ#95	1.0	1.1 UJ
Cl5-BZ#99	1.0	1.1 UJ
Cl6-BZ#138/#163	2.0	2.2 UJ
Cl6-BZ#146	1.0	1.1 UJ
Cl6-BZ#149	1.0	1.1 UJ
Cl6-BZ#151	1.0	1.1 UJ
Cl6-BZ#153	1.0	1.1 UJ
Cl6-BZ#156	1.0	1.1 UJ
Cl6-BZ#157	1.0	1.1 UJ
Cl6-BZ#158	1.0	1.1 UJ
Cl6-BZ#167/#128	2.0	2.2 UJ
Cl6-BZ#169	1.0	1.1 UJ

SITE: Pinettes Salvage Yard
CASE NO.: 0306M
SDG NO.: D09210

DATA SUMMARY TABLE
Polychlorinated Biphenyls Analysis (D-027.2)
Aqueous Quality Control (ng/l)

Traffic Report Sample No.	D09203	
M&E Sample ID	EB-GW-02-0910	
Date Sampled	10/13/09	
Date Extracted	10/19/09	
Date Analyzed	10/23/09	
Dilution Factor	1	
Mass/Volume of Sample	910 ml	
Comments	Equipment Blank	
Analyte	RL	
C17-BZ#170#190	2.0	2.2 UJ
C17-BZ#174	1.0	1.1 UJ
C17-BZ#177	1.0	1.1 UJ
C17-BZ#180	1.0	1.1 UJ
C17-BZ#182#187	2.0	2.2 UJ
C17-BZ#183	1.0	1.1 UJ
C17-BZ#189	1.0	1.1 UJ
C18-BZ#194	1.0	1.1 UJ
C18-BZ#195	1.0	1.1 UJ
C18-BZ#201	1.0	1.1 UJ
C19-BZ#206	1.0	1.1 UJ
Monochlorobiphenyls	1.0	1.1 UJ
Dichlorobiphenyls	1.0	1.1 UJ
Trichlorobiphenyls	1.0	1.1 UJ
Tetrachlorobiphenyls	1.0	1.1 UJ
Pentachlorobiphenyls	1.0	1.6 J
Hexachlorobiphenyls	1.0	1.1 UJ
Heptachlorobiphenyls	1.0	1.1 UJ
Octachlorobiphenyls	1.0	1.1 UJ
Nonachlorobiphenyls	1.0	1.1 UJ
Decachlorobiphenyl	1.0	1.1 UJ
Total Homologs	1.0	1.6 J

ATTACHMENT 3

Site Inspection Checklist and Photographs

■

3. Local regulatory authorities and response agencies (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency TOWN OF WASHBURN
 Contact ADAM DEEDY CODE ENFORCER
 Name Title Date Phone no.
 Problems; suggestions; Report attached

Agency MAINE DEP
 Contact TRACY WESTON PROJ MGR
 Name Title Date Phone no.
 Problems; suggestions; Report attached

Agency TOWN OF WADE
 Contact GEORGE HOWE SELECTMAN
 Name Title Date Phone no.
 Problems; suggestions; Report attached

Agency _____
 Contact _____
 Name Title Date Phone no.
 Problems; suggestions; Report attached

4. Other interviews (optional) Report attached.

ROGER PINETTE - OWNER

THERESA GARDINGE - NEIGHBOR

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)			
1.	O&M Documents G O&M manual G As-built drawings G Maintenance logs Remarks _____	G Readily available G Readily available G Readily available	G Up to date G Up to date G Up to date <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
2.	Site-Specific Health and Safety Plan G Contingency plan/emergency response plan Remarks _____	G Readily available G Readily available	G Up to date G Up to date <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
3.	O&M and OSHA Training Records Remarks _____	G Readily available	G Up to date <input checked="" type="checkbox"/> N/A
4.	Permits and Service Agreements G Air discharge permit G Effluent discharge G Waste disposal, POTW G Other permits _____ Remarks _____	G Readily available G Readily available G Readily available G Readily available	G Up to date G Up to date G Up to date G Up to date <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
5.	Gas Generation Records Remarks _____	G Readily available	G Up to date <input checked="" type="checkbox"/> N/A
6.	Settlement Monument Records Remarks _____	G Readily available	G Up to date <input checked="" type="checkbox"/> N/A
7.	Groundwater Monitoring Records Remarks _____	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date G N/A
8.	Leachate Extraction Records Remarks _____	G Readily available	G Up to date <input checked="" type="checkbox"/> N/A
9.	Discharge Compliance Records G Air G Water (effluent) Remarks _____	G Readily available G Readily available	G Up to date G Up to date <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A
10.	Daily Access/Security Logs Remarks _____	G Readily available	G Up to date <input checked="" type="checkbox"/> N/A

IV. O&M COSTS																																									
1.	O&M Organization <input type="checkbox"/> State in-house <input checked="" type="checkbox"/> Contractor for State <input type="checkbox"/> PRP in-house <input checked="" type="checkbox"/> Contractor for PRP <input type="checkbox"/> Federal Facility in-house <input checked="" type="checkbox"/> Contractor for Federal Facility <input type="checkbox"/> Other _____																																								
2.	O&M Cost Records <input type="checkbox"/> Readily available <input type="checkbox"/> Up to date <input type="checkbox"/> Funding mechanism/agreement in place <input type="checkbox"/> Original O&M cost estimate _____ <input type="checkbox"/> Breakdown attached <div style="text-align: center;">Total annual cost by year for review period if available</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">From _____</td> <td style="width: 20%;">To _____</td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 30%;"><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Total cost</td> <td></td> <td></td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td></td> <td></td> <td><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Total cost</td> <td></td> <td></td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td></td> <td></td> <td><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Total cost</td> <td></td> <td></td> </tr> <tr> <td>From _____</td> <td>To _____</td> <td></td> <td></td> <td><input type="checkbox"/> Breakdown attached</td> </tr> <tr> <td style="text-align: center;">Date</td> <td style="text-align: center;">Date</td> <td style="text-align: center;">Total cost</td> <td></td> <td></td> </tr> </table>	From _____	To _____			<input type="checkbox"/> Breakdown attached	Date	Date	Total cost			From _____	To _____			<input type="checkbox"/> Breakdown attached	Date	Date	Total cost			From _____	To _____			<input type="checkbox"/> Breakdown attached	Date	Date	Total cost			From _____	To _____			<input type="checkbox"/> Breakdown attached	Date	Date	Total cost		
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Date	Date	Total cost																																							
From _____	To _____			<input type="checkbox"/> Breakdown attached																																					
Date	Date	Total cost																																							
3.	Unanticipated or Unusually High O&M Costs During Review Period Describe costs and reasons: _____ _____ _____ _____																																								
V. ACCESS AND INSTITUTIONAL CONTROLS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A																																									
A. Fencing																																									
1.	Fencing damaged <input checked="" type="checkbox"/> Location shown on site map <input type="checkbox"/> Gates secured <input type="checkbox"/> N/A Remarks <u>BROKEN FENCE IN NE CORNER; GATE TO SITE UNLOCKED DURING BUSINESS HOURS</u>																																								
B. Other Access Restrictions																																									
1.	Signs and other security measures <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> N/A Remarks _____																																								

C. Institutional Controls (ICs)				
1.	Implementation and enforcement			
	Site conditions imply ICs not properly implemented	G Yes	<input checked="" type="checkbox"/> No	G N/A
	Site conditions imply ICs not being fully enforced	G Yes	<input checked="" type="checkbox"/> No	G N/A
	Type of monitoring (e.g., self-reporting, drive by) <u>ON-SITE INSPECTION</u>			
	Frequency _____			
	Responsible party/agency <u>METCALF & EDDY</u>			
	Contact _____			
	Name	Title	Date	Phone no.
	Reporting is up-to-date			
	G Yes	G No	<input checked="" type="checkbox"/> N/A	
	Reports are verified by the lead agency			
	G Yes	G No	<input checked="" type="checkbox"/> N/A	
	Specific requirements in deed or decision documents have been met			
	<input checked="" type="checkbox"/> Yes	G No	G N/A	
	Violations have been reported			
	G Yes	G No	G N/A	
	Other problems or suggestions: G Report attached			

2.	Adequacy	<input checked="" type="checkbox"/> ICs are adequate	G ICs are inadequate	G N/A
	Remarks _____			

D. General				
1.	Vandalism/trespassing	G Location shown on site map	<input checked="" type="checkbox"/> No vandalism evident	
	Remarks _____			

2.	Land use changes on site	G N/A		
	Remarks _____			

3.	Land use changes off site	G N/A		
	Remarks _____			

VI. GENERAL SITE CONDITIONS				
A. Roads	G Applicable	G N/A		
1.	Roads damaged	G Location shown on site map	<input checked="" type="checkbox"/> Roads adequate	G N/A
	Remarks _____			

B. Other Site Conditions			
Remarks <u>WORKING SALVAGE YARD WITH DIRT</u> <u>ROADS THROUGH SITE.</u>			
VII. LANDFILL COVERS G Applicable <input checked="" type="checkbox"/> N/A			
A. Landfill Surface			
1.	Settlement (Low spots) Areal extent _____ Depth _____ Remarks _____	G Location shown on site map G Depth _____	G Settlement not evident
2.	Cracks Lengths _____ Widths _____ Depths _____ Remarks _____	G Location shown on site map G Widths _____ G Depths _____	G Cracking not evident
3.	Erosion Areal extent _____ Remarks _____	G Location shown on site map G Depth _____	G Erosion not evident
4.	Holes Areal extent _____ Remarks _____	G Location shown on site map G Depth _____	G Holes not evident
5.	Vegetative Cover G Trees/Shrubs (indicate size and locations on a diagram) Remarks _____	G Grass _____ G Cover properly established _____	G No signs of stress
6.	Alternative Cover (armored rock, concrete, etc.) Remarks _____	G N/A	
7.	Bulges Areal extent _____ Remarks _____	G Location shown on site map G Height _____	G Bulges not evident

8.	Wet Areas/Water Damage G Wet areas G Ponding G Seeps G Soft subgrade Remarks	G Wet areas/water damage not evident G Location shown on site map G Location shown on site map G Location shown on site map G Location shown on site map	Areal extent _____ Areal extent _____ Areal extent _____ Areal extent _____
9.	Slope Instability Areal extent _____ Remarks	G Slides G Location shown on site map	G No evidence of slope instability
B. Benches G Applicable <input checked="" type="checkbox"/> N/A (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)			
1.	Flows Bypass Bench Remarks	G Location shown on site map	G N/A or okay
2.	Bench Breached Remarks	G Location shown on site map	G N/A or okay
3.	Bench Overtopped Remarks	G Location shown on site map	G N/A or okay
C. Letdown Channels G Applicable <input checked="" type="checkbox"/> N/A (Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)			
1.	Settlement Areal extent _____ Remarks	G Location shown on site map Depth _____	G No evidence of settlement
2.	Material Degradation Material type _____ Remarks	G Location shown on site map Areal extent _____	G No evidence of degradation
3.	Erosion Areal extent _____ Remarks	G Location shown on site map Depth _____	G No evidence of erosion

4.	Undercutting <input type="checkbox"/> Location shown on site map <input type="checkbox"/> No evidence of undercutting Areal extent _____ Depth _____ Remarks _____
5.	Obstructions Type _____ <input type="checkbox"/> No obstructions <input type="checkbox"/> Location shown on site map Areal extent _____ Size _____ Remarks _____
6.	Excessive Vegetative Growth Type _____ <input type="checkbox"/> No evidence of excessive growth <input type="checkbox"/> Vegetation in channels does not obstruct flow <input type="checkbox"/> Location shown on site map Areal extent _____ Remarks _____
D. Cover Penetrations <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A	
1.	Gas Vents <input type="checkbox"/> Active <input type="checkbox"/> Passive <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____
2.	Gas Monitoring Probes <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____
3.	Monitoring Wells (within surface area of landfill) <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____
4.	Leachate Extraction Wells <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks _____
5.	Settlement Monuments <input type="checkbox"/> Located <input type="checkbox"/> Routinely surveyed <input type="checkbox"/> N/A Remarks _____

E. Gas Collection and Treatment		G Applicable	<input checked="" type="checkbox"/> N/A
1.	Gas Treatment Facilities G Flaring G Thermal destruction G Collection for reuse G Good condition G Needs Maintenance Remarks _____		
2.	Gas Collection Wells, Manifolds and Piping G Good condition G Needs Maintenance Remarks _____		
3.	Gas Monitoring Facilities (e.g. gas monitoring of adjacent homes or buildings) G Good condition G Needs Maintenance G N/A Remarks _____		
F. Cover Drainage Layer		G Applicable	<input checked="" type="checkbox"/> N/A
1.	Outlet Pipes Inspected Remarks _____	G Functioning	G N/A
2.	Outlet Rock Inspected Remarks _____	G Functioning	G N/A
G. Detention/Sedimentation Ponds		G Applicable	<input checked="" type="checkbox"/> N/A
1.	Siltation Areal extent _____ Depth _____ G Siltation not evident Remarks _____		G N/A
2.	Erosion Areal extent _____ Depth _____ G Erosion not evident Remarks _____		
3.	Outlet Works Remarks _____	G Functioning	G N/A
4.	Dam Remarks _____	G Functioning	G N/A

H. Retaining Walls		G Applicable	X N/A
1.	Deformations Horizontal displacement _____ Rotational displacement _____ Remarks _____	G Location shown on site map	G Deformation not evident
2.	Degradation Remarks _____	G Location shown on site map	G Degradation not evident
I. Perimeter Ditches/Off-Site Discharge		G Applicable	X N/A
1.	Siltation Areal extent _____ Remarks _____	G Location shown on site map	G Siltation not evident
2.	Vegetative Growth G Vegetation does not impede flow Areal extent _____ Remarks _____	G Location shown on site map	G N/A
3.	Erosion Areal extent _____ Remarks _____	G Location shown on site map	G Erosion not evident
4.	Discharge Structure Remarks _____	G Functioning	G N/A
VIII. VERTICAL BARRIER WALLS		G Applicable	X N/A
1.	Settlement Areal extent _____ Remarks _____	G Location shown on site map	G Settlement not evident
2.	Performance Monitoring Type of monitoring _____ G Performance not monitored Frequency _____ Head differential _____ Remarks _____		G Evidence of breaching

IX. GROUNDWATER/SURFACE WATER REMEDIES		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
A. Groundwater Extraction Wells, Pumps, and Pipelines		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1.	Pumps, Wellhead Plumbing, and Electrical	<input type="checkbox"/> Good condition	<input type="checkbox"/> All required wells properly operating
	Remarks	<input type="checkbox"/> Needs Maintenance	<input type="checkbox"/> N/A
2.	Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance
	Remarks		
3.	Spare Parts and Equipment	<input type="checkbox"/> Readily available	<input type="checkbox"/> Good condition
	Remarks	<input type="checkbox"/> Requires upgrade	<input type="checkbox"/> Needs to be provided
B. Surface Water Collection Structures, Pumps, and Pipelines		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1.	Collection Structures, Pumps, and Electrical	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance
	Remarks		
2.	Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs Maintenance
	Remarks		
3.	Spare Parts and Equipment	<input type="checkbox"/> Readily available	<input type="checkbox"/> Good condition
	Remarks	<input type="checkbox"/> Requires upgrade	<input type="checkbox"/> Needs to be provided

C. Treatment System		G Applicable	G N/A
1.	Treatment Train (Check components that apply) G Metals removal G Air stripping G Filters G Additive (e.g., chelation agent, flocculent) G Others G Good condition G Sampling ports properly marked and functional G Sampling/maintenance log displayed and up to date G Equipment properly identified G Quantity of groundwater treated annually G Quantity of surface water treated annually Remarks	G Oil/water separation G Carbon adsorbers	G Bioremediation
2.	Electrical Enclosures and Panels (properly rated and functional) G N/A Remarks	G Good condition	G Needs Maintenance
3.	Tanks, Vaults, Storage Vessels G N/A Remarks	G Good condition	G Proper secondary containment G Needs Maintenance
4.	Discharge Structure and Appurtenances G N/A Remarks	G Good condition	G Needs Maintenance
5.	Treatment Building(s) G N/A G Chemicals and equipment properly stored Remarks	G Good condition (esp. roof and doorways)	G Needs repair
6.	Monitoring Wells (pump and treatment remedy) G Properly secured/locked G All required wells located Remarks	G Functioning G Needs Maintenance	G Routinely sampled G Good condition G N/A
D. Monitoring Data			
1.	Monitoring Data G Is routinely submitted on time	G Is of acceptable quality	
2.	Monitoring data suggests: G Groundwater plume is effectively contained	G Contaminant concentrations are declining	

E.

B. Monitored Natural Attenuation	
1. Monitoring Wells (natural attenuation remedy) <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input checked="" type="checkbox"/> All required wells located <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks <u>LOCK TABS ON DMW DMW-10 & SMW-10 WERE BROKEN. WELLS OK.</u>	
X. OTHER REMEDIES	
If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.	
XI. OVERALL OBSERVATIONS	
A. Implementation of the Remedy	
Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). <u>THE ON-GOING REMEDY IS A RESTRICTIVE COVENANT PROHIBITING DOMESTIC WELLS WITHIN 130 FT RADIUS OF THE MW-5 CLUSTER.</u> <u>THE CLUSTER IS FENCED-IN & LOCKED. NO BUILDING OR SUBSURFACE ACTIVITIES WERE EVIDENT WITHIN THE R.C. AREA.</u> <u>SEE REPORT TEXT</u>	
B. Adequacy of O&M	
Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. <u>CLUSTER MW-5 IS SECURE ALTHOUGH SOME SECTIONS OF SITE FENCE ARE BROKEN. NO APPARENT ADVERSE IMPACT.</u> <u>ACTUAL EXTENT OF R.C. AREA IS NOT READILY APPARENT (NO SIGNS, BOUNDARIES)</u>	

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.

NONE.

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

NONE.



Picture 1: Intact chain link fence surrounding well cluster #5.



Picture 2: Well BMW-5 with a bollard leaning towards it.



Picture 3: Opening in Site perimeter fence with ATV tracks leading through it. This same opening was noted in the previous 5-Year Review report.



Picture 4: Corrugated metal drain pipe located across the road from the Site. Water draining out of it appeared to have a sheen on top of it.



Picture 5: Well DMW-6



Picture 6: One of the #10-cluster wells. The wells in this cluster were missing the lock-tab of the aluminum cover.



Picture 7: The #10-cluster wells.



Picture 8: The #8-cluster wells.



Picture 9: The #7-cluster wells.



Picture 10: The #2-cluster wells.



Figure 11: The #2-cluster wells.



Picture 12: The entrance to the Site, facing west.

ATTACHMENT 4

Interview Record Forms

INTERVIEW DOCUMENTATION FORM

The following is a list of individuals interviewed for this five-year review. See the attached contact record(s) for a detailed summary of the interviews.

Name	Title/Position	Organization	Date
<u>Adam Doody</u>	<u>Code Enforcer</u>	<u>Town of Washburn</u>	<u>1-29-10</u>
Name	Title/Position	Organization	Date
<u>George Howe</u>	<u>Code Enforcer and Selectman</u>	<u>Town of Wade</u>	<u>1-29-10</u>
Name	Title/Position	Organization	Date
<u>Tracy Weston</u>	<u>Project Manager</u>	<u>MEDEP</u>	<u>1-29-10</u>
Name	Title/Position	Organization	Date
<u>Roger Pinette</u>	<u>Property Owner</u>	<u>N/A</u>	<u>2-18-10</u>
Name	Title/Position	Organization	Date
<u>Theresa Gardiner</u>	<u>Neighbor</u>	<u>N/A</u>	<u>10-15-09</u>
Name	Title/Position	Organization	Date

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		EPA ID No.: MED980732291	
Subject: Five Year Review		Time: 1400 hours	Date: 1-29-10
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other Location of Visit:		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
Contact Made By:			
Name: Joel Meunier	Title: Sr. Project Scientist	Organization: Metcalf & Eddy, Inc/AECOM	
Individual Contacted:			
Name: Tracy Weston	Title: Project Manager	Organization: Maine DEP	
Telephone No: Fax No: E-Mail Address:		Street Address:	

1. What is your overall impression of the project? (general sentiment)

EPA is doing a fine job – Maine DEP hears from them once a year.

2. Has the site been the subject of any comments or complaints directed to your agency?

No.

3. Do you have any recommendations for reducing or increasing activities at the site?

Not at this time.

4. Are there any areas of known or suspected contamination at the site that you feel are not being adequately addressed by the remedial actions?

No.

5. Are you aware of any problems or issues related to the restrictive covenant established in 2002 which prohibits excavation, construction, change in land use,

etc on part of the property?

She was not aware of any problems.

6. Are you aware of any new water supply wells having been or planned to be drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

No.

7. Is there any other information that you wish to share that might be of use?

No.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		EPA ID No.: MED980732291	
Subject: Third Five Year Review		Time: 0935	Date:
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
Location of Interview:			
Contact Made By:			
Name: Joel Meunier	Title: Sr. Project Scientist	Organization: AECOM	
Individual Contacted:			
Name: Adam Doody	Title: Code Enforcer	Organization: Town of Washburn	
Telephone No: Fax No: E-Mail Address:	Street Address:		

1. What is your overall impression of the project? (general sentiment)

Started job in 2003; doesn't know enough about the project to answer question. Said the prior code enforcer for the Town was satisfied with what EPA was doing at the Site.

2. Are you aware of any health or safety issues associated with the site?

Doesn't know of any.

3. Are you aware of any new water supply wells having been or planned to be drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

No.

4. Have there been any unusual or unexpected activities or events at the site (e.g., flooding)?

No.

5. Has the site been the subject of any community concerns or complaints (e.g., odor, noise, health, etc.)?

No.

6. Do you feel well informed about site activities and progress of the cleanup, and do you have any comments, suggestions, or recommendations regarding the project?

He said he has seen what he guessed were EPA personnel at the Site over the years and assumed that all was good with their presence; but was not aware of their visits prior to them happening.

7. Are there any areas of known or suspected contamination at the site that you feel are not being adequately addressed by the remedial actions?

Not that he is aware of.

8. What is the zoning of the property (is it compatible with the current land use of auto salvage)?

RF, which is residential/farming. He said that the current use of the property was allowed under this zoning.

9. Are you aware of the restrictive covenant established in 2002 which prohibits excavation, construction, change in land use, etc on part of the property?

Not until I told him about it.

10. Is there any other information that you wish to share that might be of use?

No.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		EPA ID No.: MED980732291	
Subject: Third Five Year Review		Time: 0920	Date: 1-29-10
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other Location of Interview:		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
Contact Made By:			
Name: Joel Meunier	Title: Sr. Project Scientist	Organization: AECOM	
Individual Contacted:			
Name: George Howe	Title: Code Enforcer and Selectman	Organization: Town of Wade	
Telephone No: Fax No: E-Mail Address:		Street Address:	

1. What is your overall impression of the project? (general sentiment)

George thought the EPA had done an excellent job so far. His only concern is with the owner and his role at the Site as an operator of a salvage yard. George said that Roger Pinette was not selective in what he accepted to the Site, or in how he managed "housekeeping" at the Site.

2. Are you aware of any health or safety issues associated with the site?

He didn't know of any.

3. Are you aware of any new water supply wells having been or planned to be drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

No.

4. Have there been any unusual or unexpected activities or events at the site (e.g., flooding)?

No – he didn't believe so.

5. Has the site been the subject of any community concerns or complaints

(e.g., odor, noise, health, etc.)?

None that he was aware of.

6. Do you feel well informed about site activities and progress of the cleanup, and do you have any comments, suggestions, or recommendations regarding the project?

He had no issues with the work performed at the Site, but was not informed (but didn't take issue with this).

7. Are there any areas of known or suspected contamination at the site that you feel are not being adequately addressed by the remedial actions?

No – none that he knew of.

8. What is the zoning of the property (is it compatible with the current land use of auto salvage)?

N/A

9. Are you aware of the restrictive covenant established in 2002 which prohibits excavation, construction, change in land use, etc on part of the property?

No.

10. Is there any other information that you wish to share that might be of use?

He was worried about future spills from Pinette's salvage activities that would fall outside of the scope of EPA's work at the Site.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		EPA ID No.: MED980732291	
Subject: Five Year Review		Time: 1530 hours	Date: 1-29-10
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing	
Location of Interview:			
Contact Made By:			
Name: Joel Meunier	Title: Sr. Project Scientist	Organization: Metcalf & Eddy, Inc./AECOM	
Individual Contacted:			
Name: Roger Pinette	Title: Site Owner	Organization: N/A	
Telephone No: Fax No: E-Mail Address:	Street Address:		

1. What is your overall impression of the project? (general sentiment)

OK. He said he sees people come up to the Site to sample, but that doesn't hear about the results thereafter.

2. Do you have any comments, suggestions, or recommendations regarding the project?

No.

3. Are you aware of any new water supply wells having been drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

A new well was installed over at Teresa Gardener's house (which abuts the Site to the east) two years ago, to a depth of over 200 feet below grade.

4. Is there any known surficial soil contamination at the property, either from the original spill or from more recent spills?

No.

5. Has site ownership changed?

No.

6. Has site occupancy changed? Are there any occupancy changes in the foreseeable future? If so, please describe.

No.

7. What is the zoning of the property? Are there any institutional controls/deed restrictions in place?

Roger didn't know the zoning of the property; was aware of the institutional control that restricted certain activities within a 130' radius of well cluster #5.

8. What are the current uses of the property?

Roger said that he accepts a few vehicles a year that then get sold; also takes in some appliances that get sold for scrap.

9. How frequently are authorized individuals present at the property (days/week)?

Roger said that his time at the Site varies, now that he is retired.

10. What are the planned future uses of the property (if different from current uses)?

No changes from the current use planned.

11. Is groundwater currently used on the property?

No.

12. Are there plans to use groundwater on-site in the future?

No.

13. What measures have been taken to secure the site and the contaminated areas (e.g., fencing, locks, etc.)? How successful have these measures been?

The only security at the Site is the fencing left behind by past EPA actions.

14. Is there evidence or sightings of trespassers on the property? If yes, how often and what type of activities do they engage in?

A few thefts of auto parts has occurred over the years.

15. Have there been any events of vandalism at the property?

Very little – just some broken car windshields by local children.

16. Have there been any unusual or unexpected activities or events at the site (e.g., flooding)?

No.

Wrap-Up

17. Do you have any recommendations for reducing or increasing activities at the site?

No.

18. Is there any other information that you wish to share that might be of use?

No.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site		EPA ID No.: MED980732291	
Subject: Five Year Review		Time: 1300	Date: 10-15-2009
Type: <input type="checkbox"/> Telephone	<input checked="" type="checkbox"/> Visit	<input type="checkbox"/> Other	
Location of Interview:		<input type="checkbox"/> Incoming	<input type="checkbox"/> Outgoing

Contact Made By:

Name: Richard Purdy	Title: Field Team Leader / Chemist	Organization: Metcalf & Eddy AECOM
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Individual Contacted:

Name: Theresa Gardiner	Title: Neighbor/ Resident	Organization: N/A
Telephone No: Not taken Fax No: E-Mail Address:	Street Address:	

1. Are you aware of the Site, and if yes, what is your overall impression of the project? (general sentiment)

Yes; doesn't impact her family's activities to any great extent.

2. Do you have any comments, suggestions, or recommendations regarding the project?

No.

3. Are you aware of any new water supply wells having been drilled near the Site, or of other hydraulic impacts that may be impacting groundwater flow?

They recently drilled a deeper well behind the house.

4. Is there evidence or sightings of trespassers on the property? If yes, how often and what type of activities do they engage in?

No.

INTERVIEW RECORD

Site Name: Pinettes Salvage Yard Superfund Site

EPA ID No.: MED980732291

Subject: Five Year Review

Time: 1300

Date: 10-15-2009

5. Have there been any unusual or unexpected activities or events at the site (e.g., flooding)?

No.

6. Is there any other information that you wish to share that might be of use?

They moved into the house about a year ago. Mr. Gardiner (Don?) works at the Salvage Yard.

ATTACHMENT 5

October 2009 VOC Data - Groundwater

SITE: Pinette's Salvage Yard
CASE NO.: 39120
SDG NO.: A2JB5

DATA SUMMARY TABLE
Volatile Organic Analysis (SOM01.2)
Aqueous QC (ug/L)

Traffic Report Sample No.	A2JB5	A2JB6	A2JB7	A2W00	A2W01
M&E Sample ID	TB-GW-01-0910	TB-GW-02-0910	TB-GW-03-0910	EB-GW-01-0910	EB-GW-02-0910
Lab Sample ID	810060	810610	810634	810635	810614
Date Sampled	10/13/09	10/14/09	10/15/09	10/15/09	10/14/09
Date Received	10/14/09	10/15/09	10/16/09	10/16/09	10/15/09
Date Analyzed	10/17/09	10/19/09	10/19/09	10/19/09	10/20/09
Dilution Factor	1.0	1.0	1.0	1.0	1.0
Mass/Volume of Sample	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml
Comments	Trip Blank	Trip Blank	Trip Blank	Equipment Blank	Equipment Blank
Analyte	CRQL				
Dichlorodifluoromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Bromomethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Acetone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-Butyl Ether	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	0.50	0.27 J	0.30 J	0.25 J	0.29 J
1,1,1-Trichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Benzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-Pentanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
m,p-Xylene	0.50	0.50 U	0.50 U	0.50 U	0.50 U

SITE: Pinette's Salvage Yard
CASE NO.: 39120
SDG NO.: A2JB5

DATA SUMMARY TABLE
Volatile Organic Analysis (SOM01.2)
Aqueous QC (ug/L)

Traffic Report Sample No.	A2JB5	A2JB6	A2JB7	A2W00	A2W01
M&E Sample ID	TB-GW-01-0910	TB-GW-02-0910	TB-GW-03-0910	EB-GW-01-0910	EB-GW-02-0910
Lab Sample ID	810060	810610	810634	810635	810614
Date Sampled	10/13/09	10/14/09	10/15/09	10/15/09	10/14/09
Date Received	10/14/09	10/15/09	10/16/09	10/16/09	10/15/09
Date Analyzed	10/17/09	10/19/09	10/19/09	10/19/09	10/20/09
Dilution Factor	1.0	1.0	1.0	1.0	1.0
Mass/Volume of Sample	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml
Comments	Trip Blank	Trip Blank	Trip Blank	Equipment Blank	Equipment Blank
Analyte	CRQL				
Styrene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Isopropylbenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-chloropropane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U

SITE: Pinette's Salvage Yard
CASE NO.: 39120
SDG NO.: A2JB5

DATA SUMMARY TABLE
Volatile Organic Analysis (SOM01.2)
Groundwater (ug/L)

Traffic Report Sample No.	A2W03	A2W04	A2W05	A2W06	A2W07	A2W08	A2W09	A2W10	A2W11
M&E Sample ID	DMW-5-0910	SMW-5A-0910	BMW-5-0910	SMW-7A-0910	DMW-7-0910	BMW-7-0910	SMW-2-0910	DMW-2-0910	DMW-6-0910
Lab Sample ID	810611	810612	810613	810637	810638	810639	810061	810062	810640
Date Sampled	10/14/09	10/14/09	10/14/09	10/15/09	10/15/09	10/14/09	10/13/09	10/13/09	10/15/09
Date Received	10/15/09	10/15/09	10/15/09	10/16/09	10/16/09	10/16/09	10/14/09	10/14/09	10/16/09
Date Analyzed	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/17/09	10/17/09	10/20/09
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mass/Volume of Sample	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml
Comments									FD of A2W15
Analyte	CRQL								
Dichlorodifluoromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromomethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Acetone	5.0	5.0 U	7.2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-Butyl Ether	0.50	0.50 U	0.46 J	0.50 U	0.75	0.50 U	0.50 U	1.4	0.50 U
1,1-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Benzene	0.50	0.50 U	0.39 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-Pentanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	0.50	0.50 U	8.9	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
m,p-Xylene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

SITE: Pinette's Salvage Yard
CASE NO.: 39120
SDG NO.: A2JB5

DATA SUMMARY TABLE
Volatile Organic Analysis (SOM01.2)
Groundwater (ug/L)

Traffic Report Sample No.	A2W03	A2W04	A2W05	A2W06	A2W07	A2W08	A2W09	A2W10	A2W11
M&E Sample ID	DMW-5-0910	SMW-5A-0910	BMW-5-0910	SMW-7A-0910	DMW-7-0910	BMW-7-0910	SMW-2-0910	DMW-2-0910	DMW-6-0910
Lab Sample ID	810611	810612	810613	810637	810638	810639	810061	810062	810640
Date Sampled	10/14/09	10/14/09	10/14/09	10/15/09	10/15/09	10/14/09	10/13/09	10/13/09	10/15/09
Date Received	10/15/09	10/15/09	10/15/09	10/16/09	10/16/09	10/16/09	10/14/09	10/14/09	10/16/09
Date Analyzed	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/17/09	10/17/09	10/20/09
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mass/Volume of Sample	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml	25.0 ml
Comments									FD of A2W15
Analyte	CRQL								
Styrene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Isopropylbenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	0.50	1.1	3.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	0.50	0.32 J	6.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	0.50	0.29 J	0.21 J	0.50 U	0.50 U	0.50 U	0.50 U	0.40 J	0.50 U
1,2-Dibromo-3-chloropropane	0.50	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	0.50	7.1	0.63	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	0.50	0.42 J	0.50 U	0.50 U	0.20 J	0.50 U	0.50 U	0.52	0.50 U

SITE: Pinette's Salvage Yard
CASE NO.: 39120
SDG NO.: A2JB5

DATA SUMMARY TABLE
Volatile Organic Analysis (SOM01.2)
Groundwater (ug/L)

Traffic Report Sample No.	A2W15	A2W12	A2W13	A2W14	
M&E Sample ID	DMW-6-RS-0910	SMW-6-0910	DMW-8-0910	SMW-8-0910	
Lab Sample ID	810642	810641	810063	810064	
Date Sampled	10/15/09	10/15/09	10/13/09	10/13/09	
Date Received	10/16/09	10/16/09	10/14/09	10/14/09	
Date Analyzed	10/20/09	10/20/09	10/17/09	10/17/09	
Dilution Factor	1.0	1.0	1.0	1.0	
Mass/Volume of Sample	25.0 ml	25.0 ml	25.0 ml	25.0 ml	
Comments	FD of A2W11				
Analyte	CRQL				
Dichlorodifluoromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Bromomethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Acetone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-Butyl Ether	0.50	0.50 U	1.1	0.50 U	0.50 U
1,1-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Bromochloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Benzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-Pentanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	5.0	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
m,p-Xylene	0.50	0.50 U	0.50 U	0.50 U	0.50 U

SITE: Pinette's Salvage Yard
CASE NO.: 39120
SDG NO.: A2JB5

DATA SUMMARY TABLE
Volatile Organic Analysis (SOM01.2)
Groundwater (ug/L)

Traffic Report Sample No.	A2W15	A2W12	A2W13	A2W14	
M&E Sample ID	DMW-6-RS-0910	SMW-6-0910	DMW-8-0910	SMW-8-0910	
Lab Sample ID	810642	810641	810063	810064	
Date Sampled	10/15/09	10/15/09	10/13/09	10/13/09	
Date Received	10/16/09	10/16/09	10/14/09	10/14/09	
Date Analyzed	10/20/09	10/20/09	10/17/09	10/17/09	
Dilution Factor	1.0	1.0	1.0	1.0	
Mass/Volume of Sample	25.0 ml	25.0 ml	25.0 ml	25.0 ml	
Comments	FD of A2W11				
Analyte	CRQL				
Styrene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	0.50	0.50 U	0.50 U	0.50 U	0.50 U
Isopropylbenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-chloropropane	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	0.50	0.50 U	0.50 U	0.50 U	0.50 U

ATTACHMENT 6

ME DEP Site Trip Report & Residential Well Sampling Results



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACC
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

MEMORANDUM

To: File, Pinette's Salvage Yard, Gardner Creek Road, Washburn, Maine
From: Nicholas J. Hodgkins, Oil & Hazardous Materials Specialist III, Division of Remediation, Bureau of Remediation & Waste Management
Date: July 16, 2010
Re: Trip report for June 22, 2010 site visit

On June 22, 2010, I visited the Pinette's Salvage Yard site located on the Gardner Creek Road in Washburn, Maine. The United States Environmental Protection Agency's (EPA) Project Manager for the site, Almerinda Silva, had requested that Maine Department of Environmental Protection (Maine DEP) staff replace two damaged monitoring well caps and locate the new Gardner residence well when we were doing other work in Aroostook County, if possible.

I arrived at the Gardner residence at 9 AM. Following the Maine DEP's standard operating procedure "Collection of Household Water Samples Protocol, SOP: DR#001", I turned on the kitchen faucet and started the water to purge the well appropriately before collecting a sample. While the well was purging, I located the Gardner's new well (installed in 2009) with a GPS unit. The well is reportedly approximately 160 feet deep, with groundwater approximately 6 feet below ground surface. The well is located outside of the 260 foot diameter circle defined as the "Restricted Area" in the Declaration of Restrictive Covenant. An aerial map showing the location of the new Gardner well is included as Figure 1.

After purging the well for a little longer than ten minutes, I sampled the water from the kitchen faucet. The sample for polychlorinated biphenyls (PCBs) was collected in six one-liter amber bottles (includes QA/QC bottles and duplicates). The full bottles were placed in a cooler with ice for transport back to the laboratory.

Once I had collected the samples from the new Gardner well, I met Mr. Roger Pinette at the Pinette's Salvage Yard site. After explaining to Mr. Pinette that I was replacing damaged well caps at two of the monitoring wells, he left the property and I began

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BUDG, HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4370 FAX: (207) 941-4381

PORTLAND
512 CANCO ROAD
PORTLAND, MAINE 04103
(207) 722-6300 FAX: (207) 722-6303

PRESQUE ISLE
1257 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-3143

replacing the caps at monitoring well cluster #10. I was able to replace the caps in about 15 minutes; each new cap was locked after installation. Before and after photos of the wells are included on Figure 2.

The water samples were transported in a cooler on ice and delivered to the State of Maine Health & Environmental Testing Laboratory (HETL) on June 23, 2010 following the Maine DEP's "Chain of Custody Protocol, SOP: DR#012". The samples were analyzed for PCBs following lab method 8082. No PCBs were found above the method detection limit in the water samples collected from the new Gardner well. Copies of the Chain of Custody and sampling results are attached to this document.



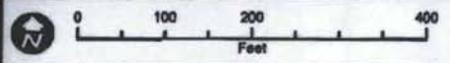
Pinette's Salvage
Washburn, ME

Figure 1



Map Notes:
 - Boundary locations such as those reflected using a Trimble Geo600 GPS Unit. Pond locations have an accuracy of +/- 1 meter.
 - Background hydrologic, topographic and political features are from ME GIS data layers with an accuracy of +/- 40 ft.
 - All spatial data specific to Maine DEP Bureau of Remediation and Waste Management programs are post-processed, geo-referenced and maintained by John Lyons and Chris Hobbitt of the Maine DEP GIS Unit.
 - This map is to be used for reference purposes only and does not represent authoritative locations of deployed features.

Map Prepared By: Chris Palmer, Maine DEP, 6242919



★	Site Location
●	DOMESTIC WELL
—	Back Road
—	Back Road - Summer
—	Back Road - Winter
—	State Highway
—	State Highway
—	Private Road
—	Recreational Road
—	Recreational Pathway
—	Proposed Stream
—	Interlocked Stream
■	Ponds and Lakes



Legend

- Approximate Property Line
- Approximate Limit of Restricted Area (as defined in Declaration of Restrictive Covenant)
- Residential Water Supply Well (installed in 2009)
- Area of Salvage Yard Operations
- Well Cluster No. 5 (center of Restricted Area)
- General Direction of Groundwater Flow

Note: Parcels A and B are owned by Roger Pinette; Parcel B is sometimes rented to other occupants.

FIGURE 3.

**AERIAL MAP -
PINETTE'S SALVAGE YARD SITE**

Pinette's Salvage Yard
Superfund Site
Washburn, Maine



AECOM

Figure 2

Photo 1, Pinette's Salvage Yard (Washburn), MW #10 (R) before cap replacement



Photo 2, Pinette's Salvage Yard (Washburn), MW #10 (R) after cap replacement



Photo 3, Pinette's Salvage Yard (Washburn), MW #10 (L) before cap replacement



Photo 4, Pinette's Salvage Yard (Washburn), MW #10 (L) after cap replacement



State of Maine
Health and Environmental Testing Lab

221 State Street Station #12
Phone (207) 287 - 2727

Augusta, ME 04333-0012
Fax (207) 287-1884

Chain - of - Custody

FO29427

WSP

Sample Date: 6/22/10
Town/County: Washburn/Arroostook
Project Name: Pinette's Salvage Yard

Company: <u>MAINE DEP</u>	Appropriation/PO#	Compliance sample <u>Y1 (D)</u>
Contact: <u>NICK HODGKINS</u>	Bill To: <u>← SAME</u>	Copy To: <u>NA</u>
Address: <u>17 SHS</u>	Address:	Address
<u>AUGUSTA, ME. 04333-0017</u>		
Phone: <u>207-287-4854</u> Fax: <u>207-287-7826</u>	Phone: Fax:	Phone: Fax:
e-Mail address: <u>nickhodgkins@maine.gov</u>	e-Mail address:	e-Mail address

Sample ID	Sample time	Preservation	Container vol	Container type	Quantity	Grab or Composite	Matrix: Ground Water Waste Water Drinking Water Solids Other	Analyses Required	HETL Number
<u>Gardner Well (New)</u>	<u>9:20</u>		<u>12 GL</u>	<u>3</u>	<u>6</u>	<u>Drinking</u>	<u>PCB's in drinking water</u>	<u>FO29427-001</u>	

Notes: Please contact Nick w/ results as soon as available (287-4854) Thanks! MJD.

Sampled By <u>Nick Hodgkins</u>	Date/Time <u>6/22/10</u>	Received By	Date/Time
Relinquished By <u>[Signature]</u>	Date/Time <u>6/23/10 9:00am</u>	Received By <u>[Signature]</u>	Date/Time <u>JUN 23 2010 AM 9:03</u>
Relinquished By	Date/Time	Received By	Date/Time
Rush (Yes or No) <u>(No)</u>	Fax Results (Yes or No) <u>(No)</u>	Custody seal Intact (Yes or No)	Temperature on Arrival <u>2</u> °C

If the sample is deemed hazardous it may be returned to the client at your expense for proper disposal
By signing this Chain-of-Custody you agree that the limit of The HETL's liability to be the cost of the analytical fees in question

rev 5/11/07



Maine Center for Disease Control and Prevention

100 State Street, Augusta, ME 04333-0012
Tel: (207) 287-2727; Fax: (207) 287-6832

John E. Baldacci, Governor

Brenda M. Harvey, Commissioner

Department of Health and Human Services
Health and Environmental Testing Laboratory
221 State Street
12 State House Station
Augusta, Maine 04333-0012
Tel: (207) 287-2727; Fax: (207) 287-6832
TTY: 1-800-606-0215

NICK HODGKINS
DEPT OF ENVIRONMENTAL PROTECTION
MAINE DEP BRWM
SHS #17
AUGUSTA ME 04333 Fax#:

Logged: 6/23/2010 9:06:00AM

Folder/ Invoice # F029427

Office Use Only:
Summary
DEPP

Released: 7/1/2010

Case #:

Project Name: PINETTE'S SALVAGE YARD

No. of Samples in Folder 1

F029427001

CERTIFICATION

The HETL hereby certifies that all test results for this sample were analyzed by the method listed, including preservation, preparation, and holding times, unless otherwise indicated.

Kenneth G. Pote, PhD., Director

Richard French, Quality Assurance Officer

If we can be of further assistance to you, Please Call us at 287-1716

Approved by:

James E. Curlett
Organics Supervisor/Chemist III

MAINE HEALTH AND ENVIRONMENTAL TESTING LABORATORY - Visit our Web Site at: <http://www.state.me.us/dhs/etl>
 221 State Street, Station #12 Department of Human Services Augusta, Maine 04333 Tel. No. 207-287-1716 Fax. No. 207-287-6832

Continued from Previous Page

HETL Sample Number: F029427001

HETL Sample Number: F029427001
 Matrix: NP-H20
 Sampler: NICK HODGKINS
 Method: 8082

Analyst N.Ingalls

Description: GARDNER WELL (NEW)
 Sample Point:
 Sample Date: 6/22/2010 Time: 09:20:00
 Analysis Datetime: 06/29/2010

Preparation Method: 3510C

Prepared by: N.Ingalls

Date Prepared	Time Prepared	Amount Extracted	Extraction pH	Final Amount of Extract		
06/28/2010	08:15	1 L.		1 mL.		
Analyte	Result	Units	RL	MCL	Qualifiers	
Aroclor 1260	<1	ug/L	1.0			
Aroclor 1254	<1	ug/L	1.0			
Aroclor 1221	<5	ug/L	5.0			
Aroclor 1232	<1	ug/L	1.0			
Aroclor 1248	<1	ug/L	1.0			
Aroclor 1016	<1	ug/L	1.0			
Aroclor 1242	<1	ug/L	1.0			
Surrogate Analytes	Result	Amount	% Rec	Low % Rec	High % Rec	Qualifiers
<small>(added as part of testing to verify performance)</small>						
Decachlorobiphenyl	0.438	.5	87.6	50	150	
Tetrachloro-m-xylene	0.353	.5	70.6	50	150	

Continued from Previous Page

HETT Sample Number: F029427001

Units & Measurement

"mg/L" = Milligrams per liter;

"ug/L" = Micrograms per Liter;

"mg/Kg" = Milligrams per Kilogram;

"ug/Kg" = Micrograms per Kilogram;

"PPM" = Parts per Million;

"NTU" = Nephelometric Turbidity Units;

The MCL, Maximum Contaminant Level is listed for comparing your results with recommended levels. In the "Qualifier" column, an "*" is placed to indicate any results that exceed this MCL.

If there are no "*" in the "Qualifier" column, your water is considered satisfactory for those tests.

All solid results are reported on a "Dry Weight" basis.

NC = Not confirmed NQ = Not Quantitated NA = Not Analyzed J = Approximately U = Undetected R = Rejected

RL-Reporting Limit is the lowest concentration which can be reliably reported on a routine basis.

"<" = Less than ">" = Greater than

MCL - Maximum Contaminant Level is the highest level allowed by EPA for public water supplies. Also used here as the maximum advisory limit set by the Maine Centers for Disease Control and Prevention.

Note: Results below the advisory limit, including < and J are considered satisfactory for that parameter.

Disclaimer

Your report consists of the number of pages listed on the cover page. Any attachments after the last numbered page are for informational purposes only and not part of the formal report.

The results in this report are for the submitted sample(s) only.

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310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

22.07A: continued

Contaminant	EPA Method	SM	ASTM	Other
2,3,7,8-TCDD(dioxin)	1613			
2,4-D ² (as acid, salts and esters)	515.2,555,515.1, 515.3, 515.4		D5317-93,98 (Reapproved 2003).	
2,4,5-TP ³ (Silvex)	515.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003).	
Alachor ¹	505, 507, 525.2, 508.1, 551.1			
Atrazine ¹	505, 507, 525.2, 508.1, 551.1			Syngenta AG-625 ⁴
Benzo(a)pyrene	525.2, 550, 550.1			
Carbofuran	531.1, 531.2	6610		
Chlordane	505, 508, 525.2, 508.1			
Dalapon	552.1, 515.1, 515.3, 552.2, 515.4			
Di(2-ethylhexyl)adipate	506, 525.2			
Di(2-ethylhexyl)phthalate	506, 525.2			
Dibromochloropropane (DBCP)	504.1, 551.1			
Dinoseb ³	515.2, 555, 515.1, 515.3, 515.4			
Diquat	549.2			
Endothall	548.1			
Endrin	505, 508, 525.2, 508.1, 551.1			
Ethylene dibromide (EDB)	504.1, 551.1	6651		
Glyphosate	547			
Heptachlor	505, 508, 525.2, 508.1, 551.1			
Heptachlor Epoxide	505, 508, 525.2, 508.1, 551.1			
Hexachlorobenzene	505, 508, 525.2, 508.1, 551.1			
Hexachloro- cyclopentadiene	505, 508, 525.2, 508.1, 551.1			
Lindane	505, 508, 525.2, 508.1, 551.1			
Methoxychlor	505, 508, 525.2, 508.1, 551.1			
Oxamyl	531.1, 531.2	6610		
PCBs(as decachlorobiphenyl) ²	508A			
PCBs (as Aroclors) ²	505, 508,508.1,525.2			
Pentachlorophenol	515.2,525.2,555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003).	
Picloram ³	515.2,555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003).	
Simazine ¹	505,507,525.2, 508.1,551.1			
Toxaphene	505,508,508.1, 525.2			

Footnotes

¹ Substitution of the detector specified in Methods 505, 507, 508, or 508.1 for the purpose of achieving lower detection limits is allowed as follows. Either an electron capture or nitrogen phosphorus detector may be used provided all regulatory requirements and quality control criteria are met.

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

22.07A: continued

² PCBs are qualitatively identified as Aroclors and measured for compliance purposes as decachlorobiphenyl. Users of Method 505 may have more difficulty in achieving the required detection limits than users of Methods 508.1, 525.2, or 508.

³ Accurate determination of the chlorinated esters requires hydrolysis of the sample as described in EPA Methods 515.1, 515.2, 515.3, 515.4 and 555 and ASTM Methods D5317-93,98 (Reapproved 2003).

⁴ This method may not be used for the analysis of atrazine in any system where chlorine dioxide is used for drinking water treatment. In samples from all other systems, any result for atrazine generated by Method AG-625 that is greater than one-half the maximum contaminant level (MCL) (in other words, greater than 0.0015mg/L or 1.5 ug/L) must be confirmed using another approved method for this contaminant and should use additional volume of the original sample collected for compliance monitoring. In instances where a result from Method AG-625 triggers such confirmatory testing, the confirmatory result is to be used to determine compliance.

(11) Analysis for PCBs shall be conducted as follows:

(a) Each system that monitors for PCBs shall analyze each sample using either Method 508.1, 525.2, 508 or 505. The mean of the method detection limits of all Aroclors shall be 0.00025mg/l except for Aroclor 1221 which is 0.02 mg/l. Users of Method 505 may have more difficulty in achieving the required Aroclor detection limits than using methods 508.1, 525.2 or 508.

1. A lab may conduct a scan for Aroclors using any one of the four methods mentioned in 310 22.07A(11)(a).

2. A lab that is certified for any of the four methods listed in 310 22.07A(11)(a) is eligible to conduct the scan for Aroclors.

(b) If PCBs (as one of seven Aroclors) are detected as designated in 310 CMR 22.07A(11)(a) the system shall reanalyze the sample using Method 508A to quantitate PCBs (as decachlorobiphenyl).

(c) Compliance with the PCB MCL shall be determined based upon the quantitative results of analyses using Method 508A.

(12) Grandfathered SOC Data: The Department may allow the use of monitoring data collected after January 1, 1990, for purposes of satisfying the initial monitoring requirement of 310 CMR 22.07A(2), if in the opinion of the Department, the data are generally consistent with the requirements of 310 CMR 22.07A(2). A single sample rather than four quarterly samples may be allowed by the Department to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.

(13) Increased SOC Sampling: The Department may increase the required monitoring frequency, where necessary, to detect variations within the system (e.g., fluctuations in concentration due to seasonal use, changes in water source).

(14) Enforcement: The Department has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.

(15) Designated Sampling Schedules: Each public water system shall monitor at the time designated by the Department within each compliance period.

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

22.07A: continued

(16) SOC Detection Limits: Detection as used in 310 CMR 22.07A(5) shall be defined as greater than or equal to the following concentrations for each contaminant. (Please refer to the Guidelines and Policies for further information regarding detection limits).

<u>SOC DETECTION LIMITS</u>	
<u>Contaminant</u>	<u>Detection Limit mg/l</u>
Alachlor	0.0002
Aldicarb	0.0005
Aldicarb sulfoxide	0.0005
Aldicarb sulfone	0.0008
Atrazine	0.0001
Benzo(a)pyrene	0.00002
Carbofuran	0.0009
Chlordane	0.0002
Dalapon	0.001
Dibromochloropropane (DBCP)	0.00002
Di (2-ethylhexyl) adipate	0.0006
Di (2-ethylhexyl) phthalate	0.0006
Dinoseb	0.0002
Diquat	0.0004
2,4-D	0.0001
Endothall	0.009
Endrin	0.00001
Ethylene dibromide (EDB)	0.00001
Glyphosate	0.006
Heptachlor	0.00004
Heptachlor epoxide	0.00002
Hexachlorobenzene	0.0001
Hexachlorocyclopentadiene	0.0001
Lindane	0.00002
Methoxychlor	0.0001
Oxamyl	0.002
Picloram	0.0001
Polychlorinated biphenyls (PCBs) (as decachlorobiphenyl)	0.0001
Pentachlorophenol	0.00004
Simazine	0.00007
Toxaphene	0.001
2,3,7,8-TCDD (Dioxin)	0.000000005
2,4,5-TP (Silvex)	0.0002