

# SDMS US EPA Region V

## Imagery Insert Form

Document ID:

167734

Some images in this document may be illegible or unavailable in SDMS. Please see reason(s) indicated below:

X

Illegible due to bad source documents. Image(s) in SDMS is equivalent to hard copy.

Specify Type of Document(s) / Comments:

APPENDIX C - WELL LOG & DRILLING REPORTS ; APPENDIX G - BILL OF LADING

X

Includes  X  COLOR or  X  RESOLUTION variations.

Unless otherwise noted, these pages are available in monochrome. The source document page(s) is more legible than the images. The original document is available for viewing at the Superfund Records Center.

Specify Type of Document(s) / Comments:

APPENDIX B - SITE PHOTOGRAPHIC LOG

Confidential Business Information (CBI).

This document contains highly sensitive information. Due to confidentiality, materials with such information are not available in SDMS. You may contact the EPA Superfund Records Manager if you wish to view this document.

Specify Type of Document(s) / Comments:

[Empty box for specifying document type or comments]

Unscannable Material:

Oversized \_\_\_\_ or \_\_\_\_ Format.

Due to certain scanning equipment capability limitations, the document page(s) is not available in SDMS. The original document is available for viewing at the Superfund Records center.

Specify Type of Document(s) / Comments:

[Empty box for specifying document type or comments]

Document is available at the EPA Region 5 Records Center.

Specify Type of Document(s) / Comments:

[Empty box for specifying document type or comments]

CISLER

0000044

167734

RECEIVED  
NOV 27 1996  
SOUTH DAYTON DISTRICT

INSTALLATION OF GROUNDWATER  
MONITORING WELLS AT THE  
SOUTH DAYTON DUMP, MORaine, OHIO

MOBILIZATION ORDER NO. 557-01

**INSTALLATION OF GROUNDWATER  
MONITORING WELLS AT THE  
SOUTH DAYTON DUMP, MORaine, OHIO**

**MOBILIZATION ORDER NO. 557-01**

*Submitted to:*

**Ohio Environmental Protection Agency  
Division of Emergency and Remedial Response  
Southwest District Office  
401 E. Fifth Street  
Dayton, Ohio 45402-2911**

*Prepared by:*

**PSARA Technologies, Inc.  
10925 Reed Hartman Highway  
Suite 220  
Cincinnati, Ohio 45242**

June 1996  
Project No. 60003.06

## TABLE OF CONTENTS

| Section | Title  | Page |
|---------|--|------|
| 1.0     | Introduction.....                                | 1    |
| 2.0     | Site Investigation.....                          | 3    |
| 2.1     | Historical Review .....                          | 3    |
| 2.2     | Review of Aerial Photographs.....                | 4    |
| 2.3     | Exploratory Borings .....                        | 5    |
| 2.4     | Monitoring Well Installations.....               | 9    |
| 3.0     | Summary of Findings.....                         | 12   |
| 3.1     | Local and Regional Geology and Hydrogeology..... | 12   |
| 3.2     | Soil Sampling Results.....                       | 13   |
| 3.3     | Groundwater Sampling Results .....               | 13   |
| 3.4     | Quality Control Sample Results .....             | 14   |
| 3.5     | Groundwater Flow.....                            | 15   |
| 3.6     | Management of Investigation-derived Wastes.....  | 15   |
| 4.0     | Variances.....                                   | 16   |
| 4.1     | Scope of Work.....                               | 16   |
| 4.2     | Field Sampling Procedures .....                  | 16   |
| 4.3     | Sample Custody.....                              | 17   |
| 4.4     | Laboratory .....                                 | 17   |
| 4.5     | Data Validation.....                             | 17   |
| 5.0     | Residuals Management.....                        | 18   |
| 6.0     | References .....                                 | 18   |

### List of Tables

- 1 Headspace Screening Results
- 2 Groundwater Sample Locations
- 3 Groundwater Analytical Results
- 4 Quality Control Sample Analytical Results
- 5 Groundwater Elevation Data

### List of Figures

- 1 Site Location Map
- 2 Site Layout Map
- 3 Exploratory Boring Locations
- 4 Monitoring Well Locations
- 5 Groundwater Analytical Results
- 6 Groundwater Flow Map

**TABLE OF CONTENTS**  
**(continued)**

| <b>Section</b>    | <b>Title</b>                              | <b>Page</b> |
|-------------------|---|-------------|
| <b>Appendices</b> |   |             |
| A                 | Soil Boring Logs                          |             |
| B                 | Well Construction Diagrams                |             |
| C                 | ODNR Well Logs and Drilling Reports       |             |
| D                 | Well Development Logs                     |             |
| E                 | Groundwater Analytical Report             |             |
| F                 | Quality Control Sample Analytical Reports |             |
| G                 | Bill of Lading                            |             |

## 1.0 INTRODUCTION

The South Dayton Dump (also referred to as the South Dayton Landfill or Moraine Recycling) is a 30-acre site located just south of Dayton, Ohio. Figure 1 presents a portion of a U. S. Geological Survey (USGS) topographic map of South Dayton showing the location of the site.

A previous investigation conducted at the South Dayton Dump determined that volatile organic compounds (VOCs) and metals are present in soils at levels above background. The OEPA is performing Site Team Evaluations and Prioritizations (STEPS) at the site pursuant to a Cooperative Agreement with the U.S. Environmental Protection Agency (USEPA). The OEPA, Southwest District Office, issued Mobilization Order No. 557-01 to PSARA Technologies, Inc., under a current level-of-effort (LOE) contract to install exploratory soil borings and groundwater monitoring wells at the site. The primary work product of the mobilization order was the installation of four monitoring wells, which will be used by OEPA to evaluate groundwater quality at the site.

As originally issued, the objectives of the mobilization order were to delineate the extent of the fill at the site and to install groundwater monitoring wells outside the extent of fill material but still within the estimated groundwater contaminant plume. Tasks proposed to define the extent of fill material (geophysical survey) were subsequently deleted from the Scope of Work due to budget limitations, and the final scope was reduced to installation of the four monitoring wells for OEPA use. Exploratory borings were conducted prior to installing the wells to provide information on the extent of fill, soil geology, and hydrogeology so that the wells could be placed in locations that would meet OEPA needs.

The work was conducted in accordance with previously submitted and approved documents including the following:

- Final Work Plan (PSARA 1996a)
- Site-specific Quality Assurance Project Plan (QAPP) (PSARA 1996b)
- Site-specific Health and Safety Plan (HASP) (PSARA 1996c)
- Site-specific Sampling and Analysis Plan (SAP, included in the QAPP)
- Generic QAPP for the LOE contract (PSARA 1993)

This report describes the activities surrounding the installation of the groundwater monitoring wells at the South Dayton Dump Site and the associated findings. Section 2 describes the site investigation activities, including a review of existing information and aerial photographs, installation and sampling of the exploratory borings, and installation of the monitoring wells. Section 3 presents a summary of the findings. Section 4 briefly describes variances from the approved Work Plan. Finally, Section 5 presents references.

## 2.0 SITE INVESTIGATION

### 2.1 HISTORICAL REVIEW

The South Dayton Dump is approximately a 30-acre site located at 1976 Springboro Road in Moraine, Ohio. It began accepting wastes in 1941 and operated as a licensed sanitary landfill until 1986. The South Dayton Dump accepted construction and demolition debris until it closed in early 1996.

According to Schmidt, 1986, the site overlies glacial outwash comprising mainly sand and gravel. Groundwater in the vicinity of the site flows west/southwest toward the Great Miami River. The depth to groundwater is approximately 20 to 45 feet below ground surface. The Great Miami River is located about 350 feet west of the site, and a water-filled gravel pit borders the site on its southwest side. A small wetland also exists on site.

OEPA files indicate that the South Dayton Dump accepted wastes including 1,1,1-trichloroethane; 2-butanone; xylenes; cutting oils; paint; Stoddard solvents; machine tool water-based coolants contaminated with cutting oils and solvents; and other unspecified cleaning solvents. During routine inspections, it was documented that containers labeled "hazardous" were discovered on site. Between 1950 and 1970, drummed wastes were occasionally accepted at the site. Photographs of the site from 1968 and 1973 show drums; drums were also seen during OEPA site visits in March and August of 1995.

Eleven soil samples collected at or near the site during a previous investigation found levels of contaminants significantly above background, with some concentrations above risk-based levels. The following contaminants were detected above background in soil samples: 1,2-dichloroethene, tetrachloroethene, toluene, polychlorinated biphenyls (PCBs), antimony, arsenic, barium, cadmium, chromium, copper, mercury, nickel, lead, zinc, and several polynuclear aromatic hydrocarbons (PAHs). Prior to the activities described in this report, no groundwater, surface water, or air samples had been collected at the site.



## 2.2 REVIEW OF AERIAL PHOTOGRAPHS

PSARA reviewed historical low-altitude aerial photographs of the site vicinity obtained by OEPA from the Ohio Department of Transportation. The aerial photographs, which were taken in 1956, 1959, 1968, and 1973, document the progression of the site from rural, undeveloped land through an extensive sand and gravel mining operation and ultimately to landfilling operations.

The site expanded from north to south throughout the time period represented by the aerial photographs. The area north of the site appears to have accepted some type of industrial waste prior to 1956. That northern parcel of land is now occupied by an active asphalt plant.

Sand and gravel were removed from the site to the top of the groundwater table. Local ponds were visible throughout the site in each of the aerial photographs reviewed. Debris of undetermined origin and type was then used to backfill the excavations created from sand mining operations. Stockpiled drums, pallets, and crates are visible in the 1968 photograph.

An automobile salvage yard occupied the area immediately north of the site in the 1968 photograph. All automobiles were gone from the site by the time the 1973 photograph was taken.

PSARA used the aerial photographs to estimate the maximum extent of the landfilling operations. The landfilling operations appear to have been limited to an area of approximately 30 acres. The western boundary is marked by a treeline and ridgeline that parallels the Great Miami River. The area encompassing the landfill is approximately 12 feet higher than the flood plain of the river. The southern extent of the fill is roughly marked by an access road in an easement for high-tension overhead electrical lines. The eastern limit of the fill is unclear but is estimated to be 350 feet west of Dryden Road. (There are reports that fill material actually extends beneath Dryden Road. No evidence of this exists on the aerial photographs, however.) The northern boundary of the site, though likely not the boundary of the fill, parallels a northern access road and is partially delineated in the field by a tree line.

Access to the site is gained through an east-west access road from Dryden Road.

Figure 2 presents a site map, which was developed from the 1993 aerial photograph. The scale of the photograph was determined by measuring the lengths of features near the center of the photo and comparing them to the actual measured lengths of the same features.

### **2.3 EXPLORATORY BORINGS**

PSARA installed seven exploratory borings at the site between February 19 and 26, 1996. Data collected from the exploratory borings were ultimately used to optimize the placement of the groundwater monitoring wells.

The locations of the exploratory borings were determined based on information gathered from the aerial photographs and on accessibility. Based on general knowledge of the regional geology, it was assumed groundwater generally flowed toward the Great Miami River. Consequently, the borings were concentrated along the southern and western boundaries of the site. Two borings, labeled SD-001 and SD-002, were installed along a power line right-of-way at the southern border of the site. Due to access limitations, the remaining borings (SD-003 through SD-007) were installed within the boundaries of the landfill along the western treeline. Figure 3 illustrates the exploratory boring locations, and the Soil Boring Logs are presented in Appendix A. Well borings that had to be abandoned are designated on the boring logs by letters; these letters chronologically identify the number of borings attempted before one was successfully completed.

#### **2.3.1 Soil Sampling**

Prior to the installation of any soil borings, PSARA contacted the Ohio Utilities Protection Service (OUPS) to have member utilities mark any underground lines.

All drilling was conducted in Modified Level D personal protective equipment in accordance with the site-specific HASP. Ambient air monitoring for oxygen, explosivity, and VOCs was conducted throughout the duration of drilling activities.

The exploratory borings were installed and sampled using a combination of direct-push and traditional auger and split-spoon techniques. As originally stated in the Work Plan, all of the borings were to be installed and sampled using a direct-push technique called the ESPT<sup>TM</sup> Method by the manufacturer. The ESPT<sup>TM</sup> system utilizes a double-cased system.

which includes a 1.25-inch split spoon driven in front of an outer hollow steel drive casing. When used to collect soil samples, the entire assembly is driven through the sampling interval. The split spoon is retrieved by extracting the inner rods, leaving the outer drive casing in place. The split spoon is then reinserted through the casing, and the process is repeated until the boring is complete.

Site conditions, however, prevented the exclusive use of this technique. Extremely well compacted silty sand layers and cobble zones, usually encountered within the vadose zone, caused premature refusal in most instances where the ESP system was deployed from the surface.

To preserve the integrity of the sampling program, PSARA utilized a 2.25-inch-inside-diameter hollow-stem auger, in conjunction with a 2-inch split spoon to collect soil samples throughout the vadose zone. Upon reaching the top of the water table, the ESPTM system was deployed through the center of the augers. This combination of methods was selected in the field to allow for both sampling the harder-than-expected unconsolidated material in the vadose zone and the subsequent collection of groundwater samples below the water table.

Soil sampling continued in each boring until heaving sand prohibited further sampling. Soil samples were retrieved from the split-spoon samplers and split into two aliquots. One sample aliquot was placed in a new, labeled, zipper-lock bag for headspace screening analysis. The other aliquot was used to log the boring and was discarded with the drill cuttings.

Soil vapor headspace screening was conducted in the field with an HNu photoionization detector (PID) and a Foxboro flame ionization detector (FID). The PID analysis was used to supplement the FID analysis when it was noted in the field that methane was forming a significant portion of the headspace.

The PID is factory calibrated annually to benzene. However, in the field, it is impractical to use benzene as a calibration gas due to its hazardous nature. According to the manufacturers specifications and industry accepted practices, isobutylene gas is used for field calibration. The HNu has a relative response factor of 0.56 to the isobutylene calibration gas for a 10.2 eV probe. Therefore, the instrument is calibrated to read 56 ppm isobutylene instead of 100 ppm.

PSARA technician calibrated the PID immediately prior to use in the field according to the following procedure: fill then purge a plastic Tedlar bag with zero air; fill the Tedlar bag with a standard consisting of 100 ppm isobutylene balanced with zero air; insert the probe of the PID into the Tedlar bag and close with an airtight seal; and adjust the instrument's span (calibration device) to read 56 ppm.

The FID is factory calibrated annually against a methane standard to read methane concentrations directly. A PSARA technician calibrated the FID immediately prior to use in the field according to the following procedure: fill then purge a plastic Tedlar bag with zero air; fill the Tedlar bag with a standard consisting of 100 ppm methane balanced with zero air; insert the probe of the FID into the Tedlar bag and close with an air tight seal; and adjust the instrument's span (calibration device) to read 100 ppm.

Headspace screening was conducted on sample aliquots from each sampling location to determine relative amounts of VOCs present in the soil. Samples were screened upon the completion of each boring. Prior to analysis, the samples were placed inside the cab of the field vehicle and allowed to warm for approximately 15 minutes prior to performing the headspace screening analyses. During the screening analysis, the probes of the FID and PID were inserted into the headspace of the plastic bag containing the sample aliquot. Headspace analysis results are summarized in Table 1, and are included on the Soil Boring Logs in Appendix A.

The split- spoon samplers were decontaminated between each use according to the following procedure: wash with a nonphosphate detergent; rinse with potable water; rinse with deionized water; rinse with methanol; and finally rinse with deionized water. The decontamination fluids were collected in 5-gallon buckets during decontamination, and then transferred into a labeled 55-gallon drum, which was left at the staging area for disposal by OEPA.

All down-hole equipment (i.e., augers, drill rods, ESPTM equipment, etc.) was decontaminated between each boring with a high-pressure stream cleaner. The decontamination unit is a portable unit with a shielded collection tank used to contain decontamination fluids and soil. All decontamination fluids were containerized on site in labeled 55-gallon drums. Auger cuttings were also collected in labeled drums and stored on site pending disposal.

## 2.3.2 Groundwater Sampling

In addition to the collection and logging of soil samples, PSARA collected groundwater samples from borings SD-001, SD-002, SD-004A, and SD-005. Groundwater samples were not collected from the remaining borings because those borings had to be abandoned prior to reaching the saturated zone due to heaving sand.

Groundwater samples were collected by deploying the water sampling probe for the ESPTM system. The water sampling probe consists of a screened drive-point section that attaches to the inner rods, essentially replacing the split-spoon assembly previously described. The screened section has a double layer of rubber O-ring gaskets above and below the screened section. To deploy the sampler, both the outer casing and inner rod assemblies are removed from the ground and decontaminated. The water sampling probe is then inserted inside the outer casing with the screened section shielded by the outer casing. The entire assembly is advanced to the desired sampling interval, at which point the inner probe assembly is pushed in advance of the outer casing, thus opening the screen to the formation water.

Because of time limitations and problems with heaving sands and auger refusal groundwater samples were not collected from three intervals within the saturated zone, as originally proposed in the Work Plan. Samples were, however, collected from two intervals in most of the borings. The initial ("shallow") sample was collected from approximately 8 to 10 feet into the saturated zone, whereas the second ("deep") sample was then collected 10 to 15 feet below the shallow sample. A duplicate sample was collected from additional sample aliquots collected from the 28 foot interval from boring SD-004A. The groundwater sample locations are summarized in Table 2.

Groundwater samples were retrieved from the sampling probe with a small-diameter stainless steel bailer, which was decontaminated between each use according to the method for decontamination of split spoons described previously. The samples were collected in two 40-ml glass vials provided by OEPA. The vials were pre-preserved by adding hydrochloric acid. The samples were labeled, placed in individual plastic zipper-lock bags, and placed in a cooler with ice. The samples were maintained at the site by OEPA personnel and shipped by OEPA to the OEPA Division of Environmental Services for analysis.

Daily rinseate blanks were collected in accordance with the QAPP. Rinseate blanks were collected by assembling the water sampling probe, filling the probe with deionized water and decanting the rinseate into two pre-preserved 40-ml glass vials.

## **2.4 MONITORING WELL INSTALLATIONS**

### **2.4.1 Monitoring Well Locations**

It was anticipated that the locations of monitoring wells would be based on the groundwater analytical results, specifically, the number of parameters detected and their relative concentrations. The wells would then be located in areas with the highest contaminant levels. It was OEPA's best professional judgment, however, that there was little difference in the groundwater analytical results from the borings, and, therefore, the selection of well locations was based on the suspected groundwater flow direction and on ease of access. The locations were approved by the OEPA prior to the start of drilling. Due to the lack of a suitable location for an upgradient well, the OEPA omitted the installation of this well from the scope of work.

All wells were screened approximately 20 to 30 feet below the top of the groundwater table. One well, MW-101, was positioned midway between SD-001 and SD-002 along the southern site boundary. Monitoring wells MW-102 and MW-103 were installed west of the site in the flood plain of the Great Miami River and adjacent to a bike path that parallels the river. Monitoring well MW-101A was installed approximately 8 feet east of MW-101.

### **2.4.2 Monitoring Well Installation**

PSARA installed groundwater monitoring wells MW-101, MW-102, and MW-103 at the site on April 5, April 8, and April 9, 1996, respectively. Monitoring well locations are presented in Figure 4. Due to faulty well construction of MW-101, a replacement well, MW-101A, was installed on May 7, 1996. Well construction consisted of 2-inch-diameter flush-threaded polyvinylchloride (PVC) riser pipe coupled to a 10-foot section of 0.010-inch machine-slotted PVC well screen. The well screen was surrounded by a filter pack of coarse washed quartz sand and sealed with at least a 2-foot layer of hydrated bentonite. The bentonite seal was topped with a bentonite and Portland cement grout and capped with a concrete pad. A locking well seal was placed on each well to prevent tampering.

Further well protection was provided by a locking steel standpipe protective cover installed in a 2-foot by 2-foot concrete pad. Further protection was provided by installing two steel posts filled with concrete adjacent to each well. Well Construction Diagrams are presented in Appendix B.

Well logs for the newly installed wells were submitted to the Ohio Department of Natural Resources (ODNR). Copies of the ODNR Well Logs are included in Appendix C.

### 2.4.3 Monitoring Well Development

On April 23, 1996, PSARA field personnel developed monitoring wells MW-101, MW-102, and MW-103 to remove excess fine particulates. Monitoring well MW-101A was developed on May 10, 1996. Prior to well development, PSARA measured the depth to groundwater in the monitoring wells with an oil/water interface probe and checked each well for the presence of nonaqueous-phase liquids (NAPLs) at the top and bottom of the water column. No measurable layer of NAPL was found in the wells on the dates they were developed. Depth-to-groundwater measurements are reported on the Well Development Logs in Appendix D and summarized in Table 5.

All wells were developed in accordance with the Work Plan. Monitoring wells MW-101, MW-102, and MW-103 were purged with a 2-inch submersible pump. The well was determined to be properly developed when the following criteria had been met: 1) at least three standing well volumes of water had been removed and the pH was within 0.1 S.U., the conductivity was within 10  $\mu\text{mhos/cm}$ , and the temperature was within 0.5°C of the preceding measurements; and 2) the purge water was free of suspended silt and sediment or became less turbid during development.

An average of 30 gallons of water was removed from each well before the well was determined to be properly developed. The purge water was pumped into a 250-gallon poly tank provided by OEPA, transported to the Montgomery County Wastewater Treatment Plant, and discharged into the sanitary sewer system.

Monitoring well MW-101A was developed using a surge block and bailer. A 2-inch-diameter surge block was lowered into the well with a ridged drop rod. The surge block was moved up and down in 1-foot increments throughout the length of the screen. The well was then purged with a decontaminated stainless steel bailer until it was determined to be properly developed.

#### **2.4.4 Monitoring Well Decommissioning**

During well development activities, PSARA discovered that monitoring well MW-101 was installed with a bow or bend in the well casing. This deflection prohibited the efficient use of bailers for purging and sampling. Accordingly, PSARA replaced monitoring well MW-101 with MW-101A on May 7, 1996. The original well, MW-101, was decommissioned on the same day by overdrilling the well with 4.25-inch hollow-stem augers, pulling the well through the augers, and sealing the borehole with a hydrated mixture of Portland cement and bentonite. The boring was grouted from bottom to top through the augers. During extraction, the well broke, leaving the lower 5 feet of the PVC screen at the bottom of the boring.

A copy of the ODNR well sealing report is included in Appendix C.



### **3.0 SUMMARY OF FINDINGS**

#### **3.1 LOCAL AND REGIONAL GEOLOGY AND HYDROGEOLOGY**

As stated earlier, the site lies adjacent to the Great Miami River, which flows north to south along the western boundary of the site. Regionally, the site overlays the Great Miami Buried Valley system. The valley fill is glacial outwash comprising primarily sand and gravel. Depth to bedrock beneath the site is unknown but, based on deep wells in the vicinity, is expected to be in excess of 185 feet below grade. There are till and bedrock highlands approximately 0.5 mile west of the site.

Regionally, the Great Miami River is expected to provide a major control for groundwater flow in the area. Therefore, regional groundwater flow in the area is expected to be west to southwest toward the river. Local variations are likely, however. Groundwater yields in the vicinity of the site are expected to be 500 to 1000 gpm (Schmidt 1986).

Based on the results of soil sampling, the soil beneath the site comprises primarily sand units with variable amounts of gravel and silt. Localized silty to sandy clay units were encountered across the site at variable depths. Additionally, localized cobble layers were encountered, usually within the vadose zone. Flowing and heaving sands were encountered during drilling operations within 5 to 8 feet of the top of the water table. Up to 3 feet of sand was observed flowing into the augers. Multiple thin brown oxidized zones were common in the vadose zone within 2 feet of the observed static water.

Exploratory borings SD-003 through SD-007, which were installed within the estimated boundaries of the landfill, indicate the fill material, which consists of ash, cinders, foundry sand, debris, and unidentifiable black sludge-like material, is approximately 8 to 12 feet thick along the western site border. The fill material overlays sand with variable amounts of silt and gravel. Abundant silt was encountered in borings SD-101 and SD-101A.

### **3.2 SOIL SAMPLING RESULTS**

Soil sampling indicates the soil beneath the site comprises primarily sands with variable amounts of silt and gravel. Isolated coarse gravel/cobble zones were encountered across the site. Soil sampling within the presumed boundaries of the fill indicates the fill material is highly variable with ash/cinder zones, numerous pieces of burnt wood, miscellaneous waste material (plastic bags, broken glass, etc.), buff colored, well sorted sand (presumed to be foundry sand), and unidentifiable black sludge-like material.

Results of the headspace screening analyses revealed generally low to moderate amounts of volatile organic vapors in the sample headspace. Several borings (SD-003, SD-006, and SD-006A) had FID headspace screening results in excess of 500 ppm. Conversely, field screening of the same samples with the PID indicated significantly lower vapor concentrations. It is assumed, therefore, that since the FID will detect methane whereas the PID will not, the majority of the volatile organic vapors detected by the FID were methane.

Visible vapors were observed emanating from the top of the augers while drilling SD-007. Based on air monitoring results conducted during drilling operations, these vapors were also determined to be methane.

### **3.3 GROUNDWATER SAMPLING RESULTS**

Table 3 summarizes the analytical results for groundwater samples collected from exploratory borings SD-001, SD-002, SD-004A, and SD-005. Figure 5 presents the groundwater analytical results in relation to the boring locations. All samples were analyzed for VOCs using EPA Method 624. None of the VOCs identified exceeded the maximum contaminant levels (MCLs). The groundwater analytical report is presented in Appendix E.

All groundwater data was used as screening data to guide the placement of monitoring wells and is not intended to represent aquifer quality. Factors such as excessive siltation of the samples, caused by not sampling a developed well, may decrease the quality of the samples collected using the ESPTM water sampling probe. Additionally, the excessive siltation caused visible reaction (sustained effervescence) with the HCl used to preserve the sample. The effervescence caused headspace to develop within the sample vial, thus

reducing the quality of the sample. The data were judged to be usable only as screening data for locating the monitoring wells.

The groundwater monitoring wells are scheduled to be sampled by OEPA personnel.

### 3.4 QUALITY CONTROL SAMPLE RESULTS

Daily rinseate blanks were collected whenever groundwater samples were collected. Methylene chloride was detected in the blanks collected on February 20 and 21, 1996. Additionally, 0.9 ppb of 1,2-dichloroethane was detected in the blank collected on February 21, 1996. No final rinseate blank was collected on February 20, 1996, because the sample probe was destroyed while attempting to collect the final groundwater sample that day. A baseline rinseate blank, SDR1001, was collected as specified in the QAPP on February 20, 1996, prior to any sampling activities, however. No rinseate blank was collected on February 22, 1996, because no groundwater samples were collected on that day.

Trip blanks accompanied each sample shipment to the laboratory. Methylene chloride was detected in the trip blank collected on February 20, 1996. No VOCs were detected in the remaining trip blank samples. Results of the quality control samples are summarized in Table 4 and the Quality Control Sample analytical reports are included in Appendix F.

Methylene chloride was detected in the rinseate blanks collected on February 20, and February 21, 1996 and in the trip blank collected on February 20, 1996. Additionally, 1,2-Dichloroethane (1,2-DCA) was detected in the rinseate blank collected on February 21, 1996.

The presence of methylene chloride in two of the rinseate blanks and one of the trip blanks, coupled with the absence of this compound in the groundwater samples, may be an indication of laboratory contamination. The presence of 1,2-DCA in the rinseate blank collected on February 21, 1996, indicates that decontamination procedures on that day were not totally effective. The rinseate blank was collected after sample SDGW004 but before sample SDGW005. It is likely that the results of SDGW004 are representative of the groundwater while the results of sample SDGW005 may be questionable.

### **3.5 GROUNDWATER FLOW**

Approximate water table surface and groundwater flow direction were interpreted from the monitoring well elevations and the depth-to-groundwater measurements made on April 23, 1996. Groundwater elevation data is summarized in Table 5. The groundwater contour map presented in Figure 6 indicates that groundwater flows to the southeast under an approximate hydraulic gradient of 0.002 feet/foot.

Groundwater measurements were collected from monitoring well MW-101A on May 10, 1996. Monitoring wells MW-102 and MW-103 could not be accessed on this date because the Great Miami River was above flood stage, thus restricting access to these wells.

The direction of flow is contrary to the expected flow pattern (i.e., toward the Great Miami River). It is likely that flow near the river is complex and variable with river stage. Additionally, the water-filled gravel pit located along the south side of the site may also alter the groundwater flow patterns.

### **3.6 MANAGEMENT OF INVESTIGATION-DERIVED WASTES**

All residual materials (i.e., soil, decontamination water, used personal protective equipment) generated during the site investigation were containerized in labeled 55-gallon drums. A staging area for the drums is located near the entrance gate to the site. The drums were placed on plastic sheeting and left in the staging area pending disposal. OEPA will sample and characterize the waste, and PSARA will arrange for disposal of the drums in accordance with the Work Plan and QAPP.

## **4.0 VARIANCES**

The following summarizes significant changes to either the original objectives as stated in the mobilization order, the scope of work described in the Work Plan, or the sampling and analysis plan as described in the QAPP.

### **4.1 SCOPE OF WORK**

The following items represent changes to the basic framework of the project directed by or agreed to by the OEPA:

- The geophysical survey requested in the mobilization order was deleted by OEPA.
- At the direction of OEPA, no background well was installed at the site.
- OEPA personnel assumed responsibility for sampling and characterizing of all IDW.
- Monitoring well MW-101 was decommissioned in accordance with standard industry practice. There was no contingency for well decommissioning in the approved project documents.

### **4.2 FIELD / SAMPLING PROCEDURES**

The following items reflect changes in field procedures required to meet field conditions. All alterations of the field procedures were approved by onsite OEPA personnel.

- Heaving sands, which caused split spoons to become sand-locked in the augers or ESPT<sup>TM</sup> casing, prevented complete soil sampling in the saturated zone.
- Monitoring well MW-101A was developed using a surge block and bailer at the request of OEPA.

- Development water was containerized in a poly tank provided by OEPA and was transported to the Montgomery County Waste Water Treatment plant for discharge. Permission to discharge was obtained by OEPA.
- Pre-preserved sample vials were provided by OEPA.

#### **4.3 SAMPLE CUSTODY**

OEPA personnel retained responsibility for sample custody in the field, maintaining the chain of custody and shipment of the samples to the laboratory. PSARA personnel handed each sample vial to the OEPA onsite representative as they were collected.

#### **4.4 LABORATORY**

At the direction of OEPA, the groundwater samples were submitted to the OEPA Department of Environmental Services Laboratory for analysis as opposed to Ross Analytical Services as specified in the QAPP.

#### **4.5 DATA VALIDATION**

Data validation was limited to the verification of sample holding times and the collection of rinseate and trip blanks. OEPA chose not to require matrix spike and matrix spike duplicate samples, and the lack of this data prevented full data validation as described in the QAPP.

## 5.0 RESIDUALS MANAGEMENT

PSARA remobilized to the site on October 2, 1996, to oversee the removal of IDW staged on the Cornett Trucking Property. OEPA representatives previously collected samples of the drummed soil to characterize the IDW. The soil was found to be non-hazardous and was, therefore, managed as solid waste. The drummed soil was emptied into a dump truck and shipped in bulk to Waste Management, Inc., Stony Hollow Landfill in Dayton, Ohio. The waste was profiled for disposal by OEPA and permission was granted by Waste Management, Inc., under profile number 416810. A total of 7.56 tons of soil, which represents the combined solid IDW from the South Sanitary Landfill and South Dayton Dump investigations, was received by the landfill. A copy of the bill of lading which corresponds to this soil is included in Appendix G.

Several drums of liquid IDW, specifically, decontamination fluids and purge water from the monitoring well development, was disposed of by OEPA into the Montgomery County Sanitary Sewer District sanitary sewer lines under an agreement reached between OEPA and Montgomery Sanitary Sewer District.

## 6.0 REFERENCES

PSARA Technologies, Inc. 1996a. Final Work Plan, South Dayton Dump and Dorothy Lane Landfill, Mobilization Order No. 557-01. Prepared for the Ohio Environmental Protection Agency , Division of Emergency and Remedial Response , Southwest District Office.

PSARA Technologies, Inc. 1996b. Site-specific Quality Assurance Project Plan, South Dayton Dump and Dorothy Lane Landfill, Montgomery County, Ohio, Mobilization Order No. 557-01. Prepared for the Ohio Environmental Protection Agency , Division of Emergency and Remedial Response , Southwest District Office.

PSARA Technologies, Inc. 1996c. Site-specific Health and Safety Plan. Dorothy Lane Landfill and South Dayton Dump, Moraine, Ohio, Mobilization Order No. 557-01. Prepared for the Ohio Environmental Protection Agency , Division of Emergency and Remedial Response , Southwest District Office.

PSARA Technologies, Inc. 1993. Generic Quality Assurance Project Plan, Remedial Response Level-of-Effort Contract. Prepared for the Ohio Environmental Protection Agency , Division of Emergency and Remedial Response , Southwest District Office.

Schmidt, James J. 1986. Groundwater Resources of Montgomery County. Ohio Department of Natural Resources.



---

---

**TABLES**

---

---

Table 1. Headspace Screening Results  
 February 19 through February 27, 1996  
 South Dayton Dump, Moraine, Ohio

| Depth,<br>ft | Concentration, ppm <sup>a</sup> |     |        |      |        |     |                 |     |         |      |        |     |        |     |         |     |         |     |        |     |
|--------------|---------------------------------|-----|--------|------|--------|-----|-----------------|-----|---------|------|--------|-----|--------|-----|---------|-----|---------|-----|--------|-----|
|              | SD-001                          |     | SD-002 |      | SD-003 |     | SD-004          |     | SD-004A |      | SD-005 |     | SD-006 |     | SD-006A |     | SD-006B |     | SD-007 |     |
|              | FID                             | FID | FID    | PID  | FID    | PID | FID             | PID | FID     | PID  | FID    | PID | FID    | PID | FID     | PID | FID     | PID | FID    | PID |
| 0 to 2       | NS <sup>b</sup>                 | 0.0 | 8.4    | 2.8  | 6.0    | 5.1 | 2.8             | 4.2 | 3.6     | 1.2  | 12     | 4   | 1      | 3   | 6       | 12  | 5       | 3   |        |     |
| 2 to 4       | NS                              | 0.2 | 540    | 5.2  | 1.4    | 3.8 | 1.8             | 3.0 | 4.0     | 1.6  | 500    | 4   | >1000  | 6   | --      | --  | 5       | 1   |        |     |
| 4 to 6       | NS                              | 0.0 | 22     | 16.8 | 2.2    | 5.0 | 4.0             | 3.2 | 3.2     | 1.6  | --     | --  | >1000  | 11  | --      | --  | 80      | 4   |        |     |
| 6 to 8       | NS                              | 0.0 | --     | --   | 2.4    | 4.8 | 3.8             | 4.2 | 2.6     | 2.0  | --     | --  | --     | --  | --      | --  | 20      | 1   |        |     |
| 8 to 10      | NS                              | 0.0 | --     | --   | 5.8    | 4.8 | 3.0             | 4.0 | 2.8     | 1.0  | --     | --  | --     | --  | --      | --  | 100     | 3   |        |     |
| 10 to 12     | NS                              | 0.0 | --     | --   | 18     | 40  | 7.2             | 6.8 | 3.0     | 1.2  | --     | --  | --     | --  | --      | --  | 300     | 2   |        |     |
| 12 to 14     | NS                              | 6.8 | --     | --   | --     | --  | NR <sup>c</sup> | NR  | NR      | NR   | --     | --  | --     | --  | --      | --  | 20      | 3   |        |     |
| 14 to 16     | 29                              | 14  | --     | --   | --     | --  | 4.2             | 3.8 | 14      | 10.2 | --     | --  | --     | --  | --      | --  | --      | --  |        |     |
| 16 to 18     | 160                             | 6.6 | --     | --   | --     | --  | 24              | 8.0 | 10      | 16   | --     | --  | --     | --  | --      | --  | --      | --  |        |     |
| 18 to 20     | 300                             | 60  | --     | --   | --     | --  | 2.8             | 4.0 | 12      | 6.2  | --     | --  | --     | --  | --      | --  | --      | --  |        |     |
| 20 to 22     | 18                              | 400 | --     | --   | --     | --  | 22              | 7.5 | 7.8     | 3.6  | --     | --  | --     | --  | --      | --  | --      | --  |        |     |
| 22 to 24     | --                              | 180 | --     | --   | --     | --  | 5.2             | 5.8 | 24      | 5.0  | --     | --  | --     | --  | --      | --  | --      | --  |        |     |
| 24 to 26     | --                              | 160 | --     | --   | --     | --  | 8.6             | 5.4 | 10      | 3.2  | --     | --  | --     | --  | --      | --  | --      | --  |        |     |
| 26 to 28     | --                              | --  | --     | --   | --     | --  | 4.8             | 4.6 | --      | --   | --     | --  | --     | --  | --      | --  | --      | --  |        |     |

<sup>a</sup> Vapor headspace concentrations are reported for total organic vapors including methane (FID) and not including methane (PID)

<sup>b</sup> NS=no sample collected

<sup>c</sup> NR = no recovery

<sup>d</sup> -- = boring did not extend through these intervals.

**Table 2. Groundwater Sample Locations  
South Dayton Dump, Moraine, Ohio**

| <b>Sample Number</b> | <b>Location (Boring Number)</b> | <b>Date Collected</b> | <b>Sample Depth, ft</b> |
|----------------------|---------------------------------|-----------------------|-------------------------|
| SDGW001              | SD-001                          | Feb. 19, 1996         | 19                      |
| SDGW002              | SD-002                          | Feb. 20, 1996         | 22                      |
| SDGW003              | SD-002                          | Feb. 20, 1996         | 32                      |
| SDGW004              | SD-001                          | Feb. 21, 1996         | 34                      |
| SDGW005              | SD-004A                         | Feb. 23, 1996         | 23                      |
| SDGW006              | SD-004A                         | Feb. 23, 1996         | 28                      |
| SDGW007 <sup>a</sup> | SD-004A                         | Feb. 23, 1996         | 28                      |
| SDGW008              | SD-005                          | Feb. 26, 1996         | 28                      |
| SDGW009              | SD-005                          | Feb. 26, 1996         | 43                      |

<sup>a</sup> Sample SDGW007 is a duplicate sample of SDGW006.

Table 3. Groundwater Analytical Results  
 South Dayton Dump, Moraine, Ohio

| Constituent            | Concentration, ppb |         |         |         |         |         |         |         |         |
|------------------------|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                        | SDGW001            | SDGW002 | SDGW003 | SDGW004 | SDGW005 | SDGW006 | SDGW007 | SDGW008 | SDGW009 |
| Benzene                | 1.2                | 0.8     | 1.9     | 0.9     | 0.8     | 0.6     | 0.5     | 0.7     | 1.6     |
| 1,1-Dichloroethane     | 0.5                | 1.2     | 2.8     | 0.8     | <0.5    | <0.5    | <0.5    | <0.5    | <0.5    |
| Toluene                | 1.5                | 1.9     | 2.3     | 1.5     | 2.4     | 1.5     | 1.5     | 2.1     | 2.9     |
| Trichloroethene        | 4.6                | <0.5    | <0.5    | 2.8     | 1.5     | 2.0     | 2.2     | <0.5    | 2.4     |
| 1,2-Dichloroethane     | <0.5               | 0.5     | <0.5    | 0.9     | 0.9     | <0.5    | 0.8     | <0.5    | <0.5    |
| cis-1,2-Dichloroethene | <0.5               | 0.9     | 1.6     | <0.5    | <0.5    | <0.5    | <0.5    | <0.5    | <0.5    |
| Xylene (total n+p)     | <0.05              | 0.6     | <0.5    | <0.5    | 1.2     | 0.7     | 0.7     | 0.9     | 0.9     |
| Vinyl chloride         | <0.5               | <0.5    | 0.9     | <0.5    | <0.5    | <0.5    | <0.5    | <0.5    | <0.5    |
| Ethylbenzene           | <0.5               | <0.5    | <0.5    | <0.5    | 0.8     | <0.5    | <0.5    | 0.6     | 0.7     |
| 1,2,4-Trimethylbenzene | <0.5               | <0.5    | <0.5    | <0.5    | 0.6     | <0.5    | <0.5    | <0.5    | 0.5     |
| o-Xylene               | <0.5               | <0.5    | <0.5    | <0.5    | 0.5     | <0.5    | <0.5    | <0.5    | 0.7     |

**Table 4. Quality Control Sample Analytical Results  
South Dayton Dump  
Moraine, Ohio**

| Sample No.<br>Sample Type<br>Date Collected | Concentration. (ppb)            |                                 |                                 |               |              |               |               |
|---|---------------------------------|---------------------------------|---------------------------------|---------------|--------------|---------------|---------------|
|   | SDRI001                         | SDRI002                         | SDRI003                         | Trip Blank    | Trip Blank   | Trip Blank    | Trip Blank    |
|   | Rinseate Blank<br>Feb. 20, 1996 | Rinseate Blank<br>Feb. 21, 1996 | Rinseate Blank<br>Feb. 23, 1996 | Feb. 20, 1996 | Feb 21, 1996 | Feb. 23, 1996 | Feb. 26, 1996 |
| <b>CONSTITUENT</b>                          |                                 |                                 |                                 |               |              |               |               |
| Methylene Chloride                          | 0.6                             | 0.7                             | <0.5                            | 0.8           | <0.5         | <0.5          | <0.5          |
| 1,2-Dichloroethane                          | <0.5                            | 0.9                             | <0.5                            | <0.5          | <0.5         | <0.5          | <0.5          |

**Table 5. Groundwater Elevation  
April 23, 1996  
South Dayton Dump, Moraine, Ohio**

| <b>Well No.</b>      | <b>Top of Casing<br/>Elevation, ft<sup>a</sup></b> | <b>Depth to<br/>Groundwater, ft</b> | <b>Groundwater<br/>Elevation, ft<sup>a</sup></b> | <b>Ground surface<br/>Elevation, ft<sup>a</sup></b> |
|----------------------|--|-------------------------------------|--|---|
| MW-101               | 107.36   | 15.10                               | 92.26  | 104.68  |
| MW-102               | 100.00   | 6.97                                | 93.03  | 96.96   |
| MW-103               | 98.91  | 5.80                                | 93.11  | 97.04   |
| MW-101A <sup>b</sup> | 107.42   | 10.52                               | 96.90  | 104.68  |

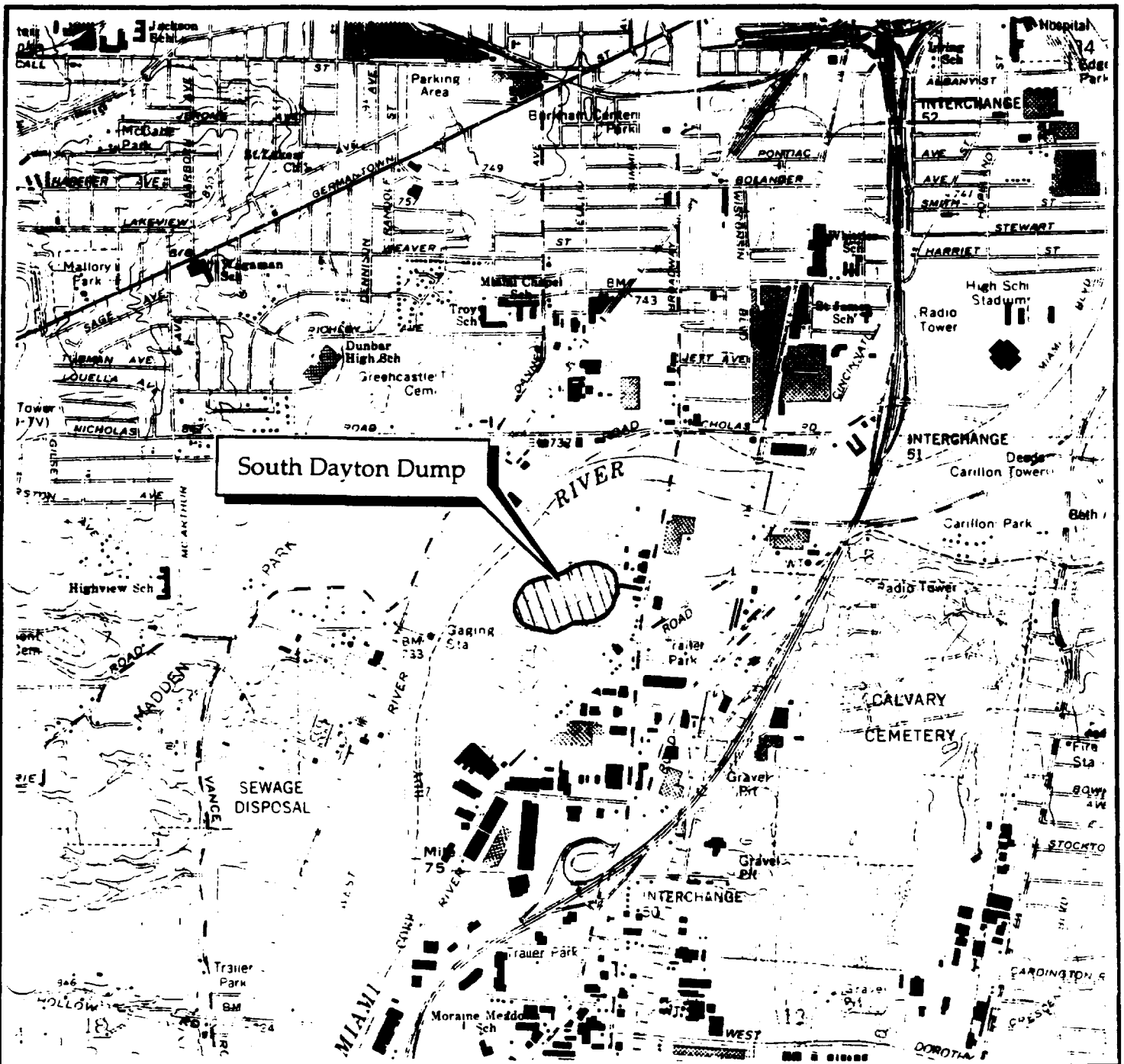
<sup>a</sup> Elevation measured relative to arbitrary site datum, established as the top of the well casing in MW-102 (100.00 ft).

<sup>b</sup> Depth to water measurement collected on May 10, 1996.

---

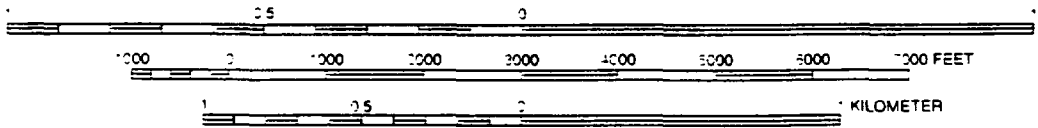
**FIGURES**

---



South Dayton Dump

SCALE 1:24000



QUADRANGLE LOCATION

LEGEND

USGS 7.5 Minute Quadrangle:

DAYTON SOUTH, OHIO  
39084-F2-TF-024

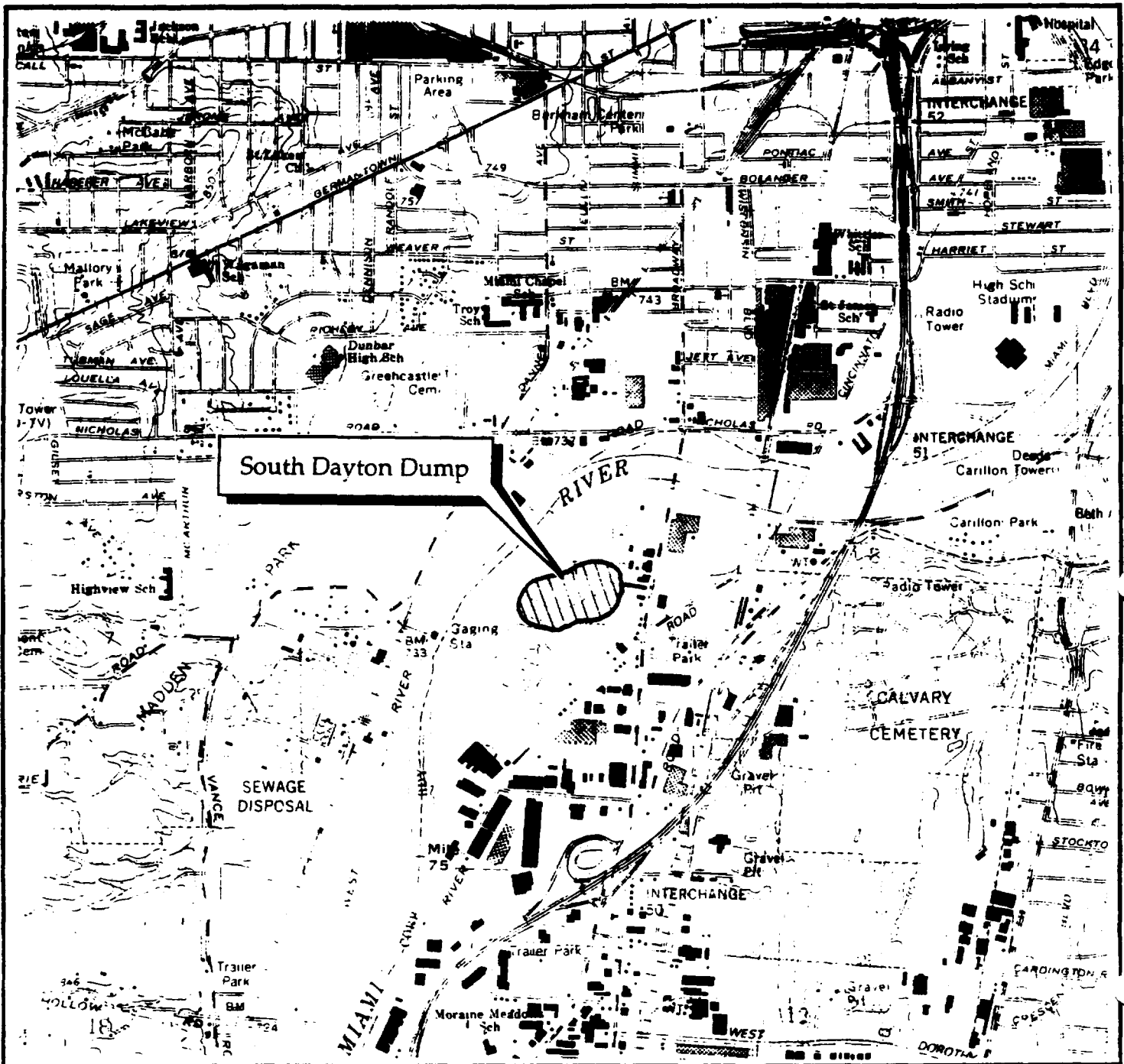
OHIO EPA

Figure 1.  
Site Location Map  
South Dayton Dump  
Moraine, Ohio

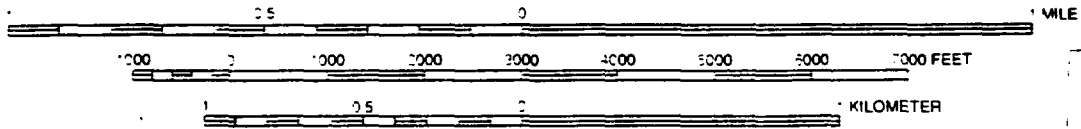
|           |         |         |
|-----------|---------|---------|
| Drawn By: | Date:   | Scale:  |
| RIC       | 5-28-96 | 1:24000 |







SCALE 1:24000



**LEGEND**

USGS 7.5 Minute Quadrangle:

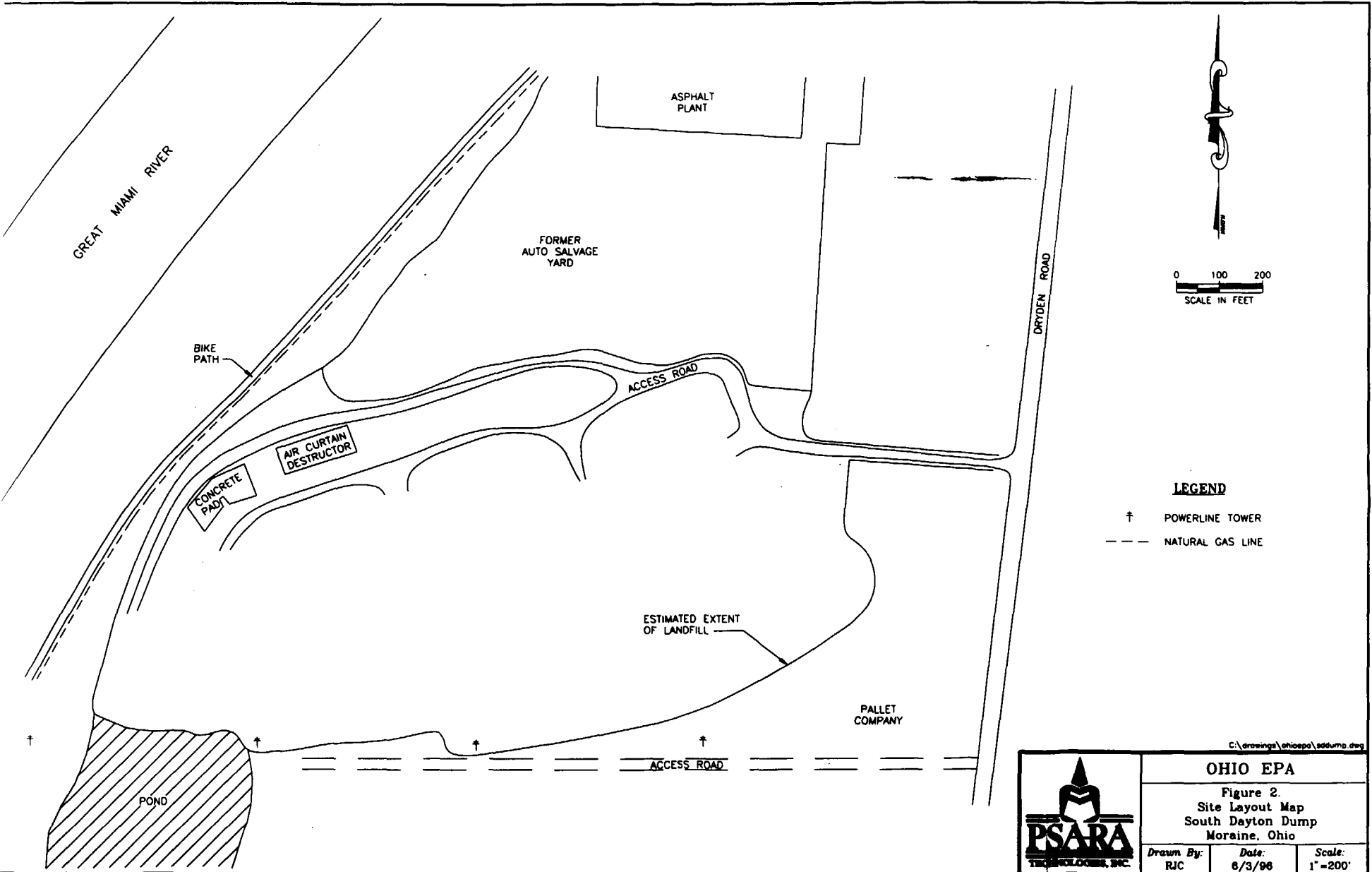
DAYTON SOUTH, OHIO  
39084-F2-TF-024

**OHIO EPA**

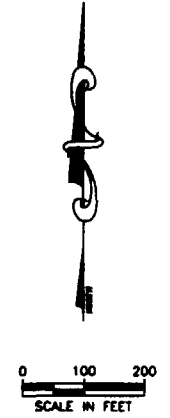
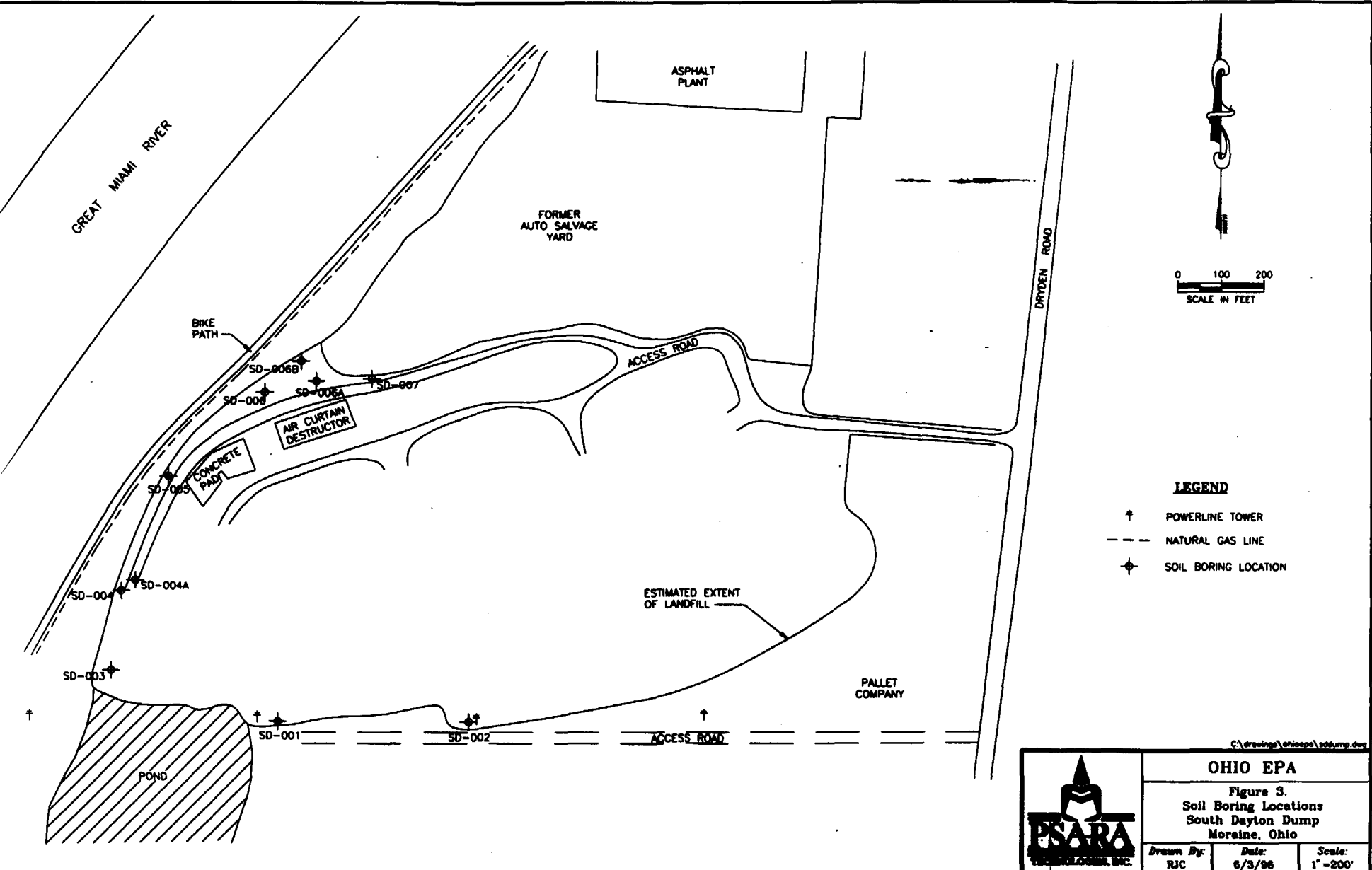
Figure 1.  
Site Location Map  
South Dayton Dump  
Moraine, Ohio

|           |         |         |
|-----------|---------|---------|
| Drawn By: | Date:   | Scale:  |
| RIC       | 5-28-96 | 1:24000 |





|  |                 |                     |
|--|-----------------|---------------------|
| <b>OHIO EPA</b>  |                 |                     |
| Figure 2.<br>Site Layout Map<br>South Dayton Dump<br>Moraine, Ohio |                 |                     |
| Drawn By:<br>RJC   | Date:<br>8/3/96 | Scale:<br>1" = 200' |



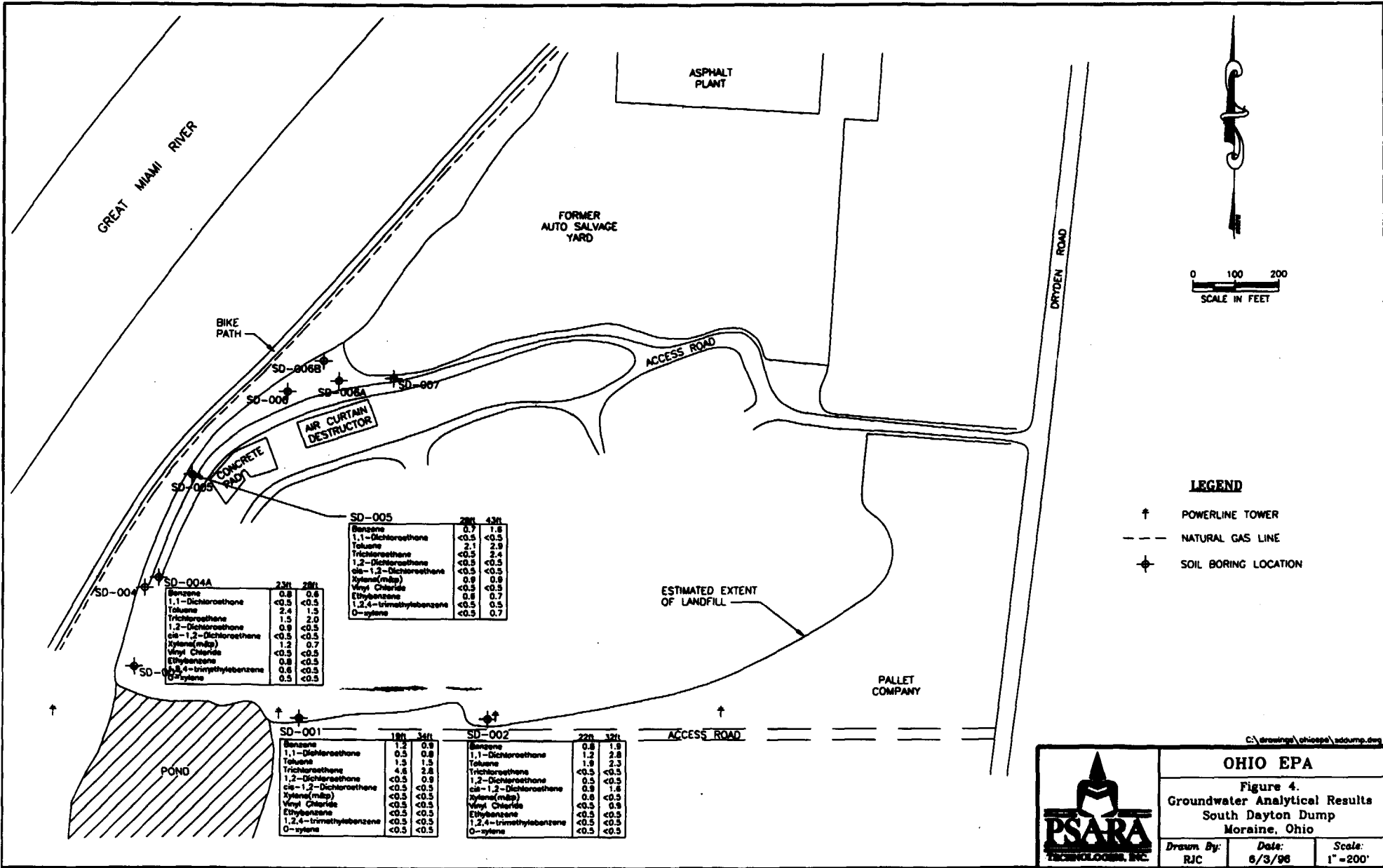
**LEGEND**

- † POWERLINE TOWER
- - - NATURAL GAS LINE
- ★ SOIL BORING LOCATION

C:\drawing\ohioepa\sd00rmp.dwg



|  |                 |                     |
|--|-----------------|---------------------|
| <b>OHIO EPA</b>  |                 |                     |
| Figure 3.<br>Soil Boring Locations<br>South Dayton Dump<br>Moraine, Ohio |                 |                     |
| Drawn By:<br>RJC   | Date:<br>6/3/96 | Scale:<br>1" = 200' |



SD-004A

|                        | 23ft | 28ft |
|------------------------|------|------|
| Benzene                | 0.8  | 0.4  |
| 1,1-Dichloroethane     | <0.5 | <0.5 |
| Toluene                | 2.4  | 1.5  |
| Trichloroethene        | 1.5  | 2.0  |
| 1,2-Dichloroethane     | 0.9  | <0.5 |
| cis-1,2-Dichloroethane | <0.5 | <0.5 |
| Xylene(mbp)            | 1.2  | 0.7  |
| Vinyl Chloride         | <0.5 | <0.5 |
| Ethylbenzene           | 0.8  | <0.5 |
| 1,2,4-trimethylbenzene | 0.6  | <0.5 |
| O-xylene               | 0.5  | <0.5 |

SD-005

|                        | 28ft | 43ft |
|------------------------|------|------|
| Benzene                | 0.7  | 1.8  |
| 1,1-Dichloroethane     | <0.5 | <0.5 |
| Toluene                | 2.1  | 2.9  |
| Trichloroethene        | <0.5 | 2.4  |
| 1,2-Dichloroethane     | <0.5 | <0.5 |
| cis-1,2-Dichloroethane | <0.5 | <0.5 |
| Xylene(mbp)            | 0.9  | 0.9  |
| Vinyl Chloride         | <0.5 | <0.5 |
| Ethylbenzene           | 0.6  | 0.7  |
| 1,2,4-trimethylbenzene | <0.5 | 0.5  |
| O-xylene               | <0.5 | 0.7  |

SD-001

|                        | 18ft | 34ft |
|------------------------|------|------|
| Benzene                | 1.2  | 0.9  |
| 1,1-Dichloroethane     | 0.5  | 0.8  |
| Toluene                | 1.5  | 1.5  |
| Trichloroethene        | 4.6  | 2.8  |
| 1,2-Dichloroethane     | <0.5 | 0.9  |
| cis-1,2-Dichloroethane | <0.5 | <0.5 |
| Xylene(mbp)            | <0.5 | <0.5 |
| Vinyl Chloride         | <0.5 | <0.5 |
| Ethylbenzene           | <0.5 | <0.5 |
| 1,2,4-trimethylbenzene | <0.5 | <0.5 |
| O-xylene               | <0.5 | <0.5 |


SD-002

|                        | 22ft | 32ft |
|------------------------|------|------|
| Benzene                | 0.9  | 1.9  |
| 1,1-Dichloroethane     | 1.2  | 2.8  |
| Toluene                | 1.8  | 2.3  |
| Trichloroethene        | <0.5 | <0.5 |
| 1,2-Dichloroethane     | 0.5  | <0.5 |
| cis-1,2-Dichloroethane | 0.9  | 1.6  |
| Xylene(mbp)            | 0.8  | <0.5 |
| Vinyl Chloride         | <0.5 | 0.9  |
| Ethylbenzene           | <0.5 | <0.5 |
| 1,2,4-trimethylbenzene | <0.5 | <0.5 |
| O-xylene               | <0.5 | <0.5 |



**LEGEND**

- † POWERLINE TOWER
- - - NATURAL GAS LINE
- ◆ SOIL BORING LOCATION

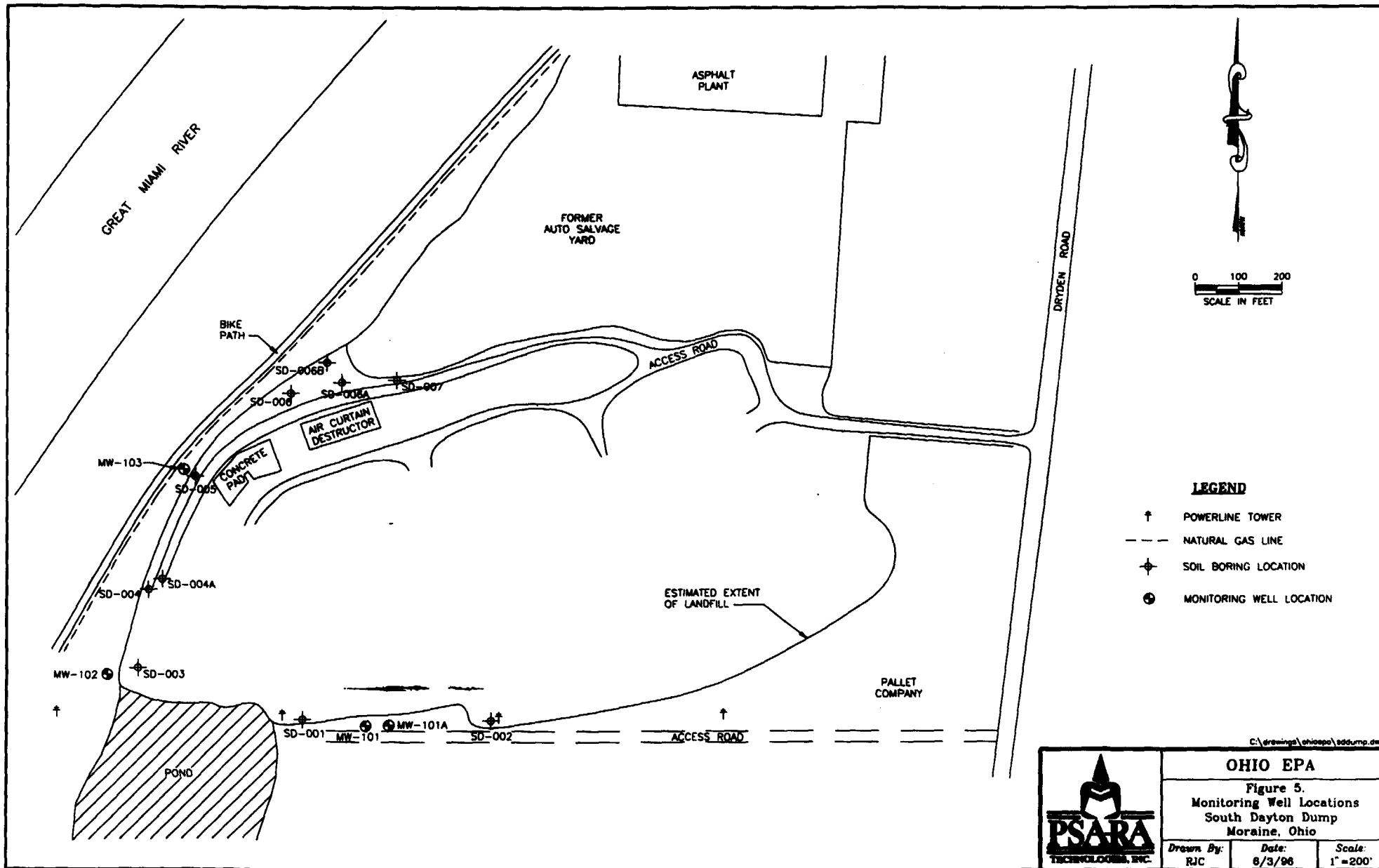


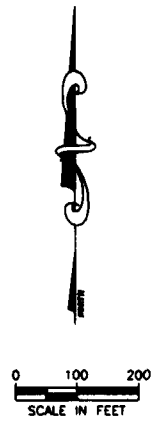
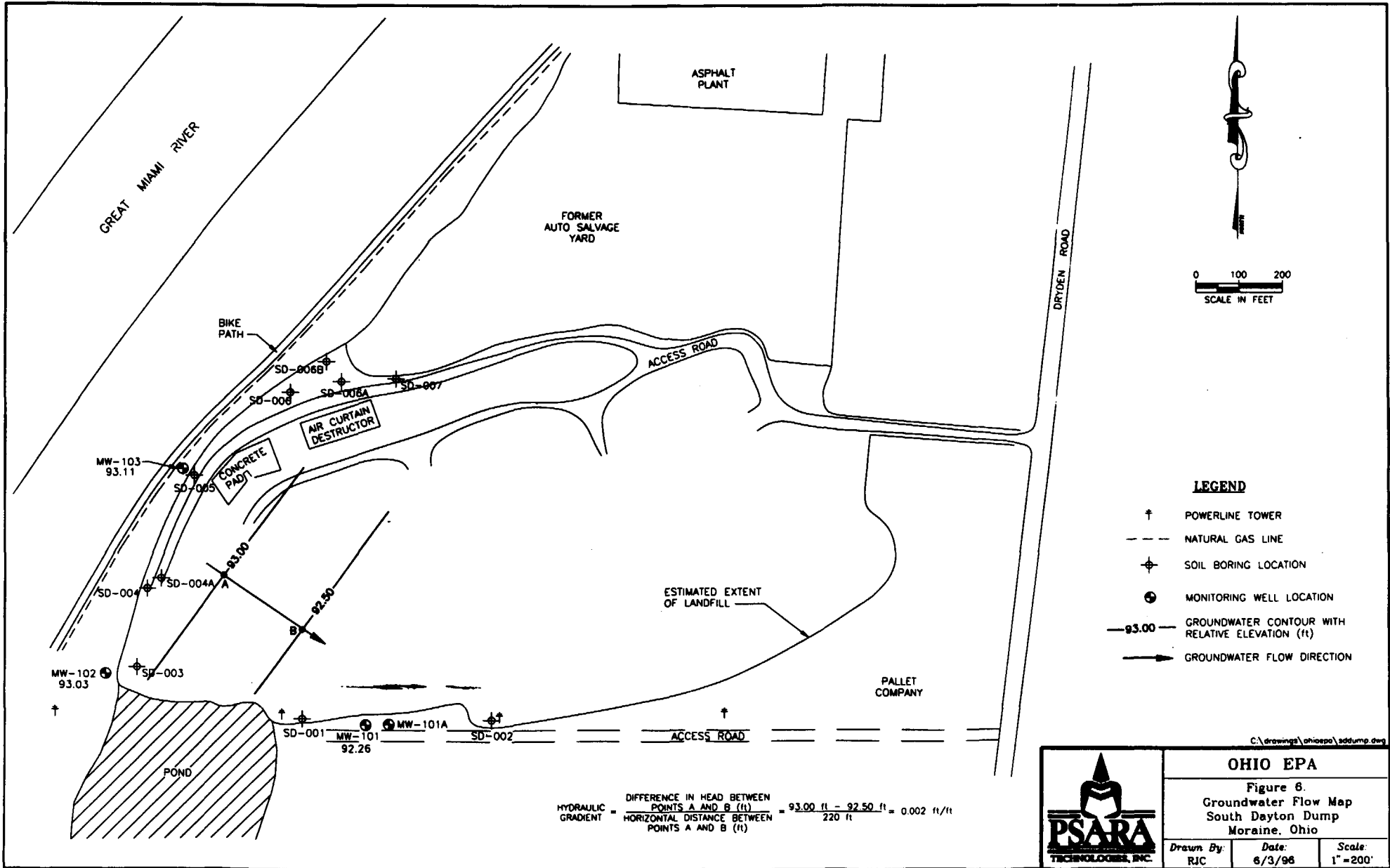
**OHIO EPA**

Figure 4.  
Groundwater Analytical Results  
South Dayton Dump  
Moraine, Ohio

C:\drawings\ohioepa\sdump.dwg

|                  |                 |                   |
|------------------|-----------------|-------------------|
| Drawn By:<br>RJC | Date:<br>6/3/96 | Scale:<br>1"=200' |
|------------------|-----------------|-------------------|





**LEGEND**

- † POWERLINE TOWER
- - - NATURAL GAS LINE
- ⊕ SOIL BORING LOCATION
- ⊙ MONITORING WELL LOCATION
- 93.00- GROUNDWATER CONTOUR WITH RELATIVE ELEVATION (ft)
- GROUNDWATER FLOW DIRECTION

$$\text{HYDRAULIC GRADIENT} = \frac{\text{DIFFERENCE IN HEAD BETWEEN POINTS A AND B (ft)}}{\text{HORIZONTAL DISTANCE BETWEEN POINTS A AND B (ft)}} = \frac{93.00 \text{ ft} - 92.50 \text{ ft}}{220 \text{ ft}} = 0.002 \text{ ft/ft}$$

C:\drawings\ohioepa\sdump.dwg

|  |   |                 |
|--|---|-----------------|
|  | <b>OHIO EPA</b>   |                 |
|  | <b>Figure 6</b><br>Groundwater Flow Map<br>South Dayton Dump<br>Moraine, Ohio |                 |
|  | Drawn By:<br>RJC  | Date:<br>6/3/96 |

---

**APPENDIX A**

**Soil Boring Logs**

---



# Soil Boring Log

Project No. 60003.06  
 Boring No. SD-001  
 Page 1 of 2

## General Information

|  |   |
|--|---|
| Client: <b>Ohio EPA</b>  | Boring No.: <b>SD-001</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>  | Date(s) Drilled: <b>February 19, 1996</b>   |
| PSARA Geologist: <b>R. Stuck</b>   | Drilling Method / Borehole Size: <b>ESP/1.25 in.</b>  |
| Drilling Contractor: <b>CAS</b>  | Total Depth of Borehole (ft): <b>22</b>   |
| Sampling Device: <b>1 x 24" split spoon</b>  | Depth to Water Observed During Drilling (ft): <b>12</b>   |
| Headspace Screening Instrument: <input type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: <b>--</b> |

## Summary of Boring

| Sample No.                  | Sample Depth (ft) |           | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |               |
|-----------------------------|-------------------|-----------|---------------|------------|---|-------------------------|---------------|
|                             | From              | To        |               |            |   | Total Organic           | Total Methane |
| <b>No samples collected</b> | <b>0</b>          | <b>2</b>  | <b>13</b>     |            | <b>6 in. brown loamy soil over ~4 in. black asphalt over ~8 in. brown silty clay with brick.</b>  |                         |               |
|                             | <b>2</b>          | <b>4</b>  | <b>6</b>      |            | <b>Brown silty clay with minor amount (&lt;5%) of very small gravel. Stiff.</b>   |                         |               |
|                             | <b>4</b>          | <b>6</b>  | <b>0</b>      |            | <b>No recovery.</b>   |                         |               |
|                             | <b>6</b>          | <b>8</b>  | <b>6</b>      |            | <b>Clay; brown silty to sandy clay with limestone fragments. Minor amount (&lt;1%) of small gravel. Moist.</b>                                    |                         |               |
|                             | <b>8</b>          | <b>10</b> | <b>10</b>     |            | <b>Silty sand with gravel. Approximately 4 in. over clay; brown silty clay with small gravel. green to gray staining. Faint hydrocarbon odor.</b> |                         |               |
|                             | <b>10</b>         | <b>12</b> | <b>0</b>      |            | <b>No recovery - limestone cobble.</b>  |                         |               |
|                             | <b>12</b>         | <b>14</b> | <b>4</b>      |            | <b>Sand: fine to medium grained sand with minor silt. Wet.</b>  |                         |               |
|                             | <b>14</b>         | <b>16</b> | <b>4</b>      |            | <b>Sand and gravel: coarse grained sand with gravel - few fines. Wet.</b>   |                         |               |

## Notes

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |

Ent'd by: **SLW**  
 Ck'd by: **MES**  
 Date: **3/26/96**





# Soil Boring Log

|             |                      |
|-------------|----------------------|
| Project No. | <u>09003.05</u>      |
| Boring No.  | <u>SD-001</u>        |
| Page        | <u>2</u> of <u>2</u> |

## Summary of Boring

| Sample No.         | Sample Depth (ft) |    | Recovery (in) | Blow Count  | Sample/Core Description  | Headspace Reading (ppm) |               |
|--------------------|-------------------|----|---------------|-------------|--|-------------------------|---------------|
|                    | From              | To |               |             |  | Total Organic           | Total Methane |
| Auger, Split Spoon | 12                | 14 | 0             | 1-1-1-1     | No recovery - spoon wet at ~13 ft.   |                         |               |
| SD001-01           | 14                | 16 | 8             | 5-3-2-2     | Sand; fine to medium grained sand overlaying medium size gravel.   | 290                     |               |
| SD001-02           | 16                | 18 | 20            | 7-6-6-8     | Sand and gravel; medium to coarse sand with large gravel (up to 2 in.), wet. Some silt.  | 160                     |               |
| SD001-03           | 18                | 20 | 22            | 20-17-16-18 | Coarsening downward sequence of fine to medium grained sand down to coarse clean gravel at bottom of spoon. Some clay/silt in sandy units.   | 300                     |               |
| SD001-04           | 20                | 22 | 14            | 11-14-18-21 | Sand; fine to medium sand (~4") overlying tight sand with abundant silty clay and gravel. Dry spots throughout tight clayey sand. Wet above. | 18                      |               |
| SD001-05           | 22                | 24 | 0             |             | ~2 ft of heaving sand.   |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |
|                    |                   |    |               |             |  |                         |               |

### Notes

|  |                      |
|--|----------------------|
|  | Ent'd by: <u>SLW</u> |
|  | CK'd by: <u>MES</u>  |
|  | Date: <u>3/26/96</u> |



# Soil Boring Log

Project No. 60003.06  
 Boring No. SD-002  
 Page 1 of 2

## General Information

|  |  |
|--|--|
| Client: <b>Ohio EPA</b>  | Boring No.: <b>SD-002</b>  |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>  | Date(s) Drilled: <b>February 20, 1996</b>  |
| PSARA Geologist: <b>R. Stuck</b>   | Drilling Method / Borehole Size: <b>2.25-in. I.D. HSA/4.75 in.</b>                                     |
| Drilling Contractor: <b>CAS</b>  | Total Depth of Borehole (ft): <b>26</b>  |
| Sampling Device: <b>2 x 24 in. split spoon</b>   | Depth to Water Observed During Drilling (ft): <b>12</b>  |
| Headspace Screening Instrument: <input type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: <b>—</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count  | Sample/Core Description  | Headspace Reading (ppm) |               |
|------------|-------------------|----|---------------|-------------|--|-------------------------|---------------|
|            | From              | To |               |             |  | Total Organic           | Total Methane |
| SD002-1    | 0                 | 2  | 18            | 7-7-6-5     | Clay; brown silty clay with large gravel upper 4 in. Minor (<5%) small gravel with black mottling throughout. Tight.                   | 0.0                     |               |
| SD002-2    | 2                 | 4  | 12            | 3-3-3-3     | Clay; brown silty clay with black mottles and minor amount of small gravel. Tight. Moist upper 2 in. Glass and other debris fragments. | 0.2                     |               |
| SD002-3    | 4                 | 6  | 18            | 3-4-4-4     | Clay; light brown silty clay (upper 6 in.) overlaying brown silty to sandy clay with abundant small gravel. Sand lower 2 in. of spoon. | 0.0                     |               |
| SD002-4    | 6                 | 8  | 12            | 6-21-16-14  | Sand; poorly sorted sand with up to 10% small to medium gravel. Clean on fine end. Larger cobble fragments.                            | 0.0                     |               |
| SD002-5    | 8                 | 10 | 12            | 14-35-21-24 | Sand; poorly sorted sand with up to 15% small round gravel. Minor amount of silt. Loosely compacted.                                   | 0.0                     |               |
| SD002-6    | 10                | 12 | 12            | 15-17-16-15 | Sand; poorly sorted sand with up to 15% small gravel. Silty, loosely compacted. Faint odor.  | 0.0                     |               |

## Notes

|  |
|--|
|  |
|  |
|  |

|                      |
|----------------------|
| Ent'd by: <b>SLW</b> |
| Ck'd by: <b>MFS</b>  |
| Date: <b>3/26/96</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count  | Sample/Core Description  | Headspace Reading (ppm) |               |
|------------|-------------------|----|---------------|-------------|--|-------------------------|---------------|
|            | From              | To |               |             |  | Total Organic           | Total Methane |
| SD002-7    | 12                | 14 | 10            | 12-27-22-22 | Sand; poorly sorted sand with abundant small gravel, silt and clay. Numerous rusty brown mottles and streaks. Wet. Tight.  | 6.8                     |               |
| SD002-8    | 14                | 16 | 14            | 30-8-7-7    | Sand; poorly sorted fine to coarse sand with gravel and silt (upper 6 in.) overlaying fine to medium sand with minor small gravel/coarse sand and no silt. Wet throughout. | 14                      |               |
| SD002-9    | 16                | 18 | 12            | 4-7-10-10   | Sand and gravel - ~6 in. of coarse sand and gravel with no visible fines overlaying 6 in. of medium grained, well saturated sand.  | 6.6                     |               |
| SD002-10   | 18                | 20 | 8             | 14-16-4-4   | Sand; poorly sorted sand with small gravel and silt. Wet.  | 60                      |               |
| SD002-11   | 20                | 22 | 6             | 6-6-4-4     | Gravel; coarse angular gravel with few medium to fine sand and silt. Wet.  | 400                     |               |
| SD002-12   | 22                | 24 | 6             | —           | Sand; tightly compacted sand with abundant clay and gravel. Wet throughout.  | 180                     |               |
| SD002-13   | 24                | 26 | 28            | 50-32-32-25 | Sand; wet fine to medium grained sand overlaying tight sandy clay with gravel. moist to damp (=6 in.) overlaying fine to medium grained wet sand.                          | 160                     |               |
|            |                   |    |               |             |  |                         |               |
|            |                   |    |               |             |  |                         |               |
|            |                   |    |               |             |  |                         |               |
|            |                   |    |               |             |  |                         |               |
|            |                   |    |               |             |  |                         |               |

### Notes

|  |               |
|--|---------------|
|  | Ent'd by: SLW |
|  | Ck'd by: MES  |
|  | Date: 3/26/96 |



# Soil Boring Log

|             |          |
|-------------|----------|
| Project No. | 60003.06 |
| Boring No.  | SD-003   |
| Page        | 1 of 1   |

## General Information

|   |   |
|---|---|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>SD-003</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>   | Date(s) Drilled: <b>February 22, 1996</b>   |
| PSARA Geologist: <b>R. Stuck</b>  | Drilling Method / Borehole Size: <b>2.25-in. I.D. HSA/4.75 in.</b>                            |
| Drilling Contractor: <b>CAS</b>   | Total Depth of Borehole (ft): <b>6</b>  |
| Sampling Device: <b>2 x 24 in. split spoon</b>  | Depth to Water Observed During Drilling (ft):   |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |      |
|------------|-------------------|----|---------------|------------|---|-------------------------|------|
|            | From              | To |               |            |   | FID                     | PID  |
| SD003-01   | 0                 | 2  | 18            | 2-2-2-27   | Sequence of mixed units: 6" of black to brown wet clay with organics overlaying =4 in. of black mottled clayey sand over =4 in. of wet pinkish medium grained sand over wet brown silt. | 8.4                     | 2.8  |
| SD003-02   | 2                 | 4  | 8             | 2-16-21-26 | Sand; black to brown sand with abundant silt and clay (?). Wet. Very sticky. Black staining throughout.   | 540                     | 5.2  |
| SD003-03   | 4                 | 6  | 12            | 4-4-5-5    | Sand; variegated black, gray and white sand with tight clayey zones.  | 22                      | 16.8 |
|            |                   |    |               |            | Boring stopped due to buried waste.   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |
|            |                   |    |               |            |   |                         |      |

## Notes

|   |
|---|
| Cutting "sludgy" on auger when we withdrew. |
|   |
|   |

|                             |
|-----------------------------|
| Ent'd by: SLW               |
| Ck'd by: <i>[Signature]</i> |
| Date: 3/27/96               |



# Soil Boring Log

Project No. 60003.06  
 Boring No. SD-004  
 Page 1 of 1

## General Information

|   |   |
|---|---|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>SD-004</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>   | Date(s) Drilled: <b>February 22, 1996</b>   |
| PSARA Geologist: <b>R. Stuck</b>  | Drilling Method / Borehole Size: <b>ESP/1.25 in.</b>  |
| Drilling Contractor: <b>CAS</b>   | Total Depth of Borehole (ft): <b>12</b>   |
| Sampling Device: <b>1 x 24" split spoon</b>   | Depth to Water Observed During Drilling (ft):   |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|---|-------------------------|-----|
|            | From              | To |               |            |   | FID                     | PID |
| SD004-1    | 0                 | 2  | 6             | ---        | Clay; brown to black silty to sandy clay with cinders, slag, and other debris.  | 6.0                     | 5.1 |
| SD004-2    | 2                 | 4  | 8             | ---        | Brown clay with abundant glass fragments and assorted debris (5") over coarse pink brick fragments.                   | 1.4                     | 3.8 |
| SD004-3    | 4                 | 6  | 14            | ---        | Clay; brown silty to sandy clay with small gravel and gravel fragments, rusty brown mottling and few brick fragments. | 2.2                     | 5.0 |
| SD004-4    | 6                 | 8  | 4             | ---        | Sand; buff colored medium grained sand overlain by limestone cobble fragments.  | 2.4                     | 4.8 |
| SD004-5    | 8                 | 10 | 14            | ---        | Sand; coarse to fine grained sand with abundant silt. Up to 5% small angular gravel.                                  | 5.8                     | 4.8 |
| SD004-6    | 10                | 12 | 8             | ---        | Sand; poorly sorted fine to coarse sand with gravel up to 20%, very well compacted. Silty.                            | 18                      | 40  |
|            |                   |    |               |            | Probe refusal @ 12 ft   |                         |     |

## Notes

|  |
|--|
|  |
|  |
|  |

Ent'd by: **SLW**  
 Ck'd by:   
 Date: **3/27/96**



# Soil Boring Log

Project No. 60003.06  
 Boring No. SD-004A  
 Page 1 of 2

## General Information

|   |   |
|---|---|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>SD-004A</b>  |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>   | Date(s) Drilled: <b>February 22 - 23, 1996</b>  |
| PSARA Geologist: <b>R. Stuck</b>  | Drilling Method / Borehole Size: <b>ESP / 1.25 in.</b>  |
| Drilling Contractor: <b>CAS</b>   | Total Depth of Borehole (ft): <b>28</b>   |
| Sampling Device: <b>1 x 24" split spoon</b>   | Depth to Water Observed During Drilling (ft): <b>17</b>                                       |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description  | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|--|-------------------------|-----|
|            | From              | To |               |            |  | FID                     | PID |
| SD004A-1   | 0                 | 2  | 12            | ---        | Clay; black organic rich clay with abundant cinders.   | 2.8                     | 4.2 |
| SD004A-2   | 2                 | 4  | 0             | ---        | No recovery, rock in spoon.  |                         |     |
| SD004A-3   | 4                 | 6  | 4             | ---        | Clay; brown silty clay with abundant coarse sand, moist.   | 1.8                     | 3.0 |
| SD004A-4   | 6                 | 8  | 12            | ---        | Clay; brown silty clay with abundant sand and small gravel (upper 5") overlaying poorly sorted sand with gravel and silt. Numerous limestone cobble fragments. | 4.0                     | 3.2 |
| SD004A-5   | 8                 | 10 | 14            | ---        | Sand; poorly sorted sand with silt and abundant small subangular gravel (up to 15%).   | 3.8                     | 4.2 |
| SD004A-6   | 10                | 12 | 18            | ---        | Sand; poorly sorted fine to coarse sand with abundant gravel and silt. Gravel up to 15% and up to 1" diameter. Dry and loosely compacted.                      | 3.0                     | 4.0 |
| SD004A-7   | 12                | 14 | 16            | ---        | Sand; poorly sorted sand with gravel and silt. Numerous cobble fragments including 1 broken granite cobble.  | 7.2                     | 6.8 |

## Notes

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |

|                      |
|----------------------|
| Ent'd by: <b>SLW</b> |
| Ck'd by: <b>MES</b>  |
| Date: <b>3/27/96</b> |

# Soil Boring Log

## Summary of Boring

| Sample No.   | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |     |
|--------------|-------------------|----|---------------|------------|---|-------------------------|-----|
|              | From              | To |               |            |   | FID                     | PID |
| SD004A-8*    | 14                | 16 | 18            | —          | Sand; poorly sorted sand with gravel and silt. ~20% small subrounded gravel. Oxidized zone ~1" thick 2 inches from bottom of spoon.                                       | 4.2                     | 3.8 |
| SD004A-9**   | 16                | 18 | 12            | 12-13-16-9 | Sand; poorly sorted sand with abundant gravel and few fines (upper 4 in.) overlaying poorly sorted silty sand with gravel (~3 in.) overlaying wet silty sand with gravel. | 24                      | 8.0 |
| SD004A-10*** | 18                | 20 | 6             | —          | Sand and gravel; poorly sorted sand with gravel and silt. Wet.  | 2.8                     | 4.0 |
| SD004A-11    | 20                | 22 | 8             | —          | Sand; poorly sorted sand with gravel and silt. Several cobble fragments. Very silty near bottom of spoon. Wet.  | 22                      | 7.5 |
| SD004A-12    | 22                | 24 | 6             |            | Sand and gravel; poorly sorted sand with gravel and silt. Appears to have segregated during sampling. Wet.  | 5.2                     | 5.8 |
| SD004A-13    | 24                | 26 | 6             |            | Gravel; poorly sorted rounded gravel with coarse sand. Wet.   | 8.6                     | 5.4 |
| SD004A-14    | 26                | 28 | 2             |            | Sand and gravel; poorly sorted medium to coarse sand and minor amount of silt. Wet.   | 4.8                     | 4.6 |
|              |                   |    |               |            | BOH at 28 ft.   |                         |     |

### Notes

\* Lost probe tools down hole at 16-18 ft interval. Unable to retrieve. Grouted hole. Offset =2 ft.

Will continue with 2.25 HSA.

Ent'd by: SLW

\*\* Boring continued with 2.25 HSA offset =2 ft from SD004A initial attempt.

Ck'd by: MES

\*\*\* Switch back to ESP through augers.

Date: 3/27/96

# Soil Boring Log

## General Information

|  |   |
|--|---|
| Client: <b>Ohio EPA</b>  | Boring No.: <b>SD-005</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>  | Date(s) Drilled: <b>February 23, 1996</b>   |
| PSARA Geologist: <b>R. Stuck</b>   | Drilling Method / Borehole Size: <b>HSA /4.75 and ESP/1.25</b>  |
| Drilling Contractor: <b>CAS</b>  | Total Depth of Borehole (ft): <b>43</b>   |
| Sampling Device: <b>2 x 24 in. and 1 x 24 in. split spoons</b>                                       | Depth to Water Observed During Drilling (ft): <b>18</b>   |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: <b>--</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|---|-------------------------|-----|
|            | From              | To |               |            |   | FID                     | PID |
| SD005-1    | 0                 | 2  | 18            | 4-6-4-4    | Black organic rich clay overlaying ≈6 in. of variegated black to gray clay with cinders, slag burnt wood over 6 in. of rusty brown and sandy clay with assorted debris. | 3.6                     | 1.2 |
| SD005-2    | 2                 | 4  | 18            | 3-3-3-6    | Black to gray cinder rich clay with glass, brick, and slag. Gray streaks. Moist zone (upper 1"). Overlaying brown sandy clay to clayey sand lower 6 in.                 | 4.0                     | 1.6 |
| SD005-3    | 4                 | 6  | 8             | 6-8-6-3    | Clay; brown to black silty clay with gravel. Loosely compacted.   | 3.2                     | 1.6 |
| SD005-4    | 6                 | 8  | 18            | 4-4-4-4    | Clay; brown silty clay with black streaks. Few sandy clay zones. Small gravel up to 5%. Hard.   | 2.6                     | 2.0 |
| SD005-5    | 8                 | 10 | 18            | 3-4-3-3    | Clay; brown silty clay with abundant coarse sand and small gravel throughout. Black mottling upper 6 in. Fewer gravel near bottom of spoon.                             | 2.8                     | 1.0 |
| SD005-6    | 10                | 12 | 20            | 4-4-4-4    | Clay; brown silty clay with coarse sand and small gravel. Single burnt wood at 5 in. from top of spoon.   | 3.0                     | 1.2 |

## Notes

|  |
|--|
|  |
|  |
|  |

Ent'd by: SLW  
 Ck'd by: [Signature]  
 Date: 3/27/96



# Soil Boring Log

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count  | Sample/Core Description   | Headspace Reading (ppm) |      |
|------------|-------------------|----|---------------|-------------|---|-------------------------|------|
|            | From              | To |               |             |   | FID                     | PID  |
| SD005-7    | 12                | 14 | 14            | 5-5-11-12   | Clay; brown silty clay upper 4 in. overlaying buff colored clayey sand to sandy clay with up to 10% small rounded gravel. | 14                      | 10.2 |
| SD005-8    | 14                | 16 | 12            | 31-21-19-17 | Sand; poorly sorted sand with abundant silt and clay - gravel up to 5%. Single broken limestone cobble.                   | 10                      | 16   |
| SD005-9    | 16                | 18 | 18            | 27-18-15-16 | Sand; poorly sorted sand with up to 20% small rounded gravel and abundant silt/clay. Wet lower 4 in.                      | 12                      | 6.2  |
| SD005-10   | 18                | 20 | 6             | 21-19-14-7  | Sand and gravel; poorly sorted fine to coarse sand with up to 30% gravel. Wet.  | 7.8                     | 3.6  |
| SD005-11*  | 20                | 22 | 8             | --          | Sand and gravel; poorly sorted with clay and silt. Wet.   | 24                      | 5.0  |
| SD005-12   | 22                | 24 | 6             | --          | Sand and gravel; poorly sorted with clay and silt. Wet.   | 10                      | 3.2  |
| SD005-13   | 24                | 26 | 0             | --          | No recovery.  | --                      | --   |
| SD005-14   | 26                | 28 |               |             | ** Soil sampling abandoned ≈3 ft of heave into outer casing. Unable to clear.   | --                      | --   |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |
|            |                   |    |               |             |   |                         |      |

### Notes

|   |               |
|---|---------------|
| * Switch to soil sampling with ESP system with augers at 18 ft. | Ent'd by: SLW |
|   | Ck'd by: MEG  |
|   | Date: 3/27/96 |



# Soil Boring Log

Project No. 60003.06  
Boring No. SD-006  
Page 1 of 1

## General Information

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>SD-006</b>  |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>   | Date(s) Drilled: <b>February 26, 1996</b>  |
| PSARA Geologist: <b>R. Stuck</b>  | Drilling Method / Borehole Size: <b>2.25-in. I.D. HSA/4.75 in.</b>                                       |
| Drilling Contractor: <b>CAS</b>   | Total Depth of Borehole (ft): <b>4</b>   |
| Sampling Device: <b>2 x 24 in. split spoon</b>  | Depth to Water Observed During Drilling (ft): <b>---</b>   |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: <b>---</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|---|-------------------------|-----|
|            | From              | To |               |            |   | FID                     | PID |
| SD006-1    | 0                 | 2  | 12            | 3-4-6-4    | Fill: black slag rich fill with abundant cinders. burnt wood fragments and assorted debris.   | 12                      | 4   |
| SD006-2    | 2                 | 4  | 20            | 3-3-2-1    | Clay: brown to black sandy clay with silt and gravel, loosely compacted.<br><br>BOH at 2 ft. Boring abandoned due to toxic atmosphere and potentially explosive vapors. | 500                     | 4   |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |

## Notes

Ent'd by: **SLW**  
Ck'd by: **RES**  
Date: **3/27/96**



# Soil Boring Log

Project No. 60003.06  
 Boring No. SD-006A  
 Page 1 of 1

## General Information

|   |   |
|---|---|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>SD-006A</b>  |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>   | Date(s) Drilled: <b>February 26, 1996</b>   |
| PSARA Geologist: <b>R. Stuck/C. Hall</b>  | Drilling Method / Borehole Size: <b>2.25-in. I.D. HSA/4.75 in.</b>                                      |
| Drilling Contractor: <b>CAS</b>   | Total Depth of Borehole (ft): <b>6</b>  |
| Sampling Device: <b>2 x 24 in. split spoon</b>  | Depth to Water Observed During Drilling (ft): <b>--</b>   |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: <b>--</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|---|-------------------------|-----|
|            | From              | To |               |            |   | FID                     | PID |
| SD006A-1   | 0                 | 2  | 18            | 4-4-5-5    | Fill: black slag rich with sand size material.<br>numerous cinders with burnt wood fragments.<br>Loosely compacted. | 1                       | 3   |
| SD006A-2   | 2                 | 4  | 16            | 4-4-4-4    | Ash (?); black silt sized with small white and tan fragments. Slag-rich fill lower 5 in.                            | >1000                   | 6   |
| SD006A-3   | 4                 | 6  | 12            | 2-2-3-2    | Fill; cinder and ash rich black fill with assorted debris including white plastic bag.                              | >1000                   | 11  |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |

### Notes

Boring abandoned due to excessive waste and landfill material

Ent'd by: SLW  
 Ck'd by: [Signature]  
 Date: 3/27/96



# Soil Boring Log

Project No. 60003.06  
 Boring No. SD-006B  
 Page 1 of 1

## General Information

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>SD-006B</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>   | Date(s) Drilled: <b>February 26, 1996</b>  |
| PSARA Geologist: <b>C. Hall</b>   | Drilling Method / Borehole Size: <b>2.25-in. I.D. HSA/4.75 In.</b>                                       |
| Drilling Contractor: <b>CAS</b>   | Total Depth of Borehole (ft): <b>2</b>   |
| Sampling Device: <b>2 x 24 in. split spoon</b>  | Depth to Water Observed During Drilling (ft): <b>---</b>   |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: <b>---</b> |

## Summary of Boring

| Sample No.      | Sample Depth (ft) |          | Recovery (in) | Blow Count     | Sample/Core Description                                  | Headspace Reading (ppm) |           |
|-----------------|-------------------|----------|---------------|----------------|--|-------------------------|-----------|
|                 | From              | To       |               |                |  | FID                     | PID       |
| <b>SD006B-1</b> | <b>0</b>          | <b>2</b> | <b>4</b>      | <b>4-1-2-3</b> | <b>Black fill slag material, slightly clayey. Moist.</b> | <b>6</b>                | <b>12</b> |
|                 |                   |          |               |                | <b>Abandon hole at 2 ft, strong organic odor.</b>        |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |
|                 |                   |          |               |                |  |                         |           |

## Notes

Ent'd by: **SLW**  
 Ck'd by: **MES**  
 Date: **3/27/96**



# Soil Boring Log

Project No. 60003.06  
 Boring No. SD-007  
 Page 1 of 1

## General Information

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>SD-007</b>  |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>   | Date(s) Drilled: <b>February 26, 1996</b>  |
| PSARA Geologist: <b>C. Hall</b>   | Drilling Method / Borehole Size: <b>2.25-in. I.D. HSA/4.75 in.</b>                                       |
| Drilling Contractor: <b>CAS</b>   | Total Depth of Borehole (ft): <b>14</b>  |
| Sampling Device: <b>2 x 24 in. split spoon</b>  | Depth to Water Observed During Drilling (ft): <b>---</b>   |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input checked="" type="checkbox"/> FID | Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well No.: <b>---</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description  | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|--|-------------------------|-----|
|            | From              | To |               |            |  | FID                     | PID |
| SD007-1    | 0                 | 2  | 20            | 2-3-4-6    | Fill, coarse grained sand and gravel, large amount slag material, loosely compacted.   | 5                       | 3   |
| SD007-2    | 2                 | 4  | 10            | 7-5-2-2    | Fill, sand and gravel, cinder slag material, burnt wood fragments. Loosely compacted.  | 5                       | 1   |
| SD007-3    | 4                 | 6  | 11            | 6-10-5-5   | Sand, orangish-red, coarse grained, loosely compacted.   | 80                      | 4   |
| SD007-4    | 6                 | 8  | 10            | 2-1-1-1    | Fill, sand, ash, black burnt wood fragments, small amount slag material, loosely compacted.  | 20                      | 1   |
| SD007-5    | 8                 | 10 | 6             | 1-1-2-1    | Fill, black sand, and ash, coarse grained sand, small amount slag material, loosely compacted.                                     | 100                     | 3   |
| SD007-6    | 10                | 12 | 10            | 1-1-1-1    | Fill, black sand and cinder, glass fragments, loosely compacted, clay in shoe of spoon.  | 300                     | 2   |
| SD007-7    | 12                | 14 | 10            | 2-1-1-1    | Clay, dark brown, minor amount of sand, wood fragments at bottom of spoon, loosely compacted coarse grained sand in shoe of spoon. | 20                      | 3   |

## Notes

Ent'd by: **SLW**  
 Ck'd by: **MES**  
 Date: **3/27/96**



# Soil Boring Log

Project No. 60003.06  
Boring No. MW-101  
Page 1 of 1

## General Information

|  |   |
|--|---|
| Client: <b>Ohio EPA</b>  | Boring No.: <b>MW-101</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>  | Date(s) Drilled: <b>April 5, 1996</b>   |
| PSARA Geologist: <b>R. Stuck</b>   | Drilling Method / Borehole Size: <b>4.25-in. I.D. HSA/8.25 in.</b>                            |
| Drilling Contractor: <b>JEDI</b>   | Total Depth of Borehole (ft): <b>38</b>   |
| Sampling Device: <b>N/A Logged from cuttings</b>   | Depth to Water Observed During Drilling (ft): <b>15</b>                                       |
| Headspace Screening Instrument: <input checked="" type="checkbox"/> PID <input type="checkbox"/> FID | Well Installed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well No.: |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description   | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|---|-------------------------|-----|
|            | From              | To |               |            |   | FID                     | PID |
|            | 0                 | 11 |               |            | Clay; brown silty to sandy clay with organic fragments and gravel. Concrete slabs at surface. |                         |     |
|            | 11                | 12 |               |            | Cobble/boulder.   |                         |     |
|            | 12                | 29 |               |            | Sandy clay to clayey sand with gravel.  |                         |     |
|            | 29                | 38 |               |            | Wet sand to silt. Very fine grained, gray plastic.  |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |

## Notes

|  |
|--|
|  |
|  |
|  |

Ent'd by: SLW  
Ck'd by: MES  
Date: 3/27/96



# Soil Boring Log

Project No. 60003.06  
 Boring No. MW-102  
 Page 1 of 1

## General Information

|   |   |
|---|---|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>MW-102</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>                                     | Date(s) Drilled: <b>April 8, 1996</b>   |
| PSARA Geologist: <b>R. Stuck</b>  | Drilling Method / Borehole Size: <b>4.25-In. I.D. HSA/8.25 in.</b>  |
| Drilling Contractor: <b>JEDI</b>  | Total Depth of Borehole (ft): <b>32</b>   |
| Sampling Device: <b>N/A Logged by cuttings</b>  | Depth to Water Observed During Drilling (ft): <b>10</b>   |
| Headspace Screening Instrument: <input type="checkbox"/> PID <input type="checkbox"/> FID | Well Installed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well No.: <b>MW-102</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description  | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|--|-------------------------|-----|
|            | From              | To |               |            |  | FID                     | PID |
|            | 0                 | 10 |               |            | <b>Brown clayey top soil with silt and gravel.</b>                                 |                         |     |
|            | 10                | 15 |               |            | <b>Brown silty to sandy clay, wet.</b>   |                         |     |
|            | 15                | 32 |               |            | <b>Sand and gravel; coarse gravel and cobbles; minor coarse sand. Damp to wet.</b> |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |

## Notes

Ent'd by: DMW  
 Ck'd by: ME  
 Date: 4/30/96



# Soil Boring Log

Project No. 60003.06  
 Boring No. MW-103  
 Page 1 of 1

## General Information

|   |   |
|---|---|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>MW-103</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>                                     | Date(s) Drilled: <b>April 9, 1996</b>   |
| PSARA Geologist: <b>R. Stuck</b>  | Drilling Method / Borehole Size: <b>4.25-in. I.D. HSA/8.25 in.</b>  |
| Drilling Contractor: <b>JEDI</b>  | Total Depth of Borehole (ft): <b>32</b>   |
| Sampling Device: <b>N/A Logged by cuttings</b>  | Depth to Water Observed During Drilling (ft): <b>10</b>   |
| Headspace Screening Instrument: <input type="checkbox"/> PID <input type="checkbox"/> FID | Well Installed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well No.: <b>MW-103</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description                     | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|---|-------------------------|-----|
|            | From              | To |               |            |   | FID                     | PID |
|            | 0                 | 8  |               |            | <b>Clay; brown sandy clay with gravel.</b>  |                         |     |
|            | 8                 | 12 |               |            | <b>Clay; brown sandy clay, damp to wet.</b> |                         |     |
|            | 12                | 32 |               |            | <b>Sand and gravel; very few cuttings.</b>  |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |
|            |                   |    |               |            |   |                         |     |

## Notes

|  |
|--|
|  |
|  |
|  |

Ent'd by: **DMW**  
 Ck'd by: **MES**  
 Date: **4/30/96**





# Soil Boring Log

Project No. 60003.06  
Boring No. MW-101A  
Page 1 of 1

## General Information

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>   | Boring No.: <b>MW-101A</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b>                                     | Date(s) Drilled: <b>May 7, 1996</b>  |
| PSARA Geologist: <b>R. Stuck</b>  | Drilling Method / Borehole Size: <b>4.25-in. I.D. HSA/8.25 in.</b>   |
| Drilling Contractor: <b>JEDI</b>  | Total Depth of Borehole (ft): <b>35</b>  |
| Sampling Device: <b>N/A Logged from cuttings</b>  | Depth to Water Observed During Drilling (ft): <b>15</b>  |
| Headspace Screening Instrument: <input type="checkbox"/> PID <input type="checkbox"/> FID | Well Installed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well No.: <b>MW-101A</b> |

## Summary of Boring

| Sample No. | Sample Depth (ft) |    | Recovery (in) | Blow Count | Sample/Core Description                                      | Headspace Reading (ppm) |     |
|------------|-------------------|----|---------------|------------|--|-------------------------|-----|
|            | From              | To |               |            |  | FID                     | PID |
|            | 0                 | 8  |               |            | <b>Brown silty clay with gravel.</b>                         |                         |     |
|            | 8                 | 15 |               |            | <b>Brown silty to sandy clay, moist to damp.</b>             |                         |     |
|            | 15                | 19 |               |            | <b>Sand and gravel with cobbles. Few cuttings.</b>           |                         |     |
|            | 19                | 35 |               |            | <b>Gray to brown sandy silt. Wet. Some cuttings plastic.</b> |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |
|            |                   |    |               |            |  |                         |     |

## Notes

|  |
|--|
|  |
|  |
|  |

|                      |
|----------------------|
| Ent'd by: <b>DMW</b> |
| Ck'd by: <b>MES</b>  |
| Date: <b>5/13/96</b> |

---

**APPENDIX B**

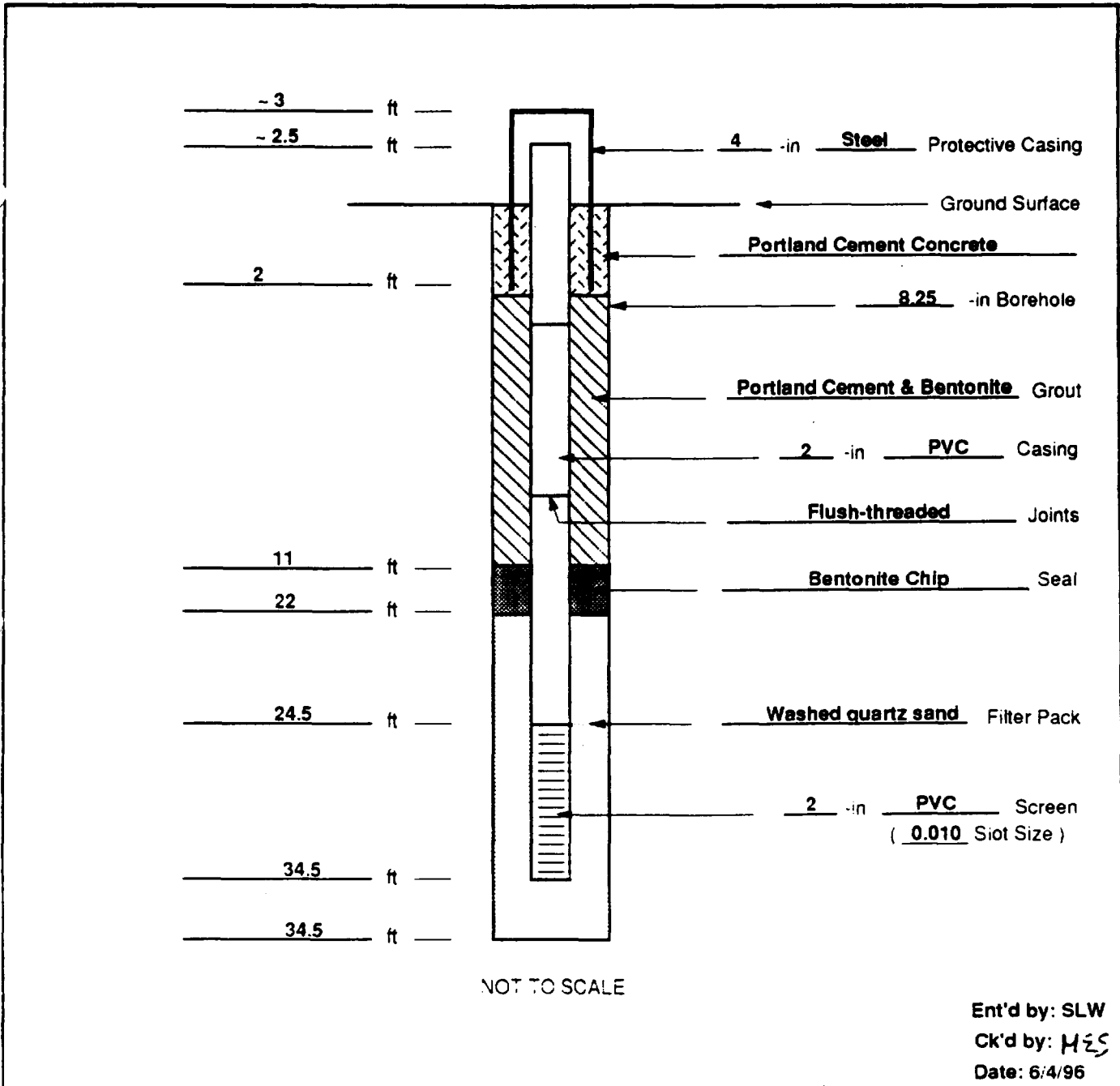
**Well Construction Diagrams**

---

**General Information**

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>                               | Well No.: <b>MW-101</b>                            |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b> | Date Completed: <b>April 5, 1996</b>               |
| PSARA Geologist: <b>R. Stuck</b>                      | Drilling Method: <b>4.25-in. I.D. HSA/8.25 In.</b> |
| Drilling Contractor: <b>JEDI</b>                      | Depth to Static Water (ft): <b>15.10 (4/23/96)</b> |

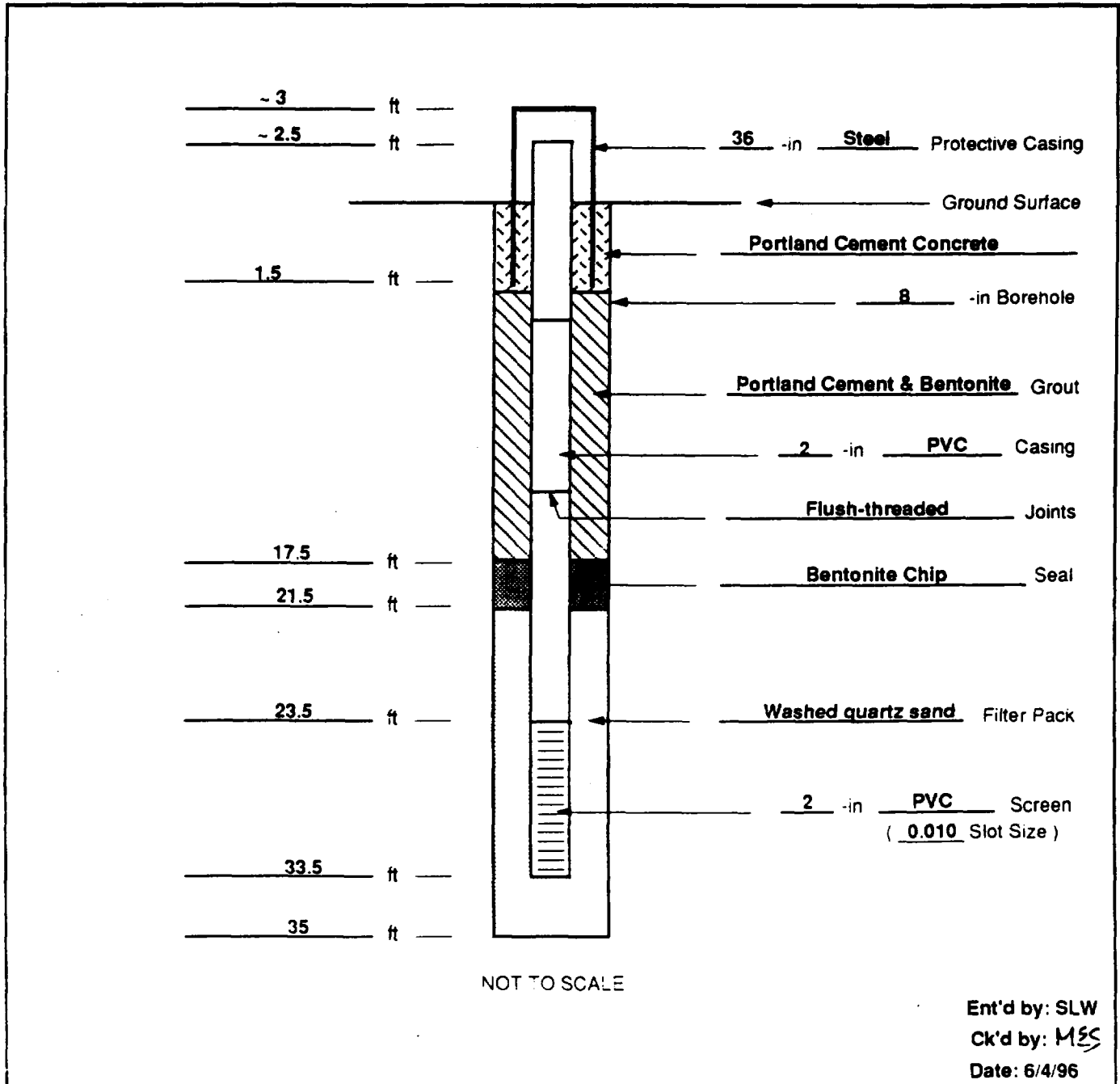
**Construction Details**



## General Information

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>                               | Well No.: <b>MW-101A</b>                           |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b> | Date Completed: <b>May 7, 1996</b>                 |
| PSARA Geologist: <b>R. Stuck</b>                      | Drilling Method: <b>4.25-in. I.D. HSA/8.25 in.</b> |
| Drilling Contractor: <b>JEDI</b>                      | Depth to Static Water (ft): <b>16</b>              |

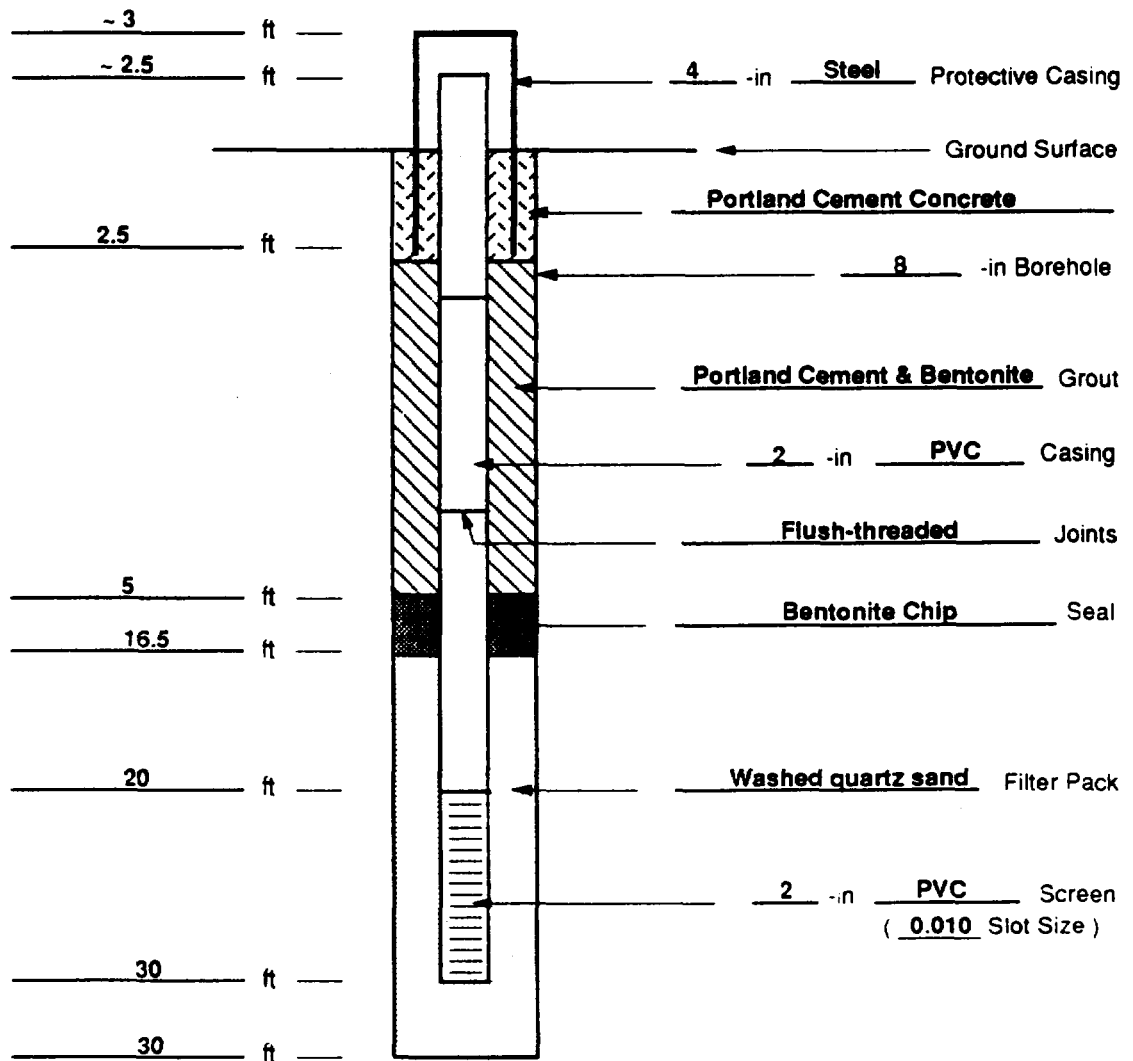
## Construction Details



## General Information

|  |   |
|--|---|
| Client: Ohio EPA                               | Well No.: MW-102                            |
| Site Location: South Dayton Dump, Dayton, Ohio | Date Completed: April 8, 1996               |
| PSARA Geologist: R. Stuck                      | Drilling Method: 4.25-in. I.D. HSA/8.25 in. |
| Drilling Contractor: JEDI                      | Depth to Static Water (ft): 6.97 (4/23/96)  |

## Construction Details



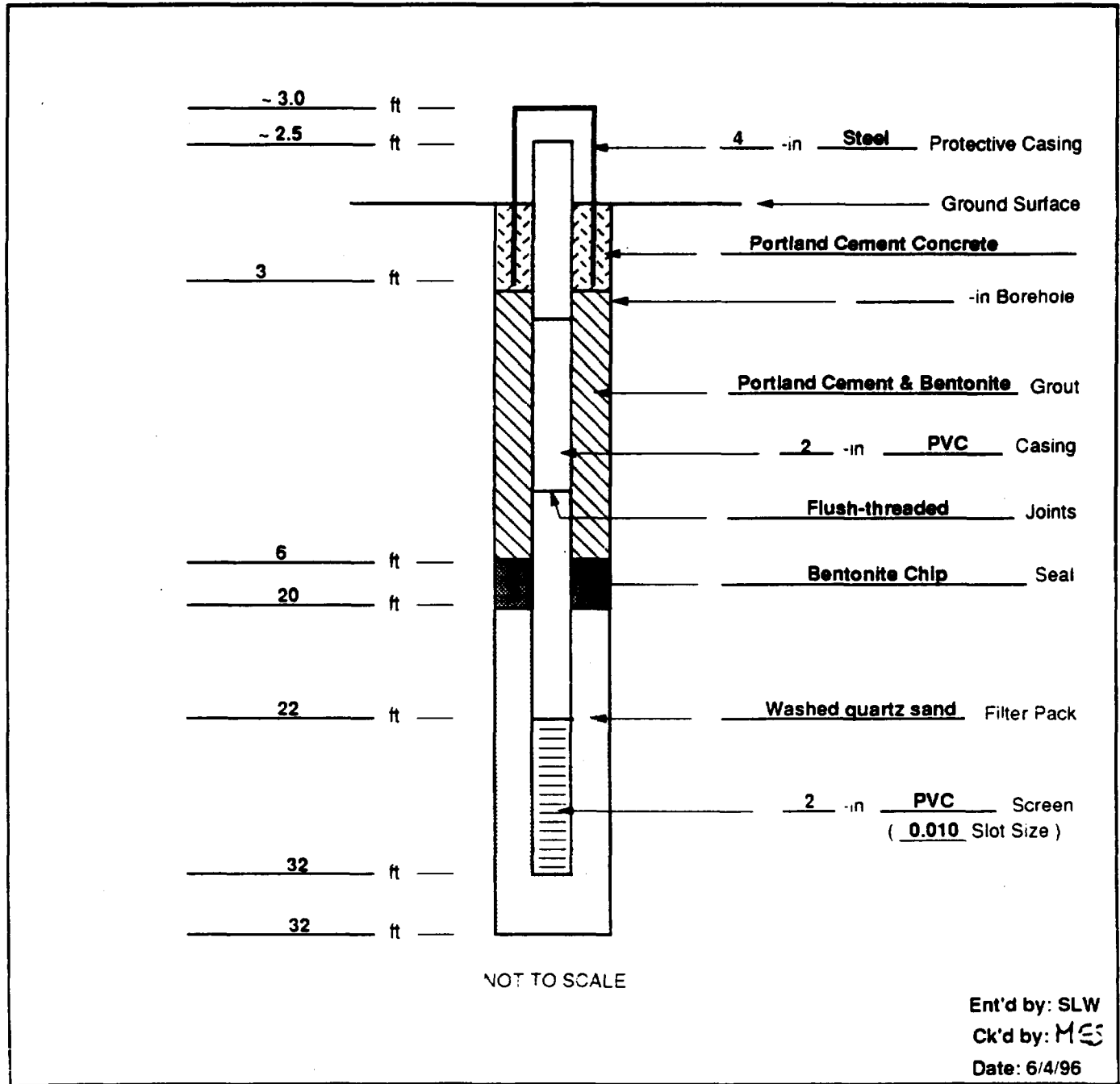
NOT TO SCALE

Ent'd by: SLW  
Ck'd by: MES  
Date: 6/4/96

**General Information**

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>                               | Well No.: <b>MW-103</b>                            |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b> | Date Completed: <b>April 9, 1996</b>               |
| PSARA Geologist: <b>R. Stuck</b>                      | Drilling Method: <b>4.25-in. I.D. HSA/8.25 in.</b> |
| Drilling Contractor: <b>JEDI</b>                      | Depth to Static Water (ft): <b>5.80 (4/23/96)</b>  |

**Construction Details**



---

---

**APPENDIX C**

**ODNR Well Logs and Drilling Reports**

---

---

COUNTY MONTGOMERY TOWNSHIP MIAMI  
 MEMBER OF South Dayton Dump PROPERTY ADDRESS 1975 DRYDEN RD, MARIETTA, OH  
 LOCATION OF PROPERTY DAVIDAL OHIO Marietta, OH

**CONSTRUCTION DETAILS**

**PIPE** Length between grade 9 1/2 in. **GROUT**  
 Diameter 2 in. Length 23 ft. Wall Thickness sch 40 in. Material Portland Cement  
 Diameter \_\_\_\_\_ in. Length \_\_\_\_\_ ft. Wall Thickness \_\_\_\_\_ in. Method of installation TRIPLE  
 Material:  Steel  Galv.  PVC  Other \_\_\_\_\_  
 Threaded  Welded  Solvent  Other \_\_\_\_\_  
 Length \_\_\_\_\_ Type \_\_\_\_\_ Wall Thickness \_\_\_\_\_ in. Depth: placed from 16 ft.  
**GRAVEL PACK (Filter Pack)**  
 Material #5 SAND Volume used 5 1/2 BAGS  
 Method of installation GRAVITY  
 Depth: placed from 32 ft. to 20 ft.  
 Pitless Device  Adapter  Pressurized unit  
 Use of Well MONITOR  
 Rotary  Cable  Augered  Driven  Dug  Other \_\_\_\_\_  
 Date of Completion 4-9-96

**WELL LOG**

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.  
 Show color, texture, hardness, and formation:  
 sandstone, shale, limestone, gravel, clay, sand, etc.

|                                     | From | To |
|-------------------------------------|------|----|
| GRAVEL BASE                         | 0    | 2  |
| 1/4" Brown Silty Sandy              | 2    | 8  |
| 1/2" to Grey Silty Clay             | 8    | 17 |
| 1/2" to GREY SILTY CLAY-LESS SILTY  | 17   | 20 |
| BROWN SAND & GRAVEL w/ Cobbles: WET | 20   | 25 |
| BROWN SAND & GRAVEL w/ Cobbles: WET | 25   | 27 |
| BROWN SAND & GRAVEL w/ Cobbles: WET | 27   | 32 |
| W/TH 32'                            |      |    |
| WATER ON P.C.S. 20'                 |      |    |
| WATER AT COMP. 18'                  |      |    |

**WELL TEST**

Bailing  Pumping  Other \_\_\_\_\_  
 Test rate NA gpm Duration of test \_\_\_\_\_ hr  
 Drawdown \_\_\_\_\_  
 Measured from:  top of casing  ground level  Other \_\_\_\_\_  
 Static Level (depth to water) \_\_\_\_\_ ft. Date: \_\_\_\_\_  
 Quality (clear, cloudy, taste, odor) \_\_\_\_\_

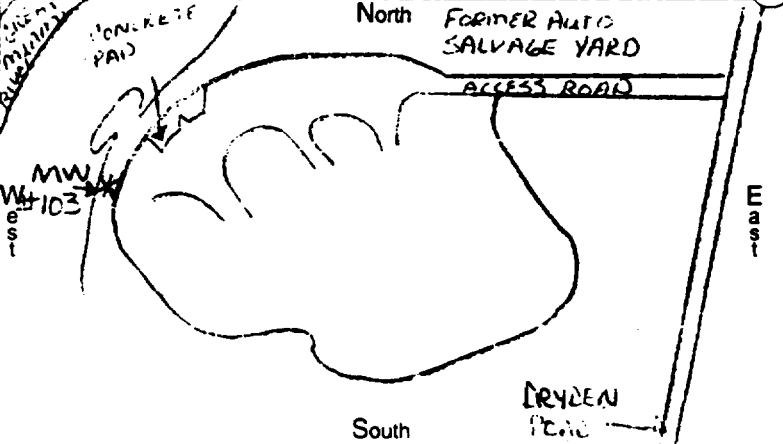
\*(Attach a copy of the pumping test record, per section 1521.05, ORC)

**PUMP**

Type of pump NA Capacity \_\_\_\_\_ gpm  
 Pump set at \_\_\_\_\_ ft.  
 Pump installed by \_\_\_\_\_

**WELL LOCATION**

Location of well in State Plane coordinates, if available:  
 Zone \_\_\_\_\_ x \_\_\_\_\_ y \_\_\_\_\_  
 Elevation of well \_\_\_\_\_ ft./m. Datum plain:  NAD27  NAD83  
 Source of coordinates:  GPS  Survey  Other \_\_\_\_\_  
 Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



I hereby certify the information given is accurate and correct to the best of my knowledge.  
 Drilling Firm James Fullen Drilling Signed \_\_\_\_\_  
 Address PO BOX 190 Date 4-22-96  
 City, State, Zip MARIETTA, OH 45752 ODH Registration Number \_\_\_\_\_



TYPE OR USE PEN  
SELF TRANSCRIBING

46140

Ohio Department of Natural Resources  
Division of Water, 1939 Fountain Square Drive  
Columbus, Ohio 43224 Phone (614) 265-8738

COUNTY MONTGOMERY TOWNSHIP MIAMI SECTION/LOT No. \_\_\_\_\_  
(Circle One)

OWNER/BUILDER SOUTH DAYTON NMP PROPERTY ADDRESS 1975 AAD DRYDEN RD, MORAINE, OHIO  
(Circle One or Both) (Address of well location) (Street) (City)

LOCATION OF PROPERTY BAYVIEW, OHIO MORAINE, OHIO

**CONSTRUCTION DETAILS**

**PIPE** (Length below grade) Borehole Diameter 9 1/2 in. **GROUT**

Diameter 2 in. Length 23 ft. Wall Thickness Sch 40 in. Material Portland Cement Volume used 5 BAGS

Diameter \_\_\_\_\_ in. Length \_\_\_\_\_ ft. Wall Thickness \_\_\_\_\_ in. Method of installation TRIMMIE

Material:  Steel  Galv.  PVC  Other \_\_\_\_\_

Depth: placed from 14 ft. to 1 ft.

**GRAVEL PACK (Filter Pack)**

Material #5 SAND Volume used 3 1/2 bags

Method of installation GRAVITY

Depth: placed from 30 ft. to 18 ft.

Pitless Device  Adapter  Preassembled unit

Use of Well MONITOR

Rotary  Cable  Augered  Driven  Dug  Other \_\_\_\_\_

Date of Completion 4-8-96

**WELL LOG**

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: MW #102

Sample shale, limestone, gravel, clay, sand, etc. From To

|                                      |           |           |
|--------------------------------------|-----------|-----------|
| <u>brown Silty Clay w/ GRAVEL</u>    | <u>0</u>  | <u>10</u> |
| <u>brown Silty to Sandy wet clay</u> | <u>10</u> | <u>15</u> |
| <u>and Gravel, coarse</u>            |           |           |
| <u>Gravel w/ COBBLES</u>             | <u>15</u> | <u>32</u> |

**WELL TEST**

Bailing  Pumping  Other \_\_\_\_\_

Test rate NA gpm Duration of test \_\_\_\_\_ hrs.

Drawdown \_\_\_\_\_ ft.

Measured from:  top of casing  ground level  Other \_\_\_\_\_

Static Level (depth to water) \_\_\_\_\_ ft. Date: \_\_\_\_\_

Quality (clear, cloudy, taste, odor) \_\_\_\_\_

\*(Attach a copy of the pumping test record, per section 1521.05, ORC)

**PUMP**

Type of pump NA Capacity \_\_\_\_\_ gpm

Pump set at \_\_\_\_\_ ft.

Pump installed by \_\_\_\_\_

**WELL LOCATION**

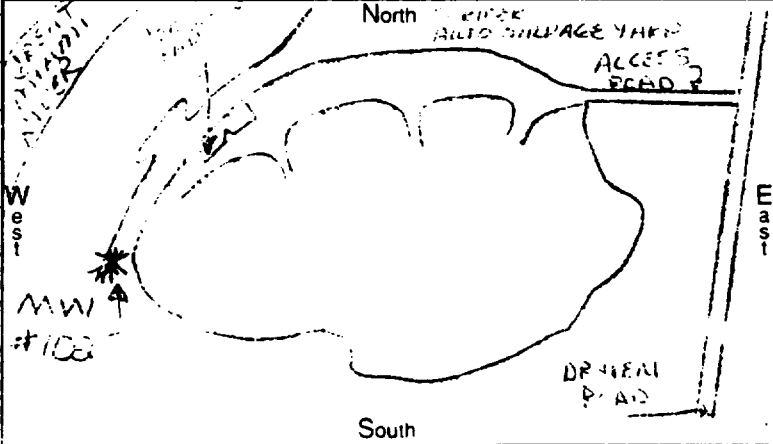
Location of well in State Plane coordinates, if available:

Zone \_\_\_\_\_ x \_\_\_\_\_ y \_\_\_\_\_

Elevation of well \_\_\_\_\_ ft./m. Datum plain:  NAD27  NAD83

Source of coordinates:  GPS  Survey  Other \_\_\_\_\_

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



If additional space is needed to complete well log, use consecutively numbered forms. I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm \_\_\_\_\_ Signed \_\_\_\_\_

Address \_\_\_\_\_ Date \_\_\_\_\_

State, Zip \_\_\_\_\_ ODH Registration Number \_\_\_\_\_

COUNTY MONTGOMERY TOWNSHIP MIAMI SECTION 10 LOT 13  
 OWNER/BUILDER South Dayton Dump PROPERTY ADDRESS 1975 DRYDEN RD., MORAINES, OHIO  
 LOCATION OF PROPERTY DAYTON, OHIO MORAINES, OHIO

**CONSTRUCTION DETAILS**

**ASPIRING** (Length below grade) Borehole Diameter 9 1/2 in. **GROUT**  
 Diameter 2 in. Length 23 ft. Wall Thickness sch 40 in. Material Portland Cement Volume used 6 BAGS  
 Diameter \_\_\_\_\_ in. Length \_\_\_\_\_ ft. Wall Thickness \_\_\_\_\_ in. Method of Installation: TRIMMIE  
 Depth: placed from 20 ft. to 1 ft.  
 Material:  Steel  Galv.  PVC  Other \_\_\_\_\_  
**GRAVEL PACK (Filter Pack)**  
 Material #5 SAND Volume used 3 1/2 BAGS  
 Method of installation GRAVITY  
 Depth: placed from 34 ft. to 33 ft.  
 Connections:  Threaded  Welded  Solvent  Other \_\_\_\_\_  
 Well Thickness \_\_\_\_\_ in. Depth: placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
**SCREEN**  
 Type (wire wrapped, louvered, etc.) \_\_\_\_\_ Material PVC  
 Use of Well MONITOR  
 Length 10 ft. Diameter 2 in.  Rotary  Cable  Augered  Driven  Dug  Other \_\_\_\_\_  
 Set between 34 ft. and 24 ft. Slot .010 Date of Completion 4-5-96

**WELL LOG\***

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.  
 Show color, texture, hardness, and formation:  
 sandstone, shale, limestone, gravel, clay, sand, etc.

|                                  | From      | To        |
|----------------------------------|-----------|-----------|
| <u>ROWN Silty SANDY CLAY</u>     |           |           |
| <u>w/ GRAVEL</u>                 | <u>0</u>  | <u>11</u> |
| <u>BBLES</u>                     | <u>11</u> | <u>12</u> |
| <u>ROWN Silty SANDY CLAY</u>     |           |           |
| <u>w/ GRAVEL: WET</u>            | <u>12</u> | <u>29</u> |
| <u>WET SANDY SILT, VERY FINE</u> |           |           |
| <u>GREY SAND</u>                 | <u>29</u> | <u>38</u> |

**WELL TEST**

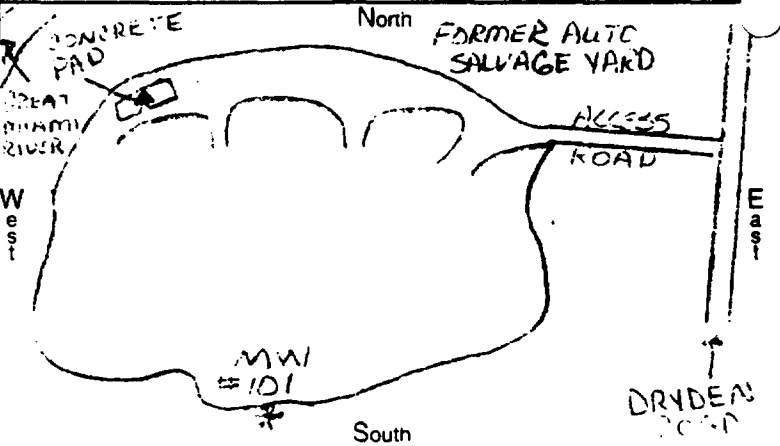
Bailing  Pumping\*  Other \_\_\_\_\_  
 Test rate NA gpm Duration of test \_\_\_\_\_ hrs.  
 Drawdown \_\_\_\_\_  
 Measured from:  top of casing  ground level  Other \_\_\_\_\_  
 Static Level (depth to water) \_\_\_\_\_ ft. Date: \_\_\_\_\_  
 Quality (clear, cloudy, taste, odor) \_\_\_\_\_  
 \*(Attach a copy of the pumping test record, per section 1521.05, ORC)

**PUMP**

Type of pump NA Capacity \_\_\_\_\_ gpm  
 Pump set at \_\_\_\_\_ ft.  
 Pump installed by \_\_\_\_\_

**WELL LOCATION**

Location of well in State Plane coordinates, if available:  
 Zone \_\_\_\_\_ x \_\_\_\_\_ y \_\_\_\_\_  
 Elevation of well \_\_\_\_\_ ft./m. Datum plan:  NAD27  NAD83  
 Source of coordinates:  GPS  Survey  Other \_\_\_\_\_  
 Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



38  
ET WELL AT 34'  
INTER ON ROADS 18'  
INTER AT COMP. 16'

If additional space is needed to complete well log, use next consecutively numbered form.  
 I hereby certify the information given is accurate and correct to the best of my knowledge.  
 Drilling Firm: Super Environmental Drilling Signed: \_\_\_\_\_  
 Address: \_\_\_\_\_ Date: \_\_\_\_\_  
 State, Zip: \_\_\_\_\_ CDH Registration Number: \_\_\_\_\_

TYPE OR USE PEN  
SELF TRANSPARENT

COUNTY Montgomery TOWNSHIP Miami SECTION/LOT No. \_\_\_\_\_  
(Circle One)

VNER/BUILDER South Dayton Dump PROPERTY ADDRESS 1975 DRYDEN RD, MORRAINE, OH  
(Circle One or Both) First Last (Address of well location) Number Street City

CATION OF PROPERTY MORRAINE, OHIO

**CONSTRUCTION DETAILS**

USING (Length below grade) Borehole Diameter: 9 1/2 in. GROUT

Diameter 2 in. Length 21 ft. Wall Thickness sch 40 in. Material Hole plug Volume used 5 BAGS

Diameter \_\_\_\_\_ in. Length \_\_\_\_\_ ft. Wall Thickness \_\_\_\_\_ in. Method of installation TRIMMIE

Material:  Steel  Galv.  PVC  Other \_\_\_\_\_

Depth: placed from 17 ft. to 2 ft.

GRAVEL PACK (Filter Pack)

Material #5 SAND Volume used 3 1/2 bags

Method of installation GRAVITY

Depth: placed from 31 ft. to 19 ft.

Pitless Device  Adapter  Preassembled unit

Use of Well MONITOR

Rotary  Cable  Augered  Driven  Dug  Other \_\_\_\_\_

Date of Completion 5-7-96

Material PVC

Length 10 ft. Diameter 2 in.

Slot .010

**WELL LOG\***

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation:  
sand, silt, shale, limestone, gravel, clay, sand, etc.

| Formation                                | From      | To        |
|--|-----------|-----------|
| <u>GRAVEL BASE</u>                       | <u>0</u>  | <u>2</u>  |
| <u>DOWN SILTY SANDY CLAY</u>             | <u>2</u>  | <u>8</u>  |
| <u>GREY SILTY CLAY</u>                   | <u>8</u>  | <u>17</u> |
| <u>BLACK TO GREY SILTY CLAY</u>          | <u>17</u> | <u>20</u> |
| <u>DOWN SAND &amp; GRAVEL w/ BOBBLES</u> | <u>20</u> | <u>25</u> |
| <u>DOWN SAND &amp; GRAVEL</u>            | <u>25</u> | <u>31</u> |

**WELL TEST**

Bailing  Pumping  Other \_\_\_\_\_

Test rate NA gpm Duration of test \_\_\_\_\_ hrs.

Drawdown \_\_\_\_\_ ft.

Measured from:  top of casing  ground level  Other \_\_\_\_\_

Static Level (depth to water) \_\_\_\_\_ ft. Date: \_\_\_\_\_

Quality (clear, cloudy, taste, odor) \_\_\_\_\_

\*(Attach a copy of the pumping test record, per section 1521.05, ORC)

**PUMP**

Type of pump NA Capacity \_\_\_\_\_ gpm

Pump set at \_\_\_\_\_ ft.

Pump installed by \_\_\_\_\_

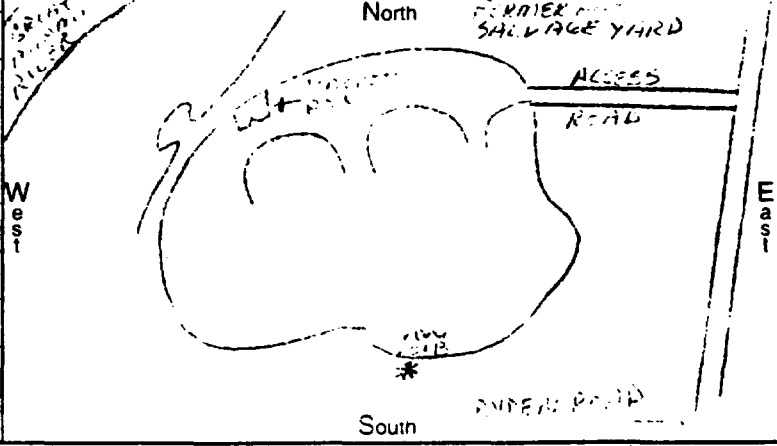
**WELL LOCATION**

Location of well in State Plane coordinates, if available:  
Zone \_\_\_\_\_ x \_\_\_\_\_ y \_\_\_\_\_

Elevation of well \_\_\_\_\_ ft./m. Datum plan:  NAD27  NAD83

Source of coordinates:  GPS  Survey  Other \_\_\_\_\_

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



If additional space is needed to complete well log, use next consecutively numbered form. I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm \_\_\_\_\_ Signed \_\_\_\_\_

Address \_\_\_\_\_ Date \_\_\_\_\_

State, Zip \_\_\_\_\_ OCH Registration Number \_\_\_\_\_

OHIO DEPARTMENT OF NATURAL RESOURCES  
Division of Water

0100384

1939 Fountain Square Drive  
Columbus, Ohio 43224-9971  
Voice: (614) 265-6739 Fax: (614) 447-9503

**LOCATION**

County Montgomery Township Miami Section/Lot Number \_\_\_\_\_  
Circle One or Both

Owner/Builder South Dayton Dump  
Circle One or Both

Address of Well Location 1975 DRYDEN ROAD  
Number Street Name

City MCKRAINE, OHIO Zip Code +4 \_\_\_\_\_  
1/2 miles W of 1-75 and Dryden  
n, e, s, w nearest intersection

Property Location Description on the W side of DRYDEN ROAD  
n, e, s, w road name

Location of Well in State Plane Coordinates, if available N  S  X \_\_\_\_\_ ft. or m Y \_\_\_\_\_ ft. or m

Elevation of Well \_\_\_\_\_ Datum Plain:  NAD27  NAD83

Source of Coordinates:  GPS  Survey  Other \_\_\_\_\_

ORIGINAL WELL ODNR Well Log Number MW# 101 Copy attached? Yes or No  
(circle one)

**MEASURED CONSTRUCTION DETAILS**

Date of measurements 5-7-96

Depth of Well 34' Static Water Level 20'  
Size of Casing 2" Length of casing 23'  
Well Condition GOOD

**SEALING PROCEDURE**

Method of Placement GRAVITY

| Placement: | From       | To        | Sealing Material         | Volume        |
|------------|------------|-----------|--------------------------|---------------|
|            | <u>34'</u> | <u>0'</u> | <u>BENT-CEMENT GROUT</u> | <u>50 GAL</u> |
|            | From _____ | To _____  |                          |               |
|            | From _____ | To _____  |                          |               |

Was Casing Removed? No  
(circle one)

Condition of Casing GOOD  
Perforations: From \_\_\_\_\_ To \_\_\_\_\_  
From \_\_\_\_\_ To \_\_\_\_\_

Date Sealing Performed 5-7-96  
Reason(s) for Sealing ABANDONED WATER WELL

**CONTRACTOR**

Name \_\_\_\_\_ ODH Registration # \_\_\_\_\_  
Address \_\_\_\_\_  
City/State/Zip \_\_\_\_\_

Signature \_\_\_\_\_  
I hereby certify the information given is accurate and correct to the best of my knowledge.

---

---

**APPENDIX D**

**Well Development Logs**

---

---



# Well Development Log

Project No. 60003.06  
Well No. MW-101

## General Information

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>                               | Well No.: <b>MW-101</b>  |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b> | Date Developed: <b>April 23, 1996</b> Time: <b>0845</b> to <b>1430</b> |
| PSARA Technician(s): <b>S. Walton</b>                 | Weather: <b>Rain, 45-60°F</b>  |

## Well Volume Calculations

|  |   |
|--|---|
| Measuring Point: <input checked="" type="checkbox"/> Top of Casing <input type="checkbox"/> Other: | Measurement Instr.: <input type="checkbox"/> Tape <input checked="" type="checkbox"/> Electronic <input type="checkbox"/> O/W Probe |
| Depth to Water (ft): D1 = <b>15.10</b>   | Height of Water Column (ft): H = (D2 - D1) = <b>19.18</b>   |
| Depth to Well Bottom (ft): D2 = <b>34.28</b>   | Volume of Water in Well (gal): V = (H x F) = <b>3.13</b>  |
| Product Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No               | Depth to Product (ft): <b>NA</b> Product Thickness (in): <b>NA</b>  |

2" well: F = 0.163

4" well: F = 0.651

## Well Development Data

| Well Volume                          | pH          | Conductivity (umho)  | Temperature (°C) | Appearance / Odor                       |
|--------------------------------------|-------------|--|------------------|---|
| First Bailer                         | <b>8.84</b> | <b>400</b>   | <b>11.0</b>      | <b>Very silty, grey</b>                 |
| Volume No. 1                         | <b>8.61</b> | <b>514</b>   | <b>10.8</b>      | <b>Clearing</b>                         |
| Volume No. 2                         | <b>8.46</b> | <b>440</b>   | <b>10.5</b>      | <b>Silty, sandy - dry @ 3.5 gallons</b> |
| Volume No. 3                         | <b>7.51</b> | <b>617</b>   | <b>8.3</b>       | <b>Grey, silty, sandy</b>               |
| Volume No. 4                         | <b>8.04</b> | <b>675</b>   | <b>8.8</b>       | <b>Grey, silty, sandy</b>               |
| Volume No. 5                         | <b>7.71</b> | <b>699</b>   | <b>9.2</b>       | <b>Grey, silty, sandy</b>               |
| Total Volume Purged (gal): <b>13</b> |             | Well Purged Dry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                  |   |

## Notes

| Notes  | pH          | Conductivity | Temperature | Appearance/Odor      |
|--|-------------|--------------|-------------|----------------------|
| Volume No. 6   | <b>8.44</b> | <b>472</b>   | <b>11.0</b> | <b>Clear</b>         |
| Volume No. 7   | <b>8.47</b> | <b>431</b>   | <b>10.0</b> | <b>Light brown</b>   |
| Volume No. 8   | <b>8.48</b> | <b>385</b>   | <b>10.0</b> | <b>Brownish</b>      |
| - After first 3.5 gallons. let recharge for ~45 minutes up to 18 feet. then purged another volume.   |             |              |             |                      |
| - Return at 1135 - depth to water is 18.85. Well bottom at 36.13. Purged third well volume and half of a fourth volume before well purged dry. |             |              |             |                      |
| - Depth to water 19.93 at 1345. Purged additional volume.  |             |              |             |                      |
| - Notice obstruction in well when attempt is made to purge additional volumes with bailer.   |             |              |             |                      |
| 1930 leave site. Well undeveloped.   |             |              |             | Ent'd by: <b>DMW</b> |
| 4/24 Return to site and purge will volumes 6, 7, and 8   |             |              |             | Ck'd by: <b>MES</b>  |
|  |             |              |             | Date: <b>5/21/96</b> |



# Well Development Log

Project No. 60003.06  
Well No. MW-101A

## General Information

|   |  |
|---|--|
| Client: <b>Ohio EPA</b>                               | Well No.: <b>MW-101A</b>   |
| Site Location: <b>South Dayton Dump, Dayton, Ohio</b> | Date Developed: <b>May 10, 1996</b> Time: <b>1100</b> to <b>1155</b> |
| PSARA Technician(s): <b>S. Walton</b>                 | Weather: <b>Sunny, 70°F</b>  |

## Well Volume Calculations

|  |   |
|--|---|
| Measuring Point: <input checked="" type="checkbox"/> Top of Casing <input type="checkbox"/> Other: | Measurement Instr.: <input type="checkbox"/> Tape <input checked="" type="checkbox"/> Electronic <input type="checkbox"/> O/W Probe |
| Depth to Water (ft): D1 = <b>10.52</b>   | Height of Water Column (ft): H = (D2 - D1) = <b>24.36</b>   |
| Depth to Well Bottom (ft): D2 = <b>34.88</b>   | Volume of Water in Well (gal): V = (H x F) = <b>3.97</b>  |
| Product Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No               | Depth to Product (ft): <b>NA</b> Product Thickness (in): <b>NA</b>  |

2" well: F = 0.163

4" well: F = 0.651

## Well Development Data

| Well Volume                          | pH   | Conductivity (µmho)  | Temperature (°C) | Appearance / Odor               |
|--------------------------------------|------|--|------------------|---------------------------------|
| First Bailer                         | 7.93 | 300  | 17.2             | Sandy, light brown; silty brown |
| Volume No. 1                         | 7.92 | 700  | 14.2             | Lighter, sandy, silty brown     |
| Volume No. 2                         | 7.93 | 600  | 16.6             | Silty brown                     |
| Volume No. 3                         | 7.90 | 1400   | 16.4             | Silty brown                     |
| Volume No. 4                         | 7.74 | 1022   | 18.3             | Clearing; silty, light brown    |
| Volume No. 5                         | 7.74 | 1002   | 17.0             | Clearing; silty, light brown    |
| Total Volume Purged (gal): <b>40</b> |      | Well Purged Dry: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                  |                                 |

## Notes

|   | pH   | Conductivity | Temperature | Appearance                  |
|---|------|--------------|-------------|-----------------------------|
| Volume No. 6  | 7.86 | 1005         | 16.2        | Clearing, silty light brown |
| Volume No. 7  | 7.75 | 1002         | 14.8        | Clearing, silty light brown |
| Volume No. 8  | 7.78 | 950          | 17.4        | Clearing, silty light brown |
| Volume No. 9  | 7.73 | 978          | 16.7        | Clearing, silty light brown |
| Volume No. 10   | 7.80 | 927          | 17.5        | Purge water is mostly clear |
| Pushed surge block to bottom, came up to 10' at 6" to 8" intervals, pushed back to bottom. Pulled up again and out at 6" to 8" intervals. Depth to bottom at 34.94' prior to bailing. |      |              |             |                             |
| Bailed well. Recharge was instant. Stainless Steel bailer.  |      |              |             |                             |
| Water in drum. Leave on site.   |      |              |             |                             |
|   |      |              |             | Ent'd by: <b>DMW</b>        |
|   |      |              |             | Ck'd by: <b>MES</b>         |
|   |      |              |             | Date: <b>5/23/96</b>        |







**APPENDIX C:**  
**COMPREHENSIVE ANALYTICAL RESULTS**

**Comprehensive Analytical Results - Soil Samples**

| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S01 | 96-DV-03-S02 | 96-DV-03-S03 | 96-DV-03-D03    | 96-DV-03-S04 | 96-DV-03-S05 | 96-DV-03-S06 | 96-DV-03-S07 | 96-DV-03-S08 | 96-DV-03-S09 |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      |
| <b>TIME SAMPLE COLLECTED</b>             | 10:10        | 11:10        | 11:30        | 11:30           | 2:05         | 16:00        | 18:00        | 14:45        | 15:30        | 16:30        |
| <b>SAMPLE DEPTH</b>                      | 4'-4'6"      | 0-1"         | 18"-26"      | 18"-26"         | 18"-26'      | 5'           | 18"-28"      | 0-2"         | 2-3"         | 3-6"         |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              |              |              | Background   |              |              |

| <b>COMPOUND DETECTED (µg/kg)</b>  |             |       |      |       |       |       |       |       |       |     |       |
|-----------------------------------|-------------|-------|------|-------|-------|-------|-------|-------|-------|-----|-------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> | <b>CROL</b> |       |      |       |       |       |       |       |       |     |       |
| chloromethane                     | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| bromomethane                      | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| vinyl chloride                    | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| chloroethane                      | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| methylene chloride                | 10 µg/kg    | 12JBU | 16BU | 12JBU | 12JBU | 16JBU | 12JBU | 16JBU | 11JBU | 16  | 11JBU |
| acetone                           | 10 µg/kg    | 12U   | 10U  | 12U   | 3J    | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| carbon disulfide                  | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,1-dichloroethene                | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,1-dichloroethane                | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,2-dichloroethene (total)        | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| chloroform                        | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,2-dichloroethane                | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 2-butanone                        | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,1,1-trichloroethane             | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| carbon tetrachloride              | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| bromodichloromethane              | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,2-dichloropropane               | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| cis-1,3-dichloropropene           | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| trichloroethene                   | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| dibromochloromethane              | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,1,2-trichloroethane             | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| benzene                           | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| trans-1,3-dichloropropene         | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| bromoform                         | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 4-methyl-2-pentanone              | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 2-hexanone                        | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| tetrachloroethene                 | 10 µg/kg    | 59    | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| 1,1,2,2-tetrachloroethane         | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |
| toluene                           | 10 µg/kg    | 12U   | 10U  | 7J    | 5J    | 16U   | 12U   | 16U   | 11U   | 10J | 11U   |
| chlorobenzene                     | 10 µg/kg    | 12U   | 10U  | 12U   | 12U   | 16U   | 12U   | 16U   | 11U   | 11U | 11U   |

### Comprehensive Analytical Results - Soil Samples

|  |              |              |  |
|--|--------------|--------------|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S10 | 96-DV-03-S11 |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      |  |
| <b>TIME SAMPLE COLLECTED</b>             | 17:20        | 17:00        |  |
| <b>SAMPLE DEPTH</b>                      | 0-4"         | 3-4"         |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |  |

| <b>COMPOUND DETECTED (<math>\mu\text{g}/\text{kg}</math>)</b> |                            |       |      |
|---|----------------------------|-------|------|
| <b><i>VOLATILE ORGANIC COMPOUNDS</i></b>                      | <b>CROL</b>                |       |      |
| chloromethane   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| bromomethane  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| vinyl chloride  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| chloroethane  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| methylene chloride  | 10 $\mu\text{g}/\text{kg}$ | 12JBU | 17BU |
| acetone   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| carbon disulfide  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,1-dichloroethene  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,1-dichloroethane  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,2-dichloroethene (total)                                    | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| chloroform  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,2-dichloroethane  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 2-butanone  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,1,1-trichloroethane   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| carbon tetrachloride  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| bromodichloromethane  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,2-dichloropropane   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| cis-1,3-dichloropropene                                       | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| trichloroethene   | 10 $\mu\text{g}/\text{kg}$ | 11J   | 11U  |
| dibromochloromethane  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,1,2-trichloroethane   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| benzene   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| trans-1,3-dichloropropene                                     | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| bromoform   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 4-methyl-2-pentanone  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 2-hexanone  | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| tetrachloroethene   | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| 1,1,2,2-tetrachloroethane                                     | 10 $\mu\text{g}/\text{kg}$ | 12U   | 11U  |
| toluene   | 10 $\mu\text{g}/\text{kg}$ | 4J    | 7J   |

**Comprehensive Analytical Results - Soil Samples**

| SAMPLE NUMBERS                    | 96-DV-03-S01 | 96-DV-03-S02 | 96-DV-03-S03 | 96-DV-03-D03    | 96-DV-03-S04 | 96-DV-03-S05 | 96-DV-03-S06 | 96-DV-03-S07 | 96-DV-03-S08 | 96-DV-03-S09 |
|-----------------------------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| DATE SAMPLE COLLECTED             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      |
| TIME SAMPLE COLLECTED             | 10:10        | 11:10        | 11:30        | 11:30           | 2:05         | 16:00        | 18:00        | 14:45        | 15:30        | 16:30        |
| SAMPLE DEPTH                      | 4'-4'6"      | 0-1"         | 18"-26"      | 18"-26"         | 18"-26'      | 5'           | 18"-28"      | 0-2"         | 2-3"         | 3-6"         |
| QA/QC DESCRIPTION (if applicable) |              |              |              | Field Duplicate |              |              |              | Background   |              |              |

|                |          |     |     |     |     |     |     |     |     |     |     |
|----------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ethyl benzene  | 10 µg/kg | 12U | 10U | 12U | 12U | 16U | 12U | 16U | 11U | 11U | 11U |
| styrene        | 10 µg/kg | 12U | 10U | 12U | 12U | 16U | 12U | 16U | 11U | 11U | 11U |
| xylene (Total) | 10 µg/kg | 12U | 10U | 12U | 12U | 16U | 12U | 16U | 11U | 11U | 11U |

| SEMI-VOLATILE ORGANIC COMPOUNDS | CRQL      |      |      |      |      |      |      |      |      |      |      |
|---------------------------------|-----------|------|------|------|------|------|------|------|------|------|------|
| phenol                          | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 64J  |
| bis(2-chloroethyl)ether         | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 2-chlorophenol                  | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 1,3-dichlorobenzene             | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 1,4-dichlorobenzene             | 330 µg/kg | 140J | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 1,2-dichlorobenzene             | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 2-methylphenol                  | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 4-methylphenol                  | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| n-nitroso-di-n-dipropylamine    | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| hexachloroethane                | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| nitrobenzene                    | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| isophorone                      | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 2-nitrophenol                   | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 2,4-dimethylphenol              | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| bis(2-chloroethoxy)methane      | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 2,4-dichlorophenol              | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 1,2,4-trichlorobenzene          | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| naphthalene                     | 330 µg/kg | 410U | 20J  | 410U | 410U | 58J  | 380U | 530U | 380U | 250J | 35J  |
| 4-chloroaniline                 | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| hexachlorobutadiene             | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 4-chloro-3-methylphenol         | 330 µg/kg | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 370U | 350U |
| 2-methylnaphthalene             | 330 µg/kg | 410U | 340U | 410U | 410U | 77J  | 380U | 530U | 380U | 390  | 49J  |



**Comprehensive Analytical Results - Soil Samples**

|  |              |              |              |                 |              |              |              |              |              |              |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S01 | 96-DV-03-S02 | 96-DV-03-S03 | 96-DV-03-D03    | 96-DV-03-S04 | 96-DV-03-S05 | 96-DV-03-S06 | 96-DV-03-S07 | 96-DV-03-S08 | 96-DV-03-S09 |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      |
| <b>TIME SAMPLE COLLECTED</b>             | 10:10        | 11:10        | 11:30        | 11:30           | 2:05         | 16:00        | 18:00        | 14:45        | 15:30        | 16:30        |
| <b>SAMPLE DEPTH</b>                      | 4'-4'6"      | 0-1"         | 18"-26"      | 18"-26"         | 18"-26'      | 5'           | 18"-28"      | 0-2"         | 2-3"         | 3-6"         |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              |              |              | Background   |              |              |

| <b>COMPOUND DETECTED (µg/kg)</b>       |             |       |      |       |       |       |      |       |      |      |      |
|--|-------------|-------|------|-------|-------|-------|------|-------|------|------|------|
| <i>SEMI-VOLATILE ORGANIC COMPOUNDS</i> | <b>CRQL</b> |       |      |       |       |       |      |       |      |      |      |
| hexachlorocyclopentadiene              | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| 2,4,6-trichlorophenol                  | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| 2,4,5-trichlorophenol                  | 800 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| 2-chloronaphthalene                    | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| 2-nitroaniline                         | 800 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| dimethylphthalate                      | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| acenaphthylene                         | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| 2,6-dinitrotoluene                     | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| 3-nitroaniline                         | 330 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| acenaphthene                           | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 33J   | 380U | 530U  | 380U | 91J  | 350U |
| 2,4-dinitrophenol                      | 800 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| 4-nitrophenol                          | 800 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| dibenzofuran                           | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 28J   | 380U | 530U  | 380U | 160J | 350U |
| 2,4-dinitrotoluene                     | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| diethylphthalate                       | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| 4-chlorophenyl-phenyl ether            | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| fluorene                               | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 87J  | 350U |
| 4-nitroaniline                         | 800 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| 4,6-dinitro-2-methylphenol             | 800 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| n-nitrosodiphenylamine                 | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 27J  | 350U |
| 4-bromophenyl-phenyl ether             | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| hexachlorobenzene                      | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 520U  | 380U | 530U  | 380U | 370U | 350U |
| pentachlorophenol                      | 800 µg/kg   | 1000U | 860U | 1000U | 1000U | 1300U | 960U | 1300U | 940U | 920U | 880U |
| phenanthrene                           | 330 µg/kg   | 410U  | 340U | 33J   | 34J   | 170J  | 21J  | 530U  | 63J  | 1700 | 180J |
| anthracene                             | 330 µg/kg   | 410U  | 340U | 410U  | 410U  | 29J   | 380U | 530U  | 380U | 290J | 26J  |
| di-n-butylphthalate                    | 330 µg/kg   | 410U  | 18J  | 410U  | 27J   | 28J   | 380U | 31J   | 28J  | 370U | 1500 |
| fluoranthene                           | 330 µg/kg   | 410U  | 21J  | 410U  | 410U  | 140J  | 31J  | 530U  | 110J | 2000 | 340J |
| pyrene                                 | 330 µg/kg   | 410U  | 20J  | 410U  | 410U  | 160J  | 30J  | 530U  | 130J | 1900 | 320J |

**Comprehensive Analytical Results - Soil Samples**

|  |              |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--------------|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S10 | 96-DV-03-S11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 17:20        | 17:00        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 0-4"         | 3-4"         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b>       |             |       |      |
|--|-------------|-------|------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> | <b>CRQL</b> |       |      |
| hexachlorocyclopentadiene              | 330 µg/kg   | 400U  | 360U |
| 2,4,6-trichlorophenol                  | 330 µg/kg   | 400U  | 360U |
| 2,4,5-trichlorophenol                  | 800 µg/kg   | 1000U | 900U |
| 2-chloronaphthalene                    | 330 µg/kg   | 400U  | 360U |
| 2-nitroaniline                         | 800 µg/kg   | 1000U | 900U |
| dimethylphthalate                      | 330 µg/kg   | 400U  | 360U |
| acenaphthylene                         | 330 µg/kg   | 400U  | 50J  |
| 2,6-dinitrotoluene                     | 330 µg/kg   | 400U  | 360U |
| 3-nitroaniline                         | 330 µg/kg   | 1000U | 900U |
| acenaphthene                           | 330 µg/kg   | 400U  | 26J  |
| 2,4-dinitrophenol                      | 800 µg/kg   | 1000U | 900U |
| 4-nitrophenol                          | 800 µg/kg   | 1000U | 900U |
| dibenzofuran                           | 330 µg/kg   | 400U  | 29J  |
| 2,4-dinitrotoluene                     | 330 µg/kg   | 400U  | 360U |
| diethylphthalate                       | 330 µg/kg   | 400U  | 360U |
| 4-chlorophenyl-phenyl ether            | 330 µg/kg   | 400U  | 360U |
| fluorene                               | 330 µg/kg   | 400U  | 38J  |
| 4-nitroaniline                         | 800 µg/kg   | 1000U | 900U |
| 4,6-dinitro-2-methylphenol             | 800 µg/kg   | 1000U | 900U |
| n-nitrosodiphenylamine                 | 330 µg/kg   | 400U  | 360U |
| 4-bromophenyl-phenyl ether             | 330 µg/kg   | 400U  | 360U |
| hexachlorobenzene                      | 330 µg/kg   | 400U  | 360U |
| pentachlorophenol                      | 800 µg/kg   | 1000U | 900U |
| phenanthrene                           | 330 µg/kg   | 100J  | 570  |
| anthracene                             | 330 µg/kg   | 400U  | 97J  |
| di-n-butylphthalate                    | 330 µg/kg   | 35J   | 360U |
| fluoranthene                           | 330 µg/kg   | 100J  | 1300 |
| pyrene                                 | 330 µg/kg   | 120J  | 1600 |



### Comprehensive Analytical Results - Soil Samples

|  |              |              |              |                 |              |              |              |              |              |              |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S01 | 96-DV-03-S02 | 96-DV-03-S03 | 96-DV-03-D03    | 96-DV-03-S04 | 96-DV-03-S05 | 96-DV-03-S06 | 96-DV-03-S07 | 96-DV-03-S08 | 96-DV-03-S09 |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96      |
| <b>TIME SAMPLE COLLECTED</b>             | 10:10        | 11:10        | 11:30        | 11:30           | 2:05         | 16:00        | 18:00        | 14:45        | 15:30        | 16:30        |
| <b>SAMPLE DEPTH</b>                      | 4'-46"       | 0-1"         | 18"-26"      | 18"-26"         | 18"-26"      | 5'           | 18"-28"      | 0-2"         | 2-3"         | 3-6"         |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              |              |              | Background   |              |              |

| <b>COMPOUND DETECTED (µg/kg)</b>       |             |      |      |      |      |      |      |      |      |      |        |
|--|-------------|------|------|------|------|------|------|------|------|------|--------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> | <b>CRQL</b> |      |      |      |      |      |      |      |      |      |        |
| butylbenzylphthalate                   | 330 µg/kg   | 410U | 25J  | 410U | 33J  | 520U | 380U | 530U | 26J  | 370U | 18000E |
| carbazole                              | 330 µg/kg   | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380J | 280J | 350U   |
| benzo(a)anthracene                     | 330 µg/kg   | 410U | 340U | 410U | 410U | 41J  | 380U | 530U | 58J  | 1100 | 180J   |
| chrysene                               | 330 µg/kg   | 410U | 340U | 21J  | 25J  | 56J  | 27J  | 530U | 83J  | 1200 | 320J   |
| bis(2-ethylhexyl)phthalate             | 330 µg/kg   | 24J  | 33J  | 410U | 410U | 540  | 380U | 530U | 32J  | 230J | 2100   |
| di-n-octylphthalate                    | 330 µg/kg   | 410U | 23J  | 410U | 410U | 520U | 380U | 530U | 380U | 19J  | 350U   |
| benzo(b)fluoranthene                   | 330 µg/kg   | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 1000 | 320J   |
| benzo(k)fluoranthene                   | 330 µg/kg   | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 950  | 200J   |
| benzo(a)pyrene                         | 330 µg/kg   | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 62J  | 820  | 110J   |
| indeno(1,2,3-cd)pyrene                 | 330 µg/kg   | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 48J  | 480  | 120J   |
| dibenzo(a,h)anthracene                 | 330 µg/kg   | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 310J | 350U   |
| benzo(g,h,i)perylene                   | 330 µg/kg   | 410U | 340U | 410U | 410U | 520U | 380U | 530U | 380U | 160J | 350U   |

| <b>PESTICIDES/PCBs</b> | <b>CRQL</b> |        |      |       |        |        |        |      |        |        |      |
|------------------------|-------------|--------|------|-------|--------|--------|--------|------|--------|--------|------|
| alpha-BHC              | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 2.1U   | 2.6U   | 2.0U   | 2.7U | 1.9U   | 0.71PJ | 1.8U |
| beta-BHC               | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 2.1U   | 2.6U   | 2.0U   | 2.7U | 1.9U   | 1.9U   | 1.8U |
| delta-BHC              | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 2.1U   | 2.6U   | 2.0U   | 2.7U | 1.9U   | 1.9U   | 1.8U |
| gamma-BHC (Lindane)    | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 2.1U   | 2.6U   | 2.0U   | 2.7U | 1.9U   | 1.8J   | 1.8U |
| heptachlor             | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 2.1U   | 2.6U   | 2.0U   | 2.7U | 1.9U   | 1.9U   | 1.8U |
| aldrin                 | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 2.1U   | 2.6U   | 2.0U   | 2.7U | 1.9U   | 1.9U   | 1.8U |
| heptachlor epoxide     | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 0.49PJ | 0.78PJ | 2.0U   | 2.7U | 1.9U   | 1.9U   | 1.8U |
| endosulfan I           | 1.7 µg/kg   | 2.1U   | 1.8U | 2.1U  | 2.1U   | 2.6U   | 2.0U   | 2.7U | 0.42PJ | 1.9U   | 1.8U |
| dieldrin               | 3.3 µg/kg   | 4.1U   | 3.4U | 4.1U  | 4.1U   | 5.2U   | 3.8U   | 5.3U | 3.8U   | 3.7U   | 3.5U |
| 4,4-DDE                | 3.3 µg/kg   | 4.1U   | 3.4U | 4.1U  | 4.1U   | 2.6J   | 0.44PJ | 5.3U | 3.8U   | 2.4PJ  | 3.5U |
| endrin                 | 3.3 µg/kg   | 1.4PJ  | 3.4U | 2.3PJ | 4.1U   | 5.2U   | 3.8U   | 5.3U | 3.8U   | 3.7U   | 3.5U |
| endosulfan II          | 3.3 µg/kg   | 4.1U   | 3.4U | 4.1U  | 4.1U   | 5.2U   | 3.8U   | 5.3U | 1.4J   | 5.4    | 3.5U |
| 4,4-DDD                | 3.3 µg/kg   | 4.1U   | 3.4U | 4.1U  | 4.1U   | 5.2U   | 3.8U   | 5.3U | 0.65J  | 3.7U   | 3.5U |
| endosulfan sulfate     | 3.3 µg/kg   | 4.1U   | 3.4U | 4.1U  | 4.1U   | 5.2U   | 3.8U   | 5.3U | 3.8U   | 3.7U   | 3.5U |
| 4,4-DDT                | 3.3 µg/kg   | 0.60PJ | 3.4U | 4.1U  | 4.1U   | 5.2U   | 0.71PJ | 5.3U | 1.6PJ  | 8.8P   | 3.5U |

**Comprehensive Analytical Results - Soil Samples**

|  |              |              |  |  |  |  |  |  |  |  |
|--|--------------|--------------|--|--|--|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S10 | 96-DV-03-S11 |  |  |  |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      |  |  |  |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 17:20        | 17:00        |  |  |  |  |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 0-4"         | 3-4"         |  |  |  |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |  |  |  |  |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b>       |             |      |      |  |
|--|-------------|------|------|--|
| <i>SEMI-VOLATILE ORGANIC COMPOUNDS</i> | <b>CRQL</b> |      |      |  |
| butylbenzylphthalate                   | 330 µg/kg   | 61J  | 360U |  |
| carbazole                              | 330 µg/kg   | 400U | 38J  |  |
| benzo(a)anthracene                     | 330 µg/kg   | 51J  | 950  |  |
| chrysene                               | 330 µg/kg   | 93J  | 1000 |  |
| bis(2-ethylhexyl)phthalate             | 330 µg/kg   | 72J  | 120J |  |
| di-n-octylphthalate                    | 330 µg/kg   | 400U | 360U |  |
| benzo(b)fluoranthene                   | 330 µg/kg   | 79J  | 1300 |  |
| benzo(k)fluoranthene                   | 330 µg/kg   | 73J  | 920  |  |
| benzo(a)pyrene                         | 330 µg/kg   | 400U | 1000 |  |
| indeno(1,2,3-cd)pyrene                 | 330 µg/kg   | 400U | 910  |  |
| dibenzo(a,h)anthracene                 | 330 µg/kg   | 400U | 450  |  |
| benzo(g,h,i)perylene                   | 330 µg/kg   | 400U | 310J |  |

| <i>PESTICIDES/PCBs</i> | <b>CRQL</b> |        |       |  |
|------------------------|-------------|--------|-------|--|
| alpha-BHC              | 1.7 µg/kg   | 2.1U   | 1.8U  |  |
| beta-BHC               | 1.7 µg/kg   | 2.1U   | 1.8U  |  |
| delta-BHC              | 1.7 µg/kg   | 2.1U   | 1.8U  |  |
| gamma-BHC (Lindane)    | 1.7 µg/kg   | 0.77PJ | 0.42J |  |
| heptachlor             | 1.7 µg/kg   | 2.1U   | 1.8U  |  |
| aldrin                 | 1.7 µg/kg   | 2.1U   | 1.8U  |  |
| heptachlor epoxide     | 1.7 µg/kg   | 2.1U   | 1.8U  |  |
| endosulfan I           | 1.7 µg/kg   | 2.1U   | 1.8U  |  |
| dieldrin               | 3.3 µg/kg   | 4.0U   | 3.6U  |  |
| 4,4-DDE                | 3.3 µg/kg   | 4.0U   | 3.6U  |  |
| endrin                 | 3.3 µg/kg   | 4.0U   | 3.6U  |  |
| endosulfan II          | 3.3 µg/kg   | 4.0U   | 3.6U  |  |
| 4,4-DDD                | 3.3 µg/kg   | 4.0U   | 4.4   |  |
| endosulfan sulfate     | 3.3 µg/kg   | 4.0U   | 3.6U  |  |
| 4,4-DDT                | 3.3 µg/kg   | 4.0U   | 3.6U  |  |

### Comprehensive Analytical Results - Soil Samples

|  |              |              |              |                 |              |              |              |              |              |              |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S01 | 96-DV-03-S02 | 96-DV-03-S03 | 96-DV-03-D03    | 96-DV-03-S04 | 96-DV-03-S05 | 96-DV-03-S06 | 96-DV-03-S07 | 96-DV-03-S08 | 96-DV-03-S09 |
| <b>DATE SAMPLE COLLECTED</b>             | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96        | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96     |
| <b>TIME SAMPLE COLLECTED</b>             | 10:10        | 11:10        | 11:30        | 11:30           | 2:05         | 16:00        | 18:00        | 14:45        | 15:30        | 16:30        |
| <b>SAMPLE DEPTH</b>                      | 4'-4'6"      | 0-1"         | 18"-26"      | 18"-26"         | 18"-26'      | 5'           | 18"-28"      | 0-2"         | 2-3"         | 3-6"         |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              |              |              | Background   |              |              |

| <b>COMPOUND DETECTED (µg/kg)</b> |             |       |        |       |        |      |        |      |      |      |      |
|----------------------------------|-------------|-------|--------|-------|--------|------|--------|------|------|------|------|
| <b>PESTICIDES/PCBs</b>           | <b>CROL</b> |       |        |       |        |      |        |      |      |      |      |
| methoxychlor                     | 17 µg/kg    | 21U   | 18U    | 1.8PJ | 21U    | 26U  | 0.94PJ | 27U  | 19U  | 19U  | 18U  |
| endrin ketone                    | 3.3 µg/kg   | 4.1U  | 3.4U   | 4.1U  | 4.1U   | 5.2U | 3.8U   | 5.3U | 3.8U | 3.7U | 3.5U |
| endrin aldehyde                  | 3.3 µg/kg   | 2.2PJ | 3.4U   | 6.6   | 6.6P   | 5.2U | 4.0P   | 5.3U | 6.4P | 3.7U | 3.5U |
| alpha-chlordane                  | 1.7 µg/kg   | 2.1U  | 1.8U   | 2.1U  | 2.1U   | 5.4P | 2.0U   | 2.7U | 1.9U | 1.9U | 1.8U |
| gamma-chlordane                  | 1.7 µg/kg   | 2.1U  | 0.35PJ | 2.1U  | 0.96PJ | 4.3  | 2.0U   | 2.7U | 1.9U | 1.9U | 1.8U |
| toxaphene                        | 170 µg/kg   | 210U  | 180U   | 210U  | 210U   | 260U | 200U   | 270U | 190U | 190U | 180U |
| aroclor-1016                     | 33 µg/kg    | 41U   | 34U    | 41U   | 41U    | 52U  | 38U    | 53U  | 38U  | 37U  | 35U  |
| aroclor-1221                     | 33 µg/kg    | 83U   | 69U    | 83U   | 84U    | 100U | 78U    | 110U | 76U  | 74U  | 71U  |
| aroclor-1232                     | 67 µg/kg    | 41U   | 34U    | 41U   | 41U    | 52U  | 38U    | 53U  | 38U  | 37U  | 35U  |
| aroclor-1242                     | 33 µg/kg    | 41U   | 34U    | 41U   | 41U    | 52U  | 38U    | 53U  | 38U  | 37U  | 35U  |
| aroclor-1248                     | 33 µg/kg    | 41U   | 34U    | 41U   | 41U    | 52U  | 38U    | 53U  | 38U  | 37U  | 35U  |
| aroclor-1254                     | 33 µg/kg    | 41U   | 34U    | 41U   | 41U    | 52U  | 38U    | 53U  | 38U  | 37U  | 830  |
| aroclor-1260                     | 33 µg/kg    | 41U   | 34U    | 41U   | 41U    | 52U  | 38U    | 53U  | 38U  | 37U  | 1200 |

| <b>TCL COMPOUND QUALIFIERS</b> | <b>DEFINITION</b>   |
|--------------------------------|---|
| J                              | Indicates an estimated value.   |
| U                              | Compound was analyzed for but not detected.   |
| B                              | Compound is found in the associated blank as well as in the sample.   |
| D                              | This flag indicates all compounds identified in an analysis at a secondary dilution factor.   |
| E                              | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.                                     |
| P                              | Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported. |

**Comprehensive Analytical Results - Soil Samples**

|  |              |              |  |  |  |  |  |  |  |  |  |
|--|--------------|--------------|--|--|--|--|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S10 | 96-DV-03-S11 |  |  |  |  |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      |  |  |  |  |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 17:20        | 17:00        |  |  |  |  |  |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 0-4"         | 3-4"         |  |  |  |  |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |  |  |  |  |  |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b> |             |      |      |
|----------------------------------|-------------|------|------|
| <b>PESTICIDES/PCBs</b>           | <b>CROL</b> |      |      |
| methoxychlor                     | 17 µg/kg    | 21U  | 18U  |
| endrin ketone                    | 3.3 µg/kg   | 4.0U | 7.5P |
| endrin aldehyde                  | 3.3 µg/kg   | 4.0U | 3.6U |
| alpha-chlordane                  | 1.7 µg/kg   | 2.1U | 1.8U |
| gamma-chlordane                  | 1.7 µg/kg   | 2.1U | 2.3P |
| toxaphene                        | 170 µg/kg   | 210U | 180U |
| aroclor-1016                     | 33 µg/kg    | 40U  | 36U  |
| aroclor-1221                     | 33 µg/kg    | 82U  | 73U  |
| aroclor-1232                     | 67 µg/kg    | 40U  | 36U  |
| aroclor-1242                     | 33 µg/kg    | 40U  | 36U  |
| aroclor-1248                     | 33 µg/kg    | 40U  | 36U  |
| aroclor-1254                     | 33 µg/kg    | 170P | 36U  |
| aroclor-1260                     | 33 µg/kg    | 40U  | 36U  |

| <b>TCL COMPOUND QUALIFIERS</b> | <b>DEFINITION</b>   |
|--------------------------------|---|
| J                              | Indicates an estimated value.   |
| U                              | Compound was analyzed for but not detected.   |
| B                              | Compound is found in the associated blank as well as in the sample.   |
| D                              | This flag indicates all compounds identified in an analysis at a secondary dilution factor.   |
| E                              | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.                                     |
| P                              | Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported. |

### Comprehensive Analytical Results - Soil Samples

|  |              |              |              |                 |              |              |              |              |              |              |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S01 | 96-DV-03-S02 | 96-DV-03-S03 | 96-DV-03-D03    | 96-DV-03-S04 | 96-DV-03-S05 | 96-DV-03-S06 | 96-DV-03-S07 | 96-DV-03-S08 | 96-DV-03-S09 |
| <b>DATE SAMPLE COLLECTED</b>             | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96        | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96     | 07/09/96     |
| <b>TIME SAMPLE COLLECTED</b>             | 10:10        | 11:10        | 11:30        | 11:30           | 2:05         | 16:00        | 18:00        | 14:45        | 15:30        | 16:30        |
| <b>SAMPLE DEPTH</b>                      | 4'-4'6"      | 0-1"         | 18"-26"      | 18"-26"         | 18"-26'      | 5'           | 18"-28"      | 0-2"         | 2-3"         | 3-6"         |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              |              |              | Background   |              |              |

| <b>ANALYTE DETECTED (mg/kg)</b> |             |       |       |       |       |       |       |       |       |       |       |
|---------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <i>TAL METALS/CYANIDE</i>       | <i>CRDL</i> |       |       |       |       |       |       |       |       |       |       |
| aluminum                        | 40 mg/kg    | 3470  | 10400 | 1910  | 1140  | 5290  | 9920  | 6210  | 6890  | 14300 | 4970  |
| antimony                        | 12 mg/kg    | 0.75U | 0.70B | 0.74U | 0.90U | 1.0B  | 3.5B  | 1.0U  | 0.68U | 278   | 2.9B  |
| arsenic                         | 2 mg/kg     | 20.7  | 77.2  | 1.6B  | 1.2U  | 27.0  | 12.2  | 49.7  | 6.0   | 141   | 36.0  |
| barium                          | 40 mg/kg    | 182   | 272   | 12.2B | 7.2B  | 222   | 268   | 320   | 112   | 13000 | 824   |
| beryllium                       | 1 mg/kg     | 2.0   | 5.8   | 0.25U | 0.30U | 3.1   | 0.68B | 3.3   | 0.62B | 0.77B | 2.6   |
| cadmium                         | 1 mg/kg     | 0.47B | 6.6   | 0.43B | 0.30U | 0.38B | 0.23U | 0.33U | 0.57B | 0.69B | 3.9   |
| calcium                         | 1000 mg/kg  | 4060  | 5650  | 995B  | 979B  | 16400 | 25500 | 2280  | 12900 | 5410  | 19800 |
| chromium                        | 2 mg/kg     | 5.5   | 23.6  | 17.6  | 8.5   | 14.0  | 12.6  | 16.5  | 17.3  | 62.0  | 50.7  |
| cobalt                          | 10 mg/kg    | 6.0B  | 16.2  | 2.0B  | 1.4B  | 9.6B  | 7.9B  | 8.7B  | 6.6B  | 17.5  | 11.2  |
| copper                          | 5 mg/kg     | 26.8  | 91.8  | 136   | 96.9  | 73.0  | 18.3  | 41.5  | 22.5  | 1830  | 1680  |
| iron                            | 20 mg/kg    | 3240  | 9430  | 24200 | 15900 | 5890  | 19200 | 3120  | 13200 | 59500 | 13800 |
| lead                            | 0.6 mg/kg   | 29.9  | 110   | 15.4  | 7.2   | 97.0  | 16.8  | 18.2  | 31.5  | 652   | 1990  |
| magnesium                       | 1000 mg/kg  | 1010B | 1480  | 565B  | 560B  | 8070  | 13200 | 596B  | 6100  | 2480  | 18200 |
| manganese                       | 3 mg/kg     | 98.2  | 99.1  | 427   | 265   | 72.8  | 621   | 45.2  | 681   | 614   | 236   |
| mercury                         | 0.1 mg/kg   | 0.12U | 0.48  | 0.12U | 0.15U | 0.14U | 0.12U | 0.17U | 0.18  | 0.11U | 0.21  |
| nickel                          | 8 mg/kg     | 10.4  | 34.6  | 18.7  | 11.3B | 20.0  | 15.1  | 16.6  | 12.9  | 78.3  | 85.0  |
| potassium                       | 1000 mg/kg  | 611B  | 1390  | 126B  | 86B   | 810B  | 1010B | 1230B | 886B  | 1400  | 685B  |
| selenium                        | 1 mg/kg     | 1.3   | 8.8   | 0.99U | 1.2U  | 6.3   | 0.93U | 8.6   | 0.90U | 2.1   | 2.8   |
| silver                          | 2 mg/kg     | 0.25U | 0.21U | 0.25U | 0.30U | 0.28U | 0.23U | 0.33U | 0.45B | 0.23B | 0.90B |
| sodium                          | 1000 mg/kg  | 276B  | 364B  | 327B  | 318B  | 448B  | 364B  | 406B  | 207B  | 254B  | 279B  |
| thallium                        | 2 mg/kg     | 1.0U  | 1.8B  | 2.1B  | 1.3B  | 1.7B  | 2.4   | 1.3U  | 2.2B  | 4.0   | 1.5B  |
| vanadium                        | 10 mg/kg    | 18.3  | 92.6  | 1.2B  | 0.62B | 47.7  | 24.0  | 61.9  | 17.4  | 18.5  | 33.6  |
| zinc                            | 4 mg/kg     | 33.7  | 39.4  | 41.7  | 22.3  | 231   | 60.9  | 48.0  | 76.9  | 286   | 291   |
| cyanide                         | 2 mg/kg     | 0.27B | 0.26B | 0.19U | 0.22U | 0.34B | 0.17U | 0.29B | 0.30B | 2.3   | 3.7   |

| <b>TAL ANALYTE QUALIFIERS</b> | <b>DEFINITION</b>   |
|-------------------------------|---|
| B                             | Value is real, but is above instrument detection limit and below contract-required detection limit. |
| U                             | Analyte was analyzed for but not detected.  |

**Comprehensive Analytical Results - Soil Samples**

|  |              |              |  |  |  |  |  |  |  |  |
|--|--------------|--------------|--|--|--|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S10 | 96-DV-03-S11 |  |  |  |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      |  |  |  |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 17:20        | 17:00        |  |  |  |  |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 0-4"         | 3-4"         |  |  |  |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |  |  |  |  |  |  |  |  |

| <b>ANALYTE DETECTED (mg/kg)</b> |             |        |       |
|---------------------------------|-------------|--------|-------|
| <b>TAL METALS/CYANIDE</b>       | <b>CRDL</b> |        |       |
| aluminum                        | 40 mg/kg    | 8080   | 3290  |
| antimony                        | 12 mg/kg    | 8.4B   | 2.1B  |
| arsenic                         | 2 mg/kg     | 15.4   | 6.6   |
| barium                          | 40 mg/kg    | 318    | 93.8  |
| beryllium                       | 1 mg/kg     | 1.9    | 1.1B  |
| cadmium                         | 1 mg/kg     | 16.3   | 1.4   |
| calcium                         | 1000 mg/kg  | 48800  | 98000 |
| chromium                        | 2 mg/kg     | 43.2   | 18.7  |
| cobalt                          | 10 mg/kg    | 13.8   | 4.3B  |
| copper                          | 5 mg/kg     | 191000 | 405   |
| iron                            | 20 mg/kg    | 92300  | 16000 |
| lead                            | 0.6 mg/kg   | 12100  | 242   |
| magnesium                       | 1000 mg/kg  | 8860   | 36200 |
| manganese                       | 3 mg/kg     | 693    | 344   |
| mercury                         | 0.1 mg/kg   | 0.13U  | 0.11U |
| nickel                          | 8 mg/kg     | 139    | 24.2  |
| potassium                       | 1000 mg/kg  | 763B   | 599B  |
| selenium                        | 1 mg/kg     | 2.6    | 0.93B |
| silver                          | 2 mg/kg     | 7.6    | 0.22U |
| sodium                          | 1000 mg/kg  | 809B   | 368B  |
| thallium                        | 2 mg/kg     | 4.5    | 1.3B  |
| vanadium                        | 10 mg/kg    | 28.1   | 15.6  |
| zinc                            | 4 mg/kg     | 11500  | 159   |
| cyanide                         | 2 mg/kg     | 0.60B  | 0.55  |

| <b>TAL ANALYTE QUALIFIERS</b> | <b>DEFINITION</b>   |
|-------------------------------|---|
| B                             | Value is real, but is above instrument detection limit and below contract-required detection limit. |
| U                             | Analyte was analyzed for but not detected.  |

### Comprehensive Analytical Results - Sediment Samples

|  |              |              |              |                 |              |              |  |  |  |  |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S15 | 96-DV-03-S16 | 96-DV-03-S17 | 96-DV-03-D17    | 96-DV-03-S18 | 96-DV-03-S19 |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 10:30        | 11:00        | 15:15        | 15:15           | 14:45        | 15:45        |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 15'-18'      | 15'-18'      | 0-6"         | 0-6"            | 0-6"         | 0-6"         |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              | Background   |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b>         |             |       |       |       |       |       |       |  |  |  |  |
|--|-------------|-------|-------|-------|-------|-------|-------|--|--|--|--|
| <b><i>VOLATILE ORGANIC COMPOUNDS</i></b> | <b>CROL</b> |       |       |       |       |       |       |  |  |  |  |
| chloromethane                            | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| bromomethane                             | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| vinyl chloride                           | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| chloroethane                             | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| methylene chloride                       | 10 µg/kg    | 26BJU | 29BJU | 15BJU | 14BJU | 18BJU | 18BJU |  |  |  |  |
| acetone                                  | 10 µg/kg    | 47    | 43    | 15U   | 14U   | 33    | 19    |  |  |  |  |
| carbon disulfide                         | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 1,1-dichloroethene                       | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 1,1-dichloroethane                       | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 1,2-dichloroethene (total)               | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| chloroform                               | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 1,2-dichloroethane                       | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 2-butanone                               | 10 µg/kg    | 26U   | 10J   | 15U   | 14U   | 5J    | 18U   |  |  |  |  |
| 1,1,1-trichloroethane                    | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| carbon tetrachloride                     | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| bromodichloromethane                     | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 1,2-dichloropropane                      | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| cis-1,3-dichloropropene                  | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| trichloroethene                          | 10 µg/kg    | 0.8J  | 29U   | 0.7J  | 14U   | 18U   | 18U   |  |  |  |  |
| dibromochloromethane                     | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 1,1,2-trichloroethane                    | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| benzene                                  | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| trans-1,3-dichloropropene                | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| bromoform                                | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 4-methyl-2-pentanone                     | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 2-hexanone                               | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| tetrachloroethene                        | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| 1,1,2,2-tetrachloroethane                | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 18U   |  |  |  |  |
| toluene                                  | 10 µg/kg    | 26U   | 29U   | 15U   | 14U   | 18U   | 1J    |  |  |  |  |

**Comprehensive Analytical Results - Sediment Samples**

|  |              |              |              |                 |              |              |  |  |  |  |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S15 | 96-DV-03-S16 | 96-DV-03-S17 | 96-DV-03-D17    | 96-DV-03-S18 | 96-DV-03-S19 |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 10:30        | 11:00        | 15:15        | 15:15           | 14:45        | 15:45        |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 15'-18'      | 15'-18'      | 0-6"         | 0-6"            | 0-6"         | 0-6"         |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              | Background   |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b>  |             |     |     |     |     |     |     |  |  |
|-----------------------------------|-------------|-----|-----|-----|-----|-----|-----|--|--|
| <b>VOLATILE ORGANIC COMPOUNDS</b> | <b>CRQL</b> |     |     |     |     |     |     |  |  |
| chlorobenzene                     | 10 µg/kg    | 26U | 29U | 15U | 14U | 18U | 18U |  |  |
| ethyl benzene                     | 10 µg/kg    | 26U | 29U | 15U | 14U | 18U | 18U |  |  |
| styrene                           | 10 µg/kg    | 26U | 29U | 15U | 14U | 18U | 18U |  |  |
| xylene (total)                    | 10 µg/kg    | 26U | 29U | 15U | 14U | 18U | 18U |  |  |

| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> | <b>CRQL</b> |      |      |      |      |      |      |  |  |
|--|-------------|------|------|------|------|------|------|--|--|
| phenol                                 | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| bis(2-chloroethyl)ether                | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 2-chlorophenol                         | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 1,3-dichlorobenzene                    | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 1,4-dichlorobenzene                    | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 1,2-dichlorobenzene                    | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 2-methylphenol                         | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 2,2-oxybis(1-chloropropane)            | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 4-methylphenol                         | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| n-nitroso-di-n-dipropylamine           | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| hexachloroethane                       | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| nitrobenzene                           | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| isophorone                             | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 2-nitrophenol                          | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 2,4-dimethylphenol                     | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| bis(2-chloroethoxy)methane             | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 2,4-dichlorophenol                     | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 1,2,4-trichlorobenzene                 | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| naphthalene                            | 330 µg/kg   | 70J  | 77J  | 31J  | 25J  | 18J  | 63J  |  |  |
| 4-chloroaniline                        | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| hexachlorobutadiene                    | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 4-chloro-3-methylphenol                | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| 2-methylnaphthalene                    | 330 µg/kg   | 120J | 75J  | 23J  | 19J  | 16J  | 31J  |  |  |



### Comprehensive Analytical Results - Sediment Samples

|  |              |              |              |                 |              |              |  |  |  |  |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S15 | 96-DV-03-S16 | 96-DV-03-S17 | 96-DV-03-D17    | 96-DV-03-S18 | 96-DV-03-S19 |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 10:30        | 11:00        | 15:15        | 15:15           | 14:45        | 15:45        |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 15'-18'      | 15'-18'      | 0-6"         | 0-6"            | 0-6"         | 0-6"         |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              | Background   |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b>       |             |        |        |        |        |        |        |  |  |
|--|-------------|--------|--------|--------|--------|--------|--------|--|--|
| <i>SEMI-VOLATILE ORGANIC COMPOUNDS</i> | <b>CRQL</b> |        |        |        |        |        |        |  |  |
| hexachlorocyclopentadiene              | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| 2,4,6-trichlorophenol                  | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| 2,4,5-trichlorophenol                  | 800 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| 2-chloronaphthalene                    | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| 2-nitroaniline                         | 800 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| dimethylphthalate                      | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| acenaphthylene                         | 330 µg/kg   | 850U   | 61J    | 160J   | 150J   | 14J    | 22J    |  |  |
| 2,6-dinitrotoluene                     | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| 3-nitroaniline                         | 330 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| acenaphthene                           | 330 µg/kg   | 59J    | 92J    | 21J    | 15J    | 40J    | 89J    |  |  |
| 2,4-dinitrophenol                      | 800 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| 4-nitrophenol                          | 800 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| dibenzofuran                           | 330 µg/kg   | 70J    | 95J    | 11J    | 7J     | 34J    | 100J   |  |  |
| 2,4-dinitrotoluene                     | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| diethylphthalate                       | 330 µg/kg   | 850U   | 39J    | 24J    | 27J    | 51J    | 33J    |  |  |
| 4-chlorophenyl-phenyl ether            | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| fluorene                               | 330 µg/kg   | 76J    | 160J   | 53J    | 43J    | 60J    | 130J   |  |  |
| 4-nitroaniline                         | 800 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| 4,6-dinitro-2-methylphenol             | 800 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| n-nitrosodiphenylamine                 | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| 4-bromophenyl-phenyl ether             | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| hexachlorobenzene                      | 330 µg/kg   | 850U   | 940U   | 500U   | 460U   | 580U   | 600U   |  |  |
| pentachlorophenol                      | 800 µg/kg   | 2100U  | 2400U  | 1300U  | 1200U  | 1500U  | 1500U  |  |  |
| phenanthrene                           | 330 µg/kg   | 890    | 1500   | 700    | 610    | 830    | 1900   |  |  |
| anthracene                             | 330 µg/kg   | 110J   | 230J   | 400J   | 390J   | 75J    | 170J   |  |  |
| carbazole                              | 330 µg/kg   | 85J    | 110J   | 20J    | 15J    | 84J    | 190J   |  |  |
| di-n-butylphthalate                    | 330 µg/kg   | 850BJU | 940BJU | 500BJU | 460BJU | 580BJU | 600BJU |  |  |
| fluoranthene                           | 330 µg/kg   | 1100   | 2600   | 2000   | 2000   | 1400   | 2200   |  |  |
| pyrene                                 | 330 µg/kg   | 1300   | 3000   | 4700E  | 3700E  | 1400   | 2700   |  |  |

**Comprehensive Analytical Results - Sediment Samples**

|  |              |              |              |                 |              |              |  |  |  |  |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S15 | 96-DV-03-S16 | 96-DV-03-S17 | 96-DV-03-D17    | 96-DV-03-S18 | 96-DV-03-S19 |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 10:30        | 11:00        | 15:15        | 15:15           | 14:45        | 15:45        |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 15'-18'      | 15'-18'      | 0-6"         | 0-6"            | 0-6"         | 0-6"         |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              | Background   |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b>       |             |      |      |      |      |      |      |  |  |
|--|-------------|------|------|------|------|------|------|--|--|
| <i>SEMI-VOLATILE ORGANIC COMPOUNDS</i> | <b>CRQL</b> |      |      |      |      |      |      |  |  |
| butylbenzylphthalate                   | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 84J  |  |  |
| 3,3-dichlorobenzidine                  | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| benzo(a)anthracene                     | 330 µg/kg   | 490J | 1500 | 2200 | 2100 | 600  | 1300 |  |  |
| chrysene                               | 330 µg/kg   | 550J | 1500 | 2500 | 2100 | 710  | 1500 |  |  |
| bis(2-ethylhexyl)phthalate             | 330 µg/kg   | 850U | 470J | 500U | 84J  | 330J | 360J |  |  |
| di-n-octylphthalate                    | 330 µg/kg   | 850U | 940U | 500U | 460U | 580U | 600U |  |  |
| benzo(b)fluoranthene                   | 330 µg/kg   | 800J | 2500 | 2700 | 2300 | 1000 | 1800 |  |  |
| benzo(k)fluoranthene                   | 330 µg/kg   | 300J | 950  | 930  | 930  | 410J | 690  |  |  |
| benzo(a)pyrene                         | 330 µg/kg   | 460J | 1800 | 2100 | 2100 | 580  | 1100 |  |  |
| indeno(1,2,3-cd)pyrene                 | 330 µg/kg   | 460J | 1900 | 1900 | 1400 | 650  | 1400 |  |  |
| dibenzo(a,h)anthracene                 | 330 µg/kg   | 120J | 480J | 430J | 320J | 150J | 310J |  |  |
| benzo(g,h,i)perylene                   | 330 µg/kg   | 490J | 2000 | 2200 | 1600 | 660  | 1400 |  |  |

| <i>PESTICIDES/PCBs</i> | <b>CRQL</b> |       |       |        |       |       |       |  |  |
|------------------------|-------------|-------|-------|--------|-------|-------|-------|--|--|
| alpha-BHC              | 1.7 µg/kg   | 4.5U  | 4.9U  | 2.6U   | 2.4U  | 3.0U  | 3.1U  |  |  |
| beta-BHC               | 1.7 µg/kg   | 4.5U  | 4.9U  | 2.6U   | 2.4U  | 3.0U  | 3.1U  |  |  |
| delta-BHC              | 1.7 µg/kg   | 4.5U  | 4.9U  | 1.4JP  | 1.5JP | 3.0U  | 3.1U  |  |  |
| gamma-BHC (Lindane)    | 1.7 µg/kg   | 4.5U  | 4.9U  | 2.6U   | 2.4U  | 3.0U  | 3.1U  |  |  |
| heptachlor             | 1.7 µg/kg   | 4.5U  | 4.9U  | 2.6U   | 2.4U  | 3.0U  | 3.1U  |  |  |
| aldrin                 | 1.7 µg/kg   | 4.5U  | 4.9U  | 2.6U   | 2.4U  | 3.0U  | 1.3JP |  |  |
| heptachlor epoxide     | 1.7 µg/kg   | 4.5U  | 4.9U  | 2.6U   | 2.4U  | 3.0U  | 3.1U  |  |  |
| endosulfan I           | 1.7 µg/kg   | 4.5U  | 4.9U  | 2.6U   | 2.4U  | 3.0U  | 3.1U  |  |  |
| dieldrin               | 3.3 µg/kg   | 9.6P  | 2.6JP | 0.86JP | 4.6U  | 2.5JP | 4.0JP |  |  |
| 4,4-DDE                | 3.3 µg/kg   | 8.7U  | 2.2JP | 5.0U   | 4.6U  | 2.6JP | 2.4JP |  |  |
| endrin                 | 3.3 µg/kg   | 34    | 9.4U  | 3.4JP  | 4.8P  | 2.4JP | 6.0U  |  |  |
| endosulfan II          | 3.3 µg/kg   | 8.7U  | 9.4U  | 5.0U   | 4.6U  | 5.8U  | 6.0U  |  |  |
| 4,4-DDD                | 3.3 µg/kg   | 1.7JP | 9.4U  | 2.2JP  | 4.9   | 3.4JP | 3.6JP |  |  |
| endosulfan sulfate     | 3.3 µg/kg   | 3.7JP | 9.4U  | 5.0U   | 4.6U  | 3.0JP | 6.0U  |  |  |
| 4,4-DDT                | 3.3 µg/kg   | 4.4JP | 2.4JP | 2.1JP  | 2.2JP | 2.7JP | 2.3JP |  |  |

### Comprehensive Analytical Results - Sediment Samples

|  |              |              |              |                 |              |              |  |  |  |  |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|
|  | 96-DV-03-S15 | 96-DV-03-S16 | 96-DV-03-S17 | 96-DV-03-D17    | 96-DV-03-S18 | 96-DV-03-S19 |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 10:30        | 11:00        | 15:15        | 15:15           | 14:45        | 15:45        |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 15'-18'      | 15'-18'      | 0-6"         | 0-6"            | 0-6"         | 0-6"         |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              | Background   |  |  |  |  |

| <b>COMPOUND DETECTED (µg/kg)</b> |             |       |       |        |       |       |       |  |  |  |
|----------------------------------|-------------|-------|-------|--------|-------|-------|-------|--|--|--|
| <b>PESTICIDES/PCBs</b>           | <b>CROL</b> |       |       |        |       |       |       |  |  |  |
| methoxychlor                     | 17 µg/kg    | 18J   | 17JP  | 50     | 65    | 8.9JP | 12JP  |  |  |  |
| endrin ketone                    | 3.3 µg/kg   | 8.7U  | 4.9J  | 3.2JP  | 4.0JP | 5.8U  | 2.5JP |  |  |  |
| endrin aldehyde                  | 3.3 µg/kg   | 7.9JP | 9.4U  | 5.0U   | 4.6U  | 5.8U  | 6.0U  |  |  |  |
| alpha-chlordane                  | 1.7 µg/kg   | 12    | 1.8JP | 0.72JP | 2.4U  | 7.0P  | 6.6P  |  |  |  |
| gamma-chlordane                  | 1.7 µg/kg   | 4.9P  | 3.2J  | 1.4J   | 2.4U  | 6.9   | 5.6P  |  |  |  |
| toxaphene                        | 170 µg/kg   | 450U  | 490U  | 260U   | 240U  | 300U  | 310U  |  |  |  |
| aroclor-1016                     | 33 µg/kg    | 87U   | 94U   | 50U    | 46U   | 58U   | 60U   |  |  |  |
| aroclor-1221                     | 33 µg/kg    | 180U  | 190U  | 100U   | 93U   | 120U  | 120U  |  |  |  |
| aroclor-1232                     | 67 µg/kg    | 87U   | 94U   | 50U    | 46U   | 58U   | 60U   |  |  |  |
| aroclor-1242                     | 33 µg/kg    | 87U   | 94U   | 50U    | 46U   | 58U   | 60U   |  |  |  |
| aroclor-1248                     | 33 µg/kg    | 87U   | 94U   | 50U    | 46U   | 58U   | 60U   |  |  |  |
| aroclor-1254                     | 33 µg/kg    | 660   | 94U   | 50U    | 46U   | 58U   | 60U   |  |  |  |
| aroclor-1260                     | 33 µg/kg    | 87U   | 94U   | 50U    | 46U   | 58U   | 60U   |  |  |  |

| <b>TCL COMPOUND QUALIFIERS</b> | <b>DEFINITION</b>   |
|--------------------------------|---|
| J                              | Indicates an estimated value.   |
| U                              | Compound was analyzed for but not detected.   |
| B                              | Compound is found in the associated blank as well as in the sample.   |
| D                              | This flag indicates all compounds identified in an analysis at a secondary dilution factor.   |
| E                              | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.                                     |
| P                              | Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported. |

**Comprehensive Analytical Results - Sediment Samples**

|  |              |              |              |                 |              |              |  |  |  |  |
|--|--------------|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|
|  | 96-DV-03-S15 | 96-DV-03-S16 | 96-DV-03-S17 | 96-DV-03-D17    | 96-DV-03-S18 | 96-DV-03-S19 |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 10:30        | 11:00        | 15:15        | 15:15           | 14:45        | 15:45        |  |  |  |  |
| <b>SAMPLE DEPTH</b>                      | 15'-18'      | 15'-18'      | 0-6"         | 0-6"            | 0-6"         | 0-6"         |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> |              |              |              | Field Duplicate |              | Background   |  |  |  |  |

| <b>ANALYTE DETECTED (mg/kg)</b> |             |       |       |       |       |       |       |  |  |  |
|---------------------------------|-------------|-------|-------|-------|-------|-------|-------|--|--|--|
| <b>TAL METALS/CYANIDE</b>       | <b>CRDL</b> |       |       |       |       |       |       |  |  |  |
| aluminum                        | 40 mg/kg    | 2750  | 6590  | 9750  | 8450  | 8940  | 8600  |  |  |  |
| antimony                        | 12 mg/kg    | 9.1U  | 13.5U | 7.9U  | 8.1U  | 10U   | 10.1U |  |  |  |
| arsenic                         | 2 mg/kg     | 10.3  | 12.6  | 9.2   | 9.2   | 6.0   | 9     |  |  |  |
| barium                          | 40 mg/kg    | 73.0  | 137   | 128   | 125   | 117   | 130   |  |  |  |
| beryllium                       | 1 mg/kg     | 0.28B | 0.35B | 0.54B | 0.48B | 0.5B  | 0.47B |  |  |  |
| cadmium                         | 1 mg/kg     | 1.0U  | 1.5U  | 0.89U | 0.91U | 1.1U  | 1.1U  |  |  |  |
| calcium                         | 1000 mg/kg  | 53600 | 11800 | 61700 | 58100 | 81900 | 74900 |  |  |  |
| chromium                        | 2 mg/kg     | 23.1  | 17.2  | 14.9  | 13.7  | 18    | 22.3  |  |  |  |
| cobalt                          | 10 mg/kg    | 3.7B  | 6.7B  | 6.6B  | 6.2B  | 6.5B  | 7.2B  |  |  |  |
| copper                          | 5 mg/kg     | 29.3  | 24.7  | 29.3  | 29.0  | 26    | 33.5  |  |  |  |
| iron                            | 20 mg/kg    | 11300 | 13500 | 16400 | 15500 | 15000 | 15800 |  |  |  |
| lead                            | 0.6 mg/kg   | 33.7  | 42.0  | 51.6  | 47.2  | 30.5  | 47.9  |  |  |  |
| magnesium                       | 1000 mg/kg  | 13600 | 21600 | 17200 | 16100 | 24200 | 20600 |  |  |  |
| manganese                       | 3 mg/kg     | 205   | 545   | 299   | 258   | 330   | 420   |  |  |  |
| mercury                         | 0.1 mg/kg   | 0.08U | 0.12U | 0.63  | 0.65  | 0.09U | 0.13B |  |  |  |
| nickel                          | 8 mg/kg     | 13.4  | 18.7B | 16.2  | 17.9  | 19.9  | 23.7  |  |  |  |
| potassium                       | 1000 mg/kg  | 297B  | 736B  | 812B  | 709B  | 1090B | 991B  |  |  |  |
| selenium                        | 1 mg/kg     | 1.1B  | 0.59B | 0.4B  | 0.59B | 0.73B | 0.59B |  |  |  |
| silver                          | 2 mg/kg     | 1.4U  | 2.1U  | 1.2U  | 1.2U  | 1.5U  | 1.5U  |  |  |  |
| sodium                          | 1000 mg/kg  | 165B  | 206B  | 144B  | 131B  | 191B  | 183B  |  |  |  |
| thallium                        | 2 mg/kg     | 0.68B | 0.98U | 1.0B  | 0.66B | 0.84B | 0.9B  |  |  |  |
| vanadium                        | 10 mg/kg    | 9.6B  | 16.8B | 21.8  | 19.2  | 20.2  | 20    |  |  |  |
| zinc                            | 4 mg/kg     | 80.7  | 143   | 93.6B | 80.4  | 114   | 132   |  |  |  |
| cyanide                         | 2 mg/kg     | 0.27B | 0.17U | 0.19B | 0.21B | 0.23B | 0.32B |  |  |  |

| <b>TAL ANALYTE QUALIFIERS</b> | <b>DEFINITION</b>   |
|-------------------------------|---|
| B                             | Value is real, but is above instrument detection limit and below contract-required detection limit. |
| U                             | Analyte was analyzed for but not detected.  |

### Comprehensive Analytical Results - Monitoring Wells Samples

|  |              |              |                 |              |              |  |  |  |  |  |
|--|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S22 | 96-DV-03-S23 | 96-DV-03-D23    | 96-DV-03-S24 | 96-DV-03-S25 |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 9:50         | 10:50        | 10:50           | 13:55        | 14:30        |  |  |  |  |  |
| <b>MONITORING WELL NUMBERS</b>           | MW 104       | MW 101       | MW 101D         | MW 103       | MW 102       |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> | Background   |              | Field Duplicate |              |              |  |  |  |  |  |

| <b>COMPOUND DETECTED (µg/L)</b>          |             |     |     |     |     |     |
|--|-------------|-----|-----|-----|-----|-----|
| <b><i>VOLATILE ORGANIC COMPOUNDS</i></b> | <b>CROL</b> |     |     |     |     |     |
| chloromethane                            | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| bromomethane                             | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| vinyl chloride                           | 10 µg/L     | 10U | 4J  | 4J  | 10U | 10U |
| chloroethane                             | 10 µg/L     | 10U | 2J  | 10U | 10U | 22  |
| methylene chloride                       | 10 µg/L     | 10U | 10U | 4J  | 10U | 6J  |
| acetone                                  | 10 µg/L     | 10U | 30  | 29  | 10U | 10U |
| carbon disulfide                         | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 1,1-dichloroethene                       | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 1,1-dichloroethane                       | 10 µg/L     | 10U | 13  | 13  | 10U | 10U |
| 1,2-dichloroethene (Total)               | 10 µg/L     | 10U | 150 | 140 | 10U | 10U |
| chloroform                               | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 1,2-dichloroethane                       | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 2-butanone                               | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 1,1,1-trichloroethane                    | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| carbon tetrachloride                     | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| bromodichloromethane                     | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 1,2-dichloropropane                      | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| cis-1,3-dichloropropene                  | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| trichloroethene                          | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| dibromochloromethane                     | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 1,1,2-trichloroethane                    | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| benzene                                  | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| trans-1,3-dichloropropene                | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| bromoform                                | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 4-methyl-2-pentanone                     | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 2-hexanone                               | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| tetrachloroethene                        | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| 1,1,2,2-tetrachloroethane                | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| toluene                                  | 10 µg/L     | 10U | 10U | 1J  | 10U | 15  |
| chlorobenzene                            | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |

**Comprehensive Analytical Results - Monitoring Wells Samples**

|  |              |              |                 |              |              |  |  |  |  |  |
|--|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S22 | 96-DV-03-S23 | 96-DV-03-D23    | 96-DV-03-S24 | 96-DV-03-S25 |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 9:50         | 10:50        | 10:50           | 13:55        | 14:30        |  |  |  |  |  |
| <b>MONITORING WELL NUMBERS</b>           | MW 104       | MW 101       | MW 101D         | MW 103       | MW 102       |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> | Background   |              | Field Duplicate |              |              |  |  |  |  |  |

|                |         |     |     |     |     |     |  |  |  |  |
|----------------|---------|-----|-----|-----|-----|-----|--|--|--|--|
| ethyl benzene  | 10 µg/L | 10U | 10U | 10U | 10U | 10U |  |  |  |  |
| styrene        | 10 µg/L | 10U | 10U | 10U | 10U | 10U |  |  |  |  |
| xylene (Total) | 10 µg/L | 10U | 10U | 10U | 10U | 4J  |  |  |  |  |

| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> | <b>CRQL</b> |     |       |     |     |     |  |  |  |  |
|--|-------------|-----|-------|-----|-----|-----|--|--|--|--|
| phenol                                 | 10 µg/L     | 10U | 130EB | 10U | 10U | 10U |  |  |  |  |
| bis(2-chloroethyl)ether                | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 2-chlorophenol                         | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 1,3-dichlorobenzene                    | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 1,4-dichlorobenzene                    | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 1,2-dichlorobenzene                    | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 2-methylphenol                         | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 4-methylphenol                         | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| n-nitroso-di-n-propylamine             | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| hexachloroethane                       | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| nitrobenzene                           | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| isophorone                             | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 2-nitrophenol                          | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 2,4-dimethylphenol                     | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| bis(2-chloroethoxy)methane             | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 2,4-dichlorophenol                     | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 1,2,4-trichlorobenzene                 | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| naphthalene                            | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 4-chloroaniline                        | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| hexachlorobutadiene                    | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 4-chloro-3-methylphenol                | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |
| 2-methylnaphthalene                    | 10 µg/L     | 10U | 10U   | 10U | 10U | 10U |  |  |  |  |

### Comprehensive Analytical Results - Monitoring Well Samples

|  |              |              |                 |              |              |  |  |  |  |  |
|--|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S22 | 96-DV-03-S23 | 96-DV-03-D23    | 96-DV-03-S24 | 96-DV-03-S25 |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 9:50         | 10:50        | 10:50           | 13:55        | 14:30        |  |  |  |  |  |
| <b>SAMPLE DEPTH (below surface)</b>      |              |              |                 |              |              |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> | Background   |              | Field Duplicate |              |              |  |  |  |  |  |

| <b>COMPOUND DETECTED (µg/L)</b>        |             |       |       |       |     |     |
|--|-------------|-------|-------|-------|-----|-----|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> | <b>CRQL</b> |       |       |       |     |     |
| hexachlorocyclopentadiene              | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 2,4,6-trichlorophenol                  | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 2,4,5-trichlorophenol                  | 25 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| 2-chloronaphthalene                    | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 2-nitroaniline                         | 25 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| dimethyl phthalate                     | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| acenaphthylene                         | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 2,6-dinitrotoluene                     | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 3-nitroaniline                         | 25 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| acenaphthene                           | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 2,4-dinitrophenol                      | 25 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| 4-nitrophenol                          | 25 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| dibenzofuran                           | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 2,4-dinitrotoluene                     | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| diethylphthalate                       | 10 µg/L     | 10JBU | 10JBU | 10JBU | 10U | 10U |
| 4-chlorophenyl-phenyl ether            | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| fluorene                               | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 4-nitroaniline                         | 25 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| 4,6-dinitro-2-methylphenol             | 25 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| n-nitrosodiphenylamine                 | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 4-bromophenyl-phenyl ether             | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| hexachlorobenzene                      | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| pentachlorophenol                      | 10 µg/L     | 25U   | 25U   | 25U   | 25U | 25U |
| phenanthrene                           | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| anthracene                             | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| di-n-butylphthalate                    | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| fluoranthene                           | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| pyrene                                 | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| butylbenzylphthalate                   | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |
| 3,3'-dichlorobenzidine                 | 10 µg/L     | 10U   | 10U   | 10U   | 10U | 10U |

**Comprehensive Analytical Results - Monitoring Well Samples**

|  |              |              |                 |              |              |  |  |  |  |  |
|--|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S22 | 96-DV-03-S23 | 96-DV-03-D23    | 96-DV-03-S24 | 96-DV-03-S25 |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 9:50         | 10:50        | 10:50           | 13:55        | 14:30        |  |  |  |  |  |
| <b>SAMPLE DEPTH (below surface)</b>      |              |              |                 |              |              |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> | Background   |              | Field Duplicate |              |              |  |  |  |  |  |

| <b>COMPOUND DETECTED (µg/L)</b>        |             |     |     |     |     |     |
|--|-------------|-----|-----|-----|-----|-----|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> | <b>CRQL</b> |     |     |     |     |     |
| benzo(a)anthracene                     | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| bis(2-ethylhexyl)phthalate             | 10 µg/L     | 1J  | 2J  | 10U | 2J  | 10U |
| chrysene                               | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| di-n-octyl phthalate                   | 10 µg/L     | 3J  | 1J  | 10U | 10U | 10U |
| benzo(b)fluoranthene                   | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| benzo(k)fluoranthene                   | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| benzo(a)pyrene                         | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| indeno(1,2,3-cd)pyrene                 | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| dibenzo(a,h)anthracene                 | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |
| benzo(g,h,i)perylene                   | 10 µg/L     | 10U | 10U | 10U | 10U | 10U |

| <b>PESTICIDES/PCBs</b> | <b>CRQL</b> |        |         |         |         |         |
|------------------------|-------------|--------|---------|---------|---------|---------|
| alpha-BHC              | 0.05 µg/L   | 0.050U | 0.050U  | 0.050U  | 0.050U  | 0.050U  |
| beta-BHC               | 0.05 µg/L   | 0.050U | 0.050U  | 0.050U  | 0.050U  | 0.050U  |
| delta-BHC              | 0.05 µg/L   | 0.050U | 0.050U  | 0.050U  | 0.050U  | 0.050U  |
| gamma-BHC (Lindane)    | 0.05 µg/L   | 0.050U | 0.050U  | 0.050U  | 0.050U  | 0.050U  |
| heptachlor             | 0.05 µg/L   | 0.050U | 0.051PJ | 0.082PJ | 0.095PJ | 0.092PJ |
| aldrin                 | 0.05 µg/L   | 0.050U | 0.050U  | 0.050U  | 0.050U  | 0.050U  |
| heptachlor epoxide     | 0.05 µg/L   | 0.050U | 0.050U  | 0.050U  | 0.050U  | 0.050U  |
| endosulfan I           | 0.05 µg/L   | 0.050U | 0.050U  | 0.050U  | 0.050U  | 0.050U  |
| dieldrin               | 0.10 µg/L   | 0.10U  | 0.10U   | 0.10U   | 0.10U   | 0.10U   |
| 4,4'-DDE               | 0.10 µg/L   | 0.10U  | 0.10U   | 0.10U   | 0.10U   | 0.10U   |
| endrin                 | 0.10 µg/L   | 0.10U  | 0.10U   | 0.10U   | 0.10U   | 0.10U   |
| endosulfan II          | 0.10 µg/L   | 0.10U  | 0.10U   | 0.10U   | 0.10U   | 0.10U   |
| 4,4'-DDD               | 0.10 µg/L   | 0.10U  | 0.10U   | 0.10U   | 0.10U   | 0.10U   |
| endosulfan sulfate     | 0.10 µg/L   | 0.10U  | 0.10U   | 0.10U   | 0.10U   | 0.10U   |
| 4,4'-DDT               | 0.10 µg/L   | 0.10U  | 0.10U   | 0.10U   | 0.10U   | 0.10U   |



### Comprehensive Analytical Results - Monitoring Well Samples

|  |              |              |                 |              |              |  |  |  |  |  |
|--|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S22 | 96-DV-03-S23 | 96-DV-03-D23    | 96-DV-03-S24 | 96-DV-03-S25 |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 9:50         | 10:50        | 10:50           | 13:55        | 14:30        |  |  |  |  |  |
| <b>SAMPLE DEPTH (below surface)</b>      |              |              |                 |              |              |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> | Background   |              | Field Duplicate |              |              |  |  |  |  |  |

| <b>COMPOUND DETECTED (µg/L)</b> |             |        |        |        |        |        |
|---------------------------------|-------------|--------|--------|--------|--------|--------|
| <b>PESTICIDES/PCBs</b>          | <b>CRQL</b> |        |        |        |        |        |
| methoxychlor                    | 0.50 µg/L   | 0.50U  | 0.50U  | 0.50U  | 0.50U  | 0.50U  |
| endrin ketone                   | 0.10 µg/L   | 0.10U  | 0.10U  | 0.10U  | 0.10U  | 0.10U  |
| endrin aldehyde                 | 0.10 µg/L   | 0.10U  | 0.10U  | 0.10U  | 0.10U  | 0.10U  |
| alpha-chlordane                 | 0.05 µg/L   | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| gamma-chlordane                 | 0.05 µg/L   | 0.050U | 0.050U | 0.050U | 0.050U | 0.050U |
| toxaphene                       | 5.0 µg/L    | 5.0U   | 5.0U   | 5.0U   | 5.0U   | 5.0U   |
| aroclor-1016                    | 1.0 µg/L    | 1.0U   | 1.0U   | 1.0U   | 1.0U   | 1.0U   |
| aroclor-1221                    | 1.0 µg/L    | 2.0U   | 2.0U   | 2.0U   | 2.0U   | 2.0U   |
| aroclor-1232                    | 2.0 µg/L    | 1.0U   | 1.0U   | 1.0U   | 1.0U   | 1.0U   |
| aroclor-1242                    | 1.0 µg/L    | 1.0U   | 1.0U   | 1.0U   | 1.0U   | 1.0U   |
| aroclor-1248                    | 1.0 µg/L    | 1.0U   | 1.0U   | 1.0U   | 1.0U   | 1.0U   |
| aroclor-1254                    | 1.0 µg/L    | 1.0U   | 1.0U   | 1.0U   | 1.0U   | 1.0U   |
| aroclor-1260                    | 1.0 µg/L    | 1.0U   | 1.0U   | 1.0U   | 1.0U   | 1.0U   |

| <b>TCL COMPOUND QUALIFIERS</b> | <b>DEFINITION</b>   |
|--------------------------------|---|
| J                              | Indicates an estimated value.   |
| U                              | Compound was analyzed for but not detected.   |
| B                              | Compound is found in the associated blank as well as in the sample.   |
| D                              | This flag indicates all compounds identified in an analysis at a secondary dilution factor.   |
| E                              | This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.                                     |
| P                              | Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported. |

### Comprehensive Analytical Results - Monitoring Well Samples

|  |              |              |                 |              |              |  |  |  |  |  |
|--|--------------|--------------|-----------------|--------------|--------------|--|--|--|--|--|
| <b>SAMPLE NUMBERS</b>                    | 96-DV-03-S22 | 96-DV-03-S23 | 96-DV-03-D23    | 96-DV-03-S24 | 96-DV-03-S25 |  |  |  |  |  |
| <b>DATE SAMPLE COLLECTED</b>             | 7/09/96      | 7/09/96      | 7/09/96         | 7/09/96      | 7/09/96      |  |  |  |  |  |
| <b>TIME SAMPLE COLLECTED</b>             | 9:50         | 10:50        | 10:50           | 13:55        | 14:30        |  |  |  |  |  |
| <b>SAMPLE DEPTH (below surface)</b>      |              |              |                 |              |              |  |  |  |  |  |
| <b>QA/QC DESCRIPTION (if applicable)</b> | Background   |              | Field Duplicate |              |              |  |  |  |  |  |

| <b>ANALYTE DETECTED (µg/L)</b> |             |        |        |        |       |       |  |
|--------------------------------|-------------|--------|--------|--------|-------|-------|--|
| <b>TAL METALS/CYANIDE</b>      | <b>CRDL</b> |        |        |        |       |       |  |
| aluminum                       | 200 µg/L    | 5730   | 10000  | 361    | 98.4B | 183B  |  |
| antimony                       | 60 µg/L     | 3.0U   | 3.0U   | 3.0U   | 3.0U  | 3.0U  |  |
| arsenic                        | 10 µg/L     | 547    | 9.6B   | 4.0U   | 4.0U  | 4.0U  |  |
| barium                         | 200 µg/L    | 2530   | 330    | 347    | 92.5B | 84.4B |  |
| beryllium                      | 5 µg/L      | 1.0U   | 1.0U   | 1.0U   | 1.0U  | 1.0U  |  |
| cadmium                        | 5 µg/L      | 1.0U   | 1.0U   | 1.0U   | 1.0U  | 1.0U  |  |
| calcium                        | 5000 µg/L   | 190000 | 224000 | 81700  | 78800 | 87000 |  |
| chromium                       | 10 µg/L     | 17.3   | 17.4   | 1.2B   | 7.6B  | 1.0U  |  |
| cobalt                         | 50 µg/L     | 24.6B  | 12.3B  | 2.0B   | 1.0U  | 1.0U  |  |
| copper                         | 25 µg/L     | 27.8   | 30.8   | 4.9B   | 3.2B  | 3.1B  |  |
| iron                           | 100 µg/L    | 38000  | 20600  | 720    | 180   | 332   |  |
| lead                           | 3 µg/L      | 13.4   | 21.5   | 8.7    | 2.8B  | 1.1B  |  |
| magnesium                      | 5000 µg/L   | 75400  | 76800  | 12400  | 23100 | 25000 |  |
| manganese                      | 15 µg/L     | 1000   | 1000   | 86.7   | 46.3  | 107   |  |
| mercury                        | 0.2 µg/L    | 0.20U  | 0.20U  | 0.20U  | 0.20U | 0.20U |  |
| nickel                         | 40 µg/L     | 17.3B  | 29.7B  | 14.2B  | 1.1B  | 2.2B  |  |
| potassium                      | 5000 µg/L   | 9570   | 39600  | 114000 | 2720B | 3390B |  |
| selenium                       | 5 µg/L      | 8.3    | 4.0U   | 4.0U   | 4.0U  | 4.0U  |  |
| silver                         | 10 µg/L     | 1.0U   | 1.0U   | 1.0U   | 1.0U  | 1.0U  |  |
| sodium                         | 5000 µg/L   | 81800  | 46200  | 98700  | 13400 | 12400 |  |
| thallium                       | 10 µg/L     | 4.6B   | 4.4B   | 4.0U   | 4.0U  | 4.0U  |  |
| vanadium                       | 50 µg/L     | 14.8B  | 20.9B  | 1.0U   | 1.0U  | 1.0U  |  |
| zinc                           | 20 µg/L     | 89.7   | 77.7   | 10B    | 7.2B  | 9.5B  |  |
| cyanide                        | 10 µg/L     | 9.2B   | 3.0U   | 3.0U   | 3.0U  | 3.0U  |  |

| <b>TAL ANALYTE QUALIFIERS</b> | <b>DEFINITION</b>   |
|-------------------------------|---|
| B                             | Value is real, but is above instrument detection limit and below contract-required detection limit. |
| U                             | Analyte was analyzed for but not detected.  |

---

---

**APPENDIX E**

**Groundwater Analytical Report**

---

---

ORGANIC SAMPLE SUBMISSION / REPORT FORM

Date Received 960221

Lab Number 08921

Station/Location South Dauter South 50 DGW001 - A

Sample Collected By Psara / Rick Cisler Affiliation PSARA is LUE Contractor

Bill to DEPR Report Analysis to Rick Cisler / DEPR

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSIWM  Other  
 District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
 Other \_\_\_\_\_

Date & Time of Sample Begin 960219 1620 End 960219 1620

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private NA

Sample Volume Submitted: 2 # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other \_\_\_\_\_

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 8250 <input type="checkbox"/> 524.2 | <u>960221</u>   | <u>960221</u>   | <u>AT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |
| Others: _____                             |  | <u>  /  /  </u> | <u>  /  /  </u> | <u>  </u> |

Volatile Preserved with:  HCL  Sodium Thiosulfate Eicassav Sample Submitted:  Yes  No

Comments: \_\_\_\_\_

DES CA approval included on computer printout

SD001 19'

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | C8921 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PASARA  |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22206.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 1.2  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | 0.5  | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 67-66-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8921 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PASARA  |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22206.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 1.5  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | 4.6  | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8921 SOUTH DAYTON DUMP

Number TICs found: 0

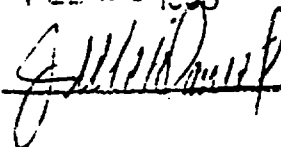
Concentration units: ug/L

| CAS NO. | COMPOUND | R. TIME | EST. CONC |
|---------|----------|---------|-----------|
|---------|----------|---------|-----------|

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

FEB 23 1996

BY 

ORGANIC SAMPLE SUBMISSION / REPORT FORM

DIVISION OF ENVIRONMENTAL SERVICES

51002

Date Received 96/02/21

Lab Number 08924

Station/Location South Dayton Dump - SDGW002-C <sup>FIELD</sup>

Sample Collected By PSARA / Matt Justice  
 Bill to DERR

Affiliation PSARAFFIS, LOE Contractor  
 Report Analysis RICK CISTER / DERR

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSI/MM  
 District:  CDO  NECO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
 Other \_\_\_\_\_

Date & Time of Sample Begin: 96/02/20 15:15 End: 1/1/1/1

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private NA

Sample Volume Submitted: 2 # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other \_\_\_\_\_

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 824 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>96/02/21</u> | <u>96/02/21</u> | <u>GT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | ___             | ___             | ___       |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | ___             | ___             | ___       |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | ___             | ___             | ___       |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | ___             | ___             | ___       |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | ___             | ___             | ___       |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | ___             | ___             | ___       |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | ___             | ___             | ___       |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | ___             | ___             | ___       |
| Others: _____                             |  | ___             | ___             | ___       |

Volatile Preserved with  HCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: Analyze for Steve Martin on cancer station with T. Resonance & V. Prati. Data will be used as a screening only, due to long amount of lead space & air kinetics KCH

DES QA approval included on computer printout

SDGW 221



**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8924 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22204.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 0.8  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | 1.2  | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | 0.5  | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | 0.9  | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 37-33-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8924 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22204.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 1.9  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | 0.6  | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments: Data will be used as a screening only, due to large amount of head space & air bubbles.

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8924 SOUTH DAYTON DUMP

Number TICs found: 1 Concentration units: ug/L

| CAS NO.     | COMPOUND | R. TIME | EST. CONC |
|-------------|----------|---------|-----------|
| 000068-25-1 | Hexanal  | 12.29   | 2.35      |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

FEB 23 1996

BY *A. McDaniel*

*See comments*

ORGANIC SAMPLE SUBMISSION / REPORT FORM

9002

Date Received 76/02/21

Lab Number 08925

Station/Location South Dayton Dump - SDGW-003-D

Sample Collected By PSARA / matt JUSTICE  
Bill to DEPR

Affiliation PSARA is LOE Contractor  
Report Analysis to RICK CISLER / DEPR

Division:  DSW  DDAGW  DEPR  DHWM  DAPC  DSIWM  Other  
District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
Other \_\_\_\_\_

Date & Time of Sample Begin 76/02/20 16:40 End 1/1/1

321

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private NA

Sample Volume Submitted: 2 # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other \_\_\_\_\_

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 824 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>76/02/22</u> | <u>46/02/26</u> | <u>AT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1/1/1</u>    | <u>1/1/1</u>    |           |
| Others:                                   |  | <u>1/1/1</u>    | <u>1/1/1</u>    |           |

Volatile Preserved with  PCL  Sodium Thiosulfate      Essay Sample Submitted:  Yes  No

Comments: Analyze per Steve Martin per conversation with T. Kosanic & V. Choi  
Data will be used as a screening only, due to large amount  
of head space & air bubbles. KCH

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8925 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PASARA  |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22205.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 1.9  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | 2.8  | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | 1.6  | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 37-63-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8925 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PASARA  |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22205.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 2.3  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | 0.9  | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

**CAS NO :** Chemical Abstracts Service Number.

**ND :** Compound not detected OR less than DL

**DL :** Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

**Comments:** Data will be used as a screening only, due to large amount of head space & air bubbles.

## Ohio EPA

Volatile Organic Analysis Data Report  
Tentatively Identified Compounds

Sample: O8925 SOUTH DAYTON DUMP

Number TICs found: 2 Concentration units: ug/L

| CAS NO.     | COMPOUND  | R. TIME | EST. CONC |
|-------------|-----------|---------|-----------|
| 000115-07-1 | Propene   | 1.68    | 67.19     |
| 000075-28-5 | Isobutane | 1.88    | 6.08      |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

FEB 23 1996

BY J. McNeill

See Comments

Date Received 96102123

Lab Number 08926

Station/Location SOUTH DAVENI DAMP - BOREHOLE 001 @ 34' SD&W004

Sample Collected By RKH SPICIL/PSARA, B. MARZUTI/DEPR Affiliation: PSARA IS LOE CONTRACTOR

Bill to DEPR Report Analysis to RICK LISLER/DEPR/PSAR

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSIWM  Other

District:  CDD  NEDO  NWDO  SEDO  MSWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  Other

Date & Time of Sample Begin 96 12 21 14 100 End 96 12 21 14 30

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private W/A

Sample Volume Submitted: 2\* # of Vials -      # of Liter Jars      Other

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst     |
|---|--|-----------------|-----------------|-------------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>96102127</u> | <u>96103101</u> | <u>AT</u>   |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 501&602 <input type="checkbox"/> 502.2                                      | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 6270   | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 6270   | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Acid Extractables (Phenois): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 6270   | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 6080   | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 6080   | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 6080   | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 6080   | <u>    </u>     | <u>    </u>     | <u>    </u> |
| Others:                                   |  | <u>    </u>     | <u>    </u>     | <u>    </u> |

Volatile Preserved with MHCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: SAMPLE VERY SILTY/TURBID; FOAMY, EFFERVESCENT  
1 Vial submitted with headspace, 1 Vial Submitted with Air  
Bubbles. LTH

DES CA approval included on computer printout



**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8926 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/21/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22721.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 0.9  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | 0.8  | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | 0.9  | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 37-63-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8926 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/21/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22721.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 1.5  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | 2.8  | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments: Data will be used as a screening, due to a large amount of head space.

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8926 SOUTH DAYTON DUMP

Number TICs found: 1 Concentration units: ug/L

| CAS NO.     | COMPOUND             | R. TIME | EST. CONC |
|-------------|----------------------|---------|-----------|
| 000115-11-7 | 1-Propene, 2-methyi- | 2.02    | 3.74      |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

MAR 31 1996

BY J. McDaniel

Date Received 96102126

Lab Number 03100

Station/Location South Dayton Dump - SDG W005

Sample Collected By Steve / Rick Cisar Affiliation Ohio EPA, DERR

Bill to \_\_\_\_\_ Report Analysis to Steve Martin, DERR

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSIWM \_\_\_\_\_ Other

District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
Other \_\_\_\_\_

Date & Time of Sample Begin 96102123 ~~11/15~~ 10/10 End 96102123 ~~12/02~~ 10/15

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private

Sample Volume Submitted: 2 # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>96102127</u> | <u>96103101</u> | <u>ST</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Others:                                   |  | <u>1 1</u>      | <u>1 1</u>      |           |

Volatile Preserved with  HCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: Sample ID = SDG W005  
\* Have space can bottles in both vials - Run as a Screening analysis

DES CA approval included on computer printout

SD 001A 221

KCH

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8930 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22706.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 0.8  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | 0.9  | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | 0.8  | 0.5 |
| 87-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8930 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22706.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 2.4  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | 1.5  | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | 0.6  | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | 0.5  | 0.5 |
| 108-38-3 | Total m&p-xylenes         | 1.2  | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments: Data will be used as a screening, due to a large amount of head space & air bubbles.

Ohio EPA  
Volatile Organic Analysis Data Report  
Tentatively Identified Compounds

Sample: O8930 SOUTH DAYTON DUMP

Number TICs found: 3

Concentration units: ug/L

| CAS NO.     | COMPOUND              | R. TIME | EST. C |
|-------------|-----------------------|---------|--------|
| 000078-78-4 | Butane, 2-methyl-     | 2.67    | 3.87   |
| 000109-66-0 | Pentane               | 3.01    | 3.07   |
| 000096-37-7 | Cyclopentane, methyl- | 6.32    | 1.11   |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APP

BY

Date Received 96102126 Lab Number 08732

Station/Location South Dayton Dump - SDCW006

Sample Collected By Peters / Cister Affiliation Ohio EPA

Bill to \_\_\_\_\_ Report Analysis to Steve Marki

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSIWM  Other  
 District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
 Other \_\_\_\_\_

Date & Time of Sample Begin 96102123 1155 End 96102123 1200

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private

Sample Volume Submitted: 2\* # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other \_\_\_\_\_

| Analysis Requested                        | Method   | Analyzed           | Reported           | Analyst    |
|---|--|--------------------|--------------------|------------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>96102127</u>    | <u>96103101</u>    | <u>(A)</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |
| Others: _____                             |  | <u>   /   /   </u> | <u>   /   /   </u> | <u>   </u> |

Volatiles Preserved with  HCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: SAMPLE ID = SDCW006 \* 1 vial with lg. air bubble. KCH

DES QA approval included on computer printout

SD004A 241



**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8932 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22709.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 0.6  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dicromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dicromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 87-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8932 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22709.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 1.5  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | 2.0  | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&c-xylenes         | 0.7  | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8932 SOUTH DAYTON DUMP

Number TICs found: 0 Concentration units: ug/L

| CAS NO. | COMPOUND | R. TIME | EST. CONC |
|---------|----------|---------|-----------|
|---------|----------|---------|-----------|

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY O.A

MAR 11 1996

BY J. McDonald

Date Received 9/6/02 Lab Number 08735

Station/Location South Dayton Dump SDGWOOD

Sample Collected By Robert / Rick Cister Affiliation Ohio EPA, DERR

Bill to DERR Report Analysis to Steve Martin

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSIWM  Other

District:  CDO  NEDO  NWDO  SEDO  48WDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
Other

Date & Time of Sample Begin 9/6/02 11:23 End 9/6/02 12:00

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private

Sample Volume Submitted: 2 # of Vials  # of Liter Jars  Other

| Analysis Requested                        | Method   | Analyzed         | Reported         | Analyst   |
|---|--|------------------|------------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 824 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>9/6/02/27</u> | <u>9/6/03/01</u> | <u>AT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>1/1</u>       | <u>1/1</u>       |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1/1</u>       | <u>1/1</u>       |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1/1</u>       | <u>1/1</u>       |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1/1</u>       | <u>1/1</u>       |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8060   | <u>1/1</u>       | <u>1/1</u>       |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8060   | <u>1/1</u>       | <u>1/1</u>       |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1/1</u>       | <u>1/1</u>       |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1/1</u>       | <u>1/1</u>       |           |
| Others:                                   |  | <u>1/1</u>       | <u>1/1</u>       |           |

Volatile Preserved with  HCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: SDGWOOD = SAMPLE 2 \* Small air bubble in 1 vial.

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8933 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22710.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 0.5  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | 0.8  | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 97-58-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |          |
|------------------------|-------------------------|----------------------|----------|
| <b>Sample:</b>         | O8933 SOUTH DAYTON DUMP | <b>Method:</b>       | 624      |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA    |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A. JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1        |
| <b>File No:</b>        | V22710.D                | <b>Conc. Units:</b>  | ug/L     |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 1.5  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | 2.2  | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | 0.7  | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:

**Ohio EPA  
Volatile Organic Analysis Data Report  
Tentatively Identified Compounds**

Sample: O8933 SOUTH DAYTON DUMP

Number TICs found:

0

Concentration units:

ug/L

CAS NO.

COMPOUND

R. TIME

EST. CONC

**Notes:**

Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY O.A

MAY 01 1995

BY J. McDaniel

Date Received 96102121

Lab Number  
MAR 05 1996

0879

Station/Location South Dayton Dump SDDG-4008

~~STATE~~ DISTRICT:  
Affiliation Derr

Sample Collected By Barr/Cisler  
Bill to DERR

Report Analysis to Steve Martin

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSIWM  Other  
District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
Other \_\_\_\_\_

Date & Time of Sample Begin 96102126 09145 End 1 1 1 1  
YY MM DD HH MM YY MM DD HH MM

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private NA

Sample Volume Submitted: 2 # of Vials 2 # of Liter Jars \_\_\_\_\_ Other \_\_\_\_\_

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 8250 <input type="checkbox"/> 524.2 | <u>96102127</u> | <u>96103101</u> | <u>JA</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Acid Extractables (Phenois): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8030   | <u>1 1</u>      | <u>1 1</u>      |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8030   | <u>1 1</u>      | <u>1 1</u>      |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8030   | <u>1 1</u>      | <u>1 1</u>      |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8030   | <u>1 1</u>      | <u>1 1</u>      |           |
| Others:                                   |  | <u>1 1</u>      | <u>1 1</u>      |           |

Volatile Preserved with  HCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: \* air bubbles in both vials

DES QA approval included on computer printout

SDD05 28-291



**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8942 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/26/96                | <b>Collected by:</b> | CISLER  |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22712.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 0.7  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | 0.6  | 0.5 |
| 87-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8942 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/26/96                | <b>Collected by:</b> | CISLER  |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22712.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 2.1  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | 0.9  | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments: Data will be used as a screening, due to a large amount of head space & air bubbles.

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8942 SOUTH DAYTON DUMP

Number TICs found: 1 Concentration units: ug/L

| CAS NO.     | COMPOUND | R. TIME | EST. CONC |
|-------------|----------|---------|-----------|
| 000106-97-8 | Butane   | 2.04    | 5.65      |

**Notes:** Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

MAR 01 1995

BY J. McDaniel

Date Received 96102127

Lab Number 08791

MAR 05 1996

Station/Location South Dayton Dump SDDGWW9

Sample Collected By Pearl/Cisler

Affiliation Derr

Bill to DERR

Report Analysis to Steve Martin

Division:  JDSW  DDAGW  DERR  DHWM  JDAPC  DSIWM  Other

District:  JCDO  JNEDO  JNWDO  JSEDO  JSWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  Other

Date & Time of Sample Begin 96102126 10130 End 1 1 1 1

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other 42-43

Well Use:  Industrial  Public  Private NT

Sample Volume Submitted: 2 # of Vials          # of Liter Jars          Other         

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 524 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>96102127</u> | <u>96103101</u> | <u>SM</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 501&602 <input type="checkbox"/> 502.2                                      | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 525 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 508 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 508 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 508 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 508 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Others:                                   |  | <u>1 1</u>      | <u>1 1</u>      |           |

Volatile Preserved with  HCL  Sodium Thiosulfate      Bypass Sample Submitted:  Yes  No

Comments: \* Head Space on Both Vials - Use as a Screening only per U.B.

DES CA approval included on computer printout

SD000

42-43

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8941 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/26/96                | <b>Collected by:</b> | CISLER  |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22711.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | 1.6  | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | 0.7  | 0.5 |
| 37-63-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8941 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/26/96                | <b>Collected by:</b> | CISLER  |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22711.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | 2.9  | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | 2.4  | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | 0.5  | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | 0.7  | 0.5 |
| 108-38-3 | Total m&p-xylenes         | 0.9  | 0.5 |

**Explanation of terms:**

**CAS NO :** Chemical Abstracts Service Number.

**ND :** Compound not detected OR less than DL

**DL :** Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

**Comments:** Data will be used as a screening only, due to large amount of head space & air bubbles.

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8941 SOUTH DAYTON DUMP

Number TICs found: 2 Concentration units: ug/L

| CAS NO.     | COMPOUND             | R. TIME | EST. CONC |
|-------------|----------------------|---------|-----------|
| 000106-98-9 | 1-Butene             | 2.01    | 4.76      |
| 000115-11-7 | 1-Propene, 2-methyl- | 2.03    | 0.93      |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

MAR 01 1995

BY J. McDonald

---

**APPENDIX F**

**Quality Control Sample Analytical Reports**

---



ORGANIC SAMPLE SUBMISSION / REPORT FORM

Date Received 96102121

Lab Number

08922

Station/Location South Dayton Pump

FEB 28 1997

SDR1001-B

Sample Collected By PSARA / M.H. Justice

Affiliation PSARA is LOE Contractor

Bill to DERR

Report Analysis to Rick Cister / DERR

Division:  ]DSW  ]DDAGW  ]DERR  ]DHWM  ]DAPC  ]DSIWM  Other  
 District:  ]CDO  ]NEDO  ]NWDO  ]SEDO  ]SWDO

Sample Type:  ]Aqueous  ]Sediment  ]Tissue  ]Oil  ]Air Canister  ]Air Filter  ]Grab  ]Composite  
 Other \_\_\_\_\_

Date & Time of Sample Begin 96102120 10 130 End 1 1 1 1

Sample Use:  ]Rush  ]Litigation  ]Complaint  ]Compliance  ]Survey  ]Ambient  ]Other

Well Use:  ]Industrial  ]Public  ]Private NA

Sample Volume Submitted: 2 # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other \_\_\_\_\_

| Analysis Requested                        | Method  | Analyzed        | Reported        | Analyst   |
|---|---|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> ]624 <input type="checkbox"/> ]8260 <input type="checkbox"/> ]524.2 | <u>96102122</u> | <u>96102126</u> | <u>AT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> ]601&602 <input type="checkbox"/> ]502.2                                       | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>1 1</u>      | <u>1 1</u>      |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>1 1</u>      | <u>1 1</u>      |           |
| Pesticides: (GC)                          | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>1 1</u>      | <u>1 1</u>      |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>1 1</u>      | <u>1 1</u>      |           |
| Chlordane: (GC)                           | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>1 1</u>      | <u>1 1</u>      |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>1 1</u>      | <u>1 1</u>      |           |
| Others: _____                             |   | <u>1 1</u>      | <u>1 1</u>      |           |

Volatile Preserved with  ]HCL  ]Sodium Thiosulfate Bioassay Sample Submitted:  ]Yes  ]No

Comments:

DES QA approval included on computer printout

Zinsere

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8922 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PASARA  |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22207.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | ND   | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 87-62-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8922 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96                | <b>Collected by:</b> | PASARA  |
| <b>Data Analyzed:</b>  | 02/22/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22207.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | 0.6  | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | ND   | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8922 SOUTH DAYTON DUMP

Number TICs found: 2 Concentration units: ug/L

| CAS NO.     | COMPOUND            | R. TIME | EST. CONC |
|-------------|---------------------|---------|-----------|
| 000067-64-1 | Acetone             | 3.71    | 1.57      |
| 001066-40-6 | Silanol, trimethyl- | 6.64    | 1.98      |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

FEB 23 1995

BY 

Date Received 96102123

Lab Number 08927

Station/Location SOUTH DARTON DUMP SDRIC02 BEARING 50001

Sample Collected By RICH STICK/BAZA, B. MARUTI/CEA Affiliation PARIT IS LUE CONTRACTOR

Bill to PC42 Report Analysis to ZICK USLER/CEA/302

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSIWM  Other  
District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
Other

Date & Time of Sample Begin 961212 1630 End 961211 1630

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private N/A

Sample Volume Submitted: 2 # of Vials - # of Liter Jars - Other

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 8260 <input type="checkbox"/> 524.2 | <u>96102127</u> | <u>96103101</u> | <u>AT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 508 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 603 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Others:                                   |  | <u>1 1</u>      | <u>1 1</u>      |           |

Volatile Preserved with  NHCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: ZINSONE SURVEY

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8927 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/21/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22713.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | ND   | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 55-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | 0.9  | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 553-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 37-58-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8927 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/21/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22713.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | 0.7  | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | ND   | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:





Date Received 96102126

Lab Number 08931

Station/Location South Dayton Dump - SD005 - SDRI-003

Sample Collected By PSARA / RICK CISLER Affiliation Ohio EPA, DERR

Bill to \_\_\_\_\_ Report Analysis to Steve Martin, DERR

Division:  ]DSW  ]DDAGW  ]DERR  ]DHWM  ]DAPC  ]DSIWM \_\_\_\_\_ Other  
District:  ]CDO  ]NEDO  ]NWDO  ]SEDO  ]SWDO

Sample Type:  ]Aqueous  ]Sediment  ]Tissue  ]Oil  ]Air Canister  ]Air Filter  ]Grab  ]Composite  
Other \_\_\_\_\_

Date & Time of Sample Begin 96 10 23 04 00 End 96 10 27 17 15

Sample Use:  ]Rush  ]Litigation  ]Complaint  ]Compliance  ]Survey  ]Ambient  ]Other

Well Use:  ]Industrial  ]Public  ]Private

Sample Volume Submitted: 2 # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other \_\_\_\_\_

| Analysis Requested                        | Method  | Analyzed        | Reported        | Analyst    |
|---|---|-----------------|-----------------|------------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> ]624 <input type="checkbox"/> ]8260 <input type="checkbox"/> ]524.2 | <u>96102127</u> | <u>96102121</u> | <u>SA</u>  |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> ]501&602 <input type="checkbox"/> ]502.2                                       | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Pesticides: (GC)                          | <input type="checkbox"/> ]508 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Chlordane: (GC)                           | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Toxaphene: (GC)                           | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>      | <u>   </u> |
| Others: _____                             |   | <u>   </u>      | <u>   </u>      | <u>   </u> |

Volatile Preserved with  ]HCL  ]Sodium Thiosulfate Bioassay Sample Submitted:  ]Yes  ]No

Comments: SD005 - SDRI 003

RICK

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | O8931 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22715.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | ND   | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 87-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                         |                      |         |
|------------------------|-------------------------|----------------------|---------|
| <b>Sample:</b>         | 08931 SOUTH DAYTON DUMP | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96                | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96                | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water                   | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22715.D                | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | ND   | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:



**ORGANIC SAMPLE SUBMISSION / REPORT FORM**

Date Received 961021

Lab Number 08923

Station/Location Trip Blank

SC FEB 28 1996

Sample Collected By DEKA/DEK/SW/1cb

Affiliation SW

Bill to DEK

Report Analysis to WIRICK Cister/DEK

Division:  DSW  DDAGW  DERR  DHWM  DAPC  DSMM  Other  
 District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
 Other

Date & Time of Sample Begin 961021 20 1 End 1 1 1

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private

Sample Volume Submitted: 1 # of Vials 1 # of Liter Jars 1 Other

| Analysis Requested                        | Method   | Analyzed          | Reported          | Analyst   |
|---|--|-------------------|-------------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 824 <input type="checkbox"/> 8250 <input type="checkbox"/> 524.2 | <u>961021 20</u>  | <u>961021 26</u>  | <u>AT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 625 <input type="checkbox"/> 8270   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Others:                                   |  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |

Volatile Preserved with  HCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments:

Trip Blank

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                  |                      |          |
|------------------------|------------------|----------------------|----------|
| <b>Sample:</b>         | O8923 TRIP BLANK | <b>Method:</b>       | 624      |
| <b>Date Collected:</b> | 02/20/96         | <b>Collected by:</b> | PASARA   |
| <b>Data Analyzed:</b>  | 02/22/96         | <b>Analyzed by:</b>  | A. JAMAL |
| <b>Matrix:</b>         | Water            | <b>Dilution:</b>     | 1        |
| <b>File No:</b>        | V22208.D         | <b>Conc. Units:</b>  | ug/L     |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | ND   | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 97-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                  |                      |         |
|------------------------|------------------|----------------------|---------|
| <b>Sample:</b>         | O8923 TRIP BLANK | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/20/96         | <b>Collected by:</b> | PASARA  |
| <b>Data Analyzed:</b>  | 02/22/96         | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water            | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22208.D         | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | 0.8  | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | ND   | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8923 TRIP BLANK

Number TICs found: 0

Concentration units: ug/L

| CAS NO. | COMPOUND | R. TIME | EST. CONC |
|---------|----------|---------|-----------|
|         |          |         |           |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

FEB 23 1995

BY *[Signature]*



Date Received 96/02/23

Lab Number 0 8928

Station/Location TRIP BLANK SOUTH DARTON PUMP FOR SAMPLES ON 2/21,22/96

Sample Collected By B. AIRLITT OEPH Affiliation CEPA / SWDO / OBAR

Bill to DEG2 Report Analysis to ZILK CISLER O EPA / DEPR

Division:  DSW  D2AGW  DERR  DHWM  DAPC  DSIWM  Other

District:  CDO  NEDO  NWDO  SEDO  SWDO

Sample Type:  Aqueous  Sediment  Tissue  Oil  Air Canister  Air Filter  Grab  Composite  
Other \_\_\_\_\_

Date & Time of Sample Begin 96/2/21 11 11 End 11 11 11

Sample Use:  Rush  Litigation  Complaint  Compliance  Survey  Ambient  Other

Well Use:  Industrial  Public  Private N/A

Sample Volume Submitted: 1 # of Vials — # of Liter Jars — Other \_\_\_\_\_

| Analysis Requested                        | Method   | Analyzed        | Reported        | Analyst   |
|---|--|-----------------|-----------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> 624 <input type="checkbox"/> 8250 <input type="checkbox"/> 524.2 | <u>96/02/27</u> | <u>96/03/01</u> | <u>AT</u> |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> 601&602 <input type="checkbox"/> 502.2                                      | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 6270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> 625 <input type="checkbox"/> 6270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> 525 <input type="checkbox"/> 5270   | <u>1 1</u>      | <u>1 1</u>      |           |
| Pesticides: (GC)                          | <input type="checkbox"/> 608 <input type="checkbox"/> 8060   | <u>1 1</u>      | <u>1 1</u>      |           |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Chlordane: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8060   | <u>1 1</u>      | <u>1 1</u>      |           |
| Toxaphene: (GC)                           | <input type="checkbox"/> 608 <input type="checkbox"/> 8080   | <u>1 1</u>      | <u>1 1</u>      |           |
| Others:                                   |  | <u>1 1</u>      | <u>1 1</u>      |           |

Volatile Preserved with  HCL  Sodium Thiosulfate Bioassay Sample Submitted:  Yes  No

Comments: TRIP BLANK

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                  |                      |           |
|------------------------|------------------|----------------------|-----------|
| <b>Sample:</b>         | O8928 TRIP BLANK | <b>Method:</b>       | 624       |
| <b>Date Collected:</b> | 02/21/96         | <b>Collected by:</b> | B.MARLATT |
| <b>Data Analyzed:</b>  | 02/27/96         | <b>Analyzed by:</b>  | A.JAMAL   |
| <b>Matrix:</b>         | Water            | <b>Dilution:</b>     | 1         |
| <b>File No:</b>        | V22714.D         | <b>Conc. Units:</b>  | ug/L      |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | ND   | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 87-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8928 TRIP BLANK

Number TICs found: 0

Concentration units: ug/L

| CAS NO. | COMPOUND | R. TIME | EST. CONC |
|---------|----------|---------|-----------|
|         |          |         |           |

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A.  
MAR 31 1996  
BY J. McDonald

Date Received 96102126

Lab Number

08934

MAR 06 1996

Station/Location South Dayton Dump

TRIP BLANK

Sample Collected By PAPER / Rich Giannini

Affiliation Ohio EPA, DERR

Bill to \_\_\_\_\_

Report Analysis to Steve Martin, DERR

Division: [ ]DSW [ ]DDAGW [  ]DERR [ ]DHWM [ ]DAPC [ ]DSIWM \_\_\_\_\_ Other  
District: [ ]CDO [ ]NEDO [ ]NWDO [ ]SEDO [  ]SWDO

Sample Type: [  ]Aqueous [ ]Sediment [ ]Tissue [ ]Oil [ ]Air Canister [ ]Air Filter [ ]Grab [ ]Composite  
\_\_\_\_\_ Other

Date & Time of Sample Begin 961223 1 1 1 1 End 1 1 1 1  
960223

Sample Use: [ ]Rush [ ]Litigation [ ]Complaint [  ]Compliance [ ]Survey [ ]Ambient [ ]Other

Well Use: [ ]Industrial [ ]Public [ ]Private

TRIP BLANK

Sample Volume Submitted: 1 # of Vials \_\_\_\_\_ # of Liter Jars \_\_\_\_\_ Other

| Analysis Requested                        | Method  | Analyzed          | Reported          | Analyst   |
|---|---|-------------------|-------------------|-----------|
| Volatile Organic Compounds (VOC): (GC/MS) | [ <input checked="" type="checkbox"/> ]624 [ ]8260 [ ]524.2 | <u>96102127</u>   | <u>96103101</u>   | <u>ST</u> |
| Volatile Organic Compounds (VOC): (GC)    | [ ]601&602 [ ]502.2   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Base-Neutral & Acid Extractables: (GC/MS) | [ ]625 [ ]8270  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Base-Neutral Extractables (PAHs): (GC/MS) | [ ]625 [ ]8270  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Acid Extractables (Phenols): (GC/MS)      | [ ]625 [ ]8270  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Pesticides: (GC)                          | [ ]608 [ ]8080  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Polychlorinated biphenyls (PCBs): (GC)    | [ ]608 [ ]8080  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Chlordane: (GC)                           | [ ]608 [ ]8080  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Toxaphene: (GC)                           | [ ]608 [ ]8080  | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |
| Others:                                   |   | <u>1</u> <u>1</u> | <u>1</u> <u>1</u> |           |

Volatile Preserved with [  ]MCL [ ]Sodium Thiosulfate Bicassay Sample Submitted: [ ]Yes [ ]No

Comments: \_\_\_\_\_

DES QA approval included on computer printout

TRIP BLANK

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                  |                      |         |
|------------------------|------------------|----------------------|---------|
| <b>Sample:</b>         | O8934 TRIP BLANK | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96         | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96         | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water            | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22716.D         | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | ND   | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 87-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                  |                      |         |
|------------------------|------------------|----------------------|---------|
| <b>Sample:</b>         | O8934 TRIP BLANK | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/23/96         | <b>Collected by:</b> | PSARA   |
| <b>Data Analyzed:</b>  | 02/27/96         | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water            | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22716.D         | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | ND   | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

Explanation of terms:

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8934 TRIP BLANK

Number TICs found: 0

Concentration units: ug/L

| CAS NO. | COMPOUND | R. TIME | EST. CONC |
|---------|----------|---------|-----------|
|---------|----------|---------|-----------|

Notes: Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

MAR 01 1996

BY J. McDaniel

Date Received 96 02 27

MAR 05 1996

Lab Number 08943

Station/Location Trip blank

Sample Collected By Lab District DERR

Bill to DERR Report Analysis to S. Martin

Division:  ]DSW  ]DOAGW  ]DERR  ]DHWM  ]DAPC  ]DSIWM  Other  
 District:  ]CDO  ]NEDO  ]NWDO  ]SEDO  ]SWDO

Sample Type:  ]Aqueous  ]Sediment  ]Tissue  ]Oil  ]Air Canister  ]Air Filter  ]Grab  ]Composite  
 Other \_\_\_\_\_

Date & Time of Sample Begin 96 02 26 1 1 1 1 End 1 1 1 1 1

Sample Use:  ]Rush  ]Litigation  ]Complaint  ]Compliance  ]Survey  ]Ambier:  ]Other

Well Use:  ]Industrial  ]Public  ]Private

Sample Volume Submitted: 1 # of Vials          # of Liter Jars          Other         

| Analysis Requested                        | Method  | Analyzed        | Reported       | Analyst    |
|---|---|-----------------|----------------|------------|
| Volatile Organic Compounds (VOC): (GC/MS) | <input checked="" type="checkbox"/> ]624 <input type="checkbox"/> ]8260 <input type="checkbox"/> ]524.2 | <u>96 02 27</u> | <u>0.01301</u> | <u>AT</u>  |
| Volatile Organic Compounds (VOC): (GC)    | <input type="checkbox"/> ]601&602 <input type="checkbox"/> ]502.2                                       | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Base-Neutral & Acid Extractables: (GC/MS) | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Base-Neutral Extractables (PAHs): (GC/MS) | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Acid Extractables (Phenols): (GC/MS)      | <input type="checkbox"/> ]625 <input type="checkbox"/> ]8270  | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Pesticides: (GC)                          | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Polychlorinated biphenyls (PCBs): (GC)    | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Chlordane: (GC)                           | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Toxaphene: (GC)                           | <input type="checkbox"/> ]608 <input type="checkbox"/> ]8080  | <u>   </u>      | <u>   </u>     | <u>   </u> |
| Others: _____                             |   | <u>   </u>      | <u>   </u>     | <u>   </u> |

Volatile Preserved with  ]HCL  ]Sodium Thiosulfate Bicassay Sample Submitted:  ]Yes  ]No

Comments:  
Shot written at lab

Trip Blank



**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                  |                      |         |
|------------------------|------------------|----------------------|---------|
| <b>Sample:</b>         | O8943 TRIP BLANK | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/26/96         | <b>Collected by:</b> | LAB     |
| <b>Data Analyzed:</b>  | 02/27/96         | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water            | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22719.D         | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.    | COMPOUND                    | CONC | DL  |
|------------|-----------------------------|------|-----|
| 71-43-2    | Benzene                     | ND   | 0.5 |
| 108-86-1   | Bromobenzene                | ND   | 0.5 |
| 74-97-5    | Bromochloromethane          | ND   | 0.5 |
| 75-27-4    | Bromodichloromethane        | ND   | 0.5 |
| 75-25-2    | Bromoform                   | ND   | 0.5 |
| 74-83-9    | Bromomethane                | ND   | 0.5 |
| 104-51-8   | N-Butylbenzene              | ND   | 0.5 |
| 135-98-8   | Sec-Butylbenzene            | ND   | 0.5 |
| 98-06-6    | Tert-Butylbenzene           | ND   | 0.5 |
| 56-23-5    | Carbon tetrachloride        | ND   | 0.5 |
| 108-90-7   | Chlorobenzene               | ND   | 0.5 |
| 75-00-3    | Chloroethane                | ND   | 0.5 |
| 67-66-3    | Chloroform                  | ND   | 0.5 |
| 74-87-3    | Chloromethane               | ND   | 0.5 |
| 95-49-8    | 2-Chlorotoluene             | ND   | 0.5 |
| 106-43-4   | 4-Chlorotoluene             | ND   | 0.5 |
| 124-48-1   | Dibromochloromethane        | ND   | 0.5 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND   | 0.5 |
| 106-93-4   | 1,2-Dibromoethane           | ND   | 0.5 |
| 74-95-3    | Dibromomethane              | ND   | 0.5 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND   | 0.5 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND   | 0.5 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND   | 0.5 |
| 75-71-8    | Dichlorodifluoromethane     | ND   | 0.5 |
| 75-34-3    | 1,1-Dichloroethane          | ND   | 0.5 |
| 107-06-2   | 1,2-Dichloroethane          | ND   | 0.5 |
| 75-35-4    | 1,1-Dichloroethene          | ND   | 0.5 |
| 156-59-4   | Cis-1,2-dichloroethene      | ND   | 0.5 |
| 156-60-5   | Trans-1,2-dichloroethene    | ND   | 0.5 |
| 78-87-5    | 1,2-Dichloropropane         | ND   | 0.5 |
| 142-28-9   | 1,3-Dichloropropane         | ND   | 0.5 |
| 594-20-7   | 2,2-Dichloropropane         | ND   | 0.5 |
| 563-58-6   | 1,1-Dichloropropene         | ND   | 0.5 |
| 10061-1-5  | Cis-1,3-dichloropropene     | ND   | 0.5 |
| 10061-02-6 | Trans-1,3-dichloropropene   | ND   | 0.5 |
| 100-41-4   | Ethylbenzene                | ND   | 0.5 |
| 87-68-3    | Hexachlorobutadiene         | ND   | 0.5 |

**Ohio EPA**  
**Volatile Organic Analysis Data Report**

|                        |                  |                      |         |
|------------------------|------------------|----------------------|---------|
| <b>Sample:</b>         | O8943 TRIP BLANK | <b>Method:</b>       | 624     |
| <b>Date Collected:</b> | 02/26/96         | <b>Collected by:</b> | LAB     |
| <b>Data Analyzed:</b>  | 02/27/96         | <b>Analyzed by:</b>  | A.JAMAL |
| <b>Matrix:</b>         | Water            | <b>Dilution:</b>     | 1       |
| <b>File No:</b>        | V22719.D         | <b>Conc. Units:</b>  | ug/L    |

| CAS NO.  | COMPOUND                  | CONC | DL  |
|----------|---------------------------|------|-----|
| 98-82-8  | Isopropylbenzene          | ND   | 0.5 |
| 99-87-6  | 4-Isopropyltoluene        | ND   | 0.5 |
| 75-09-2  | Methylene chloride        | ND   | 0.5 |
| 91-20-3  | Naphthalene               | ND   | 0.5 |
| 103-65-1 | N-Propylbenzene           | ND   | 0.5 |
| 100-42-5 | Styrene                   | ND   | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND   | 0.5 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane | ND   | 0.5 |
| 127-18-4 | Tetrachloroethene         | ND   | 0.5 |
| 108-88-3 | Toluene                   | ND   | 0.5 |
| 87-61-6  | 1,2,3-Trichlorobenzene    | ND   | 0.5 |
| 120-82-1 | 1,2,4-Trichlorobenzene    | ND   | 0.5 |
| 71-55-6  | 1,1,1-Trichloroethane     | ND   | 0.5 |
| 79-00-5  | 1,1,2-Trichloroethane     | ND   | 0.5 |
| 79-01-6  | Trichloroethene           | ND   | 0.5 |
| 75-69-4  | Trichlorofluoromethane    | ND   | 0.5 |
| 96-18-4  | 1,2,3-Trichloropropane    | ND   | 0.5 |
| 95-63-6  | 1,2,4-Trimethylbenzene    | ND   | 0.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene    | ND   | 0.5 |
| 75-01-4  | Vinyl chloride            | ND   | 0.5 |
| 95-47-6  | O-xylene                  | ND   | 0.5 |
| 108-38-3 | Total m&p-xylenes         | ND   | 0.5 |

**Explanation of terms:**

CAS NO : Chemical Abstracts Service Number.

ND : Compound not detected OR less than DL

DL : Detection Limit taking into account MDL and sample dilution considering actual volume of sample analyzed.

Comments:

**Ohio EPA**  
**Volatile Organic Analysis Data Report**  
**Tentatively Identified Compounds**

Sample: O8943 TRIP BLANK

Number TICs found: 0

Concentration units: ug/L

| CAS NO. | COMPOUND | R. TIME | EST. CONC |
|---------|----------|---------|-----------|
|---------|----------|---------|-----------|

**Notes:** Tentatively Identified Compounds are listed for the 10 most prominent compounds. Additional compounds may be present if all 10 are listed. Names listed represent the best fit as determined by library identification by computer. The name listed is not necessarily the name of the actual compound. Where less than 10 compounds are listed, no additional compounds were found.

APPROVED BY Q.A

MAR 01 1996

BY J. McDonald

---

**APPENDIX G**

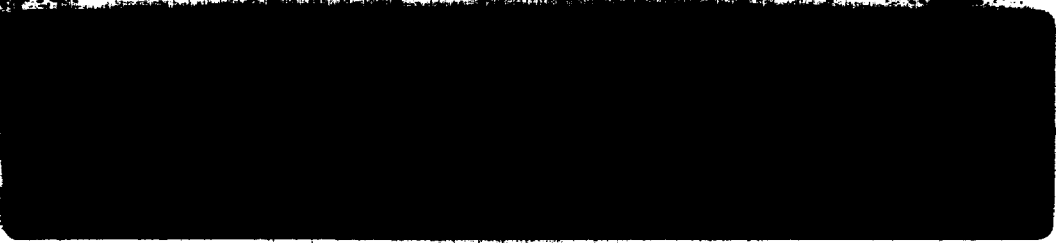
**Bill of Lading**

---



GROSS: 19.53  
 TARE: 11.97  
 NET: 7.56

COUNTY: MO



COMMENTS: OHIO EPA/CONTAM SOIL 19379



CUSTOMER:

PSARA TECHNOLOGY  
 10925 FEED HARTMAN  
 SUITE 220  
 CINCINNATI

OH 45242

|     |                        |       |        |
|-----|------------------------|-------|--------|
| CSL | CONTAMINATED SOIL      | 12.00 | 166.32 |
| 900 | MONTGOMERY TAX/GEN FEE | 0.00  | 37.80  |
|     | TOTAL GATE FEE:        |       | 204.12 |

10

**APPENDIX B:**

**SITE PHOTOGRAPHIC LOG**

**Sample Collection  
Photographic Log Index**

for the

**South Dayton Dump and Landfill**

**Ohio Master Sites List #557-0752  
Montgomery County  
Dayton, Ohio**

**Compiled by:**

**The Ohio Environmental Protection Agency  
Division of Emergency and Remedial Response  
401 East Fifth Street  
Dayton, Ohio 45402**

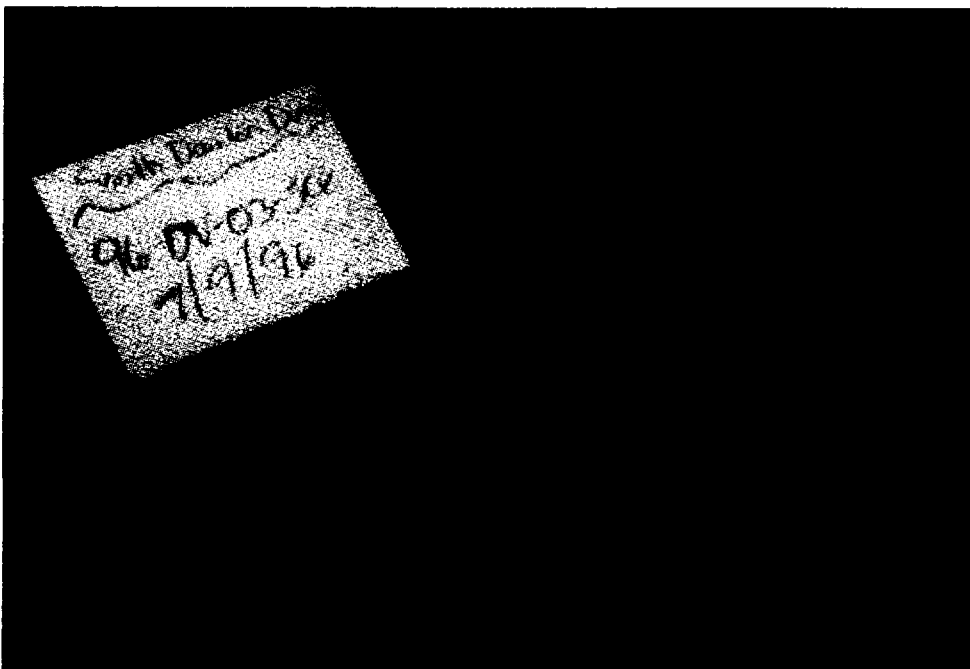


**Photograph #96-DV-03-S01**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Soil sample collected 4 - 4.5 feet below ground surface (bgs) north of center portion of landfill near drum area. Sample collected five (5) yards south of the east-west access road that runs along the northern portion of the site.**



**Photograph #96-DV-03-S02**

**Date: July 9, 1996**

**Direction: N/A**

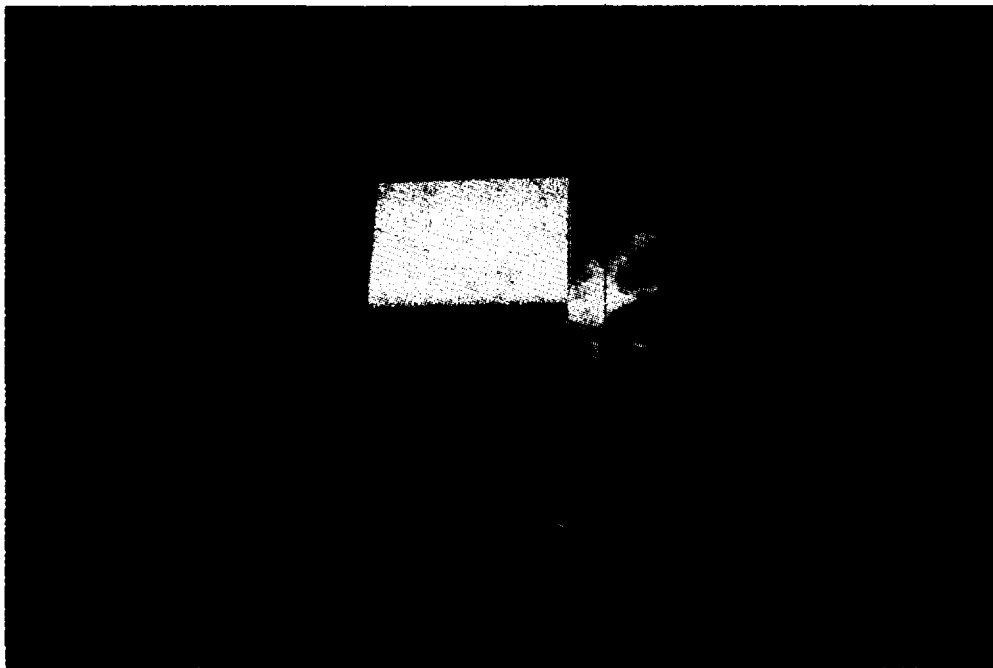
**Description: Soil sample collected from 0 - 1 inches bgs along the north-south access road located in center of the landfill.**





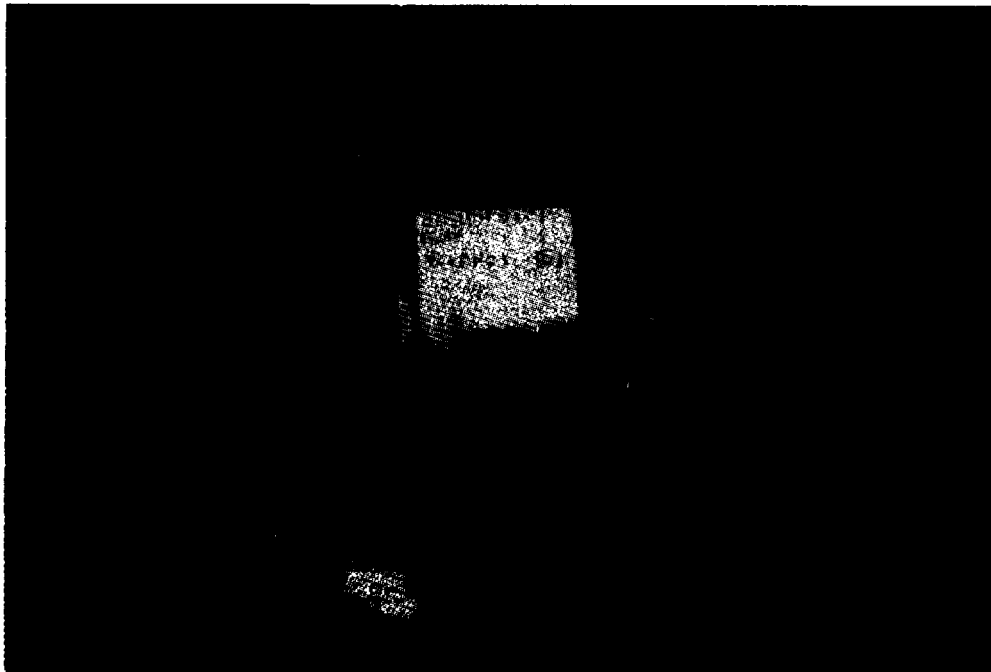
**Sample #96-DV-03-S03 and #96-DV-03-D03      Date: July 9, 1996      Direction: N/A**

**Description: Soil sample collected from 1.5 - 2 feet bgs near concrete rubble piles at the northwest edge of the depression area located in the center of the landfill.**



**Sample #96-DV-03-S04      Date: July 9, 1996      Direction: N/A**

**Description: Soil sample collected from 1.5 - 2 feet bgs immediately east of the mideastern edge of the depression area located in the center of the landfill.**

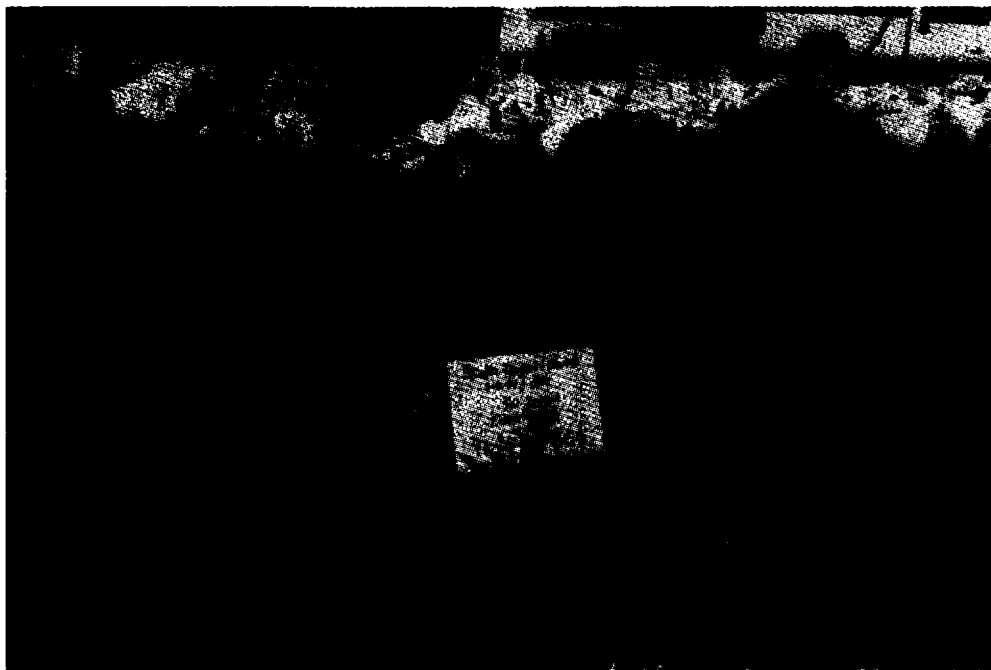


**Sample #96-DV-03-S05**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Soil sample collected from 5 feet bgs along western edge of the landfill between the access road and the steep slope to the flood plain.**

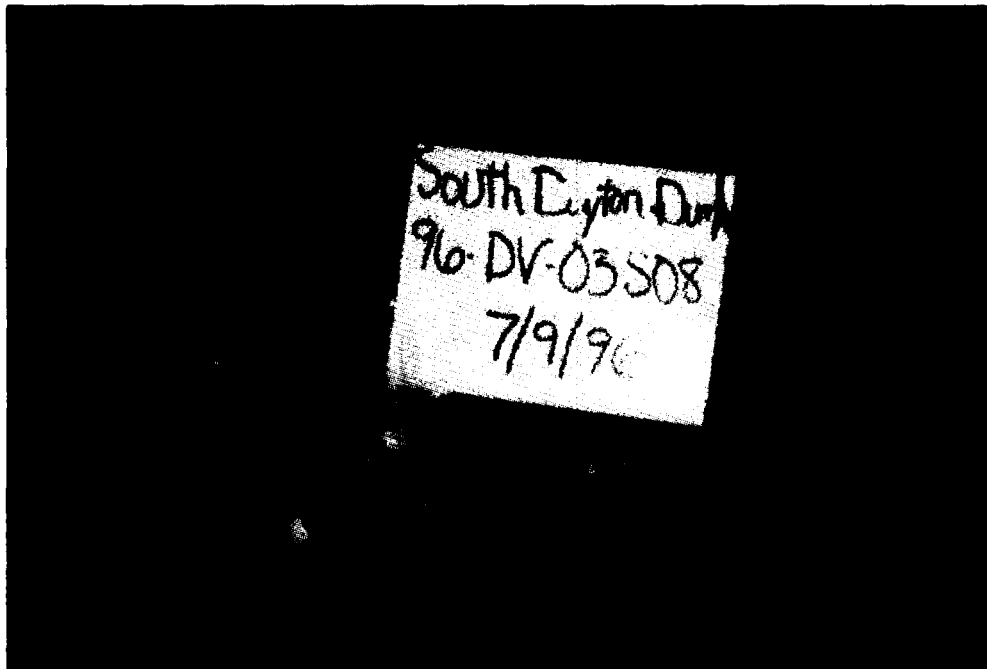


**Sample #96-DV-03-S06**

**Date: July 9, 1996**

**Direction: Northeast**

**Description: Soil sample collected from 1.5 - 2.3 feet bgs near the mid-southeastern portion of landfill between existing concrete rubble piles and the depression area.**

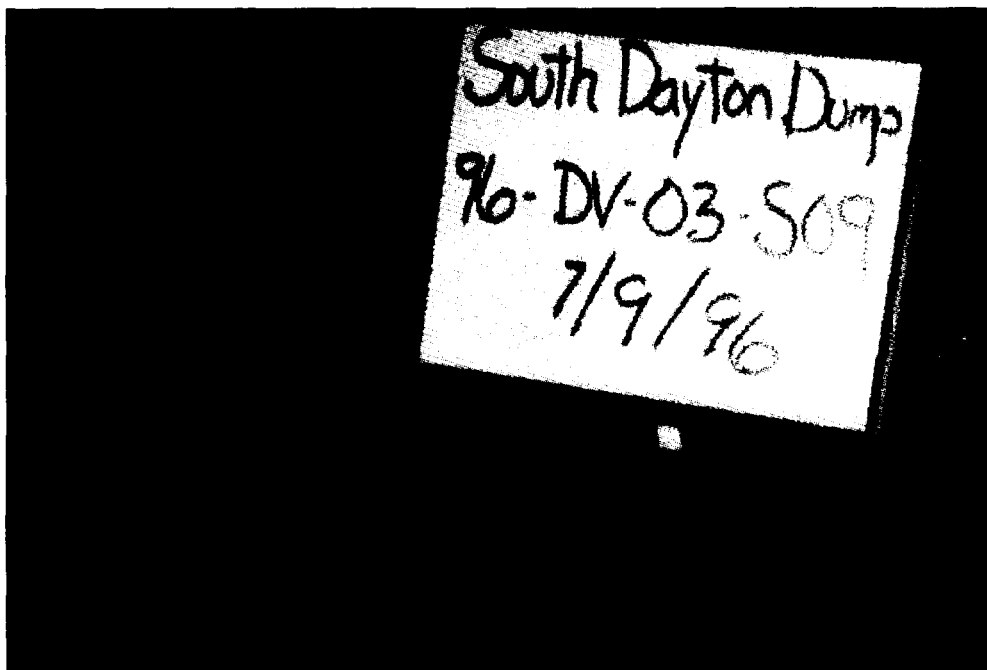


**Sample #96-DV-03-S08**

**Date: July 9, 1996**

**Direction: N/A**

**Description:** Surface soil sample collected from 2 -3 inches bgs along the midwestern edge of the landfill on the slope adjacent to the bike trail and Great Miami River between MW-102 and MW-103. Sample collected adjacent to a exposed drum containing hard, green, waste material.



**Sample #96-DV-03-S09**

**Date: July 9, 1996**

**Direction: N/A**

**Description:** Soil sample collected 2 - 6 inches bgs along the slope at the northwest corner of the landfill. Sample collected adjacent to 4 exposed drums.

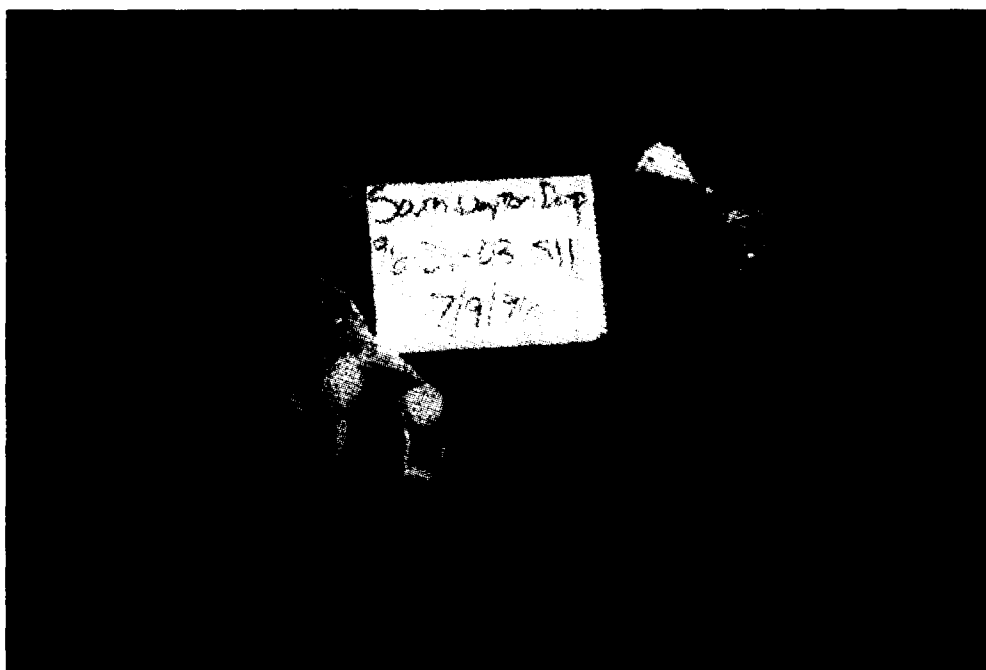


**Sample #96-DV-03-S10**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Soil sample collected from 0 - 4 inches bgs along the slope south of the center of the eastern concrete pad located along the north access road in midwest portion of landfill.**



**Sample #96-DV-03-S11**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Soil sample collected from 3 - 4 inches bgs along the ravine located at the southeast corner of the landfill. Sample collected near the west end of the ravine.**

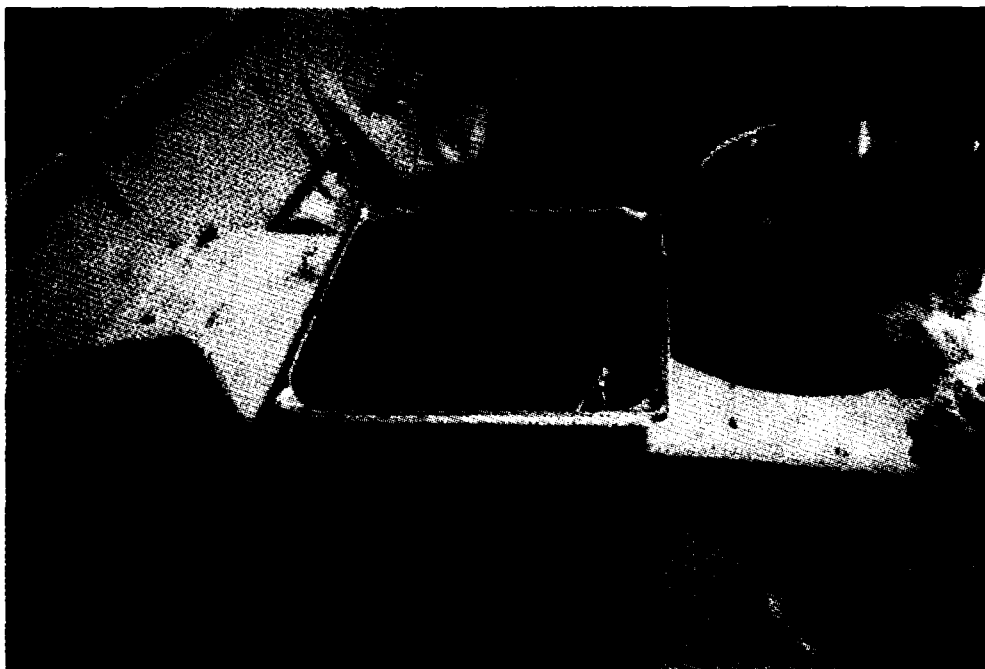


**Sample #96-DV-03-S15**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Sediment sample collected from 15 - 18 feet below water surface (bws). Located between the two utility towers, 25 yards from the shoreline, directly below the overhead utility lines, in the impoundment located off the southwest corner of the landfill.**

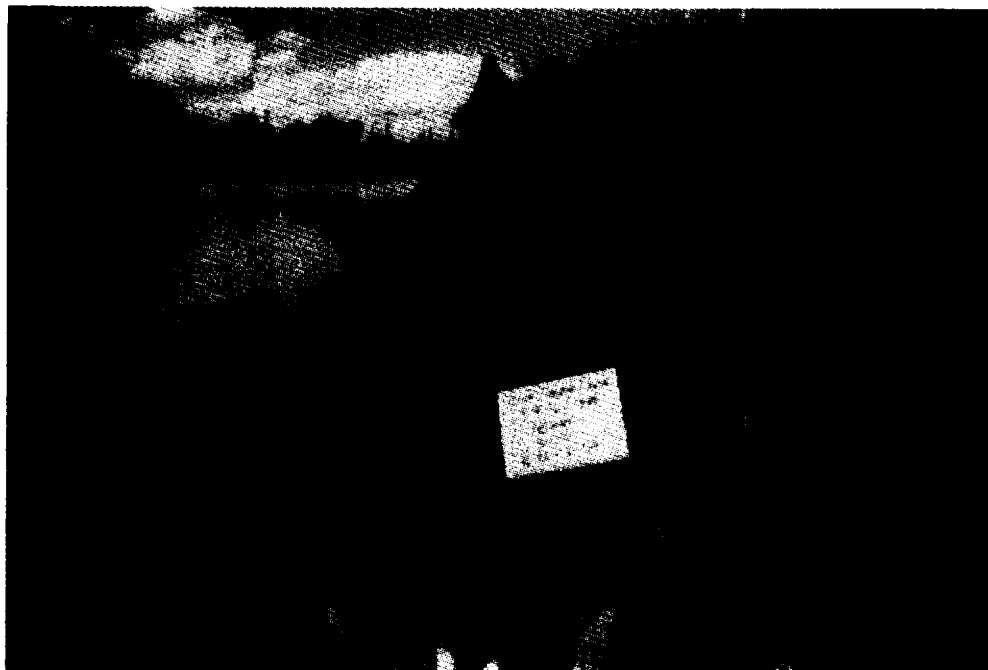


**Sample #96-DV-03-S16**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Sediment sample collected from 15 - 18 feet bws. Located 200 feet southeast of utility tower on gravel outcrop along the northeast shoreline, in the impoundment located off the southwest corner of the landfill.**



**Sample #96-DV-03-S19**

**Date: July 9, 1996**

**Direction: North**

**Description: Background sediment sample collected from 0 - 6 inches bgs. Located upstream of the site, between the landfill and the asphalt plant, along the east bank of the Great Miami River.**

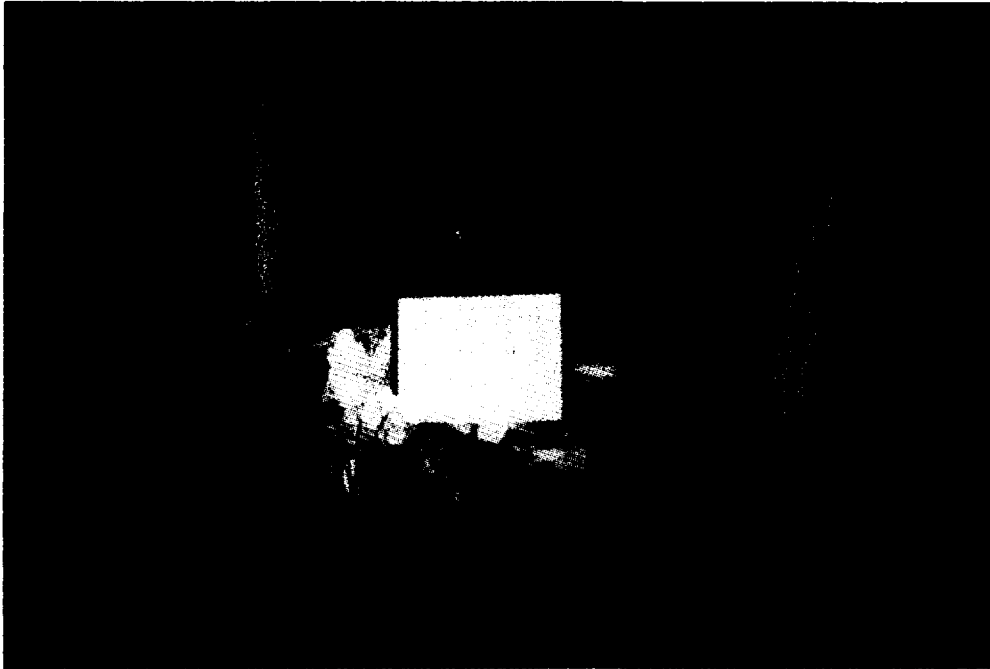


**Sample #96-DV-03-S23 and #96-DV-03-D23**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Ground-water sample from monitoring well #101. Well screen interval from 23.5 - 33.5 feet bgs. Located near southeast corner of site near adjacent to the neighboring pallet company property.**



**Sample #96-DV-03-S24**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Ground-water sample from monitoring well #103. Well screen interval from 22 - 32 feet bgs. Located in the middle of the landfill's western end, adjacent to the bike path running along the Great Miami River.**



**Sample #96-DV-03-S25**

**Date: July 9, 1996**

**Direction: N/A**

**Description: Ground-water sample from monitoring well #102. Well screen interval from 20 - 30 feet bgs. Located near the southwest corner of the landfill, adjacent to the bike path running along the Great Miami River. Located approximately 450 feet south of monitoring well #102.**