

4.0 Nature and Extent of Contamination

This section presents a discussion of the types of contaminants that were detected at each of the separate study areas of the Remedial Investigation.

Each of the following sections presents tables of the contaminants that were detected together with the concentrations. Separate tables are presented for each group of similar contaminants (i.e., volatile organic compounds [VOC], semi-volatile organic compounds [SVOC], metals/cyanide, pesticides/polychlorinated biphenyls [PCB], dioxins, etc.). If a particular group of contaminants was not detected for any of the samples in a given study area, no table is presented. Also, the tables only list analytes that were detected in one or more samples. Analytes that were not detected in any sample are not included in the tables, and the contaminant concentration for other analytes that were not detected are simply listed as blank and the tables do not include detection limits for any constituent.

Some of the tables list certain relevant action levels and benchmarks that were used to evaluate whether the reported concentrations were significant or potentially problematic.

- **Ground Water:** The criteria used for ground water samples is the Federal Maximum Contaminant Levels (MCL).
- **Soil:** No criteria are presented for total soil concentrations, pending the results of the risk assessments. However, the RCRA hazardous waste threshold values are presented for soil samples that were analyzed for the Toxic Characteristics Leachate Procedure (TCLP).
- **Surface Water:** The criteria used for surface water is the National Ambient Water Quality Criteria (AWQC).
- **Sediments:** For sediments, the Ontario Ministry of the Environment Lowest Effect Level (OME LEL) was used if one was available for that analyte. For other organic compounds, the criteria was calculated using an equilibrium partitioning approach based on the Ambient Water Quality Criteria (AWQC) for surface water value. A hypothetical equilibrium concentration of these chemicals was calculated for sediment in equilibrium with surface water containing the same chemical at a concentration equal to the AWQC. This value was calculated using a total organic carbon (TOC) value of 1%.

Appendices D through AA present a complete tabulation of all laboratory test results obtained during the Remedial Investigation. The appendices contain all of the results, all of the analytes and all of the data qualifiers.

4.1 Landfill Area

4.1.1 Ground Water

Ground water samples were obtained from five ground water monitoring wells in the Landfill Area. Four rounds of samples were obtained in all of the wells except MW-B-7 due to high turbidity encountered in the first sampling event. Each well was sampled in each sampling event for VOCs, SVOCs, metals/cyanide, and pesticide/PCBs, and each well was sampled one time (first event only) for dioxins and hexavalent Chromium.

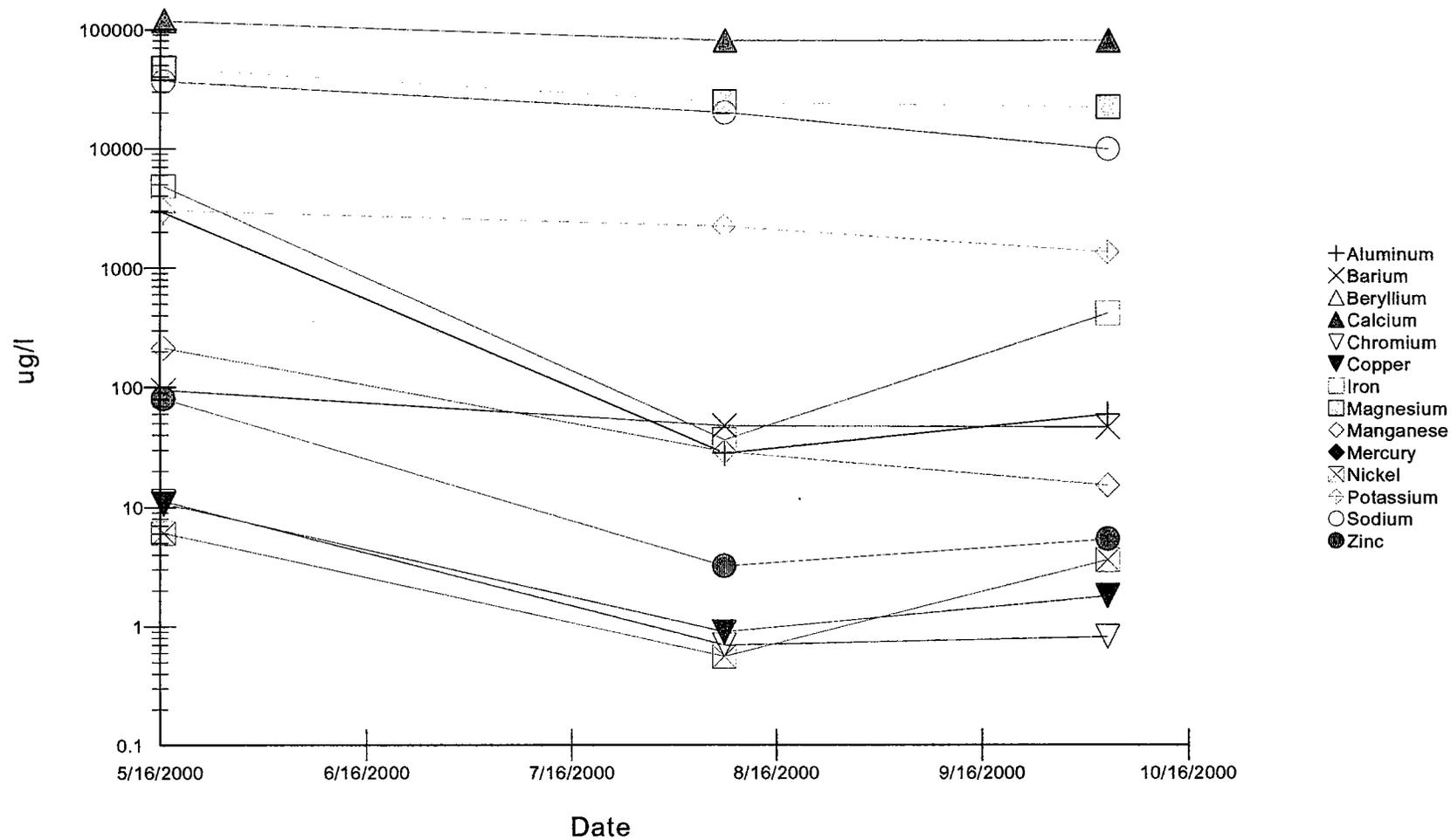
Tables 4.1-1 through 4.1-4 show the laboratory results from ground water analysis of samples obtained from the Landfill Area. No pesticide/PCB results are shown because these compounds were not detected. A summary of significant findings is presented below.

- Methylene chloride was detected at concentrations exceeding the MCL during the August 2000 sampling round in two wells located at the downgradient perimeter of the landfill (MW-101U and MW-B-7). Methylene chloride was also detected in rinseate blanks from this sampling period and appears to be related to some cross contamination, not to site conditions.
- Four other VOCs were detected (acetone, methyl tert-butyl ether, toluene and tetrachloroethylene) at concentrations below their respective MCL.
- No SVOCs, pesticides, hexavalent chromium, PCBs or dioxins were observed at concentrations above the detection limit or the MCL.
- Several metals were detected in ground water, all at concentrations below their respective MCLs. Figure 4.1-1 shows a graph of some metals that were detected in ground water during three rounds of sampling at downgradient well MW-101U. This graph shows reductions in the concentration of metals over time. The contaminant concentration reductions appear to coincide with the landfill capping activities being conducted throughout the summer of 2000.
- There does not appear to be a VOC ground water plume in the Landfill Area. The minor VOC occurrence may be from the landfill, but since contamination was not detected consistently, it is unlikely that the landfill (which is now capped) is an ongoing source of VOC contamination.

4.1.2 Surface Water

At the Landfill Area, four surface water samples were collected from seeps discharging ground water on the downhill side of the landfill (SW-011, SW-012, SW-013, SW-021), two surface water samples were collected from streams located topographically below the landfill (SW-008, SW-009), and one surface water sample (SW-020) was collected from the pond at the base of the slope of the landfill.

Figure 4.1-1: Chemical Concentrations, Well MW-101



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Tables 4.1-5 and 4.1-6 show the results of metals and dioxin analyses. No VOCs, SVOCs or pesticide/PCBs were detected in surface water at the Landfill Area. The significant findings are presented below.

- The highest metals concentrations were detected in the landfill seeps and in the pond below the wetland. The metals that were observed at elevated concentrations included aluminum, calcium, iron, magnesium and sodium. The more toxic metals (arsenic, cadmium, chromium, lead, mercury, nickel) are not present at elevated concentrations.
- Low concentrations of metals were detected in the landfill streams.
- All dioxin TEQs are well below 1 ppb.

4.1.3 Sediment

Three sediment samples were collected from the landfill seeps (SD-011, SD-012, SD-013), three sediment samples were collected from the landfill streams (SD-008, SD-009, SD-010), six sediment samples (SD-019, SD-020, SD-021, SD-022, SD-023, SD-0024) were collected from the pond at the base of the slope of the landfill and five samples were collected from the wetland area between the pond and the landfill slope (SD-014, SD-015, SD-016, SD-017, SD-018).

Tables 4.1-7 through 4.1-13 present the results of sediment analysis from the Landfill Area.

- Elevated concentrations of three VOCs (acetone, 2-butanone and toluene), seven SVOCs (pyrene, benzo(a)anthracene, chrysene, benzo(k)fluoranthene, benzo(a)pyrene, dibenzo(a,h)anthracene, benzaldehyde, 4-methylphenol), six metals (Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Silver, Zinc), cyanide, one pesticide (4,4'-DDD), and PCBs are present in the sediments located in the pond below the landfill.
- Sediment samples from the landfill streams contained two PAHs (pyrene, benzo(g,h,i)perylene) and Copper at slightly elevated concentrations.
- Elevated concentrations of seven metals (Arsenic, Cadmium, Copper, Lead, Nickel, Silver, Zinc), cyanide, one pesticide (4,4'-DDE), PCB are present in the wetland sediments.
- Elevated Chromium, Copper and Nickel concentrations were observed in sediment samples associated with the landfill seeps.
- Dioxins were detected in every sample, but all of the toxicity equivalence factors (TEQ) are below 1 ppb.

4.1.4 Air

Table 4.1-14 shows the air sampling results for Station 5. No SVOCs were detected above the VT Air Quality Standards. However, one SVOC was detected at a concentration three times greater than the Region IX PRG (there is no VT Air Standard for this compound). Since acetophenone is not a site contaminant of concern, this result appears to be unrelated to waste disposal at the site. Two inorganic elements, arsenic and nickel were detected at concentrations slightly above the VT Air Pollution Criteria. Since the landfill is covered and there are no site-related sources of arsenic or nickel, it is possible that the arsenic and nickel are naturally occurring may be present in airborne particulates from off-site.

4.2 Former Tannery Building Area

4.2.1 Soil

Tables 4.2-1 through 4.2-3 present the results of soil testing from the Former Tannery Building Area. Only one soil sample was collected in the Former Tannery Building Area. The sample was obtained to evaluate soil contamination in an area where petroleum odors and staining were observed by the USACE during the NTCRA building demolition. The results are summarized below.

- Elevated concentrations of 12 SVOCs were observed.
- Visual evidence of oil staining was observed during drilling, extending vertically down to the shallow bedrock surface at location MW-113.

4.2.2 Ground Water

Tables 4.2-4 through 4.2-7 present the results of ground water analyses conducted from the four ground water monitoring wells in the Former Tannery Building Area. Four rounds of ground water sampling were conducted at all of the wells except MW-113U that was installed after the second sampling round. The results are summarized below.

- Seven VOCs were detected, but only methylene chloride was detected at a concentration above the MCL in one well (MW-110U). The methylene chloride appears to be related to a pervasive rinseate blank problem observed in many samples from the August 2000 sampling event. No methylene chloride was detected in the most recent (October 2000) sampling round of MW-110U.
- No SVOCs were observed above detection limits.
- There were only two metals detected at concentrations exceeding their respective MCL. Thallium was detected in MW-111U during the September 2000 sampling round at a concentration of 1.3 ppb (versus the MCL of 1 ppb) and Arsenic was detected in MW-113R at a concentration of 58.4 ppb (versus the MCL of 50 ppb).
- Dioxins were detected at low concentrations in the October 2000 sampling round at well MW-113R.

4.2.3 Surface Water

One surface water sample was collected from one of the outfall pipes installed during the NTCRA.

Tables 4.2-8 through 4.2-9 present the results of laboratory testing of water from the outfall pipe. A summary of findings is presented below.

- No elevated contaminant concentrations were detected in the outfall discharge.

4.2.4 Sediment

Two sediment samples were obtained from the Hoosic River in the Former Tannery Building Area. Both samples were collected on the eastern bank of the river adjacent to the former tannery complex.

Tables 4.2-10 through 4.2-16 show the results of laboratory tests of these samples. A summary of findings is presented below.

- No VOCs were observed above detection limits.
- All Dioxin TEQs are well below 1 ppb.
- Several SVOCs were observed at elevated concentrations (above the Ontario Ministry of the Environment Lowest Effect Level) including, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene.

4.2.5 Air

Table 4.1-14 shows the air sampling results for Station 2. No SVOCs were detected above the VT Air Pollution Criteria. However, one SVOC was detected at a concentration slightly greater than the Region IX PRG (there is no VT Air Standard for this compound). Since acetophenone is not a site contaminant of concern, this result appears to be unrelated to waste disposal at the site. One inorganic element, arsenic, was detected at a concentration approximately twice slightly above the VT Air Pollution Criteria. Since the Former Tannery is demolished and covered and there are no current site-related sources of arsenic, it is possible that the arsenic is naturally occurring and due to detection of arsenic at the other stations, arsenic may be present in airborne particulates from off-site.

4.3 Lagoon Area

4.3.1 Soil

The most extensive sampling effort occurred in the Lagoon Area soils investigation, where over 140 samples were obtained during Phase I and II, and over 800 separate analyses were performed. Samples were collected from surficial soils and subsurface soils, including numerous samples to characterize the nature of contamination in the sludge. Based on the results of Phase I sampling, additional samples were collected to characterize the sludge for waste disposal purposes, and to evaluate the presence of hexavalent Chromium.

A number of the “surficial” soil samples from the Lagoon Area were obtained from areas under ponded water. This ponded water was present during the entire time of the field effort for this project (from March through December) and so these samples were considered as “sediment” samples for the purposes of the risk assessments.

Tables 4.3-1 through 4.3-6 present the results of laboratory testing of the lagoon soil samples. A summary of findings is presented below.

Lagoon 1: Lagoon one contains the thickest accumulation of sludge, but the sludge is generally buried beneath a thin layer of cover material and so the surficial soil samples do generally contain elevated concentrations of site contaminants.

- Several VOCs were observed in Lagoon 1, but the highest concentrations were detected in the sludge. Total VOC concentrations in the surface (0-0.5 feet) samples were less than 15 ppm, but total VOC concentrations in the sludge were generally observed to range from 50-200 ppm and in one sample the total VOC concentrations exceed 1 per cent (SBL1-11, 9-10 feet deep).
- Several SVOCs (PAHs and phenols) were detected in Lagoon 1, with the highest concentrations present in the sludge buried below 1-2 feet of cover material. The total SVOC concentrations in the upper layer of cover material were less than 1 ppm but the total SVOC concentration in the buried sludge reached over 600 ppm and several samples contain total SVOCs over 100 ppm.
- Elevated metals concentrations were detected in the buried sludge including chromium at concentrations typically ranging from 10,000-70,000 ppm and lead from 1,000 to 2,000 ppm. The typical concentrations observed in the surface soils for chromium and lead are less than less than 2,000 ppm and 200 ppm respectively.
- Only one PCB compound was detected in one surface soil sample in Lagoon 1 (18 ppb, SBL1-01), but there are four Aroclors present in the subsurface soils at concentrations ranging up to 400 ppb.
- Pesticides are present in both surface and subsurface soils in lagoon 1, but the

concentrations detected in the sludge are approximately one order of magnitude higher than the concentrations detected in the surface soils.

- None of the samples tested for TCLP exceeded the RCRA Hazardous Waste threshold.

Lagoon 2: Lagoon 2 contains only a very small quantity of sludge, so there is no significant contrast in chemical concentrations versus depth. In general, fewer site contaminants are present in Lagoon 2, and the chemical concentrations are generally lowest in Lagoon 2 soils. A summary of the laboratory test results is presented below.

- Only two VOCs (carbon disulfide, methyl acetate) were observed at concentrations above the detection limits in soil samples from Lagoon 2.
- Only one SVOC compound not associated with laboratory contamination (diethylphthalate) was observed above the detection limits in Lagoon 2 soils.
- The inorganic constituents are present at concentrations that are closer to background soil conditions. Representative maximum concentrations for some metals detected include arsenic at 5.2 ppm, cadmium at 11.4 ppm, chromium at 2,690 ppm, lead at 192 ppm, nickel at 19.7 ppm and cyanide at 2.5 ppm.
- One sample contained three pesticides (alpha-BHC, beta-BHC, and delta-BHC), all at concentrations less than 10 ppb.
- One PCB homologue was detected, decachlorobiphenyl, at concentrations less than 20 ppb.
- All dioxin TEQs were less than 1 ppb.
- None of the samples tested for TCLP exceeded the RCRA Hazardous Waste threshold.

Lagoon 3: Lagoon 3 is the smallest of the lagoons. Samples were collected from seven borings. In previous investigations Lagoon 3 was divided into two sub-lagoons, 3A and 3B, though there are no present day landmarks or other features that distinguish the two sub-lagoons. The Lagoon is now covered with gravel fill and is largely unvegetated. A summary of the laboratory test results is presented below.

- Eight VOCs (carbon disulfide, 2-butanone, toluene, ethylbenzene, xylenes, isopropylbenzene, 1,2 dichlorobenzene, and 1,4 dichlorobenzene) were detected in Lagoon 3, all at low concentrations (below 75 ppb).
- Four SVOCs (phenol, 4-methylphenol, naphthalene, 2-methylnaphthalene) were detected at three locations within the sludge, all at concentrations below 10 ppm.
- Metals are present in the greatest concentration within the sludge layer. Cadmium was not detected in surface soils, nor in the underlying gravel layer, but is present in the

sludge at concentrations up to 42 ppm. Chromium and Lead are present at concentrations up to two orders of magnitude greater (chromium up to 18,000 ppm, lead up to 565 ppm) than in surface soils or the underlying soil.

- Two pesticides were detected at very low concentrations (less than 25 ppb) in two sludge samples.
- One PCB homologue (decachlorobiphenyl) is present in most of the samples, but at low concentrations (below 25 ppb).
- All dioxin TEQs were less than 1 ppb.
- None of the samples tested for TCLP exceeded the RCRA Hazardous Waste threshold.

Lagoon 4: Lagoon 4 is the largest lagoon. Samples were collected from 29 borings. A summary of the laboratory test results is presented below.

- Five VOCs are present in the soils of lagoon 4 (acetone, carbon disulfide, methylene chloride, 2-butanone, toluene), but the maximum total VOC concentration is less than 200 ppb.
- Eleven SVOCs are present in Lagoon 4 (naphthalene, 4-methylnaphthalene, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene) at eight locations. The highest SVOC concentrations were observed in the surface sample from boring SBL4-15.
- The highest metals concentrations in Lagoon 4 are present in the surficial soils. Lead, chromium and cadmium are present at higher concentrations (one to two orders of magnitude greater) in the surface soils than in the subsurface soils.
- Low concentrations of pesticides were detected in five samples.
- Low concentrations of PCBs were detected in one sample (SBL4-29).
- None of the samples tested for TCLP exceeded the RCRA Hazardous Waste threshold.

Lagoon 5: Lagoon 5 is mostly underwater throughout the entire year. A summary of the contaminants found in Lagoon 5 is presented below.

- Three VOCs are present at concentrations above the detection limit: carbon disulfide (up to 1,400 ppb), methyl acetate (one detection at 60 ppb), 1,2-dichlorobenzene (I detection at 11 ppb).

- Two SVOCs were detected in Lagoon 5: pentachlorophenol (6,300 ppb at one location) and bis(2-ethylhexyl)phthalate (less than 800 ppb).
- Several metals are present in Lagoon 5, including arsenic (up to 2.1 ppb), chromium (up to 16,100 ppb), lead (up to 624 ppb) and mercury (up to 4.1 ppb).
- None of the samples tested for TCLP exceeded the RCRA Hazardous Waste threshold.

Figures 4.3-1 and 4.3-2 present isoconcentration maps of chromium and dioxin TEQ for soils from the Lagoon Area. These maps indicate the general pattern of contamination exhibited by most of the contaminants in the lagoons. The highest chemical concentrations are in Lagoon 1, followed by Lagoons 5 and 4.

Chromium concentrations of over 70,000 ppm are present in the sludge layer in Lagoon 1, and the dioxin TEQ exceeds 1,000 ppt (1 ppb) in several samples, ranging up to 4,350 ppt in one sample.

4.3.2 Ground Water

Thirteen overburden and one bedrock ground water monitoring wells were sampled in this area. Eight of the overburden ground water monitoring wells were installed by others during previous environmental investigations, but these wells were judged to be useable for the Remedial Investigation. Ground water samples from many of the pre-existing wells exhibited elevated turbidity. This appears to be due to the fine particle size of the formation combined with use of standard filter pack and standard screen slot size. The filter pack and screen slot size combination used to construct the pre-existing wells was too large to prevent flow of silt and clay into the well.

Five rounds of sampling were performed at the Lagoon Area. Most of the new wells (installed for the Remedial Investigation) were sampled during the last four sampling events. Ground water monitoring well MW-114U, which was installed during Phase II, was sampled only during the last sampling event.

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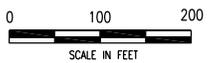


LEGEND

- SBL-01 SOIL BORING LOCATION WITH CHROMIUM CONCENTRATION (PPM)
- 5000
- - - LAGOON OUTLINE
- 500— CHROMIUM CONCENTRATION CONTOUR (ppm)

	Boott Mills South Foot of John Street Lowell, MA 01852 978-970-5600	FIGURE 4.3-1 CHROMIUM ISOCONCENTRATION MAP LAGOON AREA POWNAL TANNERY POWNAL, VERMONT
	TRC PROJ. NO.: 02136-0220-01N93	
	EPA CONTRACT NO.: 68-W6-0042	
	RAC SUBCONTRACTOR NO.: 107061	

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LEGEND

- SOIL BORING LOCATION WITH TOXICITY EQUIVALENT RESULT (ppt)
- 500 TOXICITY EQUIVALENCY QUOTIENT ISOCONTOUR (ppt)
- LAGOON OUTLINE

TRC Boott Mills South
Foot of John Street
Lowell, MA 01852
978-970-5600

TRC PROJ. NO.: 02136-0220-01N93
EPA CONTRACT NO.: 68-W6-0042
RAC SUBCONTRACTOR NO.: 107061

FIGURE 4.3-2
DIOXIN TEQ
ISOCONTOUR MAP
LAGOON AREA
POWNAL TANNERY
POWNAL, VERMONT

M&E Metcalf & Eddy

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Tables 4.3-7 through 4.3-11 list the results of laboratory analysis of ground water samples from the Lagoon Area. Only sample events where an analyte was detected are presented in these tables. A summary of the findings is presented below.

- Nine VOCs were detected (acetone, methylene chloride, MTBE, carbon tetrachloride, toluene, tetrachloroethylene, chlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene) in Lagoon Area ground water samples, generally at low concentrations. Methylene chloride was only detected in the August 2000 sampling round, and appears to be some type of data error since this same compound was detected in numerous ground water samples and different sites, and from this sampling event only.
- Tetrachloroethylene was detected above the MCL in well MW-114U. This well was installed during Phase II after numerous unsuccessful attempts to sample pre-existing well MW-L-2. Therefore, this well was only sampled during the last two sampling events.
- Three SVOCs were detected in Lagoon Area ground water (diethylphthalate, atrazine, bis(2-ethylhexyl)phthalate). These compounds were only detected during one sampling event (August 2000), and each compound was detected only once. Each of these compounds was detected in separate wells. Only atrazine was detected at a concentration (7 ppb) above the MCL (3ppb) in well MW-L-11. Note that the turbidity of this ground water sample was also elevated, so it is possible that the atrazine is not dissolved in the ground water, but is present in particulate form. No SVOCs were detected in this well during the other sampling events.
- All metals/cyanide present except thallium, were detected at concentrations below their respective MCL. Thallium was detected at a concentration of 7ppb (versus MCL of 1ppb) in well MW-109U during only one sampling event (May 2000).
- No pesticides or PCBs were detected in any Lagoon Area ground water sample.
- Low concentrations of dioxin compounds were detected only in two Lagoon Areas wells. One dioxin (1,2,3,4,6,7,8-HpCDF) was detected in MW-109U (May 2000 sampling event) and four dioxins were detected in MW-114U (September 2000 sampling event).

4.3.3 Surface Water

Surface water samples were collected from ponded water in Lagoons 1, 2, 4 (there are three ponds in lagoon 4), and 5. Surface water from the Lagoon Area was also collected from the adjacent reach of the Hoosic River at four locations.

Tables 4.3-12 through 4.3-15 present the compounds detected in Lagoon Area surface water samples. A summary of the laboratory results is presented below.

- Low concentrations (<5 ppb) of acetone were detected in all four lagoons that were

sampled. Low concentrations of two other VOCs (2-butanone, toluene) were detected in Lagoon 1.

- Aluminum and barium are present in unfiltered surface water samples at concentrations that exceed the National Water Quality Criteria-Chronic levels in the Hoosic River samples.
- Aluminum, barium and magnesium are present in unfiltered surface water samples from the Lagoon ponds at concentrations that exceed the National Water Quality Criteria-Chronic levels.
- Low concentrations (<20 pg/l) of dioxins are present in lagoon ponded water and in one Hoosic River sample.
- None of the filtered samples contained metals or cyanide at concentrations above their respective National Water Quality Criteria-Chronic levels.

4.3.4 Sediment

Sediment samples were obtained from the Hoosic River and from ponded water in the lagoons. Tables 4.3-16 through 4.3-21 present the results of laboratory testing for the Lagoon Area sediment samples. A summary of findings is presented below.

- Three VOCs were detected in one sediment sample from Lagoon 4 (acetone, carbon disulfide, 2-butanone). The concentration of acetone in the sample (130 ppb) exceeded the Ontario Ministry of the Environment Lowest Effect Level value of 8.7 ppb.
- Acetone was detected in three Hoosic River sediment samples from the Lagoon Area. The acetone concentration in sample SD-030 (10 ppb), located near the sewage outfall, exceeds the Ontario Ministry of the Environment Lowest Effect Level value of 8.7 ppb.
- Six SVOCs (phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene) are present in Hoosic River sediment samples. Five of these compounds ((phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene) are present at concentrations that exceed their respective Ontario Ministry of the Environment Lowest Effect Level values.
- No pesticides were observed above their respective detection limits in any of the sediment samples.
- PCBs were detected in four Hoosic River sediment samples from the Lagoon Area, ranging in concentrations of 86 to 270 ppb.
- Dioxins were detected in the two Lagoon pond sediment samples (TEQ ranging from 106 to 127 ppt) and in the Lagoon Area Hoosic River sediment samples (TEQ less than 3 ppt).

4.3.5 Air

Table 4.1-14 shows the air sampling results for Stations 3, 3A, 3B, 4, 4A and 4B. One SVOC (1,1'-biphenyl) was detected at a concentration slightly above the VT Air Pollution Criteria. One

SVOC was detected at a concentration slightly greater than the Region IX PRG (there is no VT air standard for this compound). Since 1,1'-biphenyl and acetophenone are not site contaminants of concern, these results appear to be unrelated to waste disposal at the site. Two inorganic elements were detected at concentrations slightly above the VT Air Pollution Criteria. It appears that the arsenic and nickel are naturally occurring and due to detection of arsenic and nickel at the other stations, these elements may be present in airborne particulates from off-site.

4.4 Warehouse Area

4.4.1 Soil

Four surface soil samples were collected during Phase I in the unpaved, reported hide storage area east of the warehouse. Based on the results of the Phase I sampling, additional Phase II soil samples were obtained from shallow borings in the reported hide storage area and inside the building.

Tables 4.4-1 through 4.4-5 present a summary of results exceeding the detection limit. A discussion of the results is presented below.

- Several VOCs were detected, but only five VOC are present above the detection limit. Low concentrations of acetone (<160 ppb) and 2-butanone (<10 ppb) were observed in three of the surface soil samples (SS-02, SS-04, SS-05). Subsurface soils from the reported hide storage areas did not contain VOCs above the detection limit. Subsurface soils from beneath the building contained acetone and 2-butanone in similar concentrations to those in the surface soils, plus xylenes (<25 ppb), ethylbenzene (<10 ppb) and methyl acetate (<10 ppb)
- Pyrene was detected (370 ppb) in the reported hide storage area (SS-01) and both pyrene and fluoranthene were detected (<500 ppb) in surface soil sample SS-02 collected near the roadway, east of the warehouse.
- Ten PAH compounds are present at concentrations above detection limits in the soil below the warehouse. The maximum total PAH concentration (19,400 ppb) is in boring SBW-09. It appears that the PAHs are associated with the presence of coal and ash in the soils beneath the warehouse.
- Other SVOCs were also detected in some of the soil below the warehouse including pentachlorophenol (2,500 ppb, SBW-12; 2,100 ppb, SBW-11), naphthalene (390 ppb, SBW-07), 2-methylnaphthalene (850 ppb, SBW-07, 590 ppb, SBW-08; 550 ppb, SBW-11), and bis(2-ethylhexyl)phthalate (430 ppb, SBW-09; 600 ppb, SBW-10).
- Several metals were detected in the Warehouse Area soil samples including arsenic (maximum concentration 16.9 ppb, SBW-09 beneath warehouse), chromium (maximum concentration 122 ppb, SS-04, reported hide storage area), and lead (maximum concentration 138 ppb, SBW-10, beneath warehouse).

- Three pesticides (endosulfan I, alpha-chlordane and gamma chlordane) are present above detection limits in only one soil sample (SS-04).
- No PCBs were observed above detection limits in the Warehouse Area soils.
- The dioxin TEQ for the warehouse soils tested was less than 10 ppt for all samples.

4.4.2 Air

Table 4.1-14 shows the air sampling results for Station 1. No SVOCs were detected at concentrations above the VT Air Pollution Criteria. One SVOC (acetophenone) was detected at a concentration slightly greater than the Region IX PRG (there is no VT air standard for this compound). Since acetophenone is not a site contaminant of concern, this result appears to be unrelated to waste disposal at the site. Of the metals, only arsenic was detected at a concentrations slightly above the VT Air Pollution Criteria. It appears that the arsenic is naturally occurring and due to detection of arsenic at the other stations, arsenic be present in airborne particulates from off-site.

4.5 Woods Road Waste Disposal Area

Initially, only one soil sample was planned for this area, surface soil sample SS-14. However, based on observations of leather scraps, building debris and petroleum in the western bank of the Hoosic River located north of the temporary vehicle bridge, a series of 22 test pits were completed to determine the nature and extent of the waste in this area. Soil samples from 13 of the test pits were submitted for laboratory analysis. Based on the findings of this testing program reported separately to EPA prior to completion of the Remedial Investigation, EPA excavated approximately 2,500 cubic yards of material from the area, encompassing most of the area examined by the test pits. Based on the sampling results, soils were not removed from the areas around TP-16 through TP-21.

4.5.1 Soil

Tables 4.5-1 through 4.5-5 show the results of laboratory testing results of the soils in the Woods Road Disposal Area. A summary of findings is presented below.

- The Woods Road Disposal Area contained mostly soil mixed with demolition debris and tannery waste. The waste material contained mostly soil mixed with small pieces of leather and hides, thin layers of black hydrocarbon rich soil, pieces of metal, piping, wire, brick, stone, and one crushed (empty) drum. The waste layer ranged in thickness up to six feet.
- Five VOCs are present at concentrations above detection limits in soils from this area. Low concentrations of acetone (<450 ppb) and 2-butanone (<45 ppb) were detected in most of the soil samples (TP-01, TP-02, TP-03, TP-04, TP-05, TP-06, TP-09 TP-10, TP-11, TP-20 and TP-21). Toluene was detected in one sample (TP-03, 10ppb), methyl acetate was detected in two samples (TP-04, 14 ppb and TP-06, 23 ppb) and 1,1,1-

trichloroethane was detected in one sample (TP-01, 12 ppb). All of the soil containing these contaminants was removed from the site by EPA as part of the NTCRA except for the soil at TP-20 and TP-21.

- Low concentrations (<50 ppb) of PCBs were detected in 11 soil samples from the Woods Road Disposal Area. The only soil sample containing PCBs after the NTCRA excavation is TP-20 (12 ppb).
- The highest soil concentrations of pesticides were observed at TP-04 (four feet deep), where 4,4-DDT (1,100 ppb), 4,4-DDE (110 ppb) and 4,4'-DDD (63 ppb) were detected. Low concentrations (<20 ppb) of pesticides were detected in five other samples.
- Elevated concentrations of metals were detected in the test pit soils. Chromium was present above 500 ppm in TP-03, TP-04, TP-05, TP-06 and TP-11, and lead concentration exceeding 100 ppm were present in TP-01 and TP-05. None of the TCLP test results for chromium or lead exceeded the RCRA hazardous waste concentrations. All of the soils containing elevated metal concentrations were excavated by EPA during the NTCRA.

4.5.2 Ground Water

Two overburden ground water monitoring wells were installed and sampled in this area. Four rounds of sampling were performed at the Woods Road Disposal Area.

Tables 4.5-6 through 4.5-9 list the results of laboratory analysis of ground water samples from the Woods Road Disposal Area. Only sample events where an analyte is present above a detection limit are presented in these tables. A summary of the findings is presented below.

- Only one VOC (acetone) was detected in ground water samples from this area. The acetone was detected at low concentrations during only the May 2000 sampling event, and may be due to laboratory cross contamination.
- No SVOCs, pesticides, PCBs or metals were detected above MCLs.
- Low concentrations of dioxins were detected in several samples, but all of the TEQs are below 0.1 ppb.

4.6 Hoosic River

Several surface water and sediment samples were collected from the Hoosic River in areas that are not associated with any of the potential contaminant source areas. Generally, these samples were acquired upstream and downstream of the various source areas in order to determine if upstream contaminants were migrating into the study area and to determine if site-related contamination was migrating downstream from the site.

4.6.1 Surface Water

There are two surface water sample locations from the Hoosic River located upstream of the site and three surface water sample locations located downstream of the site.

Table 4.6-1 through 4.6-2 present a summary of laboratory test results. A summary of findings is discussed below.

- No VOCs, SVOCs, metals, pesticides or PCBs were observed to be present above detection limits in the upstream or downstream portions of the Hoosic River.
- Low concentrations (<2 ppt) of dioxins were detected in two of the downstream samples (SW-036, SW-038).

4.6.2 Sediment

Ten sediment samples are located upstream of the Former Tannery Building Area and six samples are located downstream of the Lagoon Area. Note that sediment samples SD-024, SD-025, SD-027, SD-028, SD 042 and SD-043 are located upstream of the Former Tannery Building Area but downstream of the pond and drainage system associated with the Landfill Area.

Table 4.6-3 through 4.6-9 show the results of laboratory testing of the Hoosic River Samples. A summary of contaminants reported above the detection limit is presented below.

- Three VOCs (trichlorofluoromethane, 2-butanone, trichloroethene) were detected at low concentrations (<50 ppb) in one sediment sample (SD-001) upstream of the site.
- Two pesticides (4,4'-DDE and 4,4'-DDT) were detected at concentrations exceeding the Ontario Ministry of the Environment Lowest Effect Levels in upstream sample SD-025. Gamma-chlorodane and aldrin were detected at concentrations exceeding the Ontario Ministry of the Environment Lowest Effect Levels in upstream sample SD-001. One other sediment sample (SD-027 collected from sediment trapped behind the dam) contained 2.9 ppb of alpha-BHC.
- PCBs were detected in upstream and downstream sediment samples, with the highest concentrations in upstream samples SD-025 (840 ppb as Aroclor 1254) and SD-001 (390 ppb as Aroclor 1254).
- Dioxins were detected in upstream and downstream sediment samples. The highest detected concentrations are in samples SD-025 (73 ppt) and SD-001 (51 ppt).

4.7 Residential Wells

Ten residential wells located on properties near the study area were sampled on two occasions, May 2000 and August 2000. In two instances due to anomalous laboratory results, a residential well was retested for confirmation of the initial results.

Tables 4.7-1 through 4.7-3 presents contaminants that were present above their detection limit. A summary of the contaminants detected is presented below.

- Only two VOCs were observed in residential wells above their respective detection limits. Acetone was detected at a low concentration (3 ppb) in RW-009 during the June 2000 resampling of that well. MTBE was detected in RW-006 at a concentration of 4.4 ppb during the August 2000 sampling event.
- No SVOCs, pesticides or PCBs were detected in any residential well above the detection limit.
- Only one well (RW-010) contained a metal (Lead) at a concentration (493 ppb) that exceeded the MCL (15 ppb). This exceedance was observed in the May 2000 sampling round. Due to this anomalous result, this well was resampled in June 2000, and Lead was not found to be present above the MCL. This finding was confirmed in the August 2000 sampling round where Lead was detected at a concentration of only 4 ppb. The May 2000 anomalous Lead measurement appeared to be related to the homeowner's well filtration unit.
- No dioxin TEQs were observed above 1 ppt.

4.8 Background/Reference

Background/reference data were obtained for three media, including surface soil, surface water and sediment. For some of these media, the background/reference contaminant concentrations were developed for more than one environmental setting (e.g. ponds, streams, wetlands, etc.) due to a specific requirement in either the human health or ecological risk assessment.

4.8.1 Surface Soil

Tables 4.8-1 through 4.8-5 present the laboratory test results from the eight surface soil background samples that were collected. The tables also list the mean and maximum detected concentrations for each compound.

4.8.2 Surface Water

Table 4.8-6 presents the laboratory test results from the reference surface water sample. The only compounds detected are metals.

4.8.3 Sediment

Tables 4.8-7 through 4.8-10 present the laboratory test results from the sediment samples that were collected. The tables also list the mean and maximum detected concentrations for each compound.

4.9 Analytical Data Evaluation

Appendix EE presents a complete assessment of the analytical data quality for laboratory testing completed during the Remedial Investigation.

All laboratory data for this project were received electronically (except limited pesticide/PCB data and particle size data) and in hard copy format. Electronic data deliverables were imported to TRC's GISKEY database. Each sample result was checked against the hard copy received from the laboratory, and edits were made to the database if warranted.

Once TRC completed validation of a data result, the data or qualifier modifications (if any) noted during validated data were entered into the database and checked a second time prior to use in the tables and figure presented in this report.

A summary of the significant issues regarding data quality is presented below.

- All data collection proceeded in accordance with the procedures that were specified in the Site Management Plan, except as described in Section 2.0 of this document. None of the modifications to the prescribed sampling procedures had a significant impact on the data quality. Similarly, all analytical methods used for this project were as specified in the Site Management Plan.
- Due to a variety of circumstances related to data quality and usability, TRC made modifications to the original planned data validation scheme. Table 4.9-1 shows a summary of the data validation levels planned for this project. Table 4.9-1 also shows a summary of modifications that were made to the original validation scheme. All modifications to the original data validation approach resulted in increases in the level of data validation.

A Tier I data validation evaluates only data completeness and performance evaluation (PE) sample results. Because Region I data validation guidelines require rejection of results for solid samples containing greater than 70% moisture, TRC also reviewed moisture content for all lagoon sludge and sediment samples as part of the Tier I data validation. In addition, due to VOC preservation issues noted during sampling of Lagoon soil/sludge, preservation was also evaluated during the Tier I data validation of Lagoon soil/sludge samples.

In some cases during the Tier I data validation, TRC noted problems with one of the following data issues: PE analysis, sample preservation, multiple dilutions, re-extractions or reanalysis of samples, or high moisture content (>70%). In these circumstances, TRC upgraded the level of data validation to Tier II or III to examine the impact of the issue on data usability.

- **PE Failures:** When the laboratory reported results for a PE sample that failed, and TRC believed that the failure would result in rejection of data, TRC increased the level of validation to Tier III to evaluate the cause of the PE sample failure (e.g., calculation

error, etc.) and to determine whether the PE sample results were possibly acceptable.

- **Preservation Issues:** During the collection of lagoon sludge samples for VOC analysis, several samples effervesced when introduced to the sodium bisulfate preservative solution. This is a concern because the effervescing creates gas bubbles and it is possible that VOCs in the sample could be lost prior to laboratory analysis. This problem was eventually addressed by collecting VOC samples unpreserved.

However, due to the known problem with the preservative, TRC increased the level of validation for these samples to Tier II in order to properly qualify the sample data (estimate positive results and reject non-detected results).

- **High Moisture Samples:** Modifications in the planned data validation were also made in some cases for samples with high-moisture content. Normally, if the field team suspected that a sludge or sediment sample contained more than 70% moisture, the sample was sent to a DAS laboratory capable of freeze-drying the sample. The freeze-drying procedure compensates for the high moisture thereby allowing a valid analysis to be performed and reduces the possibility that the data would be rejected after validation. For some samples that had greater than 70% moisture, the field team erroneously estimated that the sample contained less than 70% moisture. As a result, these samples were not analyzed in the preferred manner (using the freeze drying method). The level of validation for these samples was increased to a Tier II in order to properly qualify the sample data (i.e. estimate positive results and reject "non-detected" results).
- **Re-analysis, Re-extractions, Dilutions:** TRC also increased the level of validation to Tier II in instances where more than one result existed for a sample (due to re-extractions, re-analysis, or dilutions). If more than one result for a sample was found to exist, the level of validation was increased to Tier II in order to determine which value should be reported.
- **Rinseate Blank Contamination:** The only indication of some decontamination problem was encountered during the August 2000 ground water sampling event where most of the ground water samples contained detectable concentrations of methylene chloride. Rinseate blanks from that sampling event also contained methylene chloride, so it is presumed that the contamination is not site related.

Table 4.1-1
 Landfill Area Ground Water, VOC

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-101U DAMU24	MW-101U DAMZ83	MW-101U D00770	MW-102U DAMU25	MW-103R DAMU27
	DATE		05/16/2000	08/08/2000	12/15/2000	05/10/2000	05/11/2000
	RESULT TYPE		Primary	Primary	Primary	Primary	Primary
Acetone	(ug/l)		3 B		2.7 J	2 B	3 B
Methylene chloride	(ug/l)	5	0.9 J	[26]	0.75 J		
Methyl tert-butyl ether	(ug/l)		2				
Toluene	(ug/l)	1000	0.5 J				
Tetrachloroethylene	(ug/l)	5					0.5 J

Table 4.1-1
 Landfill Area Ground Water, VOC

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-103R D00783	MW-103U DAMU26	MW-B-7 DAMT47	MW-B-7 DAMZ70
	DATE		12/12/2000	05/10/2000	03/30/2000	08/07/2000
	RESULT TYPE		Primary	Primary	Primary	Primary
Acetone	(ug/l)			2 B		
Methylene chloride	(ug/l)	5				[19000]
Methyl tert-butyl ether	(ug/l)		0.7 J			
Toluene	(ug/l)	1000			13	
Tetrachloroethylene	(ug/l)	5				

Table 4.1-2
 Landfill Area Ground Water, SVOC

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-101U DAMU24	MW-103R DAMU27	MW-103U DAMU26	MW-B-7 D00413
	DATE		05/16/2000	05/11/2000	05/10/2000	09/29/2000
	RESULT TYPE		Primary	Primary	Primary	Primary
Di-n-butylphthalate	(ug/l)					0.5 J
Bis(2-ethylhexyl)phthalate	(ug/l)	6	0.6 JB	0.6 J	0.6 J	0.5 J

Table 4.1-3
Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-101U DAMU24 05/16/2000 Primary	MW-101U DAMZ83 08/08/2000 Primary	MW-101U D00425 10/04/2000 Primary	MW-101U D00770 12/15/2000 Primary	MW-102U DAMU25 05/10/2000 Primary
	DATE		RESULT TYPE				
Aluminum	(ug/l)		2920	28.2 B	59.8 E*	561	21.9 B
Antimony	(ug/l)	6	1.7 B	0.70 B			
Arsenic	(ug/l)	10	1.5 B			0.31 B	0.26 B
Barium	(ug/l)	2000	95.0	48.0	46.6	52.7	
Cadmium	(ug/l)	5	0.055 B		0.072 B		0.084 B
Calcium	(ug/l)		119000	81600	82100	92700	20900
Chromium	(ug/l)	100	11.3	0.70 B	0.82 B	3.4 B	
Cobalt	(ug/l)		2.7 B		0.15 B	0.52 B	
Copper	(ug/l)	1300	10.8	0.90 B	1.8 B	2.0 B	
Iron	(ug/l)		4840	36.6	418	724	
Lead	(ug/l)	15	3.7		0.23 B	0.13 B	
Magnesium	(ug/l)		47400	24900	22600	25500	6860
Manganese	(ug/l)		214	29.2	15.3 *	18.6	1.7 B
Mercury	(ug/l)	2					
Nickel	(ug/l)		6.1 B	0.56 B	3.6 B	4.9 B	
Potassium	(ug/l)		3050	2250	1360	1940	293 B
Selenium	(ug/l)	50					1.1 BN
Silver	(ug/l)						
Sodium	(ug/l)		36900	20200	10000 N	14300	1310
Thallium	(ug/l)	2		0.85 B			
Vanadium	(ug/l)						

Table 4.1-3
 Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-101U DAMU24	MW-101U DAMZ83	MW-101U D00425	MW-101U D00770	MW-102U DAMU25
	DATE		05/16/2000	08/08/2000	10/04/2000	12/15/2000	05/10/2000
	RESULT TYPE		Primary	Primary	Primary	Primary	Primary
Zinc	(ug/l)		80.6	3.2 B	5.4 B	2.5 BN	
Cyanide	(ug/l)	200				2.4 J	

Table 4.1-3
Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-102U DAMZ74 DATE 07/31/2000 RESULT TYPE Primary	MW-102U D00426 DATE 09/27/2000 RESULT TYPE Primary	MW-102U D00771 DATE 12/12/2000 RESULT TYPE Primary	MW-103R DAMU27 DATE 05/11/2000 RESULT TYPE Primary	MW-103R DAMZ80 DATE 07/31/2000 RESULT TYPE Primary
Aluminum	(ug/l)		13.2 B		34 E*	150	200.
Antimony	(ug/l)	6	1.1 B			2.1 B	0.78 B
Arsenic	(ug/l)	10				1.2 B	1.9 B
Barium	(ug/l)	2000	3.2 B	4.6 J	7.7 B	44.7 B	49.4
Cadmium	(ug/l)	5					
Calcium	(ug/l)		20300	25800	33000	22900	27400
Chromium	(ug/l)	100	0.92 B		2.0 B		1.5 B
Cobalt	(ug/l)				0.12 B		
Copper	(ug/l)	1300	0.30 B		0.32 B	1.1 B	0.82 B
Iron	(ug/l)		15.0 B		167	517	529.
Lead	(ug/l)	15			0.26 B	1.0	0.53 B
Magnesium	(ug/l)		6060	7530	8780	7270	8820
Manganese	(ug/l)		0.84 B		1.6	130	121.
Mercury	(ug/l)	2	0.17 B				
Nickel	(ug/l)		0.55 B		1.7 B		0.92 B
Potassium	(ug/l)		654. B	668	646	586 B	810. B
Selenium	(ug/l)	50			2.2 B		
Silver	(ug/l)				0.26 B		
Sodium	(ug/l)		1060	1210 J	1130	3420	1840
Thallium	(ug/l)	2					
Vanadium	(ug/l)						

Table 4.1-3
 Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE	MCL	MW-102U	MW-102U	MW-102U	MW-103R	MW-103R
	SAMPLE ID		DAMZ74	D00426	D00771	DAMU27	DAMZ80
	DATE		07/31/2000	09/27/2000	12/12/2000	05/11/2000	07/31/2000
	RESULT TYPE		Primary	Primary	Primary	Primary	Primary
Zinc	(ug/l)		5.4				3.1 B
Cyanide	(ug/l)	200					

Table 4.1-3
Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-103R D00427 09/27/2000 Primary	MW-103R D00783 12/12/2000 Primary	MW-103U DAMU26 05/10/2000 Primary	MW-103U DAMZ71 07/31/2000 Primary	MW-103U D00429 09/27/2000 Primary
	DATE						
	RESULT TYPE						
Aluminum	(ug/l)			1760 E*	302	43.6	
Antimony	(ug/l)	6			1.5 B	0.58 B	
Arsenic	(ug/l)	10		2.9	0.81 B		
Barium	(ug/l)	2000	50.4 J	67.4	15.5 B	14.4 B	14.7 J
Cadmium	(ug/l)	5				0.13 B	
Calcium	(ug/l)		24300	29900	47600	47300	46800
Chromium	(ug/l)	100		2.3 B		0.42 B	
Cobalt	(ug/l)			0.69 B			
Copper	(ug/l)	1300		2.2	0.56 B	0.49 B	
Iron	(ug/l)			1580	502	52.2	
Lead	(ug/l)	15		1.0 B	0.72 B	1.1	
Magnesium	(ug/l)		9010	9850	21000	21700	21100
Manganese	(ug/l)			186	26.4	2.8 B	
Mercury	(ug/l)	2					
Nickel	(ug/l)			2.5 B		0.45 B	
Potassium	(ug/l)		579	887	566 B	878 B	674
Selenium	(ug/l)	50			1.2 BN		
Silver	(ug/l)						
Sodium	(ug/l)		1440 J	5490	2500	2740	2410 J
Thallium	(ug/l)	2					
Vanadium	(ug/l)			1.1 B			

Table 4.1-3
 Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-103R D00427	MW-103R D00783	MW-103U DAMU26	MW-103U DAMZ71	MW-103U D00429
	DATE		09/27/2000	12/12/2000	05/10/2000	07/31/2000	09/27/2000
	RESULT TYPE		Primary	Primary	Primary	Primary	Primary
Zinc	(ug/l)			4.7 B	5.2	14.0	
Cyanide	(ug/l)	200		2.9 B			

Table 4.1-3
Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-103U D00428 09/27/2000 Duplicate 1	MW-103U D00784 12/12/2000 Primary	MW-B-7 DAMT47 03/30/2000 Primary	MW-B-7 DAMZ70 08/07/2000 Primary	MW-B-7 D00413 09/27/2000 Primary
	DATE						
	RESULT TYPE						
Aluminum	(ug/l)			81.8 E*	21.7 J	26.3 B	
Antimony	(ug/l)	6				0.74 B	
Arsenic	(ug/l)	10					
Barium	(ug/l)	2000	15 J	15.7 B	17.5	21.7 B	23.7 J
Cadmium	(ug/l)	5					
Calcium	(ug/l)		47300	46000	54100	53300	62700
Chromium	(ug/l)	100		0.81 B		0.46 B	
Cobalt	(ug/l)			0.094 B			
Copper	(ug/l)	1300		0.24 B	3.3	1.0 B	
Iron	(ug/l)			216	25.4 J	42.2	
Lead	(ug/l)	15		0.12 B			
Magnesium	(ug/l)		21200	20600	14600	13900	16500
Manganese	(ug/l)			3.3	4.9 J	5.9	
Mercury	(ug/l)	2				0.25	
Nickel	(ug/l)			1.9 B		0.36 B	
Potassium	(ug/l)		670	605	361	523. B	411
Selenium	(ug/l)	50					
Silver	(ug/l)						
Sodium	(ug/l)		2370 J	2250	3740	4080	3010 J
Thallium	(ug/l)	2					
Vanadium	(ug/l)						

Table 4.1-3
 Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE	MCL	MW-103U	MW-103U	MW-B-7	MW-B-7	MW-B-7
	SAMPLE ID		D00428	D00784	DAMT47	DAMZ70	D00413
	DATE		09/27/2000	12/12/2000	03/30/2000	08/07/2000	09/27/2000
	RESULT TYPE		Duplicate 1	Primary	Primary	Primary	Primary
Zinc	(ug/l)				38.4	3.5 B	
Cyanide	(ug/l)	200		2.0 B			

Table 4.1-3
 Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-B-7 D00768 12/15/2000 Primary
	DATE		
	RESULT TYPE		
Aluminum	(ug/l)		38.8
Antimony	(ug/l)	6	
Arsenic	(ug/l)	10	
Barium	(ug/l)	2000	20.9
Cadmium	(ug/l)	5	0.076 B
Calcium	(ug/l)		62400
Chromium	(ug/l)	100	
Cobalt	(ug/l)		0.14 B
Copper	(ug/l)	1300	1.0 B
Iron	(ug/l)		238
Lead	(ug/l)	15	
Magnesium	(ug/l)		16600
Manganese	(ug/l)		2.4
Mercury	(ug/l)	2	
Nickel	(ug/l)		2.7 B
Potassium	(ug/l)		270
Selenium	(ug/l)	50	1.9 B
Silver	(ug/l)		
Sodium	(ug/l)		2060
Thallium	(ug/l)	2	
Vanadium	(ug/l)		

Table 4.1-3
Landfill Area Ground Water, Metals/Cyanide

PERIOD: From 03/30/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE	MCL	MW-B-7
	SAMPLE ID		D00768
	DATE		12/15/2000
	RESULT TYPE		Primary
Zinc	(ug/l)		2.7 BN
Cyanide	(ug/l)	200	1.5 J

Table 4.1-4
Landfill Area Surface Water, Total Metals

PERIOD: From 05/24/2000 thru 06/02/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID DATE	National Water Quality Crit. Chronic	SW-008 DAMV70 05/24/2000	SW-009 DAMV68 05/24/2000	SW-011 DAMV64 05/31/2000	SW-012 DAMV60 05/31/2000	SW-013 DAMV58 05/31/2000
Aluminum	(ug/l)	87	[97.6] J	86.8 J	[1230] J	[110] J	[494] J
Antimony	(ug/l)	30				0.50 J	0.86 J
Barium	(ug/l)	4	[6.8]	[6.1]	[25.8]	[9.6]	[16.9]
Beryllium	(ug/l)	0.66			0.068 J		
Cadmium	(ug/l)				0.18 J		0.078 J
Calcium	(ug/l)		4680 J	4260 J	68000 J	52200 J	27700 J
Chromium	(ug/l)				3.9 J	3.5	5.6
Cobalt	(ug/l)	23			2.0		0.38 J
Copper	(ug/l)		2.6	0.77 J	14.4	0.92 J	2.3
Iron	(ug/l)	1000	125 J	132 J	[1910] J	136 J	995 J
Lead	(ug/l)		0.34 J		8.8	0.53	3.3
Magnesium	(ug/l)		1480 J	1350 J	13200 J	13400 J	10200 J
Manganese	(ug/l)	120	6.4 J	11.0 J	[398] J	12.6 J	109 J
Mercury	(ug/l)						
Nickel	(ug/l)				4.9	0.36 J	1.0
Potassium	(ug/l)				453 J	600 J	373 J
Selenium	(ug/l)	5					
Sodium	(ug/l)				5940 J	4970 J	3220 J
Vanadium	(ug/l)	20			3.9 J		0.86
Zinc	(ug/l)				28.0		

Table 4.1-4
Landfill Area Surface Water, Total Metals

PERIOD: From 05/24/2000 thru 06/02/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID DATE	National Water Quality Crit. Chronic	SW-020 DAMV36 05/24/2000	SW-021 DAMV66 05/31/2000	SW-050 DAMW19 06/02/2000
Aluminum	(ug/l)	87		[378] J	14.6 J
Antimony	(ug/l)	30		0.74 J	1.0 J
Barium	(ug/l)	4	[26.3]	[25.0]	[15.1]
Beryllium	(ug/l)	0.66			
Cadmium	(ug/l)			0.083 J	0.081 J
Calcium	(ug/l)		20100 J	51200 J	39900 J
Chromium	(ug/l)		1.9 J	1.0 J	3.3
Cobalt	(ug/l)	23		0.68 J	
Copper	(ug/l)		0.44 J	5.7	8.2
Iron	(ug/l)	1000	[2050] J	705 J	
Lead	(ug/l)		0.42 J	7.3	1.4
Magnesium	(ug/l)		6830 J	18000 J	11700 J
Manganese	(ug/l)	120	[530] J	[248] J	20.1 J
Mercury	(ug/l)				0.16 J
Nickel	(ug/l)			1.3	0.97
Potassium	(ug/l)		294 J	476 J	1950 J
Selenium	(ug/l)	5			0.51
Sodium	(ug/l)		1830 J	6370 J	7310 J
Vanadium	(ug/l)	20		1.5 J	
Zinc	(ug/l)				

Table 4.1-4
Landfill Area Surface Water, Filtered Metals

PERIOD: From 05/24/2000 thru 06/02/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID DATE	NRWQC-FILT	SW-008 DAMV71 05/24/2000	SW-009 DAMV69 05/24/2000	SW-011 DAMV65 05/31/2000	SW-012 DAMV61 05/31/2000	SW-013 DAMV59 05/31/2000
Aluminum (Filtered Metals)	(ug/l)				2.5 J		
Antimony (Filtered Metals)	(ug/l)				0.95 J	0.61 J	0.49 J
Barium (Filtered Metals)	(ug/l)		6.2	6.4	10.3	8.2	11.7
Cadmium (Filtered Metals)	(ug/l)	1.72			0.80 J		
Calcium (Filtered Metals)	(ug/l)		5140	5320 J	60600 J	47100 J	28500 J
Chromium (Filtered Metals)	(ug/l)	55			0.55 J	0.37 J	1.2
Cobalt (Filtered Metals)	(ug/l)						
Copper (Filtered Metals)	(ug/l)	6.6	0.67 J	0.64 J	3.6		1.8
Iron (Filtered Metals)	(ug/l)						
Magnesium (Filtered Metals)	(ug/l)		1590	1640 J	13800	12100	10200
Manganese (Filtered Metals)	(ug/l)		1.3	6.3	3.4 J		18.3 J
Mercury (Filtered Metals)	(ug/l)	0.77	0.12 J				
Nickel (Filtered Metals)	(ug/l)	38			0.27 J		0.14
Potassium (Filtered Metals)	(ug/l)				432	530	307
Selenium (Filtered Metals)	(ug/l)						0.59
Sodium (Filtered Metals)	(ug/l)				6150 J	4400 J	3220 J

Table 4.1-4
Landfill Area Surface Water, Filtered Metals

PERIOD: From 05/24/2000 thru 06/02/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID DATE	NRWQC-FILT	SW-020 DAMV37 05/24/2000	SW-021 DAMV67 05/31/2000	SW-050 DAMW20 06/02/2000
Aluminum (Filtered Metals)	(ug/l)			3.7 J	3.5 J*
Antimony (Filtered Metals)	(ug/l)			1.2 J	0.81 J
Barium (Filtered Metals)	(ug/l)		6.9	13.5	13.6
Cadmium (Filtered Metals)	(ug/l)	1.72			
Calcium (Filtered Metals)	(ug/l)		29300 J	43900 J	38100 J
Chromium (Filtered Metals)	(ug/l)	55	22.4 J	0.20 J	2.4
Cobalt (Filtered Metals)	(ug/l)				0.069 J
Copper (Filtered Metals)	(ug/l)	6.6	0.25 J		5.0
Iron (Filtered Metals)	(ug/l)		270		
Magnesium (Filtered Metals)	(ug/l)		10100 J	15900	11200
Manganese (Filtered Metals)	(ug/l)		615 J	29.9 J	3.6 J
Mercury (Filtered Metals)	(ug/l)	0.77	0.27 J	0.12 J	
Nickel (Filtered Metals)	(ug/l)	38	11.2 J	0.25 J	0.79 J
Potassium (Filtered Metals)	(ug/l)		246	384	1830
Selenium (Filtered Metals)	(ug/l)				
Sodium (Filtered Metals)	(ug/l)		2560 J	5760 J	7050 J

Table 4.1-5
 Landfill Area Surface Water, Dioxin

PERIOD: From 05/24/2000 thru 06/02/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE	SW-009	SW-012	SW-020
	SAMPLE ID	DAMV68	DAMV60	DAMV36
	DATE	05/24/2000	05/31/2000	05/24/2000
OCDD	(pg/l)	13.1 J		
1,2,3,4,6,7,8-HpCDF	(pg/l)			1.0 *
OCDF	(pg/l)			4.1 J
Total HpCDFs	(pg/l)		3.1 *	2.9 *
Toxicity Equivalency	(pg/l)	0.013 J		0.014 J

Table 4.1-6
Landfill Area Sediment, VOC

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE		SD-019	SD-023	SD-024	SD-024
	SAMPLE ID		DAMV11	DAMU69	DAMV04	DAMU67
	DATE		05/24/2000	05/23/2000	05/23/2000	05/23/2000
	DEPTH (ft)	OME LEL	0.00	0.00	0.00	0.00
	RESULT TYPE		Primary	Primary	Primary	Duplicate 1
Starting Depth	(feet)		0.00	0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00	0.00
Acetone	(ug/kg)	8.7	[190] J	[240] J		
2-Butanone	(ug/kg)	270				[640] J
Toluene	(ug/kg)	50		14 J	33 J	[200] J

Table 4.1-7
Landfill Area Sediment, SVOC

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-009	SD-011	SD-012	SD-013	SD-014
	SAMPLE ID	AQP25	AQP28	AQP29	AQP34	DAMU68
	DATE	05/24/2000	05/26/2000	05/26/2000	05/31/2000	05/25/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	OME LEL					
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Benzaldehyde	(ug/kg)					630 JEB
4-Methylphenol	(ug/kg)					
4-Chloroaniline	(ug/kg)	460 J				
Acenaphthylene	(ug/kg)					
Phenanthrene	(ug/kg)	560				
Anthracene	(ug/kg)	220				
Fluoranthene	(ug/kg)	750			73 J	
Pyrene	(ug/kg)	490			110 J	
Benzo(a)anthracene	(ug/kg)	320				
Chrysene	(ug/kg)	340				
Bis(2-ethylhexyl)phthalate	(ug/kg)	890000	110 J	160 J	77 J	260 BJ
Benzo(b)fluoranthene	(ug/kg)					
Benzo(k)fluoranthene	(ug/kg)	240				
Benzo(a)pyrene	(ug/kg)	370			89 J	
Indeno(1,2,3-cd)pyrene	(ug/kg)	200				
Dibenzo(a,h)anthracene	(ug/kg)	60				
Benzo(g,h,i)perylene	(ug/kg)	170	[500] JJ			

Table 4.1-7
Landfill Area Sediment, SVOC

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-015	SD-016	SD-017	SD-018	SD-019
	SAMPLE ID	DAMV09	DAMU70	DAMV12	DAMV10	DAMV11
	DATE	05/25/2000	05/25/2000	05/24/2000	05/24/2000	05/24/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	OME LEL					
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Benzaldehyde	(ug/kg)	300 JEB	240 JEB	610 JEB	190 JEB	150 JEB
4-Methylphenol	(ug/kg)	130 J	500	1200	200 J	
4-Chloroaniline	(ug/kg)					
Acenaphthylene	(ug/kg)					
Phenanthrene	(ug/kg)	560				
Anthracene	(ug/kg)	220				
Fluoranthene	(ug/kg)	750	100 J		100 J	140 J
Pyrene	(ug/kg)	490	100 J	190 J	140 J	180 J
Benzo(a)anthracene	(ug/kg)	320		93 J		
Chrysene	(ug/kg)	340		110 J		110 J
Bis(2-ethylhexyl)phthalate	(ug/kg)	890000				
Benzo(b)fluoranthene	(ug/kg)			110 J		
Benzo(k)fluoranthene	(ug/kg)	240		93 J		95 J
Benzo(a)pyrene	(ug/kg)	370		98 J		
Indeno(1,2,3-cd)pyrene	(ug/kg)	200				
Dibenzo(a,h)anthracene	(ug/kg)	60				
Benzo(g,h,i)perylene	(ug/kg)	170				

Table 4.1-7
Landfill Area Sediment, SVOC

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft) RESULT TYPE	OME LEL	SD-020 AQP24 05/24/2000 0.00 Primary	SD-021 AQP33 05/26/2000 0.00 Primary	SD-022 AQP23 05/24/2000 0.00 Primary	SD-023 DAMU69 05/23/2000 0.00 Primary	SD-024 DAMV04 05/23/2000 0.00 Primary
Starting Depth	(feet)		0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00	0.00	0.00
Benzaldehyde	(ug/kg)					670 JEB	140 JEB
4-Methylphenol	(ug/kg)					640	950 J
4-Chloroaniline	(ug/kg)						
Acenaphthylene	(ug/kg)		100 J				
Phenanthrene	(ug/kg)	560	330 J	75 J	110 J	180 J	230 J
Anthracene	(ug/kg)	220	90 J				
Fluoranthene	(ug/kg)	750	650	140 J	250 J	220	310
Pyrene	(ug/kg)	490	[720]	140 J	240 J	410 J	[520]
Benzo(a)anthracene	(ug/kg)	320	[410] J	86 J	130 J	180 J	230 J
Chrysene	(ug/kg)	340	[480] J	100 J	160 J	230 J	270
Bis(2-ethylhexyl)phthalate	(ug/kg)	890000	220 J		190 J		
Benzo(b)fluoranthene	(ug/kg)		370 J	91 J	140 J	220 J	210 J
Benzo(k)fluoranthene	(ug/kg)	240	[540] J	92 J	150 J	[250] J	[260] J
Benzo(a)pyrene	(ug/kg)	370	[500] J	110 J	150 J	180 J	230 J
Indeno(1,2,3-cd)pyrene	(ug/kg)	200	[350] J	71 J	100 J		110 J
Dibenzo(a,h)anthracene	(ug/kg)	60	[86] J				
Benzo(g,h,i)perylene	(ug/kg)	170		67 J			

Table 4.1-7
Landfill Area Sediment, SVOC

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft) RESULT TYPE	OME LEL	SD-024 DAMU67 05/23/2000 0.00 Duplicate 1	SD-044 AQP40 06/01/2000 0.00 Primary	SD-045 AQP43 06/01/2000 0.00 Primary
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
Benzaldehyde	(ug/kg)		230 JEB		
4-Methylphenol	(ug/kg)		410 J		
4-Chloroaniline	(ug/kg)				
Acenaphthylene	(ug/kg)				
Phenanthrene	(ug/kg)	560	250 J	240 J	150 J
Anthracene	(ug/kg)	220			
Fluoranthene	(ug/kg)	750	340	500 J	330 J
Pyrene	(ug/kg)	490	[580]	440 J	340 J
Benzo(a)anthracene	(ug/kg)	320	240 J	250 J	170 J
Chrysene	(ug/kg)	340	310	280 J	200 J
Bis(2-ethylhexyl)phthalate	(ug/kg)	890000		170 J	160 J
Benzo(b)fluoranthene	(ug/kg)		230 J	350 J	280 J
Benzo(k)fluoranthene	(ug/kg)	240	200 J	150 J	87 J
Benzo(a)pyrene	(ug/kg)	370	240 J	260 J	200 J
Indeno(1,2,3-cd)pyrene	(ug/kg)	200		170 J	130 J
Dibenzo(a,h)anthracene	(ug/kg)	60			
Benzo(g,h,i)perylene	(ug/kg)	170		[170] J	120 J

Table 4.1-8
Landfill Area Sediment, Metals/Cyanide

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE		SD-008	SD-009	SD-010
	SAMPLE ID	DATE	MAJH42	MAJH46	MAJH43
	DEPTH (ft)	OME LEL	05/24/2000	05/24/2000	05/25/2000
	RESULT TYPE		0.00	0.00	0.00
			Primary	Primary	Primary
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
Aluminum	(mg/kg)		3810	5500	5600
Antimony	(mg/kg)				
Arsenic	(mg/kg)	6			
Barium	(mg/kg)		24.6	22.6	37.8
Beryllium	(mg/kg)				
Cadmium	(mg/kg)	0.6			
Calcium	(mg/kg)		873	1180	1700
Chromium	(mg/kg)	26	4.4	6.4	7.3
Cobalt	(mg/kg)	50	6.5	6.9	8.5
Copper	(mg/kg)	16	[16.1] J	14.2 J	15.8 J
Iron	(mg/kg)		8690	11300	12400
Lead	(mg/kg)	31	10.8	6.2	8.9
Magnesium	(mg/kg)		1660	2440	2740
Manganese	(mg/kg)		498	257	318
Mercury	(mg/kg)				
Nickel	(mg/kg)	16	8.5	11.8	11.2
Potassium	(mg/kg)		119 J	123 J	315 J
Selenium	(mg/kg)				
Silver	(mg/kg)	0.5			
Sodium	(mg/kg)		287	252	281
Thallium	(mg/kg)				
Vanadium	(mg/kg)				7.7 J
Zinc	(mg/kg)	120	34.9	43.4	44.9
Cyanide	(mg/kg)	0.1			

Table 4.1-8
Landfill Area Sediment, Metals/Cyanide

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft) RESULT TYPE	OME LEL	SD-011 MAJH49 05/26/2000 0.00 Primary	SD-012 MAJH50 05/26/2000 0.00 Primary	SD-013 MAJH59 05/31/2000 0.00 Primary
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
Aluminum	(mg/kg)		6260	7550	9530
Antimony	(mg/kg)		1.2 B		
Arsenic	(mg/kg)	6	3.0 B	2.7 B	1.7 J
Barium	(mg/kg)		33.9 BE	30.4 BE	44.2
Beryllium	(mg/kg)		0.25 B	0.22 B	
Cadmium	(mg/kg)	0.6			
Calcium	(mg/kg)		23200 E	8210	2240
Chromium	(mg/kg)	26	14.5	[47.7]	18.1 J
Cobalt	(mg/kg)	50	7.9 B	10.4 B	8.8 J
Copper	(mg/kg)	16	[23.9]	[19.7]	12.0 J
Iron	(mg/kg)		13900	16500	20100
Lead	(mg/kg)	31	21.4 E	21.7 E	10.7
Magnesium	(mg/kg)		3870	3780	4520
Manganese	(mg/kg)		356	533	469 J
Mercury	(mg/kg)		0.47	0.15 B	
Nickel	(mg/kg)	16	15.4 BE	15.3 BE	[19.6]
Potassium	(mg/kg)		342 B	273 B	278
Selenium	(mg/kg)		1.6 B	2.3 B	0.86 J
Silver	(mg/kg)	0.5		0.16 B	
Sodium	(mg/kg)			411 B	362
Thallium	(mg/kg)				
Vanadium	(mg/kg)		9.4 BE	9.5 BE	10.2
Zinc	(mg/kg)	120	43.3 E	80.5 E	77.9 J
Cyanide	(mg/kg)	0.1	[1.0] B		

Table 4.1-8
Landfill Area Sediment, Metals/Cyanide

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE		SD-014	SD-015	SD-016
	SAMPLE ID	DATE	DAMU68	DAMV09	DAMU70
	DEPTH (ft)	OME LEL	05/25/2000	05/25/2000	05/25/2000
	RESULT TYPE		0.00	0.00	0.00
			Primary	Primary	Primary
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
Aluminum	(mg/kg)		12800 J	9140 J	10900 J
Antimony	(mg/kg)				
Arsenic	(mg/kg)	6	[6.3]	3.2	[7.4]
Barium	(mg/kg)		109	52.8	91.8
Beryllium	(mg/kg)		0.57 J	0.41 J	0.56 J
Cadmium	(mg/kg)	0.6	0.49	0.55	[0.64]
Calcium	(mg/kg)		4790 J	6620 J	4280 J
Chromium	(mg/kg)	26	16.6 J	21.3 J	25.1 J
Cobalt	(mg/kg)	50	16.7 J	12.5 J	18.1 J
Copper	(mg/kg)	16	[42.4]	[37.6]	[42.8]
Iron	(mg/kg)		32300 J	19300 J	35700 J
Lead	(mg/kg)	31	22.0	29.1	[31.3]
Magnesium	(mg/kg)		4830	4220	4480
Manganese	(mg/kg)		2790 J	860 J	2720 J
Mercury	(mg/kg)		0.11	0.13	0.18
Nickel	(mg/kg)	16	[26.5]	[25.1]	[27.4]
Potassium	(mg/kg)		651 J		482 J
Selenium	(mg/kg)				
Silver	(mg/kg)	0.5	0.28 J	0.22 J	[0.67] J
Sodium	(mg/kg)				
Thallium	(mg/kg)			0.072 J	0.099
Vanadium	(mg/kg)		11.9	15.4	14.5
Zinc	(mg/kg)	120	102 J	99.9 J	117
Cyanide	(mg/kg)	0.1	[0.38]	[0.28]	[0.39]

Table 4.1-8
Landfill Area Sediment, Metals/Cyanide

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	OME LEL	SD-017 DAMV12 05/24/2000 0.00 Primary	SD-018 DAMV10 05/24/2000 0.00 Primary	SD-019 DAMV11 05/24/2000 0.00 Primary
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
Aluminum	(mg/kg)		11200 J	12900 J	12800 J
Antimony	(mg/kg)				
Arsenic	(mg/kg)	6	4.1	[14.2]	4.6
Barium	(mg/kg)		84.0	93.2	79.1
Beryllium	(mg/kg)		0.36 J	0.61 J	0.44 J
Cadmium	(mg/kg)	0.6	0.35	[0.74]	[3.2]
Calcium	(mg/kg)		5770 J	2970 J	12200 J
Chromium	(mg/kg)	26	13.6 J	22.6 J	[108] J
Cobalt	(mg/kg)	50	9.3 J	17.3 J	11.7 J
Copper	(mg/kg)	16	[33.4]	[45.4]	[52.6]
Iron	(mg/kg)		28700 J	40900 J	29200 J
Lead	(mg/kg)	31	19.1	[31.3]	[49.3]
Magnesium	(mg/kg)		5490	5210	10200
Manganese	(mg/kg)		513 J	984 J	564 J
Mercury	(mg/kg)		0.13	0.15	0.37
Nickel	(mg/kg)	16	[18.6]	[31.3]	[22.5]
Potassium	(mg/kg)		463 J	744 J	826 J
Selenium	(mg/kg)				
Silver	(mg/kg)	0.5	0.38 J	0.43 J	[5.8] J
Sodium	(mg/kg)				
Thallium	(mg/kg)			0.11	0.12
Vanadium	(mg/kg)		9.7	16.2	12.1
Zinc	(mg/kg)	120	75.4 J	[140] J	[135] J
Cyanide	(mg/kg)	0.1	[0.24]	[0.48]	0.054

Table 4.1-8
Landfill Area Sediment, Metals/Cyanide

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	OME LEL	SD-020 MAJH45 05/24/2000 0.00 Primary	SD-021 MAJH54 05/26/2000 0.00 Primary	SD-022 MAJH44 05/24/2000 0.00 Primary
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
Aluminum	(mg/kg)		7810	6670	7000
Antimony	(mg/kg)			0.61 B	
Arsenic	(mg/kg)	6	5.9	3.1 B	5.9
Barium	(mg/kg)		69.0	32.9 BE	62.4
Beryllium	(mg/kg)		0.45	0.23 B	
Cadmium	(mg/kg)	0.6	[1.4]		[3.1]
Calcium	(mg/kg)		10200	3390	8050
Chromium	(mg/kg)	26	[87.4]	14.2	[76.1]
Cobalt	(mg/kg)	50	12.5	8.1 B	10.2
Copper	(mg/kg)	16	[49.5] J	[18.5]	
Iron	(mg/kg)		17800	13800	20800
Lead	(mg/kg)	31	[59.7]	20.9 E	[44.6]
Magnesium	(mg/kg)		7200	3050	5920
Manganese	(mg/kg)		584	352	586
Mercury	(mg/kg)			1.1	
Nickel	(mg/kg)	16	[17.5]	13.3 E	13.8
Potassium	(mg/kg)		626 J	340 B	575 J
Selenium	(mg/kg)			0.78 B	
Silver	(mg/kg)	0.5	[2.8]	0.18 B	[3.3]
Sodium	(mg/kg)		257 J	293 B	275 J
Thallium	(mg/kg)				
Vanadium	(mg/kg)		12.3 J	9.0 BE	12.4 J
Zinc	(mg/kg)	120	[155]	72.6 E	108
Cyanide	(mg/kg)	0.1			

Table 4.1-8
Landfill Area Sediment, Metals/Cyanide

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE		SD-023	SD-024	SD-024
	SAMPLE ID	DATE	DAMU69	DAMV04	DAMU67
	DEPTH (ft)	OME LEL	05/23/2000	05/23/2000	05/23/2000
	RESULT TYPE		0.00	0.00	0.00
			Primary	Primary	Duplicate 1
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
Aluminum	(mg/kg)		9020 J	15900 J	12100 J
Antimony	(mg/kg)				
Arsenic	(mg/kg)	6	5.4	[6.3]	4.8
Barium	(mg/kg)		62.4	97.1	65.6
Beryllium	(mg/kg)		0.44 J	0.62 J	0.46 J
Cadmium	(mg/kg)	0.6	[2.0]	[2.3]	[1.7]
Calcium	(mg/kg)		7480 J	20800 J	11400 J
Chromium	(mg/kg)	26	[77.1] J	[119] J	[90.1] J
Cobalt	(mg/kg)	50	13.2 J	15.4 J	11.0 J
Copper	(mg/kg)	16	[44.4]	[54.5]	[38.9]
Iron	(mg/kg)		20000 J	33400	23400
Lead	(mg/kg)	31	[63.5]	[72.0]	[49.5]
Magnesium	(mg/kg)		5530	13100	8420
Manganese	(mg/kg)		585 J	836 J	602 J
Mercury	(mg/kg)		0.27	0.77	0.26
Nickel	(mg/kg)	16	[26.8]	[30.6]	[22.4]
Potassium	(mg/kg)			1180	897 J
Selenium	(mg/kg)				
Silver	(mg/kg)	0.5	[1.7]	[4.2]	[2.6]
Sodium	(mg/kg)				
Thallium	(mg/kg)		0.12	0.18	0.13
Vanadium	(mg/kg)		16.5	15.2	12.3
Zinc	(mg/kg)	120	[197] J	[191] J	[140] J
Cyanide	(mg/kg)	0.1	[0.45]	[0.30]	[0.40]

Table 4.1-8
Landfill Area Sediment, Metals/Cyanide

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE		SD-044	SD-045
	SAMPLE ID	DATE	MAJH65	MALP62
DEPTH (ft)	OME LEL	06/01/2000	0.00	0.00
RESULT TYPE			Primary	Primary
Starting Depth	(feet)		0.00	0.00
Ending Depth	(feet)		0.00	0.00
Aluminum	(mg/kg)		9770	11300
Antimony	(mg/kg)		1.2 J	1.1 J
Arsenic	(mg/kg)	6	5.5 J	[6.1] J
Barium	(mg/kg)		56.5	68.6
Beryllium	(mg/kg)		0.44 J	0.54 J
Cadmium	(mg/kg)	0.6	0.46 J	0.49 J
Calcium	(mg/kg)		11000	12400
Chromium	(mg/kg)	26	22.2 J	22.5 J
Cobalt	(mg/kg)	50	11.1 J	12.9 J
Copper	(mg/kg)	16	[29.9] J	[33.8] J
Iron	(mg/kg)		21800	25300
Lead	(mg/kg)	31	[34.1]	[37.3]
Magnesium	(mg/kg)		8340	9190
Manganese	(mg/kg)		593 J	756 J
Mercury	(mg/kg)		0.15 J	0.19
Nickel	(mg/kg)	16	[19.7]	[22.6]
Potassium	(mg/kg)		816	920
Selenium	(mg/kg)			1.4 J
Silver	(mg/kg)	0.5		
Sodium	(mg/kg)		361	487
Thallium	(mg/kg)			
Vanadium	(mg/kg)		11.6	13.3
Zinc	(mg/kg)	120	[124] J	[132] J
Cyanide	(mg/kg)	0.1		

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-011	SD-014	SD-015	SD-016	SD-017
	SAMPLE ID	DAMV02	DAMU68	DAMV09	DAMU70	DAMV12
	DATE	05/26/2000	05/25/2000	05/25/2000	05/25/2000	05/23/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	OME LEL					
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00
alpha-BHC	(ug/kg)					
beta-BHC	(ug/kg)					
delta-BHC	(ug/kg)					
gamma-BHC(Lindane)	(ug/kg)				0.89 J	
Heptachlor	(ug/kg)					
Aldrin	(ug/kg)	2				
Dieldrin	(ug/kg)	2		[2.7] J		
4,4'-DDE	(ug/kg)	5		3.4 J	[5.8]	
Endrin	(ug/kg)	3				
4,4'-DDD	(ug/kg)	8				
Endosulfan sulfate	(ug/kg)					
4,4'-DDT	(ug/kg)	7				
Endrin aldehyde	(ug/kg)					
alpha-Chlordane	(ug/kg)				1.1 J	
gamma-Chlordane	(ug/kg)	7	0.82 J	2.3 J	1.8 J	
Aroclor 1242	(ug/kg)					
Aroclor 1254	(ug/kg)					
Dichlorobiphenyls	(ug/kg)					
Trichlorobiphenyls	(ug/kg)					

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-011	SD-014	SD-015	SD-016	SD-017
	SAMPLE ID	DAMV02	DAMU68	DAMV09	DAMU70	DAMV12
	DATE	05/26/2000	05/25/2000	05/25/2000	05/25/2000	05/23/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
	OME LEL					
Tetrachlorobiphenyls	(ug/kg)	9.666		10.528 J	13.456 J	82.168 J
Pentachlorobiphenyls	(ug/kg)			8.51 J	12.848 J	46.97 J
Hexachlorobiphenyls	(ug/kg)			3.384 J		24.774

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID	SD-017 DAMV12	SD-018 DAMV10	SD-018 DAMV10	SD-019 DAMV11	SD-019 DAMV11
	DATE	05/24/2000	05/23/2000	05/24/2000	05/23/2000	05/24/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	OME LEL					
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00
alpha-BHC	(ug/kg)					2.2 J
beta-BHC	(ug/kg)					1.8 J
delta-BHC	(ug/kg)					1.9 J
gamma-BHC(Lindane)	(ug/kg)					
Heptachlor	(ug/kg)					1.8 J
Aldrin	(ug/kg)	2				
Dieldrin	(ug/kg)	2				[4.4] J
4,4'-DDE	(ug/kg)	5	2.9 J	3.1 J		[10] J
Endrin	(ug/kg)	3	2.3 J			
4,4'-DDD	(ug/kg)	8				5.5
Endosulfan sulfate	(ug/kg)					
4,4'-DDT	(ug/kg)	7				
Endrin aldehyde	(ug/kg)					3.9 J
alpha-Chlordane	(ug/kg)		1.8			
gamma-Chlordane	(ug/kg)	7				2.9 J
Aroclor 1242	(ug/kg)					
Aroclor 1254	(ug/kg)					
Dichlorobiphenyls	(ug/kg)				7.953	
Trichlorobiphenyls	(ug/kg)				66.422	

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-017	SD-018	SD-018	SD-019	SD-019
	SAMPLE ID	DAMV12	DAMV10	DAMV10	DAMV11	DAMV11
	DATE	05/24/2000	05/23/2000	05/24/2000	05/23/2000	05/24/2000
	DEPTH (ft)	OME LEL	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
Tetrachlorobiphenyls	(ug/kg)		62.515 J		147.017	
Pentachlorobiphenyls	(ug/kg)		80.301 J		85.71 J	
Hexachlorobiphenyls	(ug/kg)		33.347		17.155	

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID	SD-020 DAMU98	SD-020 AQP24	SD-022 DAMU97	SD-022 AQP23	SD-023 DAMU69
	DATE	05/23/2000	05/24/2000	05/23/2000	05/24/2000	05/23/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	OME LEL					
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00
alpha-BHC	(ug/kg)					
beta-BHC	(ug/kg)					
delta-BHC	(ug/kg)					
gamma-BHC(Lindane)	(ug/kg)					
Heptachlor	(ug/kg)					
Aldrin	(ug/kg)	2	[3.2] J		[5.1] J	
Dieldrin	(ug/kg)	2				
4,4'-DDE	(ug/kg)	5			[6.7] J	
Endrin	(ug/kg)	3				
4,4'-DDD	(ug/kg)	8				
Endosulfan sulfate	(ug/kg)					
4,4'-DDT	(ug/kg)	7				
Endrin aldehyde	(ug/kg)					
alpha-Chlordane	(ug/kg)					
gamma-Chlordane	(ug/kg)	7				
Aroclor 1242	(ug/kg)		120		160	
Aroclor 1254	(ug/kg)		99 J		160 J	
Dichlorobiphenyls	(ug/kg)					13.882 J
Trichlorobiphenyls	(ug/kg)			55.255 J		116.857 J

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-020	SD-020	SD-022	SD-022	SD-023
	SAMPLE ID	DAMU98	AQP24	DAMU97	AQP23	DAMU69
	DATE	05/23/2000	05/24/2000	05/23/2000	05/24/2000	05/23/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	OME LEL					
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary
Tetrachlorobiphenyls	(ug/kg)	9.603 J		73.214 J		166.164 J
Pentachlorobiphenyls	(ug/kg)	5.618 J		43.087 J		224.329 J
Hexachlorobiphenyls	(ug/kg)	3.376 J		13.881 J		27.56 J

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID	SD-023 DAMU69	SD-024 DAMV04	SD-024 DAMU67	SD-024 DAMV04	SD-024 DAMU67
DATE	DATE	DATE	DATE	DATE	DATE	DATE
DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)
OME LEL	OME LEL	OME LEL	OME LEL	OME LEL	OME LEL	OME LEL
RESULT TYPE	RESULT TYPE	RESULT TYPE	RESULT TYPE	RESULT TYPE	RESULT TYPE	RESULT TYPE
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00
alpha-BHC	(ug/kg)	2.2			2.9	2.6 J
beta-BHC	(ug/kg)	1.7 J			2.2 J	
delta-BHC	(ug/kg)				2.7 J	2.1 J
gamma-BHC(Lindane)	(ug/kg)					
Heptachlor	(ug/kg)	1.7 J			2.2 J	2.1 J
Aldrin	(ug/kg)	2				
Dieldrin	(ug/kg)	2	[3.5] J		[3.6] J	[3.4] J
4,4'-DDE	(ug/kg)	5	[11] J		[7.8] J	[7.5] J
Endrin	(ug/kg)	3				
4,4'-DDD	(ug/kg)	8	[8.4]			
Endosulfan sulfate	(ug/kg)	3.6			3.9 J	
4,4'-DDT	(ug/kg)	7				
Endrin aldehyde	(ug/kg)					
alpha-Chlordane	(ug/kg)				0.95 J	0.88 J
gamma-Chlordane	(ug/kg)	7	2.1 J		1.9 J	1.7 J
Aroclor 1242	(ug/kg)					
Aroclor 1254	(ug/kg)					
Dichlorobiphenyls	(ug/kg)		7.537 J	9.197 J		
Trichlorobiphenyls	(ug/kg)		56.593 J	53.138 J		

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-023	SD-024	SD-024	SD-024	SD-024
	SAMPLE ID	DAMU69	DAMV04	DAMU67	DAMV04	DAMU67
	DATE	05/23/2000	05/23/2000	05/23/2000	05/23/2000	05/23/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00
	OME LEL					
	RESULT TYPE	Primary	Primary	Duplicate 1	Primary	Duplicate 1
Tetrachlorobiphenyls	(ug/kg)		78.856 J	76.865 J		
Pentachlorobiphenyls	(ug/kg)		47.398 J	112.808 J		
Hexachlorobiphenyls	(ug/kg)		14.855 J	14.104 J		

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE		SD-044	SD-044	SD-045
	SAMPLE ID		DAMV95	AQP40	DAMW06
	DATE		06/01/2000	06/01/2000	06/01/2000
	DEPTH (ft)	OME LEL	0.00	0.00	0.00
	RESULT TYPE		Primary	Primary	Primary
Starting Depth	(feet)		0.00	0.00	0.00
Ending Depth	(feet)		0.00	0.00	0.00
alpha-BHC	(ug/kg)				
beta-BHC	(ug/kg)				
delta-BHC	(ug/kg)				
gamma-BHC(Lindane)	(ug/kg)				
Heptachlor	(ug/kg)				
Aldrin	(ug/kg)	2			
Dieldrin	(ug/kg)	2			
4,4'-DDE	(ug/kg)	5			
Endrin	(ug/kg)	3			
4,4'-DDD	(ug/kg)	8			
Endosulfan sulfate	(ug/kg)				
4,4'-DDT	(ug/kg)	7		[120]	
Endrin aldehyde	(ug/kg)				
alpha-Chlordane	(ug/kg)				
gamma-Chlordane	(ug/kg)	7			
Aroclor 1242	(ug/kg)				
Aroclor 1254	(ug/kg)				
Dichlorobiphenyls	(ug/kg)				
Trichlorobiphenyls	(ug/kg)				

Table 4.1-9
Landfill Area Sediment, Pesticide/PCB

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-044	SD-044	SD-045
	SAMPLE ID	DAMV95	AQP40	DAMW06
	DATE	06/01/2000	06/01/2000	06/01/2000
	DEPTH (ft)	0.00	0.00	0.00
	OME LEL			
	RESULT TYPE	Primary	Primary	Primary
Tetrachlorobiphenyls	(ug/kg)	19.493 J		
Pentachlorobiphenyls	(ug/kg)	24.848 J		15.131 J
Hexachlorobiphenyls	(ug/kg)	9.585 J		6.489 J

Table 4.1-10
Landfill Area Sediment, Dioxin

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-011	SD-012	SD-013	SD-014
	SAMPLE ID	DAMV02	DAMV03	DAMV85	DAMU68
	DATE	05/26/2000	05/26/2000	05/31/2000	05/25/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00
2,3,7,8-TCDD	(ng/kg)				
1,2,3,7,8-PeCDD	(ng/kg)	0.436 J	1.02 J		0.373 *
1,2,3,4,7,8-HxCDD	(ng/kg)	0.423 J	2.27 J		0.427 *
1,2,3,6,7,8-HxCDD	(ng/kg)	1.12 J	12.0		1.50 *
1,2,3,7,8,9-HxCDD	(ng/kg)	0.766 J	3.97		0.835 *
1,2,3,4,6,7,8-HpCDD	(ng/kg)	15.9	280		27.3
OCDD	(ng/kg)		3480 J		
2,3,7,8-TCDF	(ng/kg)	3.05 J	2.26 J		2.64 J
1,2,3,7,8-PeCDF	(ng/kg)	1.02 J	0.833 *		1.11 J
2,3,4,7,8-PeCDF	(ng/kg)	1.17 J	1.26 J		1.51 J
1,2,3,4,7,8-HxCDF	(ng/kg)	0.964 J	1.62 J		1.50 J
1,2,3,6,7,8-HxCDF	(ng/kg)	0.709 J	1.24 *		1.12 J
2,3,4,6,7,8-HxCDF	(ng/kg)	0.841 J	2.34 J		1.23 J
1,2,3,7,8,9-HxCDF	(ng/kg)				
1,2,3,4,6,7,8-HpCDF	(ng/kg)	4.03	34.6		8.28
1,2,3,4,7,8,9-HpCDF	(ng/kg)	0.382 J	2.59 J		0.707 J
OCDF	(ng/kg)	8.32 J	137		19.1
Total TCDDs	(ng/kg)	7.13 *	4.77 *		2.70 *
Total PeCDDs	(ng/kg)	8.58 J	12.7 *		6.22 *
Total HxCDDs	(ng/kg)	12.1 *	67.2 J	1.39 *	13.7 *
Total HpCDDs	(ng/kg)		536 J		50.2 J
Total TCDFs	(ng/kg)	29.4 *	22.0 *		29.6 *
Total PeCDFs	(ng/kg)	13.1 *	14.7 *	0.203 J	16.6 J
Total HxCDFs	(ng/kg)	8.34 J	35.1 *		13.5 *
Total HpCDFs	(ng/kg)	9.01 J	110 *		18.2 *
Toxicity Equivalency	(ng/kg)	1.85 J	10.5 J		2.3 J

Table 4.1-10
Landfill Area Sediment, Dioxin

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-015	SD-016	SD-017	SD-018
	SAMPLE ID	DAMV09	DAMU70	DAMV12	DAMV10
	DATE	05/25/2000	05/25/2000	05/24/2000	05/24/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00
2,3,7,8-TCDD	(ng/kg)				
1,2,3,7,8-PeCDD	(ng/kg)	0.533 J	0.435 J	0.485 J	0.844 J
1,2,3,4,7,8-HxCDD	(ng/kg)	0.631 J	0.582 J	0.846 J	1.10 J
1,2,3,6,7,8-HxCDD	(ng/kg)	2.31 J	2.56	2.02 J	3.25 J
1,2,3,7,8,9-HxCDD	(ng/kg)	1.19 J	1.33 J	1.47 J	2.73 J
1,2,3,4,6,7,8-HpCDD	(ng/kg)	43.7	57.2	39.2	59.2
OCDD	(ng/kg)	431 J	462 J	271 J	422 J
2,3,7,8-TCDF	(ng/kg)	3.60 J	2.80 J	3.21 J	4.65 J
1,2,3,7,8-PeCDF	(ng/kg)	1.54 J	1.17 J	1.43 J	2.15 J
2,3,4,7,8-PeCDF	(ng/kg)	1.99 J	1.79 J	2.28 J	3.86
1,2,3,4,7,8-HxCDF	(ng/kg)	1.92 J	1.79 J	2.24 J	4.25
1,2,3,6,7,8-HxCDF	(ng/kg)	1.41 J	1.28 J	1.48 J	2.91 J
2,3,4,6,7,8-HxCDF	(ng/kg)	1.55 J	1.60 J	1.90 J	4.04
1,2,3,7,8,9-HxCDF	(ng/kg)			0.429 *	0.841 J
1,2,3,4,6,7,8-HpCDF	(ng/kg)	11.3	13.3	10.7	22.9
1,2,3,4,7,8,9-HpCDF	(ng/kg)	0.867 J	1.05 J	0.955 J	1.76 J
OCDF	(ng/kg)	28.0	38.3 J	22.9 J	45.3
Total TCDDs	(ng/kg)	5.40 *	2.95 *	3.91 *	6.30 *
Total PeCDDs	(ng/kg)	8.96 *	6.33 *	7.58 *	13.0 *
Total HxCDDs	(ng/kg)	19.6 *	20.4 *	20.8 *	31.2 J
Total HpCDDs	(ng/kg)	81.9 J	107 J	75.5 J	108 J
Total TCDFs	(ng/kg)	36.6 J	29.7 *	34.9 *	54.9 *
Total PeCDFs	(ng/kg)	21.0 *	18.7 J	23.2 *	40.8 *
Total HxCDFs	(ng/kg)	17.4 J	19.9 *	19.4 *	37.7 J
Total HpCDFs	(ng/kg)	31.2 J	33.6 J	22.6 *	46.5 J
Toxicity Equivalency	(ng/kg)	3.62 J	3.58 J	3.62 J	6.14 J

Table 4.1-10
Landfill Area Sediment, Dioxin

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-019	SD-020	SD-021	SD-022
	SAMPLE ID	DAMV11	DAMU98	DAMV84	DAMU97
	DATE	05/24/2000	05/24/2000	05/26/2000	05/24/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00
2,3,7,8-TCDD	(ng/kg)	1.04 J			0.762
1,2,3,7,8-PeCDD	(ng/kg)	3.45 J	1.06 J		1.38 *
1,2,3,4,7,8-HxCDD	(ng/kg)	8.43 J	1.91 *		4.05
1,2,3,6,7,8-HxCDD	(ng/kg)	33.9 J	9.03		19.2
1,2,3,7,8,9-HxCDD	(ng/kg)	18.7 J	4.57		9.88
1,2,3,4,6,7,8-HpCDD	(ng/kg)	860 J	188		517
OCDD	(ng/kg)	6780 J	1570 J		4380 J
2,3,7,8-TCDF	(ng/kg)	19.7 J	8.07 J		14.8 J
1,2,3,7,8-PeCDF	(ng/kg)	5.15 J	3.39		4.16
2,3,4,7,8-PeCDF	(ng/kg)	9.20 J	4.90		6.95
1,2,3,4,7,8-HxCDF	(ng/kg)	10.1 J	5.34		6.95
1,2,3,6,7,8-HxCDF	(ng/kg)	8.71 J	6.66	0.0768 J	6.20
2,3,4,6,7,8-HxCDF	(ng/kg)	9.27 J	4.77	0.0540 *	6.56
1,2,3,7,8,9-HxCDF	(ng/kg)	2.08 J	1.27 J		1.67 J
1,2,3,4,6,7,8-HpCDF	(ng/kg)	124 J	51.3		71.9
1,2,3,4,7,8,9-HpCDF	(ng/kg)	8.30 J	3.66		5.54
OCDF	(ng/kg)	409 J	101		211
Total TCDDs	(ng/kg)	25.1 *	6.54 *		14.6 *
Total PeCDDs	(ng/kg)	49.8 *	14.5 *		30.1 *
Total HxCDDs	(ng/kg)	204 J	74.5 *		165 J
Total HpCDDs	(ng/kg)	2520 J	558 *		1010 J
Total TCDFs	(ng/kg)	276 J	99.6 *		185 J
Total PeCDFs	(ng/kg)	122 J	61.0 *		81.9 J
Total HxCDFs	(ng/kg)	159 J	78.4 *		95.8 J
Total HpCDFs	(ng/kg)	387 J	120 J		206 *
Toxicity Equivalency	(ng/kg)	35.8 J	11.4 J	0.00768 J	22.6 J

Table 4.1-10
Landfill Area Sediment, Dioxin

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-023	SD-024	SD-024	SD-044
	SAMPLE ID	DAMU69	DAMV04	DAMU67	DAMV95
	DATE	05/23/2000	05/23/2000	05/23/2000	06/01/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Duplicate 1	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00
2,3,7,8-TCDD	(ng/kg)	0.486 J	0.775 *	0.616 J	
1,2,3,7,8-PeCDD	(ng/kg)	1.50 J	1.45 J	1.16 J	0.756 J
1,2,3,4,7,8-HxCDD	(ng/kg)	2.50 J		2.53 J	1.11 *
1,2,3,6,7,8-HxCDD	(ng/kg)	11.1	16.5	12.1	4.03
1,2,3,7,8,9-HxCDD	(ng/kg)	5.84		5.49	1.99 J
1,2,3,4,6,7,8-HpCDD	(ng/kg)	262	446	303	92.4
OCDD	(ng/kg)	1970 J	3850 J	2600 J	732 J
2,3,7,8-TCDF	(ng/kg)	9.82 J	11.9 J	8.73 J	4.10 J
1,2,3,7,8-PeCDF	(ng/kg)	3.50 J	3.31 J	2.78 J	2.00 J
2,3,4,7,8-PeCDF	(ng/kg)	5.24	6.99	5.64	3.82
1,2,3,4,7,8-HxCDF	(ng/kg)	5.24	6.24	5.17	3.58
1,2,3,6,7,8-HxCDF	(ng/kg)	4.98	4.69	4.03	2.66
2,3,4,6,7,8-HxCDF	(ng/kg)	4.92	5.75	5.25	3.95
1,2,3,7,8,9-HxCDF	(ng/kg)	1.37 J	1.76 J	1.40 J	
1,2,3,4,6,7,8-HpCDF	(ng/kg)	42.9	67.8	63.7	26.8
1,2,3,4,7,8,9-HpCDF	(ng/kg)	3.30 J	5.37	4.36	1.94 J
OCDF	(ng/kg)	104	208	151	61.2
Total TCDDs	(ng/kg)	14.5 *	12.8 *	11.7 *	6.67 *
Total PeCDDs	(ng/kg)	24.7 *	19.0 *	15.1 *	13.2 *
Total HxCDDs	(ng/kg)	104 *	99.9 *	85.4 *	31.7 *
Total HpCDDs	(ng/kg)	499 J	831 J	571 J	168 J
Total TCDFs	(ng/kg)	131 *	144 *	109 *	58.6 *
Total PeCDFs	(ng/kg)	65.7 J	73.7 *	64.4 *	41.3 J
Total HxCDFs	(ng/kg)	68.3 J	81.9 J	78.8 J	35.8 J
Total HpCDFs	(ng/kg)	114 J	210 J	178 J	59.6 *
Toxicity Equivalency	(ng/kg)	13.8 J	19.1 J	15.1 J	6.54 J

Table 4.1-10
Landfill Area Sediment, Dioxin

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-045
	SAMPLE ID	DAMW06
	DATE	06/01/2000
	DEPTH (ft)	0.00
	RESULT TYPE	Primary
Starting Depth	(feet)	0.00
Ending Depth	(feet)	0.00
2,3,7,8-TCDD	(ng/kg)	
1,2,3,7,8-PeCDD	(ng/kg)	
1,2,3,4,7,8-HxCDD	(ng/kg)	
1,2,3,6,7,8-HxCDD	(ng/kg)	
1,2,3,7,8,9-HxCDD	(ng/kg)	
1,2,3,4,6,7,8-HpCDD	(ng/kg)	
OCDD	(ng/kg)	
2,3,7,8-TCDF	(ng/kg)	
1,2,3,7,8-PeCDF	(ng/kg)	
2,3,4,7,8-PeCDF	(ng/kg)	
1,2,3,4,7,8-HxCDF	(ng/kg)	
1,2,3,6,7,8-HxCDF	(ng/kg)	
2,3,4,6,7,8-HxCDF	(ng/kg)	
1,2,3,7,8,9-HxCDF	(ng/kg)	
1,2,3,4,6,7,8-HpCDF	(ng/kg)	1.60 J
1,2,3,4,7,8,9-HpCDF	(ng/kg)	
OCDF	(ng/kg)	
Total TCDDs	(ng/kg)	
Total PeCDDs	(ng/kg)	
Total HxCDDs	(ng/kg)	
Total HpCDDs	(ng/kg)	
Total TCDFs	(ng/kg)	
Total PeCDFs	(ng/kg)	0.467 J
Total HxCDFs	(ng/kg)	
Total HpCDFs	(ng/kg)	
Toxicity Equivalency	(ng/kg)	0.016 J

Table 4.1-11
 Landfill Area Sediment, TOC/TCO/Percent Moisture

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-008	SD-009	SD-010	SD-011	SD-012	SD-013
	SAMPLE ID	DAMU95	DAMU99	DAMU96	DAMV02	DAMV03	DAMV85
	DATE	05/24/2000	05/24/2000	05/25/2000	05/26/2000	05/26/2000	05/31/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00	0.00
Percent Moisture (ave.)	(%)	17.15	19.45	24.75	67	50.5	36.85
TOC (ave.)	(mg/kg)	3810 J	19500 J	8200 J	93600 J	63800 J	27000 J
Total Combust.Organics (ave.)	(mg/kg)	35600	42000	32150	21500	119000	65800

Table 4.1-11
 Landfill Area Sediment, TOC/TCO/Percent Moisture

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive
 SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-014	SD-015	SD-016	SD-017	SD-018	SD-019
	SAMPLE ID	DAMU68	DAMV09	DAMU70	DAMV12	DAMV10	DAMV11
	DATE	05/25/2000	05/25/2000	05/25/2000	05/24/2000	05/24/2000	05/24/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary	Primary	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00	0.00
Percent Moisture (ave.)	(%)	63.45	64.6	65.65	69.1	38.2	56.95
TOC (ave.)	(mg/kg)	66000 J	55600 J	48400 J	74500 J	33500 J	55000 J
Total Combust.Organics (ave.)	(mg/kg)	46150	32550	156000	34550	169500	120000

Table 4.1-11
 Landfill Area Sediment, TOC/TCO/Percent Moisture

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive
 SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-020	SD-022	SD-023	SD-024	SD-024	SD-044
	SAMPLE ID	DAMU98	DAMU97	DAMU69	DAMV04	DAMU67	DAMV95
	DATE	05/24/2000	05/24/2000	05/23/2000	05/23/2000	05/23/2000	06/01/2000
	DEPTH (ft)	0.00	0.00	0.00	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Primary	Primary	Duplicate 1	Primary
Starting Depth	(feet)	0.00	0.00	0.00	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00	0.00	0.00	0.00
Percent Moisture (ave.)	(%)	48.75	55.75	66.85	51.5	54.3	45.4
TOC (ave.)	(mg/kg)	40100 J	36900 J	85000 J	38600 J	40200 J	34400 J
Total Combust.Organics (ave.)	(mg/kg)	105000	111500	177000	102500	110500	90900

Table 4.1-11
 Landfill Area Sediment, TOC/TCO/Percent Moisture

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-045
	SAMPLE ID	DAMW06
	DATE	06/01/2000
	DEPTH (ft)	0.00
	RESULT TYPE	Primary
Starting Depth	(feet)	0.00
Ending Depth	(feet)	0.00
Percent Moisture (ave.)	(%)	39.95
TOC (ave.)	(mg/kg)	32900 J
Total Combust.Organics (ave.)	(mg/kg)	86750

Table 4.1-12
Landfill Area Sediment, AVS/SEM

PERIOD: From 05/10/2000 thru 06/01/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-020	SD-024	SD-024
	SAMPLE ID	DAMU98	DAMV04	DAMU67
	DATE	05/24/2000	05/23/2000	05/23/2000
	DEPTH (ft)	0.00	0.00	0.00
	RESULT TYPE	Primary	Primary	Duplicate 1
Starting Depth	(feet)	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00
Cadmium	(umo/g)	0.0060	0.0070	0.010
Copper	(umo/g)	0.14	0.25	0.12
Lead	(umo/g)	0.11	0.14	0.18
SEM/AVS Ratio		0.27 J	0.13 J	0.08 J
Sulfide, Acid Volatile/sem	(umo/g)	3.8 J	11 J	24 J
Zinc	(umo/g)	0.75	1.1	1.5

Table 4.2-1
Former Tannery Building Area Soils, VOC

PERIOD: From 04/05/2000 thru 04/18/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	MW-110R
	SAMPLE ID	DAMT17
	DATE	04/18/2000
	DEPTH (ft)	4.50
Starting Depth	(feet)	3.00
Ending Depth	(feet)	6.00
Carbon disulfide	(ug/kg)	8 J

Table 4.2-2
Former Tannery Building Area Soils, SVOC

PERIOD: From 04/05/2000 thru 04/18/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	MW-110R
	SAMPLE ID	AQN88
	DATE	04/18/2000
	DEPTH (ft)	4.50
Starting Depth	(feet)	3.00
Ending Depth	(feet)	6.00
Phenanthrene	(ug/kg)	5500 J
Anthracene	(ug/kg)	2000 J
Fluoranthene	(ug/kg)	19000 J
Pyrene	(ug/kg)	15000 J
Benzo(a)anthracene	(ug/kg)	10000 J
Chrysene	(ug/kg)	10000 J
Benzo(b)fluoranthene	(ug/kg)	8900 J
Benzo(k)fluoranthene	(ug/kg)	8000 J
Benzo(a)pyrene	(ug/kg)	9400 J
Indeno(1,2,3-cd)pyrene	(ug/kg)	5100 J
Dibenzo(a,h)anthracene	(ug/kg)	1900 J
Benzo(g,h,i)perylene	(ug/kg)	5900 J

Table 4.2-3
Former Tannery Building Area Soils, Metals/Cyanide

PERIOD: From 04/05/2000 thru 04/18/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	MW-110R
	SAMPLE ID	MALS13
	DATE	04/18/2000
	DEPTH (ft)	4.50
Starting Depth	(feet)	3.00
Ending Depth	(feet)	6.00
Aluminum	(mg/kg)	4540
Antimony	(mg/kg)	1.4
Arsenic	(mg/kg)	8.0 J
Barium	(mg/kg)	48.3
Calcium	(mg/kg)	21100
Chromium	(mg/kg)	271
Cobalt	(mg/kg)	5.8
Copper	(mg/kg)	37.9 J
Iron	(mg/kg)	16300
Lead	(mg/kg)	31.1
Magnesium	(mg/kg)	6950
Manganese	(mg/kg)	239 J
Mercury	(mg/kg)	0.20 J
Nickel	(mg/kg)	19.0
Potassium	(mg/kg)	386
Selenium	(mg/kg)	0.60 J
Silver	(mg/kg)	1.3
Vanadium	(mg/kg)	57.3 J
Zinc	(mg/kg)	111

Table 4.2-4
 Former Tannery Building Area Ground Water, VOC

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-110R DAMU34 DATE 05/12/2000 RESULT TYPE Primary	MW-110R DAMZ82 DATE 08/01/2000 RESULT TYPE Primary	MW-110R D00436 DATE 10/03/2000 RESULT TYPE Primary	MW-110R D00780 DATE 12/12/2000 RESULT TYPE Primary	MW-110U DAMU33 DATE 05/16/2000 RESULT TYPE Primary
Acetone	(ug/l)		4 B	2.6 J		2.8 J	3 B
Methylene chloride	(ug/l)	5	1				3
Methyl tert-butyl ether	(ug/l)		1	1.4	1.4 J	3.0	0.8 J
Methylcyclohexane	(ug/l)		0.5 J				
Toluene	(ug/l)	1000					2
Ethylbenzene	(ug/l)	700					1
Xylene (total)	(ug/l)	10000					5
Isopropylbenzene	(ug/l)		16	5.9	1.6 J	1.0	1

Table 4.2-4
 Former Tannery Building Area Ground Water, VOC

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-110U DAMZ84 08/08/2000 Primary	MW-110U D00775 12/15/2000 Primary	MW-111U DAMU35 05/11/2000 Primary	MW-111U DAMU36 05/11/2000 Duplicate 1	MW-111U D00777 12/11/2000 Primary
Acetone	(ug/l)			3.7 J	3 B	4 B	
Methylene chloride	(ug/l)	5	[15]	1.2			
Methyl tert-butyl ether	(ug/l)						
Methylcyclohexane	(ug/l)						
Toluene	(ug/l)	1000					0.6 J
Ethylbenzene	(ug/l)	700		0.52 J			
Xylene (total)	(ug/l)	10000	1.3	1.2			
Isopropylbenzene	(ug/l)		0.96 J	1.1			

Table 4.2-4
 Former Tannery Building Area Ground Water, VOC

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-113R D00779
	DATE		12/14/2000
	RESULT TYPE		Primary
Acetone	(ug/l)		5.1
Methylene chloride	(ug/l)	5	1.5
Methyl tert-butyl ether	(ug/l)		
Methylcyclohexane	(ug/l)		
Toluene	(ug/l)	1000	
Ethylbenzene	(ug/l)	700	
Xylene (total)	(ug/l)	10000	
Isopropylbenzene	(ug/l)		

Table 4.2-5
 Former Tannery Building Area Ground Water, SVOC

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-110R DAMU34	MW-110R D00436	MW-110R D00780	MW-110U DAMU33	MW-110U DAMZ84
	DATE		05/12/2000	10/03/2000	12/12/2000	05/16/2000	08/08/2000
	RESULT TYPE		Primary	Primary	Primary	Primary	Primary
4-Methylphenol	(ug/l)				7		
Naphthalene	(ug/l)						
Pentachlorophenol	(ug/l)	1					[1] J
Bis(2-ethylhexyl)phthalate	(ug/l)	6	0.6 J	1 J		0.6 JB	

Table 4.2-5
 Former Tannery Building Area Ground Water, SVOC

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-110U D00437	MW-110U D00775	MW-111U DAMU36
	DATE		10/02/2000	12/15/2000	05/11/2000
	RESULT TYPE		Primary	Primary	Duplicate 1
4-Methylphenol	(ug/l)				
Naphthalene	(ug/l)			1 J	
Pentachlorophenol	(ug/l)	1	0.9 J		
Bis(2-ethylhexyl)phthalate	(ug/l)	6			0.5 J

Table 4.2-6
Former Tannery Building Area Ground Water, Metals/Cyanide

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-110R DAMU34 05/12/2000 Primary	MW-110R DAMZ82 08/01/2000 Primary	MW-110R D00436 10/03/2000 Primary	MW-110R D00780 12/12/2000 Primary	MW-110U DAMU33 05/16/2000 Primary
	DATE RESULT TYPE						
Aluminum	(ug/l)		660	847.	814 E*	1370 E*	154
Antimony	(ug/l)	6	1.5 B				1.6 B
Arsenic	(ug/l)	10	4.4	4.8	5.4	7.1	0.76 B
Barium	(ug/l)	2000	112	120.	124	162	48.4 B
Cadmium	(ug/l)	5					0.17 B
Calcium	(ug/l)		63300	63500	69700	74300	57400
Chromium	(ug/l)	100		3.3	2.3 B	4.9 B	
Cobalt	(ug/l)			0.86 B	0.68 B	1.5 B	
Copper	(ug/l)	1300	7.4	18.8	8.9	28.3	4.1 B
Iron	(ug/l)		1440	2410	2630	3400	40.5
Lead	(ug/l)	15		0.93	0.85 B	2.1 B	
Magnesium	(ug/l)		16800	16100	18100	19100	9350
Manganese	(ug/l)		1480	1500	1770 *	1990	346
Nickel	(ug/l)			2.5 B	3.6 B	5.6 B	
Potassium	(ug/l)		3890	4780	2880	2550	4900
Selenium	(ug/l)	50	1.6 N		1.7 B		0.91 BN
Silver	(ug/l)				0.17 B	0.17 B	
Sodium	(ug/l)		60400	106000	129000 N	135000	47500
Vanadium	(ug/l)			0.50 B		1.4 B	
Zinc	(ug/l)		8.5	10.0	21.9	7.9 B	
Cyanide	(ug/l)	200				4.4 B	

Table 4.2-6
Former Tannery Building Area Ground Water, Metals/Cyanide

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-110U DAMZ84 08/08/2000 Primary	MW-110U D00437 10/02/2000 Primary	MW-110U D00775 12/15/2000 Primary	MW-111U DAMU35 05/11/2000 Primary	MW-111U DAMU36 05/11/2000 Duplicate 1
	DATE RESULT TYPE						
Aluminum	(ug/l)		54.7	130 E*	25.7	18.6 B	24.2 B
Antimony	(ug/l)	6	1.4 B	0.96 B		1.6 B	2.4 B
Arsenic	(ug/l)	10	1.3 B	2.4	2.6	0.70 B	0.47 B
Barium	(ug/l)	2000	116.	114	134	43.3 B	46.6 B
Cadmium	(ug/l)	5		0.22	0.15 B		
Calcium	(ug/l)		110000	119000	140000	46400	50200
Chromium	(ug/l)	100	1.2 B	2.3 B	2.9 B		
Cobalt	(ug/l)		0.52 B	0.91 B	0.94 B		
Copper	(ug/l)	1300	4.2 B	14.1	14.0		
Iron	(ug/l)		48.3	661	471	1570	1760
Lead	(ug/l)	15		0.67 B			
Magnesium	(ug/l)		19200	23000	28000	13600	14500
Manganese	(ug/l)		1040	1500 *	1080	671	712
Nickel	(ug/l)		1.6 B	6.5 B	6.9 B		
Potassium	(ug/l)		25500	13600	13200	1300	1420
Selenium	(ug/l)	50		2.0 B	1.5 B	0.80 BN	0.82 BN
Silver	(ug/l)				0.77 B		
Sodium	(ug/l)		69400	276000 N	330000	36500	38000
Vanadium	(ug/l)		0.22 B	1.3 B	1.1 B		
Zinc	(ug/l)		3.3 B	16.6 B			5.7
Cyanide	(ug/l)	200					

Table 4.2-6
Former Tannery Building Area Ground Water, Metals/Cyanide

PERIOD: From 05/11/2000 thru 12/15/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	MCL	MW-111U DAMZ79 08/01/2000 Primary	MW-111U D00438 09/27/2000 Primary	MW-111U D00777 12/11/2000 Primary	MW-113R D00452 10/04/2000 Primary	MW-113R D00779 12/14/2000 Primary
	DATE						
	RESULT TYPE						
Aluminum	(ug/l)		107.		245 E*	56.4 E*	70.4
Antimony	(ug/l)	6	0.50 B				
Arsenic	(ug/l)	10	0.65 B		0.54	[58.4]	[54.2]
Barium	(ug/l)	2000	39.5 B	57.2 J	42.7	253	278
Cadmium	(ug/l)	5					0.14 B
Calcium	(ug/l)		42500	61100	51700	114000	112000
Chromium	(ug/l)	100	0.38 B			1.1 B	2.0 B
Cobalt	(ug/l)		0.24 B		0.40 B	0.59 B	0.81 B
Copper	(ug/l)	1300	0.49 B		2.7	1.7 B	4.9
Iron	(ug/l)		913.	1370	975	1190	1520
Lead	(ug/l)	15		1.6 J*	2.0 B	0.23 B	8.1
Magnesium	(ug/l)		11500	16900	14300	18600	17100
Manganese	(ug/l)		368.		369	1310 *	2150
Nickel	(ug/l)		0.75 B		2.6 B	4.8 B	5.1 B
Potassium	(ug/l)		1570	1330	1010	1520	1740
Selenium	(ug/l)	50					
Silver	(ug/l)				0.26 B		0.58 B
Sodium	(ug/l)		42100	61800 J	45800	29000 N	28300
Vanadium	(ug/l)						
Zinc	(ug/l)		3.0 B		7.7 B		23.5 N
Cyanide	(ug/l)	200					

Table 4.2-7
Former Tannery Building Area Surface Water, Metals/Cyanide

PERIOD: From 09/26/2000 thru 09/26/2000 - Inclusive
SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID	National Water Quality Crit.	OF-1 MALT22 09/26/2000 Primary	OF-1 MALT23 09/26/2000 Duplicate 1
	DATE RESULT TYPE	Chronic		
Aluminum	(ug/l)	87	[89.7] B	[88.1] B
Barium	(ug/l)	4	[43.4] B	[44.1] B
Beryllium	(ug/l)	0.66	0.19 B	
Calcium	(ug/l)		71500	74800
Chromium	(ug/l)		1.2 B	1.0 B
Copper	(ug/l)		4.4 B	4.8 B
Iron	(ug/l)	1000	137	132
Magnesium	(ug/l)		10600	11000
Manganese	(ug/l)	120	6.3 BE	6.4 BE
Mercury	(ug/l)		0.11 B	1.8
Nickel	(ug/l)		2.5 B	
Potassium	(ug/l)		4040 BE	4170 BE
Sodium	(ug/l)		66900	69600
Vanadium	(ug/l)	20	1.0 B	1.1 B
Zinc	(ug/l)		6.2 B	8.2 B

Table 4.2-8
Former Tannery Building Area Sediment, VOC

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID	OME LEL	SD-028 DAMU89	SD-029 DAMU88
	DATE		05/22/2000	05/22/2000
	DEPTH (ft)		0.00	0.00
Starting Depth	(feet)		0.00	0.00
Ending Depth	(feet)		0.00	0.00
Acetone	(ug/kg)	8.7	4 JB	4 JB
Methylene chloride	(ug/kg)	370	3 JB	3 JB

Table 4.2-9
Former Tannery Building Area Sediment, SVOC

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID	OME LEL	SD-028 AQP18 DATE 05/22/2000 DEPTH (ft) 0.00	SD-029 AQP17 DATE 05/22/2000 DEPTH (ft) 0.00
Starting Depth	(feet)		0.00	0.00
Ending Depth	(feet)		0.00	0.00
Acenaphthene	(ug/kg)	1300	150 J	
Dibenzofuran	(ug/kg)	420	69 J	
Fluorene	(ug/kg)	190	130 J	
Phenanthrene	(ug/kg)	560	[1000]	360 J
Anthracene	(ug/kg)	220	[260] J	80 J
Carbazole	(ug/kg)		130 J	53 J
Fluoranthene	(ug/kg)	750	[1300]	500
Pyrene	(ug/kg)	490	[1000]	410 J
Benzo(a)anthracene	(ug/kg)	320	[650]	240 J
Chrysene	(ug/kg)	340	[660]	260 J
Bis(2-ethylhexyl)phthalate	(ug/kg)	890000	120 J	58 J
Benzo(b)fluoranthene	(ug/kg)		540	270 J
Benzo(k)fluoranthene	(ug/kg)	240	[610]	220 J
Benzo(a)pyrene	(ug/kg)	370	[540]	260 J
Indeno(1,2,3-cd)pyrene	(ug/kg)	200	[350] J	150 J
Dibenzo(a,h)anthracene	(ug/kg)	60	[190] J	[64] J

Table 4.2-10
Former Tannery Building Area Sediment, Metals/Cyanide

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	OME LEL	SD-028	SD-029
	SAMPLE ID		MAJH39	MAJH38
	DATE		05/22/2000	05/22/2000
	DEPTH (ft)		0.00	0.00
Starting Depth	(feet)		0.00	0.00
Ending Depth	(feet)		0.00	0.00
Aluminum	(mg/kg)		3290	1930
Barium	(mg/kg)		11.6	10.7
Calcium	(mg/kg)		2810	3540
Chromium	(mg/kg)	26	13.0	9.2
Cobalt	(mg/kg)	50	4.5	3.6
Copper	(mg/kg)	16	8.9 J	8.0 J
Iron	(mg/kg)		9930	5310
Lead	(mg/kg)	31	10.6	11.5
Magnesium	(mg/kg)		2480	2390
Manganese	(mg/kg)		171	128
Nickel	(mg/kg)	16	8.1	4.6
Potassium	(mg/kg)		213 J	165 J
Sodium	(mg/kg)		198 J	224
Zinc	(mg/kg)	120	51.4	46.8

Table 4.2-11
Former Tannery Building Area Sediment, Pesticide/PCB

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-028	SD-028	SD-029
	SAMPLE ID	DAMU89	AQP18	DAMU88
	DATE	05/22/2000	05/22/2000	05/22/2000
	DEPTH (ft)	0.00	0.00	0.00
Starting Depth	(feet)	0.00	0.00	0.00
Ending Depth	(feet)	0.00	0.00	0.00
Methoxychlor	(ug/kg)		26 J	
Tetrachlorobiphenyls	(ug/kg)			7.127
Pentachlorobiphenyls	(ug/kg)	6.482		7.932

Table 4.2-12
Former Tannery Building Area Sediment, Dioxin

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE SAMPLE ID DATE DEPTH (ft)	SD-028 DAMU89 05/22/2000 0.00	SD-029 DAMU88 05/22/2000 0.00
Starting Depth	(feet)	0.00	0.00
Ending Depth	(feet)	0.00	0.00
1,2,3,4,7,8-HxCDD	(ng/kg)	0.411 J	0.197 J
1,2,3,6,7,8-HxCDD	(ng/kg)	1.84 J	1.00 J
1,2,3,7,8,9-HxCDD	(ng/kg)	0.995 J	0.511 J
1,2,3,4,6,7,8-HpCDD	(ng/kg)	44.7	26.3
OCDD	(ng/kg)	343 EB	246 EB
2,3,7,8-TCDF	(ng/kg)		1.08 J
2,3,4,7,8-PeCDF	(ng/kg)	0.413 J	0.530 J
1,2,3,4,7,8-HxCDF	(ng/kg)	0.453 J	0.461 J
1,2,3,6,7,8-HxCDF	(ng/kg)	0.371 J	0.340 J
2,3,4,6,7,8-HxCDF	(ng/kg)	0.512 J	0.394 J
1,2,3,4,6,7,8-HpCDF	(ng/kg)	8.47	4.67
1,2,3,4,7,8,9-HpCDF	(ng/kg)	0.463 J	0.337 J
OCDF	(ng/kg)	24.1	13.2
Total TCDDs	(ng/kg)	2.01 *	2.11 *
Total PeCDDs	(ng/kg)	3.41 *	2.02 *
Total HxCDDs	(ng/kg)	13.6 *	7.84 *
Total HpCDDs	(ng/kg)	81.1 J	52.7 J
Total TCDFs	(ng/kg)	7.47 *	11.9 *
Total PeCDFs	(ng/kg)	4.96 *	5.70 *

Table 4.2-12
Former Tannery Building Area Sediment, Dioxin

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-028	SD-029
	SAMPLE ID	DAMU89	DAMU88
	DATE	05/22/2000	05/22/2000
	DEPTH (ft)	0.00	0.00
Total HxCDFs	(ng/kg)	9.48 *	6.36 *
Total HpCDFs	(ng/kg)	25.3 J	14.2 J
Toxicity Equivalency	(ng/kg)	1.57 J	1.24 J

Table 4.2-13
Former Tannery Building Area Sediment, AVS/SEM

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive
SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-029
	SAMPLE ID	DAMU88
	DATE	05/22/2000
	DEPTH (ft)	0.00
Starting Depth	(feet)	0.00
Ending Depth	(feet)	0.00
Copper	(umo/g)	0.070
Lead	(umo/g)	0.040
SEM/AVS Ratio		>3.9 J
Zinc	(umo/g)	0.48

Table 4.2-14
 Former Tannery Building Area Sediment,
 TOC, TCO, Percent Moisture

PERIOD: From 05/22/2000 thru 05/22/2000 - Inclusive
 SAMPLE TYPE: Soil

CONSTITUENT	SITE	SD-028	SD-029
	SAMPLE ID	DAMU89	DAMU88
	DATE	05/22/2000	05/22/2000
	DEPTH (ft)	0.00	0.00
Starting Depth	(feet)	0.00	0.00
Ending Depth	(feet)	0.00	0.00
Percent Moisture (ave.)	(%)	19.8	23.0
TOC (ave.)	(mg/kg)	5000 J	9350 J
Total Combust.Organics (ave.)	(mg/kg)	26050	28050