PRE-DESIGN INVESTIGATION REPORT

TRIMMER ROAD LANDFILL SITE
OPERABLE UNIT 01
TOWN OF PARMA
MONROE COUNTY, NEW YORK
(SITE NO. 8-28-012)

WORK ASSIGNMENT NO. D003600-42

Prepared for:

NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

Prepared by:

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APRIL 2005

PRE-DESIGN INVESTIGATION REPORT
TRIMMER ROAD LANDFILL SITE

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1.0 INTRODUCTION

The Trimmer Road Landfill Site, located in the Town of Parma, Monroe County, New York, is a New York State Class 2 inactive hazardous waste disposal site, registry number 8-28-012. The New York State Department of Environmental Conservation (NYSDEC) issued a Remedial Design (RD) Work Assignment to Dvirka and Bartilucci Consulting Engineers (D&B) under the State Superfund Standby Contract for the Trimmer Road Landfill Site. The RD for this site is being performed with funds allocated under the New York State Superfund Program, as part of New York State's program to investigate and remediate hazardous waste sites.

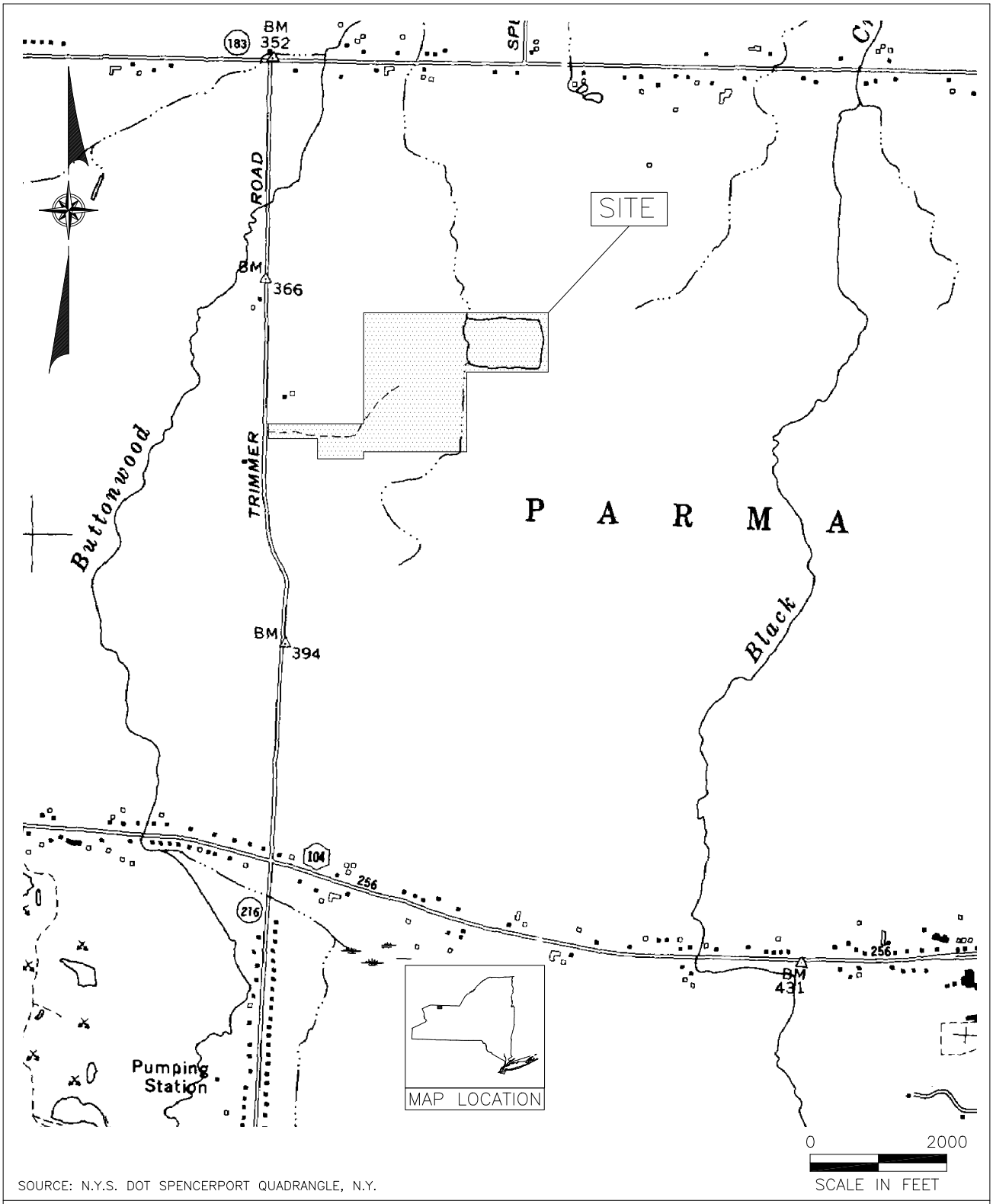
1.1 Project Objective

The NYSDEC issued a work assignment to D&B to provide design services for remediation of the Trimmer Road Landfill Site. The scope of work includes a pre-design investigation, preparation of remedial design documents (plans and specifications) and assistance with citizen participation activities and construction pre-award services. The purpose of this report is to present a summary of the activities and findings of the pre-design investigation conducted at the site.

1.2 Site Location, Ownership and Access

The Trimmer Road Landfill Site is located in a rural portion of the Town of Parma, Monroe County, New York, approximately two-miles northwest of Parma Corners and 10-miles west northwest of the City of Rochester (see Figure 1-1). The site is on the east side of Trimmer Road about one-mile north of the intersection of Trimmer Road and New York State Route 104. The 60-acre site consists of an unlined landfill occupying 40-acres and includes a 10-acre pond (see Figure 1-2).

The site is surrounded by undeveloped land on all sides, although there are a number of residential properties within a half-mile radius. The on-site pond discharges to a tributary of



SOURCE: N.Y.S. DOT SPENCERPORT QUADRANGLE, N.Y.

TRIMMER ROAD LANDFILL
TOWN OF PARMA, NEW YORK

SITE LOCATION MAP

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FIGURE 1–1

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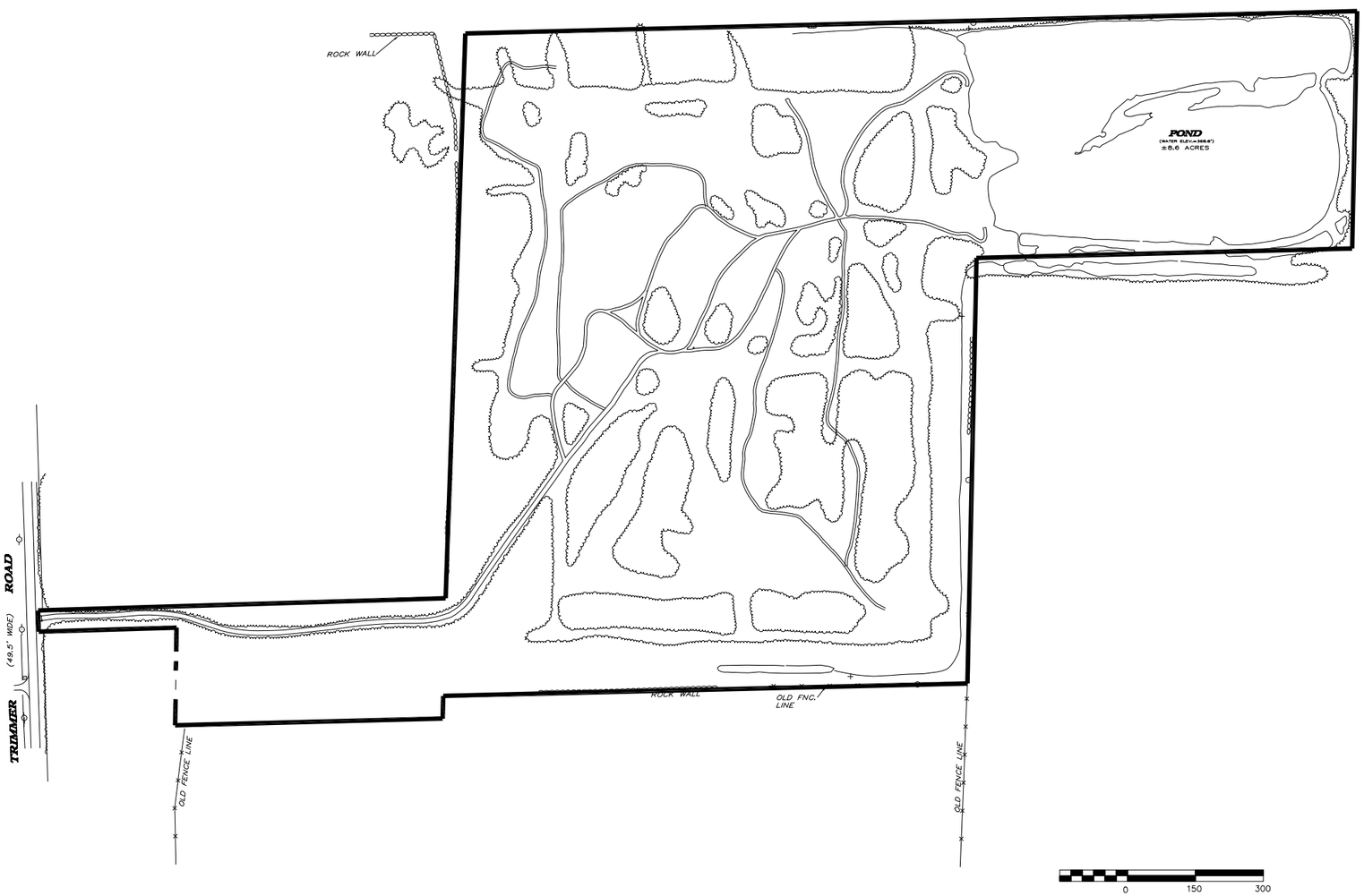

LEGEND

- ROCK WALL
- OLD WIRE FENCE LINE
- EDGE OF WATER

TRIMMER ROAD SITE
TOWN OF PARMA, NEW YORK

SITE MAP

FIGURE 1–2

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MAR 3, 2005 SEP C:\2273\Trimmer RD base.dwg

Buttonwood Creek, which is a Class C stream that drains into Lake Ontario. There are drainage ditches at the perimeter of the site on portions of three sides. The ditches collect leachate seeps and surface runoff, and ultimately drain into the pond.

Mr. Patrick Fasciano, who purchased the property in 1980, currently owns the site. The site is presently unused and is overgrown with emergent trees and scrub growth.

Access to the site is via a quarter-mile long private road with a locked gate adjacent to Trimmer Road. Access can also be gained by walking through forested land and following recreational vehicle trails. The site is not fenced.

1.3 Site History and Previous Investigations

The Trimmer Road Landfill Site was a private disposal facility that accepted municipal waste from surrounding towns and industrial waste from local industries. The landfilling operations took place between 1952 and 1974. Some of the industries are known to have produced hazardous waste. While there is no direct evidence of disposal of hazardous waste at the site, chemical analyses of groundwater samples indicate the presence of volatile organic compounds (VOCs) at concentrations exceeding groundwater standards.

A Phase I investigation conducted in 1983 identified sparse vegetation on the landfilled area, with debris exposed through the cover. A Phase II investigation conducted in 1986 found organic compounds and metals contamination in groundwater, and established a preliminary groundwater flow direction in the overburden to the northwest. Leachate from the landfill seeps was noted entering the pond on the northeast portion of the site through the perimeter drainage ditch.

The site was delisted in 1992 due to the relatively low levels of contamination found in the Phase II study. Additional investigations in 1996 revealed the presence of site contamination in groundwater at levels that raised public health concerns due to the existence of downgradient private water supplies. Therefore, the site was re-listed as a Class 2 site in 1997.

A Remedial Investigation (RI) was conducted between October 1999 and January 2001 (D&B 2001). The purpose of the RI was to define the nature and extent of contamination resulting from previous activities at the site. The RI included advancing soil borings and the installation of monitoring wells for analysis of soil and groundwater to determine the nature and extent of contaminants in the subsurface as well as determining physical properties of soil and hydrogeologic conditions. Surface water, sediment and leachate samples were collected to determine levels of contamination in the pond. A geophysical survey was conducted to identify any off-site leachate migration. A landfill gas survey was completed to evaluate landfill gas generation and identify possible contaminant hot spots.

The site is located south of Lake Ontario in the plain created by glacial Lake Iroquois. The landfilled portion of the property is a nearly square parcel comprising 40-acres with relief of 10 to 25 feet above the surrounding land surface. In the area surrounding the landfill, the natural soil cover consists of 2 to 7 feet of reddish brown, poorly sorted silt and fine sand. Underlying the reddish brown unit is bedrock, which consists of the Queenston shale formation.

Groundwater beneath and adjacent to the landfill has been measured at an average depth of 3.5-feet below the ground surface in the wells screened at the base of the overburden. Groundwater has been measured at an average depth of 5-feet below the ground surface in wells screened in the bedrock. In general, groundwater flow rates are relatively slow based on slug test data and the flow direction is toward the northwest, in both overburden and bedrock.

The media of concern for the site are groundwater, leachate, and waste/subsurface soil. The area of highest VOC contamination in groundwater is located beneath the northwest corner of the landfill where the MW-4 cluster is located. Shallow well samples exhibited vinyl chloride at 140 ppb and 1,2-DCE at 300 ppb along with other VOCs above the groundwater standards. The other area where VOCs exceeded standards is located directly north of the landfill where the MW-5 and MW-9 clusters are located. The other shallow wells and all the deeper wells did not exhibit any VOC contamination including the off-site wells located northwest (MW-8) and

northeast (MW-10). Inorganics such as manganese and arsenic were detected above the standards.

Leachate was observed on the northern and eastern slopes of the landfill. Leachate samples from several locations contained VOCs, semivolatile organic compounds (SVOCs), and metals above standards, criteria, and guidance (SCG) values. Chemical analyses of one subsurface soil sample collected from a test pit did not show any exceedance for any SCG. Nonetheless, the waste is the only source for the contaminants detected in groundwater and leachate. As indicated by the landfill gas survey, there were no exceedances of the SCG of 5% of the lower explosive limit for methane at any of the sampling points.

As described in the RI Report, groundwater and leachate samples were collected throughout the site to characterize the nature and extent of contamination. The main categories of contaminants which exceed the remediation goals established for the site in groundwater are VOCs (vinyl chloride, 1,2-DCE, and benzene). The contaminants which exceed the remediation goals for the site in leachate are benzene, chlorobenzene, ethylbenzene and total xylenes. Several metals also exceeded the remediation goals established for groundwater and leachate at the site**.**

Based on the results of the Remedial Investigation/Feasibility Study for the Trimmer Road Site and the criteria identified for evaluation of alternatives, NYSDEC selected a remedy to prevent the release of hazardous waste constituents from the site. The selected remedy, as described in the March 2001 Record of Decision (ROD), is an evapotranspiration cap consisting of a cover of enhanced soil planted with selected vegetation designed to intercept infiltrating water along with enhanced evapotranspiration to the atmosphere.

The elements of the selected remedy as contained in the March 2001 ROD for the Trimmer Road Site are as follows:

- Placement of a soil mixture enhanced with organic material on top of the existing landfill, in order to trap and retain infiltrating precipitation and meltwater;

- Planting the soil mixture with vegetation chosen because of its ability to take up quantities of water from the ground and transfer it to the air through evaporation and transpiration;

- Planting the area immediately northwest of the site with similar vegetation chosen because of its ability to break down certain VOCs found in site groundwater in this area;

- Institution of operations and maintenance plan to ensure continued effectiveness of the cover system;

- Periodic groundwater monitoring to evaluate the efficiency of the remedy and ensure the continued protection of the public health and the environment; and

- Emplacement of institutional controls, such as a deed restriction or posting of signage to protect future users of the land.

2.0 PRE-DESIGN INVESTIGATION ACTIVITIES

The purpose of the pre-design investigation was to provide site specific information to evaluate the extent of site groundwater contamination and to collect information required for the design of the selected remedial alternative. This section documents the field activities and techniques used to investigate the Trimmer Road Landfill Site. The field investigation was conducted in accordance with the NYSDEC approved Remedial Design Project Management Work Plan (D&B, 2004).

Fieldwork was conducted in three phases. The first phase was performed in November 2004 and consisted of test pit excavations. The second phase of the investigation was conducted in December 2004 and consisted of the installation of groundwater monitoring wells. The third phase of the investigation was conducted in January 2005 and February 2005 and consisted of the collection of groundwater samples from existing wells and the new wells installed at the site during the second phase of site activities.

2.1 Base Map Development and Surveying

A site map with topographic survey information was completed as part of previous investigations. An AutoCad® drawing of the previous survey was obtained by D&B and contains surveyed site features at a scale of one-inch equals 100-feet and site topography at a two-foot contour interval. The map also contains relevant features at areas adjacent to the site. This AutoCad® drawing served as the base map.

Upon completion of the field work, the locations and elevations of monitoring wells (including water level measurement reference points) and test pit locations were surveyed. In addition, approximately seven-acres of land located between the site and Trimmer Road were surveyed for topography and significant permanent features. This information was added to the base map.

Monitoring wells and test pits installed for this investigation were surveyed to the nearest 0.01-feet for location and elevation. The land located between the site and Trimmer Road was

surveyed for topography at a two-foot contour interval. The survey was prepared by Om Popli, Inc. (a New York State-licensed surveyor) in the New York State Plane (NYSP) coordinate system (NAD 1983 and NAVD 1988).

A copy of the survey map is provided in a map pocket in Appendix A.

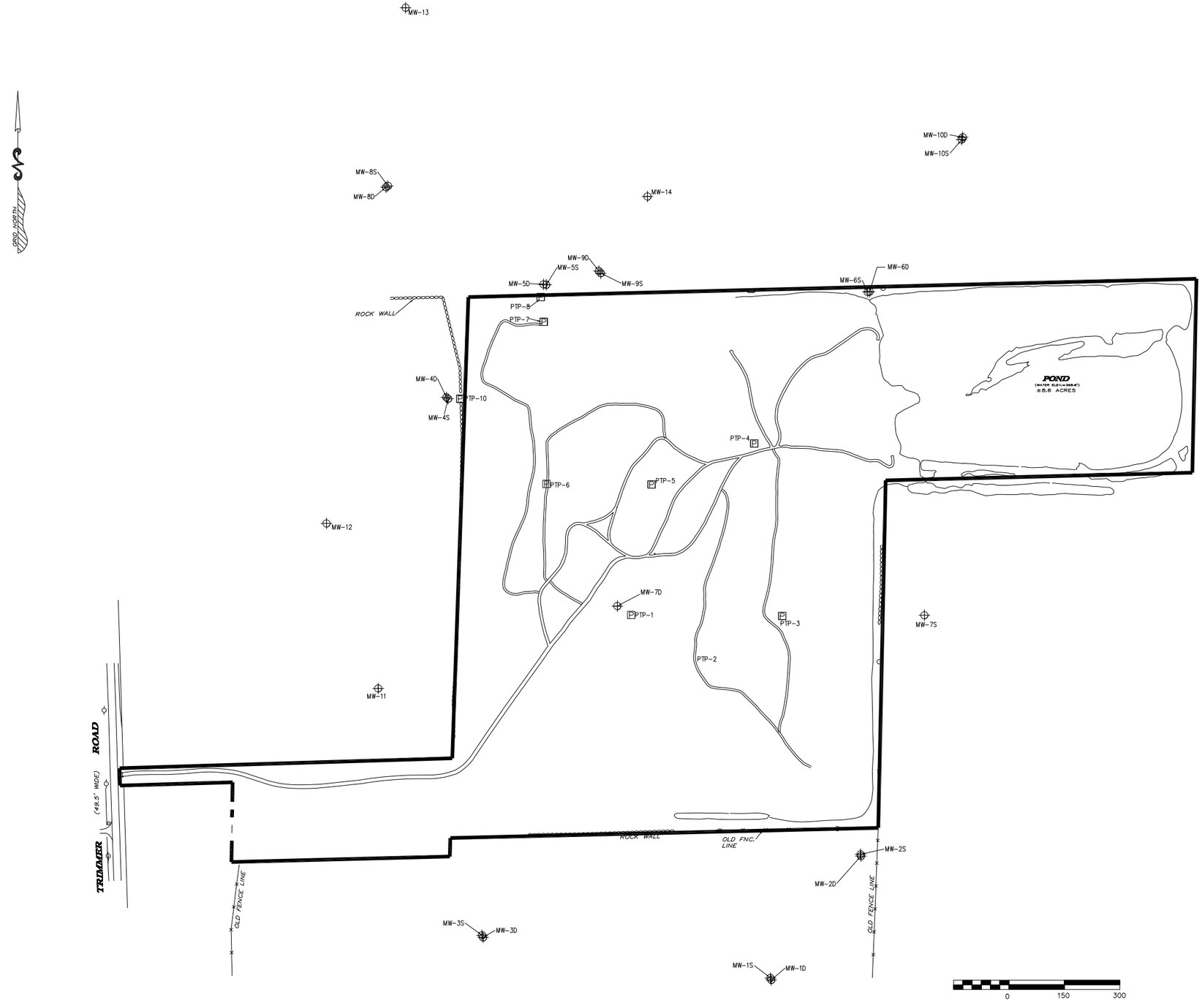
2.2 Test Pit Excavation

Eight test pits were excavated on and adjacent to the landfill. The test pits were excavated to determine the thickness of soil cover and to identify the shallow soil stratigraphy in the area of the proposed alternative cover test plots. The locations of test pits are presented on Figure 2-1. A discussion of observations made during excavation of the pits is presented in Section 3.0. Test pit logs are presented in Appendix B.

The test pits were excavated by Parratt Wolff, Inc. using a Terex, model TX 760B, rubber tired backhoe. Generally, test pits were excavated until waste was encountered. The test pits were excavated and filled in such a manner as to preserve subsurface conditions prior to excavation. Topsoil was carefully removed and placed on one side of the pit to segregate it from subsequent waste material. Waste and fill were removed and placed on the opposite side of the excavation in such a way that minimized run-off of liquids contained in saturated waste and contact with the uncontaminated surface soils or excavated material. The pit was filled in the opposite order of material removal. The filled pit was compacted with the backhoe bucket after excavated material was returned to the hole.

2.3 Monitoring Well Installations

Four new monitoring wells were installed to compliment the 20 existing monitoring wells constructed during previous investigations at the site. The locations of the wells are presented on



TRIMMER ROAD SITE
TOWN OF PARMA, NEW YORK

TEST PIT AND MONITORING WELL LOCATIONS

FIGURE 2-1

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MAR 3, 2005 SEP C:\2273\Trimmer RD base.dwg

Figure 2-1. A discussion of drilling results and observations are presented in Section 3.0. Boring logs are presented in Appendix C.

Initially, two deep wells and two shallow wells were planned as part of this investigation (D&B, 2004). However, based on further review of contaminant concentrations in deep groundwater and discussions with NYSDEC, the deep wells were not installed. Instead, two additional shallow wells were installed to further delineate the shallow contaminant plume. Due to the fact that bedrock is at shallow depths across the site and the saturated overburden thickness at the site is minimal, the construction of shallow wells screened only in overburden is impractical. Therefore, all monitoring wells installed during this investigation were shallow and screened across the overburden/bedrock interface.

2.3.1 Monitoring Well Installation and Construction

Monitoring wells MW-11, MW-12 and MW-14 were installed using a track-mounted CME 850 drill rig and monitoring well MW-13 was installed using a Diedrich D-90 ATC rubber tired drill rig. All drilling equipment was steam cleaned prior to the start of work at a temporary decontamination pad. Drilling tools were steam cleaned after the completion of each monitoring well with the exception of the split spoon samplers. Split spoons were washed and rinsed at the borehole between uses. Decontamination wastewater was allowed to drain to surface soil on-site. Drilling and installation of the wells were completed by Parratt-Wolff, Inc.

Monitoring wells MW-11, MW-12, MW-13 and MW-14 were completed using hollow stem auger drilling techniques. All monitoring well boreholes were completed using $4^1/_4$-inch inside diameter (ID) hollow stems augers. Split spoon samples were collected at two-foot intervals at each well location. All borehole construction and monitoring well installations were logged and documented by a geologist. Boring logs, presented in Appendix C, include the depths of stratigraphic changes, descriptions of samples using the Unified Soil Classification System, details of drilling techniques and total ionizable vapor measurements obtained with a Photovac Model 2020 photoionization detector (PID).

Monitoring wells MW-11, MW-12, MW-13 and MW-14 were constructed using 10-foot long two-inch ID Schedule 40 PVC 0.010-inch slot well screens and two-inch ID Schedule 40 riser pipe. Well screens were installed at the bottom of the boreholes. Sand pack was placed in the annulus between the borehole wall and the well screen extending from the well bottom to at least two-feet above the top of the screen and at least 0.5-feet of bentonite seal was placed above the sand pack. Expansion caps were installed on the well riser pipes and lockable protective steel casings were installed in concrete surface pads. Well construction specifications are provided in Table 2-1 and on Well Construction Logs presented in Appendix D.

Due to the shallow water table and depth to bedrock at the site, shallow wells were constructed with the top of the screen as shallow as 2.25-feet below the ground surface (MW-11). Monitoring well MW-11 was screened from 2.25 to 12.25-feet, sand pack was placed at 1.25-feet below ground surface and the bentonite seal was set at 0.75-feet below the ground surface. Monitoring well MW-12 was screened from 3.35 to 13.35-feet, sand pack was placed at 1.0-feet below ground surface and the bentonite seal was set at 0.5-feet below the ground surface. Monitoring well MW-13 was screened from 4.75 to 14.75-feet, sand pack was placed at 1.5-feet below ground surface and the bentonite seal was at 0.5-feet below the ground surface. Monitoring Well MW-14 was screened from 4.42 to 14.42-feet, sand pack was placed at 2.0-feet below ground surface and the bentonite seal was set at 1.5-feet below the ground surface.

2.3.2 Monitoring Well Development

The new monitoring wells (MW-11, MW-12, MW-13 and MW-14) were developed by evacuating groundwater using dedicated bailers or by surging and evacuating groundwater using submersible pumps and dedicated tubing. Water was not removed from the new wells until at least one day after well completion to allow the grout and concrete surface seals to cure. Well

TABLE 2-1
TRIMMER ROAD LANDFILL SITE
PRE-DESIGN INVESTIGATION
SUMMARY OF WELL CONSTRUCTION DETAILS

Well ID	Date Installed	Well Diameter (inches)	Well Material	Total Depth (feet)	Screened Formation	Screen**			Elevation (feet above mean sea level)*				LOCATION*	
						Top (feet bgs)	Bottom (feet bgs)	Length (feet)	Casing Top	Ground Surface	Screen		Northing (feet)	Easting (feet)
											Top	Bottom		
MW-11	12/22/04	2	PVC	15.5	Overburden/Bedrock	2.3	12.3	10.0	379.84	376.63	374.38	364.38	1179122.67	1351692.21
MW-12	12/22/04	2	PVC	15.7	Overburden/Bedrock	3.4	13.4	10.0	376.82	374.51	371.16	361.16	1179569.52	1351552.22
MW-13	12/21/04	2	PVC	17.5	Overburden/Bedrock	4.8	14.8	10.0	366.36	363.64	358.89	348.89	1180966.23	1351766.44
MW-14	12/22/04	2	PVC	16.9	Overburden/Bedrock	4.4	14.4	10.0	369.85	367.38	362.96	352.96	1180455.07	1352421.35

Notes:
* - Data from survey completed by Om Popli, Inc. in 2005 (NAD 83/92, NAVD 88)
** - Screen top and bottom based on field measurements
PVC - Poly Vinyl Chloride
bgs - below ground surface

development water was monitored for field parameters (pH, temperature, specific conductance and turbidity). Well development was continued until at least eight well volumes of groundwater were removed or the field parameters stabilized. Well development water was discharged to ground surface. Details of well development are provided on the Well Development Logs presented in Appendix E.

2.4 Water Level Monitoring

Over the course of the field investigation water level measurements were periodically obtained at the monitoring wells. Prior to installing the new monitoring wells (MW-11, MW-12, MW-13 and MW-14), a round of water level measurements were obtained from the existing well network on December 16, 2004. A second round of water level measurements were obtained from the four new monitoring wells and the 20 existing wells on March 10, 2005. Water levels were also obtained from select monitoring wells at the site prior to collecting groundwater samples. Specifically, water levels were collected from monitoring wells MW-5S, MW-6S, MW-8S, MW-9S, MW-11, MW-12, MW-13 and MW-14 on January 20, 2005 and monitoring wells MW-4S and MW-7S on February 5, 2005.

Water level rounds were completed within as short a period as possible in order to provide a synoptic view of groundwater conditions. Measurements of depth to water and topographic survey data were used to calculate groundwater elevations and to prepare water table maps.

2.5 Groundwater Sampling

One round of groundwater sampling was completed during the pre-design investigation. Ten groundwater samples were collected from six existing monitoring wells and four new monitoring wells during the groundwater sampling event. Eight samples were collected in January 2005 and two samples were collected in February 2005.

Samples for chemical analysis were collected from wells MW-4S MW-5S, MW-6S, MW-7S, MW-8S, MW-9S, MW-11, MW-12, MW-13 and MW-14 as part of the groundwater sampling event. Each well was purged of at least three volumes of groundwater before sample collection using a new disposable polyethylene bailer. Field parameters, including pH, specific conductance, dissolved oxygen, turbidity and temperature, were monitored during sampling using a Horiba U-10 instrument. All of the samples were analyzed for Targeted Compound List (TCL) VOCs and Target Analyte List (TAL) inorganics and cyanide. Based on previous site data, groundwater in shallow monitoring wells at site typically exhibit turbidity readings greater than 50 NTUs. As a result, all monitoring wells were sampled for dissolved metals. Samples for total metals were not collected as part of this investigation. Groundwater results are discussed in Section 4.0 and chain of custody forms and sample information records are presented in Appendix F.

2.6 Ambient Air Monitoring

Air monitoring for organic vapors and particulates was conducted on a continual basis during all ground intrusive pre-design investigation activities. Periodic monitoring for VOCs was conducted during all non-intrusive pre-design investigation activities such as the collection of groundwater surface samples. Air monitoring was conducted in accordance with the Project Management Work Plan. Air monitoring was conducted using a Photovac 2020® PID and MIE personalDataRam® 1000 (PDR). The exclusion zone action levels of five parts per million (ppm) for the PID or 100 micro-gram per cubic meter (mg/m^3) of particulate in the breathing zone were not exceeded during the performance of work. In addition, at no time during the investigation were the perimeter action levels of five ppm for the PID or 100 mg/m^3 for the dust meter exceeded. Air monitoring data are presented in Appendix G.

2.7 Health and Safety Program

A site-specific Health and Safety Plan (HASP) was prepared in accordance with the requirements of the Occupational Health and Safety Administration (OSHA) for the work conducted for this investigation. The HASP was prepared to provide site-specific health and

safety information, and provide for worker and community protection. The Health and Safety Plan was dated October 2004 and was reviewed by NYSDEC. Activities conducted as part of the field investigation were conducted in accordance with the HASP.

2.8 Quality Assurance/Quality Control Program

A site-specific Quality Assurance/Quality Control Plan (QA/QC) dated October 2004 was developed for the site. Work performed during the field investigation was performed in accordance with procedures described in the QA/QC Plan. The QA/QC Plan was designed to maximize the quality and validity of the data collected during the field investigation. The QA/QC Plan describes detailed sampling and analytical procedures, as well as necessary QA/QC sampling and analyses for each sampling matrix investigated. Adherence to QA/QC protocols allowed for data validation and usability analyses. In accordance with the QA/QC Plan, chain of custody forms and sample information records were completed for each sample collected and are presented along with shipping records in Appendix F.

2.9 Data Validation

Groundwater analytical work was performed by Mitkem Corporation, Inc., which is certified under the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) in all categories of Contract Laboratory Protocol (CLP) and Solid and Hazardous Waste analytical testing. A Data Usability Summary Report was prepared and is included in Section 4.2. Category B deliverables were provided by the laboratories and have been retained in the project files. The deliverables are available for full data validation by a qualified independent third party, if required.

3.0 PHYSICAL CHARACTERISTICS OF STUDY AREA

3.1 Site Geology

Overburden on the site consists of up to two feet of red silt cover material over as much as 25 feet of waste. Generally, the waste material is situated on top of the bedrock. The pre-landfill overburden geology was probably similar to the adjacent off-site geology.

Off-site overburden consists of a single surficial deposit of reddish brown, poorly sorted silt and fine sand, ranging from two feet to seven feet thick. The ground surface is littered with glacially derived cobble and boulder-sized rock fragments (technically classed as "glacial float"). Some of these fragments are well rounded and exhibit lithologies suggesting their source is the Canadian shield. These cobbles and boulders were transported and deposited during the Wisconsin Age glaciation. These glacially derived materials are found almost exclusively on the ground surface or in the first few inches of overburden.

The shallow occurrence of glacial material indicates that it was probably winnowed by wave action and currents in glacial Lake Iroquois or deposited by ice rafting during the existence of Lake Iroquois. The apparent lack of coarse sand and gravel sized particles within the overburden suggests that the silt and clay material is not a glacial lodgment till, but a combination of lacustrine deposition and weathering of relatively soft bedrock. As a result, the transition from the overburden to bedrock is gradational. This fact complicates the placement of overburden monitoring wells, since it is not easy to identify the exact bedrock surface.

In some off-site locations the separation between overburden and bedrock is marked by a courser lag deposit of fairly well sorted sand or gravel overlying the bedrock. In many other places the soft weathered bedrock appears as a massive red silt. The overlying red lacustrine silt is differentiated from weathered bedrock by the presence of rounded to subrounded gravel, indicating weathering due to transport in water or ice. Bedrock weathering occurs in place and yields a reddish brown soil-like silt, often with prismatic partings and angular gravel.

Bedrock beneath the landfill site is mapped as the Queenston shale (Rickard, 1970). Bedrock is generally shallow (less than seven feet below ground surface). Shallow bedrock is evident by the frequency of tabular cobbles and boulders found at or near ground surface. These tabular cobbles and boulders are fragments of sandstone and siltstone bedrock that are relatively resistant and have weathered from the underlying sequences of shale, siltstone and sandstone.

3.2 Site Hydrogeology

Groundwater flow characteristics at the Trimmer Road Landfill Site were assessed during this investigation and previous investigations using several techniques. These techniques included observations of soil and rock characteristics during drilling, installation of groundwater monitoring wells, in-situ hydraulic conductivity tests, groundwater sampling and measurement of water level depths for the determination of groundwater water elevations.

In general, the site is located in a relatively flat lying portion of the regional groundwater flow system, which is dominated by horizontal groundwater flow. Lake Ontario, located approximately seven-miles north of the site and with an average surface elevation of 245 feet above mean sea level is the regional groundwater discharge zone. Groundwater elevations observed at the site confirm the site is in a regional transition zone between regional recharge and discharge zones.

Groundwater around the landfill is found at an average depth of 3.5 feet below the ground surface in wells screened at the base of the overburden. Groundwater is found at an average depth of 5-feet below the ground surface in wells screened in the bedrock. Table 3-1 presents a summary of groundwater elevation data collected during the pre-design investigation.

Table 3-1
Trimmer Road Landfill Site
Pre-Design Investigation
Groundwater Elevation Data

Well ID	December 16, 2004			March 10, 2005		
	Depth to Groundwater* (feet)	Groundwater Elevation (feet amsl)	Depth Below Ground Surface (feet)	Depth to Groundwater* (feet)	Groundwater Elevation (feet amsl)	Depth Below Ground Surface (feet)
MW-01D	3.72	383.76	1.14	3.65	383.83	1.07
MW-01S	2.56	384.70	0.12	2.50	384.76	0.06
MW-02D	10.81	378.94	8.30	10.78	378.97	8.27
MW-02S	5.31	383.75	3.81	5.31	383.75	3.81
MW-03D	1.23	384.14	-1.43	1.22	384.15	-1.44
MW-03S	4.56	380.53	2.08	4.51	380.58	2.03
MW-04D	4.95	368.29	3.39	4.76	368.48	3.20
MW-04S	1.77	372.06	-0.39	1.63	372.20	-0.53
MW-05D	5.34	366.42	3.03	4.99	366.77	2.68
MW-05S	3.58	367.83	1.75	3.58	367.83	1.75
MW-06D	3.22	370.60	0.75	3.56	370.26	1.09
MW-06S	2.93	369.99	1.29	2.81	370.11	1.17
MW-07D	12.51	376.79	10.65	11.86	377.44	10.00
MW-07S	6.61	371.13	4.41	6.52	371.22	4.32
MW-08D	3.35	364.81	0.60	3.34	364.82	0.59
MW-08S	2.50	365.16	0.14	2.51	365.15	0.15
MW-09D	4.85	366.73	2.96	4.76	366.82	2.87
MW-09S	3.56	368.69	1.26	3.49	368.76	1.19
MW-10D	2.11	368.90	-0.16	2.02	368.99	-0.25
MW-10S	2.37	368.84	-0.07	2.25	368.96	-0.19
MW-11	NI	NI	NI	3.67	375.87	3.67
MW-12	NI	NI	NI	3.71	372.74	3.71
MW-13	NI	NI	NI	2.42	363.71	2.42
MW-14	NI	NI	NI	4.03	365.53	4.03
PZ-1	11.67	383.11	9.44	10.96	383.82	8.73
PZ-2	9.67	374.56	7.13	9.65	374.58	7.11
PZ-3	6.11	372.56	3.88	5.69	372.98	3.46
PZ-4	7.11	378.52	4.47	6.79	378.84	4.15

* - Measured relative to top of well casing.
feet amsl - Feet above mean sea level (NAVD 88).
NI - Not installed.

Groundwater flow at the site is generally slow and toward the northwest in both the shallow and deep zones. The vertical component of groundwater flow is small and generally downward; however, an upward gradient was observed in four well clusters during this investigation. This upward flow appears to be associated with seasonal fluctuations in groundwater elevations. Therefore, the horizontal groundwater migration at the site is more significant than vertical migration. Appendix H presents potentiometric surface maps for the shallow and deep flow systems.

4.0 RESULTS OF ENVIRONMENTAL SAMPLING

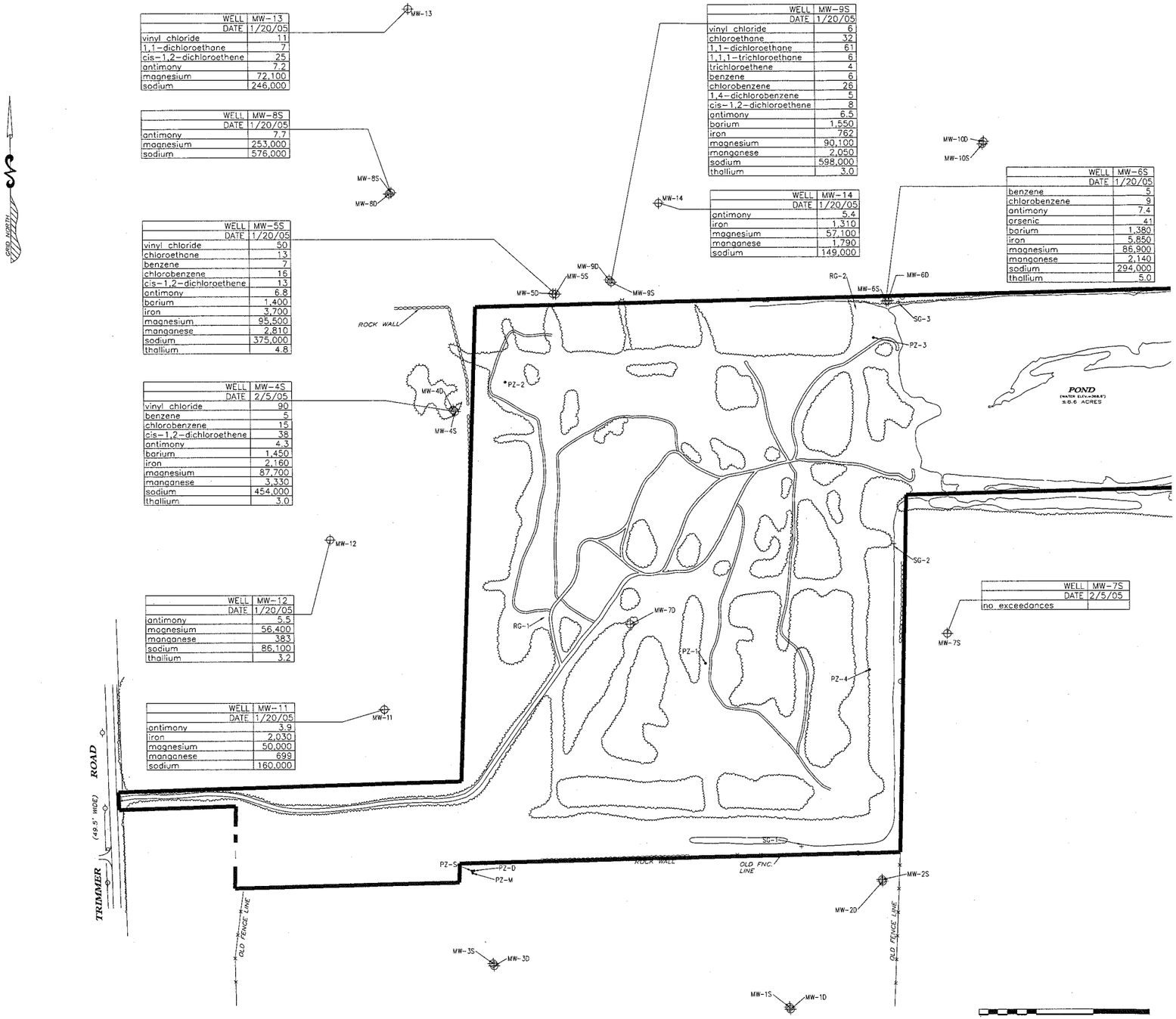
The purpose of this section is to discuss the results of the environmental sampling conducted during the pre-design investigation at the Trimmer Road Landfill Site. The results are compared to SCGs selected for the site to determine potential impacts on human health and the environment. The nature and extent of contamination found at, and in the vicinity of the site during the investigation is described below.

The results of the environmental sampling performed at Trimmer Road Landfill Site are presented below for each environmental media. The discussion for each environmental media is organized by analyte group. The results of analyses for VOCs are discussed first, followed by inorganics.

4.1 Groundwater

One round of groundwater samples was collected during the pre-design investigation from ten monitoring wells, including four new monitoring wells and six existing monitoring wells. Samples were collected from existing monitoring wells MW-4S MW-5S, MW-6S, MW-7S, MW-8S and MW-9S and newly installed monitoring wells MW-11, MW-12, MW-13 and MW-14.

All groundwater samples were analyzed for TCL VOCs, TAL inorganics and cyanide. Tabulated results of the analyses are presented in Tables 1a and 1b (Appendix I). The results of the analyses of the groundwater samples have been compared to the Class GA groundwater standards and guidance values in NYSDEC TOGS 1.1.1, “Ambient Water Quality Standards and Guidance Values”. Figure 4-1 depicts monitoring well locations and summarizes exceedances of SCGs in groundwater.



	WELL	MW-13
	DATE	1/20/05
vinyl chloride		11
1,1-dichloroethane		7
cis-1,2-dichloroethene		25
antimony		7.2
magnesium		72,100
sodium		246,000

	WELL	MW-8S
	DATE	1/20/05
antimony		7.7
magnesium		253,000
sodium		576,000

	WELL	MW-5S
	DATE	1/20/05
vinyl chloride		50
chloroethane		13
benzene		7
chlorobenzene		16
cis-1,2-dichloroethene		13
antimony		6.8
barium		1,400
iron		3,700
magnesium		95,500
manganese		2,810
sodium		375,000
thallium		4.8

	WELL	MW-4S
	DATE	2/5/05
vinyl chloride		90
benzene		5
chlorobenzene		15
cis-1,2-dichloroethene		38
antimony		4.3
barium		1,450
iron		2,160
magnesium		87,700
manganese		3,330
sodium		454,000
thallium		3.0

	WELL	MW-12
	DATE	1/20/05
antimony		5.5
magnesium		56,400
manganese		383
sodium		86,100
thallium		3.2

	WELL	MW-11
	DATE	1/20/05
antimony		3.9
iron		2,030
magnesium		50,000
manganese		699
sodium		160,000

	WELL	MW-9S
	DATE	1/20/05
vinyl chloride		6
chloroethane		32
1,1-dichloroethane		61
1,1,1-trichloroethane		6
trichloroethene		4
benzene		6
chlorobenzene		28
1,4-dichlorobenzene		5
cis-1,2-dichloroethene		8
antimony		6.5
barium		1,550
iron		762
magnesium		90,100
manganese		2,050
sodium		598,000
thallium		3.0

	WELL	MW-14
	DATE	1/20/05
antimony		5.4
iron		1,310
magnesium		57,100
manganese		1,790
sodium		149,000

	WELL	MW-6S
	DATE	1/20/05
benzene		5
chlorobenzene		9
antimony		7.4
arsenic		41
barium		1,380
iron		5,850
magnesium		86,900
manganese		2,140
sodium		294,000
thallium		5.0

	WELL	MW-7S
	DATE	2/5/05
no exceedances		

LEGEND

- MW- MONITORING WELL
- ROCK WALL
- OLD WIRE FENCE LINE
- EDGE OF WATER

NYS CLASS GA GROUNDWATER SATNDARD	
vinyl chloride	2
chloroethane	5
1,1-dichloroethane	5
1,1,1-trichloroethane	5
trichloroethene	5
benzene	1
chlorobenzene	5
1,4-dichlorobenzene	3
cis-1,2-dichloroethene	5
antimony	3
arsenic	25
barium	1,000
iron	300
magnesium	35,000
manganese	300
sodium	20,000
thallium	0.5

concentrations reported in micrograms per liter

TRIMMER ROAD SITE
TOWN OF PARMA, NEW YORK

SCG EXCEEDANCES IN GROUNDWATER

Dvirka and Bartilucci
Consulting Engineers
A Division of William F. Cosulich Associates, P.C.

FIGURE 4-1

APRIL 19, 2005 SEP C:\2273\Trimmer RD base.dwg

SCGs were exceeded for the VOCs benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, 1,1-dichloroethane, cis-1,2-dichloroethene, 1,1,1-thricloroethane and vinyl chloride. Benzene was detected above its SCG of 1 micrograms per liter (μg/l) in four samples at concentrations ranging from 5 μg/l (MW-4S and MW-6S) to 7 μg/l (MW-5S). Chlorobenzene was detected above its SCG of 5 μg/l in four samples at concentrations ranging from 9 μg/l (MW-6S) to 26 μg/l (MW-9S). Chloroethane was detected above its SCG of 5 μg/l in MW-5S at a concentration of 13 μg/l and MW-9S at a concentration of 32 μg/l. 1,4-Dichlorobenzene was detected above its SCG of 3 μg/l in one well, MW-9S, at a concentration of 5 μg/l. 1,1-Dichloroethane was detected above its SCG of 5 μg/l in MW-13 at a concentration of 7 μg/l and MW-9S at a concentration of 61 μg/l. cis-1,2-Dichloroethene was detected above its SCG of 5 μg/l in four samples at concentrations ranging from 8 μg/l (MW-9S) to 38 μg/l (MW-4S). 1,1,1-Thricloroethane was detected above its SCG of 5 μg/l in MW-9S at a concentration of 6 μg/l. Vinyl chloride was detected above its SCG of 2 μg/l in four samples at concentrations ranging from 6 μg/l (MW-9S) to 90 μg/l (MW-4S).

The monitoring wells with the greatest total VOC concentrations were MW-4S (154 μg/l), MW-5S (104 μg/l) and MW-9S (155μg/l). These wells are located downgradient from the northwest portion of the landfill in the direction of groundwater flow emanating from the landfill. Monitoring well MW-13, which is a newly installed shallow well north of MW-8S and MW-8D and downgradient of the landfill, yielded 55 μg/l of total VOCs. 1,1-Dichloroethane was identified at a concentration of 7 μg/l in MW-13. cis-1,2-Dichloroethene and vinyl chloride were identified in MW-13 at concentrations of 25 μg/l and 11 μg/l, respectively.

Inorganic analyses were performed on all groundwater samples collected during the pre-design investigation. SCGs were exceeded in dissolved metals analyses for antimony, arsenic, barium, iron, magnesium, manganese, sodium and thallium. Antimony was detected above its SCG of 3 μg/l in nine samples at concentrations ranging from 3.9 μg/l (MW-11) to 7.7 μg/l (MW-8S). Arsenic was detected above its SCG of 25 μg/l in one sample (MW-6S) at a concentration of 41 μg/l. Barium was detected above its SCG of 0.3 μg/l in four samples at concentrations ranging from 1,380 μg/l (MW-6S) to 1,550 μg/l (MW-9S). Iron was detected

above its SCG of 300 μg/l in six samples at concentrations ranging from 762 μg/l (MW-9S) to 5,850 μg/l (MW-6S). Magnesium was detected above its SCG of 35,000 μg/l in nine samples at concentrations ranging from 50,000 μg/l (MW-11) to 253,000 μg/l (MW-8S). Manganese was detected above its SCG of 300 μg/l in seven samples at concentrations ranging from 383 μg/l (MW-12) to 3,330 μg/l (MW-4S). Manganese was detected above its SCG of 300 μg/l in nine samples at concentrations ranging from 50,000 μg/l (MW-11) to 253,000 μg/l (MW-8S). Sodium was detected above its SCG of 20,000 μg/l in nine samples at concentrations ranging from 86,100 μg/l (MW-12) to 598,000 μg/l (MW-9S). Thallium was detected above its SCG of 0.5 μg/l in five samples at concentrations ranging from 3.0 μg/l (MW-4S and MW-9S) to 5.0 μg/l (MW-6S).

No samples exceeded the SCG of 200 μg/l for cyanide.

4.2 Data Validation and Usability

Ten groundwater samples were collected on January 20, 2005 and February 5, 2005 and submitted for analyses with two trip blanks. Samples were collected from ten permanent monitoring wells, including four new monitoring wells and six existing monitoring wells selected from the well network at the site. All samples were analyzed for TCL VOCs, TAL inorganics and cyanide. Sample analysis was performed by Mitkem Corporation.

Category B deliverable data packages submitted by Mitkem Corporation have been reviewed for completeness and compliance with the analytical methods stipulated in the Project Management Work Plan. The findings of the review process are summarized below:

- All samples were analyzed within the method specified holding times.
- All surrogate recoveries were within QC limits.
- All tunes and instrument calibrations met QC requirements.

There were no problems found with the sample results and all data is deemed valid and usable for environmental assessment purposes.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the results of the Trimmer Road Landfill Site pre-design investigation, the following conclusions have been established.

Geology/Hydrogeology:

- Soil encountered in the study area can be described as follows:

On-Site Geology	
Depth	**Description**
Ground surface to two feet below ground	Red silt cover material
Bottom of overburden to 25 feet below ground	Waste and fill material
Bottom of waste and fill material	Queenstone Shale - bedrock beneath landfill site

Off-Site Geology	
Depth	**Description**
Ground surface to two to seven feet	Reddish brown, poorly sorted silt and fine sand
Bottom of overlying unit	Queenstone Shale - bedrock beneath landfill site

- The site is located in a relatively flat lying portion of the regional groundwater flow system, which is dominated by horizontal groundwater flow. Lake Ontario, located approximately seven miles north of the site and with an average surface elevation of 245 feet above mean sea level is the regional groundwater discharge zone.

- Groundwater beneath and adjacent to the landfill is found at an average depth of 3.5 feet below the ground surface in wells screened at the base of the overburden. Groundwater is found at an average depth of 5 feet below the ground surface in wells screened in the bedrock.

- Groundwater flow at the site is relatively slow based on slug test data and toward the northwest in both the shallow and deep zones. The vertical component of groundwater flow is small and generally downward; however, an upward gradient was observed in four well clusters during the investigation activities.

Groundwater Quality:

- Groundwater samples were collected from six existing monitoring wells (MW-4S, MW-5S, MW-6S, MW-7S, MW-8S and MW-9S) located outside the estimated extent of waste material. The following VOCs were detected in excess of SCGs in at least one groundwater sample collected from monitoring wells MW-4S, MW-5S, MW-6S and MW-9S: benzene, chlorobenzene, chloroethane, 1,4-dichlorobenzene, 1,1-dichloroethane, cis-1,2-dichloroethene, 1,1,1-thrichloroethane and vinyl chloride.

- Four shallow monitoring wells (MW-11, MW-12, MW-13 and MW-14) were installed to further delineate the nature and extent of groundwater contamination at the site. The following VOCs were detected in groundwater samples collected from monitoring well MW-13 located to the north of MW-8S and MW-8D: 1,1-dichloroethane, cis-1,2-dichloroethene and vinyl chloride. No VOCs were detected in excess of SCGs in MW-11, MW-12 and MW-14.

- The groundwater VOC contaminants identified during the pre-design investigation as exceeding SCGs are consistent with the site contaminants of concern specified in the ROD. Consistent with the results of the RI, the area of highest VOC groundwater contamination is located beneath the northwest corner of the landfill and continues off-site to the northwest. Monitoring wells MW-4S, MW-5S and MW-9S exhibited the greatest total VOC concentrations during the pre-design investigation. These wells are located downgradient from the northwest portion of the landfill in the direction of groundwater flow emanating from the landfill.

- In general, VOC concentrations observed during the pre-design investigation were found to be similar to those reported in the February 2001 RI Report. Presented below is a comparison of the results:

Volatile Organic Compound	Pre-Design Investigation (2005)		Remedial Investigation (2001)	
	Highest Concentration Detected (ug/l)	Location of Highest Detected Concentration	Highest Concentration Detected (ug/l)	Location of Highest Detected Concentration
Vinyl chloride	90	MW-4S	140	MW-5S
Chloroethane	32	MW-9S	24	MW-9S
1,1-Dichloroethane	61	MW-9S	46	MW-9S
1,2-Dichloroethene (Total)	41*	MW-4S	300	MW-4S
1,1,1-Trichloroethane	6	MW-9S	14	MW-9S
Trichloroethene	4	MW-9S	34	MW-9S
Benzene	7	MW-9S	10	MW-9S
Chlorobenzene	26	MW-9S	19	MW-4S
1,4-Dichlorobenzene	5	MW-9S	3	MW-4S

Table includes compounds detected above Class GA groundwater standards during the pre-design and remedial investigations.

* = Sum of cis-1,2-dichloroethene and trans-1,2-dichloroethene.

- Groundwater samples were collected from ten monitoring wells (MW-4S, MW-5S, MW-6S, MW-7S, MW-8S, MW-9S, MW-11, MW-12, MW-13 and MW-14) located outside the estimated extent of waste material. Elevated levels of dissolved metals were detected in each of the monitoring wells except MW-7S. SCGs were exceeded in at least one of the samples collected for the following dissolved metals: antimony, barium, iron, magnesium, manganese, sodium and thallium.

- Groundwater inorganic contaminants identified during the pre-design investigation are generally consistent with the site contaminants of concern specified in the ROD. Consistent with the results of the RI, the area of highest metals groundwater contamination is located beneath the northwest corner of the landfill and continues off-site to the northwest.

- In general, dissolved metal concentrations were found to be lower during the pre-design investigation than reported in the February 2001 RI Report. Presented below is a comparison of the results:

Dissolved Metals	Pre-Design Investigation (2005)		Remedial Investigation (2001)	
	Highest Concentration Detected (ug/l)	Location of Highest Detected Concentration	Highest Concentration Detected (ug/l)	Location of Highest Detected Concentration
Antimony	7.7	MW-8S	9.3	MW-9S
Arsenic	41	MW-6S	36.3	MW-6S
Barium	1,550	MW-9S	1,370	MW-9S
Iron	5,850	MW-6S	2,820	MW-6S
Magnesium	253,000	MW-8S	250,000	MW-8S
Manganese	3,330	MW-4S	3,690	MW-9S
Nickel	83.3	MW-9S	122	MW-9S
Sodium	598,000	MW-9S	842,000	MW-9S
Thallium	5.0	MW-6S	6.7	MW-8S

Table includes compounds detected above Class GA groundwater standards during the pre-design and remedial investigations.

- The results of the pre-design investigation do not indicate any specific limitations to the technologies identified in the ROD for remediation of the groundwater contamination encountered. However, elevated levels of 1,1-dichloroethane, cis-1,2-dichloroethene and vinyl chloride were identified in MW-13 located north of MW-8S and MW-8D.

Recommendations

The pre-design investigation has provided the information required to proceed with the engineering design studies and remedial design tasks identified in the October 2004 Remedial Design Project Management Work Plan for the Trimmer Road Landfill Site. Accordingly, there

are no additional pre-design investigation activities recommended at this time with respect to remediation of groundwater contamination. Additional groundwater monitoring well (s) may be warranted downgradient of MW-13.

6.0 REFERENCES

D&B, 2004, Remedial Design Project Management Work Plan, Trimmer Road Landfill Site, Operable Unit 01. Site Registry No. 8-28-012. October 2004.

D&B, 2001, Remedial Investigation Report, Trimmer Road Landfill Site, Town of Parma, Monroe County, New York. Site Registry No. 8-28-012. February 2001.

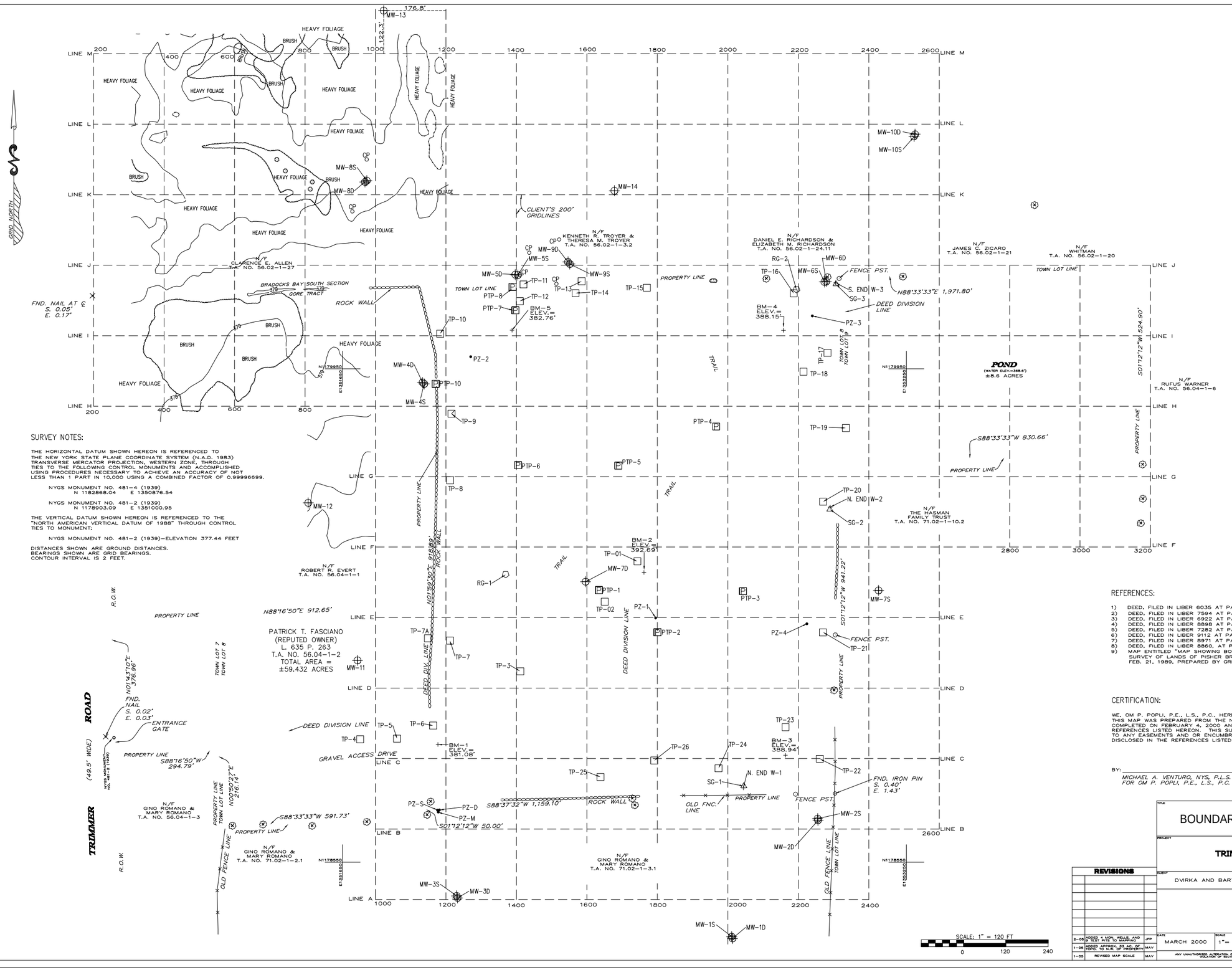
NYSDEC, 1994, Determination of Soil Cleanup Objectives and Cleanup Levels. Division of Hazardous Waste Remediation Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046. January 24, 1994.

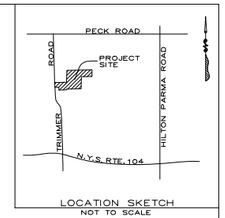
NYSDEC, 2001, Record of Decision, Trimmer Road Landfill Site, Parma (T), Monroe County, New York, Site Number No. 8-28-012. March 2001.

Rickard, et. al., 1970. Bedrock Geologic Map of New York, Niagara Sheet. New York State Museum – Geological Survey, Map and Chart Series #15.

APPENDIX A

TOPOGRAPHIC SURVEY MAP





LEGEND

- MW– MONITORING WELL
- CP– CORNER OF TEST PLOT
- PTP– PHYTOR TEST PIT
- PZ– PIEZOMETER
- TP– TEST PIT
- RG– RAIN GUAGE
- SG– STAFF GUAGE
- TREE WITH WIRE
- ROCK WALL
- OLD WIRE FENCE LINE
- UTILITY POLE
- T.A. TAX ACCOUNT
- EDGE OF WATER

SURVEY NOTES:

THE HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM (N.A.D. 1983) TRANSVERSE MERCATOR PROJECTION, WESTERN ZONE, THROUGH TIES TO THE FOLLOWING CONTROL MONUMENTS AND ACCOMPLISHED USING PROCEDURES NECESSARY TO ACHIEVE AN ACCURACY OF NOT LESS THAN 1 PART IN 10,000 USING A COMBINED FACTOR OF 0.99996699.

NYGS MONUMENT NO. 481-4 (1939)
N 1182868.04 E 1350876.54

NYGS MONUMENT NO. 481-2 (1939)
N 1178903.09 E 1351000.95

THE VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE "NORTH AMERICAN VERTICAL DATUM OF 1988" THROUGH CONTROL TIES TO MONUMENT:

NYGS MONUMENT NO. 481-2 (1939)–ELEVATION 377.44 FEET

DISTANCES SHOWN ARE GROUND DISTANCES.
BEARINGS SHOWN ARE GRID BEARINGS.
CONTOUR INTERVAL IS 2 FEET.

REFERENCES:

1) DEED, FILED IN LIBER 6035 AT PAGE 263.
2) DEED, FILED IN LIBER 7594 AT PAGE 296.
3) DEED, FILED IN LIBER 6922 AT PAGE 98.
4) DEED, FILED IN LIBER 8898 AT PAGE 499.
5) DEED, FILED IN LIBER 7282 AT PAGE 59.
6) DEED, FILED IN LIBER 9112 AT PAGE 379.
7) DEED, FILED IN LIBER 8971 AT PAGE 270.
8) DEED, FILED IN LIBER 8860, AT PAGE 544.
9) MAP ENTITLED "MAP SHOWING BOUNDARY SURVEY OF LANDS OF FISHER BROS." DATED FEB. 21, 1989, PREPARED BY GREGORY D. BLY L.S..

CERTIFICATION:

WE, OM P. POPLI, P.E., L.S., P.C., HEREBY CERTIFY THAT THIS MAP WAS PREPARED FROM THE NOTES OF A SURVEY COMPLETED ON FEBRUARY 4, 2000 AND FROM THE REFERENCES LISTED HEREON. THIS SURVEY IS SUBJECT TO ANY EASEMENTS AND OR ENCUMBRANCES NOT SHOWN OR DISCLOSED IN THE REFERENCES LISTED ABOVE.

BY: _____ DATE: _____

MICHAEL A. VENTURO, NYS, P.L.S. NO. 50079
FOR OM P. POPLI, P.E., L.S., P.C.

REVISIONS			
2-06	ADDED 4 MON. WELLS, AND 4 TEST PITS TO MAPPING	JFP	
1-06	ADDED APPROX. 33 AC. OF TOPO. TO N.W. OF PROPERTY	MAV	
1-05	REVISED MAP SCALE	MAV	

TITLE: BOUNDARY & TOPOGRAPHIC MAP

PROJECT: **TRIMMER ROAD - LANDFILL**

CLIENT: DVIRKA AND BARTILUCCI

LOCATION: BEING A PORTION OF LOTS 7, 8, & 9, ON THE GORE (TRACT), TOWN OF PARMA, MONROE COUNTY, STATE OF NEW YORK

DATE: MARCH 2000 | SCALE: 1"= 120' | DRAWN BY: KEC | DRAWING NO.: TRTOPO

APPENDIX B

TEST PIT LOGS

Dvirka and Bartilucci Test Pit Log

Contractor: PW
Operator: Jim
Inspector: JM/SP
Equip Type: Terex
Rubber Tire Backhoe TX 760B

Project Name: Trimmer Road LF
Project #: 2273

Pit No. TP- 1
Sheet 1 of 1
Pit Location:

Groundwater Observations

Water level	NOT encountered	
Time	1215	
Date	11/17/04	
Depth of pit	2.5	

Start: 1215
Finish: 1225
Weather: overcast mid 50s

Plot Plan (see location map)

USCS Classification	Sample No.	Depth	Description	Comments
	PID			
CL	0.0	1	0-0.5 Brn silt clay mixture slightly moist/earth worms/moist	
	0.0	2		
CL+Fill	0.0	3	0.5-1 Trash + soil mixture Bottles/plastic/glass wood. Root structure ≈ 2.5' into ground surface	
		4		
		5		
		6	Soil Brn silt + clay mixture 80% Trash/moist	
		7		
Fill		8	1-2.5 mostly Trash Household Debris Bottles/plastic/glass/moist	
		9		
		10		
		11	Test Pit 3' long by 2' wide	
		12	by 2.5' deep. No Groundwater	
		13	Back filled move to next location	
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

Dvirka and Bartilucci Test Pit Log

Contractor: PW
Operator: Jim
Inspector: Jm
Equip Type: TX 760B

Project Name: Trimmer Road LF
Project #: 2273

Pit No. TP- 2
Sheet 1 of 1
Pit Location:

Groundwater Observations

Water level	NOT ENCOUNTERED	
Time		
Date		
Depth of pit	2.0	

Start: 1230
Finish: 1243
Weather: overcast mid 80's

Plot Plan

(see location map)

USCS Classification	Sample No.	Depth	Description	Comments
	P10	1		
1 CL	0.0		0-Br/Red clay + SIT mixture lean 10-20% Angular Boulders soft / moist	Roots 12 TO 18"
	0.0	2		
		3	1-2' TRASH (Tire, CANS-TIN some wood & wire) w/ clay + SIT mixture moist	
		4		
		5		
		6	TEST PIT, 3' IN LENGTH 2' 2' wide	
		7	DEEP NO GROUNDWATER ENCOUNTERED	
		8		
		9		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

Dvirka and Bartilucci Test Pit Log

Contractor: PW
Operator: Jim
Inspector: JM
Equip Type: IX760B

Project Name: Trimmer Road LF
Project #: 2273

Pit No. TP- 3
Sheet 1 of 1
Pit Location:

Groundwater Observations

Water level	N/A	
Time	1247	
Date	11/17	
Depth of pit	2'	

Start: 1247
Finish: 1258
Weather: overcast mid 50s

Plot Plan (see location map)

USCS Classification	Sample No.	Depth	Description	Comments
	PID			
CL	0.0	1	0-16" Br/Red silt+clay mixture slightly moist lean clay/medium stiff	20" Deep Root System
	0.0	2		
		3	16"-24" plastic/bottles/ tin cans some soil (same as above) 95% trash/moist	
		4		
		5		
		6		
		7	end pit at 2' no groundwater	
		8	Test pit 3' long x 2' wide x 2' deep	
		9		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

Dvirka and Bartilucci Test Pit Log

Contractor: PW
Operator: Jim
Inspector: JM
Equip Type: TX760B

Project Name: Trimmer Road LF
Project #: 2273

Pit No. TP- 4
Sheet 1 of 1
Pit Location:

Groundwater Observations

Water level	N/A	
Time	1304	
Date	11/17	
Depth of pit	3	

Start: 1304
Finish: 1314
Weather: Overcast 50s

Plot Plan (see location map)

USCS Classification	Sample No.	Depth	Description	Comments
CL	PID 0.0	1	Bo/RD Silt + clay mixture slight ribboning 10-20% Angular Boulders / soft / moist	very tight clay w/ root system x 18" likely un Rootable
	0.0	2	1-3'	
	0.0	3	Some mottling at 2-3' Green/Gray Silt+clay very stiff / dry	
		4	3' waste consisting of plastic/glass/ metal / dry	
		5		
		6		
		7		
		8	Clay/Silt mixture gets tighter w/ depth very stiff / dry	
		9		
		10	Test pit 3'L x 2'w x 3.0	
		11	No Groundwater encountered	
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

Dvirka and Bartilucci Test Pit Log

Contractor:	PW	Project Name:	Trimmer Road LF
Operator:	Jim	Project #:	2273
Inspector:	JM	Pit No.	TP- 5
Equip Type:	TX760B	Sheet	1 of 1
		Pit Location:	

Groundwater Observations		
Water level	N/A	
Time	1325	
Date	11/17	
Depth of pit	2'	

Start: 1325
Finish: 1335
Weather: Overcast, 50s

Plot Plan (see location map)

USCS Classification	Sample No.	Depth	Description	Comments
CL	PID 0.0	1	0-1' Rd/Brn Cl + SIT MIXTURE Some RIBBowing medium SOFT 10-20% Angular Boulders / MOIST	Root system 16" deep
	0.0	2		
		3		
		4	1'-2' Household WASTE (Carpeting / Plastic / Glass) MOIST	
		5		
		6		
		7	TEST PIT 2'W x 3'L x 2'D	
		8	No Groundwater encountered	
		9		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

Dvirka and Bartilucci Test Pit Log

Contractor: PW
Operator: Jim
Inspector: JM
Equip Type: TX 760 B

Project Name: Trimmer Road
Project #: 2273

Pit No. TP- 6
Sheet 1 of 1
Pit Location:

Groundwater Observations

Water level	N/A	
Time	1339	
Date	11/17	
Depth of pit	3'	

Start: 1339
Finish: 1350
Weather: Overcast mid 50s

Plot Plan (see location map)

USCS Classification	Sample No.	Depth	Description	Comments
CL	P10 0	1	0-4" Red/Brn SIT+Clay mixture / very soft / moist	18-24" Root depth
		2		
	0	3	4"-6" Green/Gray SIT+ clay / moist	
		4		
	4.6	5	6"-3' Red/Brn SIT+Clay medium stiff slightly moist	
		6		
	4.6	7	3' waste consisting of plastic / paint can / paper / syringe / moist	
		8		
		9		
		10	3'L x 2'W x 3'D	
		11	No Groundwater	
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

Dvirka and Bartilucci Test Pit Log

Contractor: PW
Operator: Jim
Inspector: Jm
Equip Type: TX760B

Project Name: Trimmer Road
Project #: 2273

Pit No. TP- 7
Sheet 1 of 1
Pit Location:

Groundwater Observations

Water level	3'	
Time	1400	
Date	11/17	
Depth of pit	7	

Start: 1400
Finish: 1415
Weather: Overcast mid 50s

Plot Plan (see location map)

USCS Classification	Sample No.	Depth	Description	Comments
CL	PID 0.0	1	0-0.5' Red/Br very soft clay w/ 10-20 Any Boulders	moist
	0.0	2		
	0.0	3	.5'-10" Black/Brown very soft clay	moist
	0.0	4		
		5	10"-3' Red/Br medium stiff clay	moist
		6		
		7	3'-3.5 waste consisting of plastic/wood/ paper	saturated
		8		
		9	3'L x 2'W x 3.5'D	
		10	Groundwater at 3.5'	
		11		
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

Dvirka and Bartilucci Test Pit Log

Contractor: PW
Operator: Jim
Inspector: JM
Equip Type: TX 760B

Project Name: Trimmer Road
Project #: 2273

Pit No. TP- 8
Sheet 1 of 1
Pit Location:

Groundwater Observations

Water level	2'	
Time	1420	
Date	11/17	
Depth of pit	3'	

Start: 1420
Finish: 1430
Weather: overcast mid 50's

Plot Plan (see location map)

USCS Classification	Sample No.	Depth	Description	Comments
CL	P10 0.0	1	0-1 Black/Brown organic soil silt + clay mixture FAT soft saturated	Tree roots to 24"
	0.0	2		
	0.0	3		
		4	1-3' orange/Brown mottled silt + clay mixture medium stiff/ moist	
		5		
		6		
		7		
		8	~~G~~ Groundwater seepage at 2' BGS breaking out of the side of test pit	
		9		
		10		
		11	Test pit 2'w x 3'L x 3'D	
		12	No waste encountered	
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		

Stratigraphic Summary:

APPENDIX C

BORING LOGS

Driller: Parratt Wolff
Inspector: J Magda
Rig Type: 4¼" HSA 2'2" Split Spoon w 140lb Hammer and Cathead
Drilling Method: CME-850

Dvirka and Bartilucci Boring Log

Project Name: Trimmer Road LF
Project #: 2273
Boring Depth: 13.20

Boring ID: MW-11
Sheet 1 of 1
Location: N/A

Groundwater Observations			
Date	12/22/04		
Time	1601		
DTW	0.86	BGS	
Casing/Total Depth	12.25	BGS	

Start (Date & Time): 12/22/04 1127
Finish (Date & Time): 12/22/04 1329
Weather: Cloudy, Temp 34°F Light Rain
Elevation of Ground Surface: N/A

Location Sketch:

N/A

Sample Interval	Sample No.	Blows	PID (ppm)	Field Description	Well Schematic	Comments
0-2	1127	WOH	0	Br. clay w/ high organic content (leaves, wood, roots) saturated	Ø Sand 12.25-1.25 Bentonite 1.25-0.75	Ponded water in area of well (<0.5)
1	1.8'	WOH	0			
		3	0			
2		4	0			well completed with 4" ID steel stick up + locking cap. Stick up 3.5' above grade
2-4	1130	8	0	Red silt w/ trace clay damp		
3	1.6'	13	0			
		15	0	Red silt over Red silt w/ F-C siltstone fragments		
		29	0			
4	4-6	1137	9	0	Red silt damp with F-C angular siltstone fragments	
5	1.6'	14	0			
		20	0			
6		23	0	Auger to 8' without sampling		
7						
8	8-10	1202	7	0	Red silt (0.5) fluff over Red siltstone dry	
	0.9'	50/.4	0			
9				Green silt stone in tip		
10						
11				Auger to 13.2 without sampling		
12						
13	1244		0	Red siltstone	10-slot screen 12.25-2.25 Pvc Riser 2.25-0.0 cemented to 0.0 B.O.W 12.25	Difficult Drilling 8.9 to 13.2'
	50/2		6			
14						
15						
16						
17						
18						
19						
20						

Soil Stratigraphy Summary

15

Driller: Parratt Wolff
Inspector: J Magda
Rig Type: CME-850
Drilling Method: 4¼ HSA 2' 2" Split Spoon w 140lb Hammer + Cathead

Dvirka and Bartilucci Boring Log

Project Name: Trimmer Road LF
Project #: 2273
Boring Depth: 14.4'

Boring ID: MW-12
Sheet 1 of 1
Location: N/A

Groundwater Observations			
Date	12/22/04		
Time	1304		
DTW	11.6	BGS	
Casing/Total Depth	13.35	BGS	

Start (Date & Time): 12/22/04 0919
Finish (Date & Time): 12/22/04 1120
Weather: Cloudy, Temp 34°F wind calm
Elevation of Ground Surface: N/A

Location Sketch: N/A

Sample Interval	Sample No.	Blows	PID (ppm)	Field Description
0-2	0919	2	0	Brn clay with High organic content (leaves, roots, wood) wet
	1.6'	2	0	
		4	0	Red/Rusty Silt Trace clay Damp
		4	0	
2-4	0921	5	0	Red/Rusty Silt Damp
	1.3'	13	0	(0.8) over Green/Tan Silty (0.2)
		14	0	(3-4) Red/Brown Silt w Angular Fragments of Siltstone
		15	0	
4-6	0940	1	0	
	0.3'	1	0	Brown/Tan Silt Dry (Fluff)
		3	0	
		11	0	
6-8	18	0946	0	Red/Rusty Silt Damp w Angular Fragments Red Siltstone
	40	1.3'	0.2	
	127		0.2	Red Silt w Angular Fragments of Red Siltstone
	28		0.4	
				Auger to 10' without Sampling
10-12	15	1007	0.0	Red Siltstone Dry
	50/.2'			
				Auger to 14' without Sampling
14-16	50/.4'	1043	0.0	Red Siltstone Dry

Well Schematic: 0-0.5 Ø Sand Pack 1.35-1.0 Bentonite 1.0-0.5 Ø Sand 1.35-1.0 Cement 0.5-0.0 AC Riser TO 0.0 10-Slot Screen 13.35-3.35 AC Riser 13.35-3.35 13.35 B.O.W

Comments: Completed with 4" ID Steel Stick + locking cap. Stick up 2.3' above grade. Bedrock at 3.0 bgs. No odor or staining noted.

Soil Stratigraphy Summary

Driller: Parratt Wolff
Inspector: J Magda
Rig Type: Diedrich D-90 ATC
Drilling Method: 7 1/4 HSA 2' 2" split spoon 140lb Hammer w/ cathead

Dvirka and Bartilucci Boring Log

Project Name: Trimmer Road LF
Project #: 2273
Boring Depth: 14.75

Boring ID: MW-13
Sheet 1 of 1
Location: N/A

Groundwater Observations			
Date	12/21/04		
Time	1436		
DTW	5.10	bgs	
Casing/Total Depth	14.75	bgs	

Start (Date & Time): 12/21/04 0958
Finish (Date & Time): 12/21/04 1220
Weather: Cloudy, Temp 34°F wind calm
Elevation of Ground Surface: N/A

Location Sketch: N/A

Sample Interval	Sample / Time No. / Rec	Blows	PID	Field Description	Well Schematic	Comments
0-2	1001 1.4'	2 2 5 5		Br FAT clay w/ organic matera (roots, leaves, wood) wet Rusty silt w/ trace clay Damp	1.0-0.0 cement	Complete d w/ 4" I.D. Steel stick up + locking cap stick up 4' L 3' above Grade
2-4	1005 2.0'	7 13 20 21		Rusty Red silt trace clay Dry TAN/Green silt Dry	3.0-1.5 Ø sand	Bedrock at 4.5' bgs
4-6	1015 1.5'	5 10 26 30		Rusty Red silt Dry + silt F-c Fragments Rusty Red silt + angular F-c Fragments weathered siltstone	1.5-1.0 Bentonite	Formation Tight at 5.5'
				Auger to 8' w/out Sampling		
8-10	1051 1.6'	5 30 50/.2		Rusty Red silt + angular F-c Fragments of silt stone (saturated & fluff Dry Red siltstone	Ø Sand Pack 14.75 - 3.0	
				Auger To 14' without Sampling	10-slot screen 14.75 - 4.75	
14	1123'	50/.4		Red siltstone Damp		
15	0.3					
					B.O.H 14.75 bgs	

Soil Stratigraphy Summary

Driller: Parratt Wolff
Inspector: J Magda
Rig Type: CME-850
Drilling Method: 4¼ HSA 2" SplitSpoon 140lb Hammer w/ CATHead

Dvirka and Bartilucci Boring Log

Project Name: Trimmer Road LF
Project #: 2273
Boring Depth: 15.3

Boring ID: MW-14
Sheet 1 of 1
Location: N/A

Groundwater Observations			
Date	12/22/04		
Time	1536		
DTW	1.61	BGS	
Casing/Total Depth	14.42	BGS	

Start (Date & Time): 12/22/04 1359
Finish (Date & Time): 12/22/04 1538
Weather: Cloudy, Rain/Snow
Temp 34°F wind calm
Elevation of Ground Surface: N/A

Location Sketch:

N/A

Sample Interval	Sample No.	Blows	PID	Field Description
0-2	1355	WOH	0	(0.4) Brown clay w/ high organic content (leaves, wood roots) over 1.2 Red silt + trace clay saturated
	1.6'	2	0	
		3	0	
		4	0	
2-4	1359	6	0	Red silt trace clay saturated (1.0) over Red silt stone damp (3)
	1.3'	21	0	
		28	0	
		25	0	
				Auger to 8' without sampling
8-10	1420	50/4	0	(0.2) Green silt stone over (0.2) Red silt stone dry
	0.4'			
				Auger to 15' without sampling
X	1445'	50/3	0	Red silt stone

Well Schematic: Ø Sand Pack 14.42 – 2.42 / Ø Sand 2.42 – 2.0 / Bentonite 2.0 – 1.5 / Cement 1.5 – 0.0 / Ave Riser 4.42 – 0 / 10-Slot Screen 14.42 – 4.42 / B.O.W 14.42 BGS

Comments: Ponded water in area of well (< 2.0') / Bedrock at 3.3 BGS / Well completed with 4" ID Steel stick up + locking cap, stick up 2.4' above grade

Soil Stratigraphy Summary

APPENDIX D

WELL CONSTRUCTION LOGS

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Well Construction Log

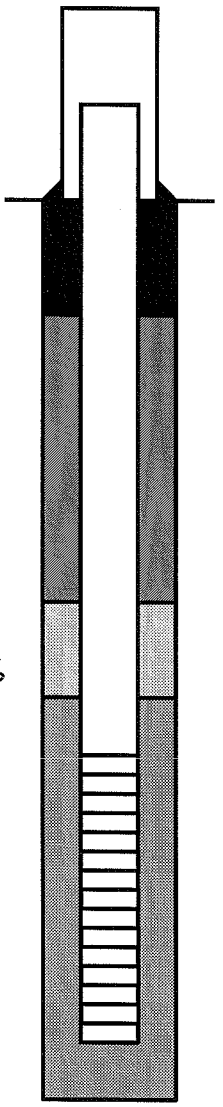
Site Trimmer Road LF Job No. 2273 Well No. MW-11

Total Depth 15.16' Surface Elevation 376.63 Top Riser Elevation 379.54

Water Levels (Depth, Date, Time) 0.86', 12/22/04, 1601 Date Installed 12/22/04

Riser	Dia. 2" ID	Material PVC	Length 5.16'			
Screen	Dia. 2" ID	Material PVC	Length 10'	Slot Size	10	
Protective Casing	Dia. 4" ID	Material Steel	Length 4'			

SCHEMATIC



3.21' Protective Casing Stickup

2.91' Riser Stickup

Ground Surface

Surface Seal Type Quick-Crete Concrete

0.75' Bottom Surface Seal

Grout Type Enviro-Plug Bentonite Chips

0.75 Top Seal

Seal Type Enviro-Plug Bentonite Chips

1.25' Top Sand Pack

2.25' Top Screen

Sand Pack Type US Silica
Size #

12.25' Bottom Screen

13.2' Total Depth of Boring

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Well Construction Log

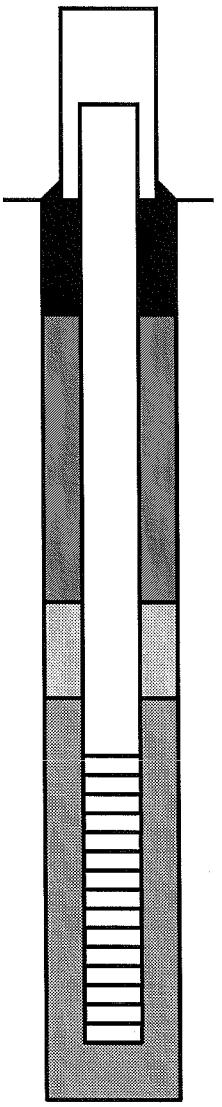
Site Trimmer Road LF Job No. 2273 Well No. MW-12

Total Depth 15.29' Surface Elevation 374.51 Top Riser Elevation 376.45

Water Levels (Depth, Date, Time) 11.6', 12/22/04, 1304 Date Installed 12/22/04

Riser	Dia. 2" ID	Material PVC	Length 5.29'			
Screen	Dia. 2" ID	Material PVC	Length 10'	Slot Size	10	
Protective Casing	Dia. 4" ID	Material Steel	Length 4'			

SCHEMATIC



2.31' Protective Casing Stickup

1.94' Riser Stickup

Ground Surface

Surface Seal Type Quick-crete concrete

0.5' Bottom Surface Seal

Grout Type Enviro-Plug Bentonite Chips

0.5' Top Seal

Seal Type Enviro-Plug Bentonite Chips

1.0' Top Fine Sand Pack

1.35' Top Sand Pack

3.35' Top Screen

Sand Pack Type US Silica
Size #0

13.35' Bottom Screen

14.4' Total Depth of Boring

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Well Construction Log

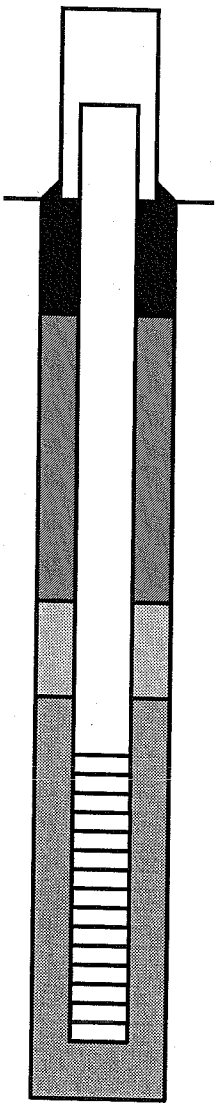
Site Trimmer Road Landfill Job No. 2273 Well No. MW-13

Total Depth 17.24 Surface Elevation 363.64 Top Riser Elevation 366.13

Water Levels (Depth, Date, Time) 5.10' 12/21/04 1436 Date Installed 12/21/04

Riser	Dia. 2" ID	Material PVC	Length 7.24'			
Screen	Dia. 2" ID	Material PVC	Length 10'	Slot Size	10	
Protective Casing	Dia. 4" ID	Material Steel	Length 4'			

SCHEMATIC



2.72' Protective Casing Stickup

2.49' Riser Stickup

Ground Surface

Surface Seal Type Quick-Crete Concrete

1.0' Bottom Surface Seal

Grout Type Enviro-Plug Bentonite Chips

1.0' Top Seal

1.5' Top Fine Sand Seal

Seal Type Enviro-Plug Bentonite Chips

2.0' Top Sand Pack

4.75 Top Screen

Sand Pack Type US Silica
Size Ø

14.75 Bottom Screen

14.75' Total Depth of Boring

Dvirka and Bartilucci CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Well Construction Log

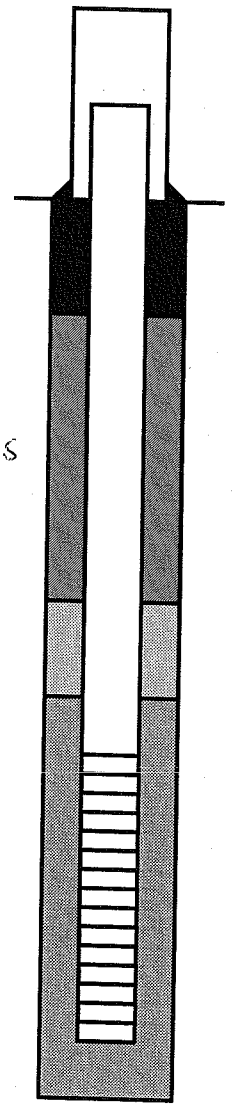
Site Trimmer Road Landfill Job No. 2273 Well No. MW-14

Total Depth 16.6' Surface Elevation 367.38 Top Riser Elevation 369.56

Water Levels (Depth, Date, Time) 1.61, 12/22/04, 1536 Date Installed 12/22/04

Riser	Dia. 2" ID	Material PVC	Length 6.6'			
Screen	Dia. 2" ID	Material PVC	Length 10'	Slot Size	10	
Protective Casing	Dia. 4" ID	Material Steel	Length 4'			

SCHEMATIC



2.47 Protective Casing Stickup

2.18 Riser Stickup

Ground Surface

Surface Seal Type Quick-crete Concrete

1.5 Bottom Surface Seal

Grout Type Enviro-plug Bentonite chips

Seal Type Enviro-plug Bentonite Chips

1.5 Top Seal

2.0 Top Fine Sand Seal

2.42 Top Sand Pack

4.42 Top Screen

Sand Pack Type US Silica
Size #

14.42 Bottom Screen

15.3 Total Depth of Boring

APPENDIX E

WELL DEVELOPMENT LOGS

Well Development Data Sheet

Site Name: Trimmer Rd Job Number: 2273 Date: 1/20/05 Well ID: MW-11

On Site Personnel: Jim Magda / Marcos Halchapman

Weather Conditions: cold, snow, wind 0-10 mph variable Temp. 13°F

Development Technique

- (bailing)
- peristaltic pump
- air lift
- other
- 12 volt submersible
- (surge block)
- trash pump w/foot valve

Static water level before development: 3.94

Bottom of well: 15.5

Date	Water Removal Start	Stop	Elapsed Time (min)	Flow Rate	Approx Vol. Removed	pH	Cond.	Turb	Temp	Observations/Comments
1/20/05	1053	1100	7	.71	5 gal	5.49	4.83	999	6.0	
1/20/05	1100	1107	7	.71	5 gal	5.45	4.75	883	6.0	
1/20/05	1107	1114	7	.71	5 gal	5.61	4.45	751	6.0	

Well Development Data Sheet

Site Name: Trimmer Rd LF Job Number: 2273 Date: 1/20/05 Well ID: MW-12

On Site Personnel: Jim Magda / Marcus Halchapman

Weather Conditions: Snow, cold, wind 0-10 mph variable Temp. 13°F

Development Technique

(bailing) 12 volt submersible
peristaltic pump (surge block)
air lift trash pump w/foot valve
other

Static water level before development: 3.94
Bottom of well: 15.7

Date	Water Removal Start	Stop	Elapsed Time (min)	Flow Rate	Approx Vol. Removed	pH	Cond.	Turb	Temp	Observations/Comments
1/20/05	1000	1010	10	0.5	5 gal	6.99	2.01	999	7.1	
1/20/05	1010	1023	13	.38	5 gal	7.30	1.79	557	7.1	
1/20/05	1023	1030	7	.71	5 gal	7.51	1.74	400	7.1	

Well Development Data Sheet

Site Name: LF Trimmer Rd Job Number: 2273 Date: 1/20/05 Well ID: MW-13

On Site Personnel: Jim Magda / Marcus Hallchapman

Weather Conditions: cold snow, wind 0-10 mph variable Temp. 13°F

Development Technique

- (bailing)
- peristaltic pump
- air lift
- other
- 12 volt submersible
- (surge block)
- trash pump w/foot valve

Static water level before development: 6.10

Bottom of well: 17.5

Date	Water Removal Start	Stop	Elapsed Time (min)	Flow Rate	Approx Vol. Removed	pH	Cond.	Turb	Temp	Observations/Comments
1/20/05	1410	1417	10	0.5	5 gal	7.21	1.75	800	7.5	
1/20/05	1417	1424	9	0.55	5gal	7.19	1.79	603	7.5	
1/20/05	1424	1430	10	0.5	5gal	7.26	1.80	487	7.5	

Well Development Data Sheet

Site Name: Trimmer Rd LF Job Number: 2273 Date: 1/20/05 Well ID: MW-14

On Site Personnel: Jim Magda / Marcus Hal Chapman

Weather Conditions: cold, snow, wind 0-10 mph variable, Temp 13°F

Development Technique

- (bailing)
- peristaltic pump
- air lift
- other
- 12 volt submersible
- (surge block)
- trash pump w/foot valve

Static water level before development: 4.17

Bottom of well: 16.9

Date	Water Removal Start	Stop	Elapsed Time (min)	Flow Rate	Approx Vol. Removed	pH	Cond.	Turb	Temp	Observations/Comments
1/20/05	1433	1443	10	0.5	5gal	7.21	1.09	890	7.9	
1/20/05	1443	1450	7	0.71	5gal	7.29	1.72	694	7.9	
1/20/05	1450	1500	10	0.5	5gal	7.32	1.72	500	7.9	

APPENDIX F

SAMPLE CHAIN OF CUSTODY, SHIPPING AND INFORMATION RECORDS

MITKEM CORPORATION
175 Metro Center Boulevard
Warwick, Rhode Island 02886-1755
(401) 732-3400 • Fax (401) 732-3499
email: mitkem@mitkem.com

CHAIN-OF-CUSTODY RECORD

REPORT TO		INVOICE TO		
COMPANY Dunkin + Bartolucci	PHONE	COMPANY	PHONE	LAB PROJECT #:
NAME Jim Mayda	FAX	NAME	FAX	
ADDRESS 5579 Fisher Road		ADDRESS Same		TURNAROUND TIME:
CITY/ST/ZIP East Syracuse NY 13057		CITY/ST/ZIP		STd

CLIENT PROJECT NAME:	CLIENT PROJECT #:	CLIENT P.O.#:
Trimmer Road LF	2273	2273-2X

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	REQUESTED ANALYSES: TAL volatiles (CLP+10)	TAL metals (CLP+20)	cyanide (335.2)	COMMENTS
mw-12	1/24/05 1145		X	X				4	X	X	X	
mw-11	1/24/05 1115		X	X				4	X	X	X	
mw-5S	1/24/05 1200		X	X				4	X	X	X	
mw-9S	1/24/05 1215		X	X				4	X	X	X	
mw-8S	1/24/05 1245		X	X				4	X	X	X	
mw-6S	1/24/05 1345		X	X				4	X	X	X	
mw-13	1/24/05 1430		X	X				4	X	X	X	
mw-14	1/24/05 1500		X	X				4	X	X	X	
mw-14MS	1/24/05 1500		X	X				4	X	X	X	
mw-14MSD	1/24/05 1500		X	X				4	X	X	X	
TB	—							2	X			
	/											

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
		1/24/05 2000	Fedex	1/25/05 215		
		/		/		
		/		/		

WHITE: LABORATORY COPY YELLOW: REPORT COPY PINK: CLIENT'S COPY

MITKEM CORPORATION
175 Metro Center Boulevard
Warwick, Rhode Island 02886-1755
(401) 732-3400 • Fax (401) 732-3499
email: mitkem@mitkem.com

CHAIN-OF-CUSTODY RECORD

REPORT TO		INVOICE TO		
COMPANY: Drinks + Bartolucci	PHONE: 315 437 1142	COMPANY	PHONE	LAB PROJECT #:
NAME: James Mugda	FAX: 315 437 1282	NAME	FAX	
ADDRESS: 5879 Fisher Road		ADDRESS: Same		TURNAROUND TIME: Std.
CITY/ST/ZIP: East Syracuse NY 13057		CITY/ST/ZIP		

CLIENT PROJECT NAME:	CLIENT PROJECT #:	CLIENT P.O.#:
Trimmer Road Landfill	2273	2273-25

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE	GRAB	WATER	SOIL	OTHER	LAB ID	# OF CONTAINERS	TCL VOC (CLP 4.2)	TAL Metals (ILM 4.0)	Cyanide (335.2)	COMMENTS
MW-4S	2/5/05 1410		X	X				5	X	X	X	
MW-7S	2/5/05 1510		X	X				5	X	X	X	
TB	/					X		2	X			
	/											
	/											
	/											
	/											
	/											
	/											
	/											
	/											
	/											

TSF#	RELINQUISHED BY	DATE/TIME	ACCEPTED BY	DATE/TIME	ADDITIONAL REMARKS:	COOLER TEMP:
	[signature]	2/5/05 1600	FedEx	2/5/05 1630		
		/		/		
		/		/		

WHITE: LABORATORY COPY YELLOW: REPORT COPY PINK: CLIENT'S COPY

FedEx Express **US Airbill**

FedEx Tracking Number **8493 9635 0294**

Form ID No. 0215 — **Sender's Copy**

1 From *Please print and press hard.*

Date 11/18/04 Sender's FedEx Account Number 1245-6133-7

Sender's Name SEAN PEPLING Phone (315) 437-1142

Company DVIRKA AND BARTILUCCI

Address 5879 FISHER RD Dept./Floor/Suite/Room

City EAST SYRACUSE State NY ZIP 13057-2973

2 Your Internal Billing Reference First 24 characters will appear on invoice. OPTIONAL

3 To

Recipient's Name Eric Aitchison Phone (319) 665-3547

Company EcoloTree, INC.

Recipient's Address 3017 Valley View LANE Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City NORTH LIBERTY State IOWA ZIP 52317

4a Express Package Service — *Packages up to 150 lbs.* * To most locations

- ☐ FedEx Priority Overnight — Next business morning*
- ☐ FedEx Standard Overnight — Next business afternoon*
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations*
- ☐ FedEx 2Day — Second business day*
- ☑ FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* ** To most locations

- ☐ FedEx 1Day Freight* — Next business day**
- ☐ FedEx 2Day Freight — Second business day**
- ☐ FedEx 3Day Freight — Third business day**

* Call for Confirmation:

5 Packaging * Declared value limit $500

- ☐ FedEx Envelope*
- ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- ☐ FedEx Box
- ☐ FedEx Tube
- ☐ Other

6 Special Handling — Include FedEx address in Section 3.

- ☐ **SATURDAY Delivery** — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
- ☐ **HOLD Weekday** at FedEx Location — NOT Available for FedEx First Overnight
- ☐ **HOLD Saturday** at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- ☐ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- ☐ Cargo Aircraft Only

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- ☐ Sender — Acct. No. in Section 1 will be billed.
- ☐ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Cash/Check

FedEx Acct. No. / Credit Card No. Exp. Date

Total Packages	Total Weight	Total Declared Value†
1		$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details. FedEx Use Only

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

466

Try online shipping at fedex.com

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

Questions? Visit our Web site at fedex.com or call 1.800.GoFedEx 1.800.463.3339.

0293780926

SPH22

FedEx Express **US Airbill**

FedEx Tracking Number **8493 9635 0320**

Form ID No. 0215

Sender's Copy

1 From *Please print and press hard.*

Date 1/20/05 Sender's FedEx Account Number 1245-6133-7

Sender's Name SEAN PEPLING Phone (315) 437-1142

Company DVIRKA AND BARTILUCCI

Address 5879 FISHER RD

Dept./Floor/Suite/Room

City EAST SYRACUSE State NY ZIP 13057-2973

2 Your Internal Billing Reference
First 24 characters will appear on invoice. OPTIONAL

3 To

Recipient's Name Receiving Phone (401) 732-3400

Company MITkem Corporation

Recipient's Address 175 Metro Center Blvd

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City Warwick State RI ZIP 02886-1755

4a Express Package Service *Packages up to 150 lbs.* * To most locations

- ☐ FedEx Priority Overnight — Next business morning*
- ☑ FedEx Standard Overnight — Next business afternoon*
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations*
- ☐ FedEx 2Day — Second business day*
- ☐ FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.* ** To most locations

- ☐ FedEx 1Day Freight* — Next business day**
- ☐ FedEx 2Day Freight — Second business day**
- ☐ FedEx 3Day Freight — Third business day**

* Call for Confirmation: _____

5 Packaging * Declared value limit $500

- ☐ FedEx Envelope*
- ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- ☐ FedEx Box
- ☐ FedEx Tube
- ☑ Other

6 Special Handling — Include FedEx address in Section 3.

- ☐ **SATURDAY Delivery** — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
- ☐ **HOLD Weekday** at FedEx Location — NOT Available for FedEx First Overnight
- ☐ **HOLD Saturday** at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- ☑ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg
- ☐ Cargo Aircraft Only

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- ☐ Sender — Acct. No. in Section 1 will be billed.
- ☑ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Cash/Check

FedEx Acct. No. / Credit Card No. 1779 3983 8 Exp. Date

Total Packages	Total Weight	Total Declared Value†
1	57	$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

FedEx Use Only

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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Try online shipping at fedex.com.

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

Questions? Visit our Web site at fedex.com or call 1.800.GoFedEx 1.800.463.3339.

0293780926

FedEx Express **US Airbill**

FedEx Tracking Number **8493 9635 0342**

SPH22

Form ID No. 0215

Sender's Copy

1 From *Please print and press hard.*

Date 2/5/05 Sender's FedEx Account Number 1245-6133-7

Sender's Name SEAN PEPLING Phone (315) 437-1142

Company DVIRKA AND BARTILUCCI

Address 5879 FISHER RD

Dept./Floor/Suite/Room

City EAST SYRACUSE State NY ZIP 13057-2973

2 Your Internal Billing Reference
First 24 characters will appear on invoice. OPTIONAL

3 To

Recipient's Name Receiving Phone ( )

Company MITKem Corp

Recipient's Address 175 Metro Center Blvd

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City Warwick State RI ZIP 02886-1755

4a Express Package Service — *Packages up to 150 lbs.* * To most locations

- [x] FedEx Priority Overnight — Next business morning*
- [ ] FedEx Standard Overnight — Next business afternoon*
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations*
- [ ] FedEx 2Day — Second business day*
- [ ] FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* ** To most locations

- [ ] FedEx 1Day Freight* — Next business day**
- [ ] FedEx 2Day Freight — Second business day**
- [ ] FedEx 3Day Freight — Third business day**

* Call for Confirmation:

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling — Include FedEx address in Section 3.

- [ ] **SATURDAY Delivery** — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
- [ ] **HOLD Weekday** at FedEx Location — NOT Available for FedEx First Overnight
- [ ] **HOLD Saturday** at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [ ] Sender — Acct. No. in Section 1 will be billed.
- [x] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. 1779 39 93 8 Exp. Date

Total Packages	Total Weight	Total Declared Value†
1	28	$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

FedEx Use Only

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

466

Try online shipping at fedex.com

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

Questions? Visit our Web site at fedex.com
or call 1.800.GoFedEx 1.800.463.3339.

0293780926

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 3/5/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda

Sample Location/Well No. MW-4S

Field Sample I.D. Number MW-4S **Time** 1410

Weather clear, sunny, wind calm **Temperature** 43°F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 2.05 **Measurement Method** SolinST DTW

Depth of Well 12.5 **Measurement Method** SolinST DTW

Volume Removed 5.01/8 **Removal Method** Bailer (Poly)

Field Test Results

pH 7.5 Spec Cond (mS/cm) 3.85 Turbidity (NTUs) 237

Diss. Oxygen (mg/l) 0.36 Temperature °C 8.1 Salinity (%) /

PID (ppm) 0 Color Light Brown/clear Odor NONE

Other: _____

Laboratory Analyses Requested

TCL VOC | TAL INORGANICS | CYANIDE | _____

_____ | _____ | _____ | _____

Remarks:

Well frozen - Removed ice/measured DTW/ and bailed. Sample filtered for inorganics

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½" = 0.24	3½ = 0.50	6" = 1.46

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda / Marcus Hal Chapman

Sample Location/Well No. MW-5S

Field Sample I.D. Number MW-5S **Time** 1200

Weather cold, snow, wind 0-10 **Temperature** 13°F

Sample Type: variable

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 3.01 **Measurement Method** Solinst DTW

Depth of Well 25.0 **Measurement Method** Solinst DTW

Volume Removed 10.26/11.0 **Removal Method** Poly bailer

Field Test Results

pH 6.94 Spec Cond (mS/cm) 4.12 Turbidity (NTUs) 271

Diss. Oxygen (mg/l) 13.33 Temperature °C 7.1 Salinity (%) /

PID (ppm) 0 Color Light brown Odor NONE

Other:

Laboratory Analyses Requested GRP 61 MV

TCL VOCs TAL Metals cyanide _____

_____ _____ _____ _____

Remarks:

Sample for inorganics + cyanide filtered

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

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A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magida / Marcus Halchapman

Sample Location/Well No. MW-6S

Field Sample I.D. Number MW-6S **Time** 1345

Weather cold snow, wind 0-10 variable **Temperature** 13 °F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 2.99 **Measurement Method** Solinst DTW

Depth of Well 25.6 **Measurement Method** Solinst DTW

Volume Removed 10.8/12 **Removal Method** PDK/ bailer

Field Test Results

pH 5.67 Spec Cond (mS/cm) 1.69 Turbidity (NTUs) 101

Diss. Oxygen (mg/l) 12.96 Temperature °C 7.1 Salinity (%) 1

PID (ppm) 0 Color clear Odor none

Other: ORP 89 mv

Laboratory Analyses Requested

TCL VOCs | TAL Metals | cyanide | _____

_____ | _____ | _____ | _____

Remarks:

Samples for TAL Metals + cyanide filtered

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

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CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 2/5/04

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda

Sample Location/Well No. MW-7S

Field Sample I.D. Number MW-7S **Time** 1510

Weather Sunny, clear, wind calm **Temperature** 43°F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 6.87 **Measurement Method** Solinst DTW

Depth of Well 14.5 **Measurement Method** Solinst DTW

Volume Removed 3.66/10 **Removal Method** Poly bailer

Field Test Results

pH 8.37 Spec Cond (mS/cm) 0.721 Turbidity (NTUs) 259

Diss. Oxygen (mg/l) 3.09 Temperature °C 8.1 Salinity (%) /

PID (ppm) 0 Color Clear Odor none

Other: _____

Laboratory Analyses Requested

TCL VOCs TAL Inorganics cyanide _____

_____ _____ _____ _____

Remarks:

Sample filtered for inorganics

_____

_____

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda / Marcus Halchapman

Sample Location/Well No. MW-8S

Field Sample I.D. Number MW-8S **Time** 1245

Weather cold, snow, wind 0-10 variable **Temperature** 13°F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 2.57 **Measurement Method** Solinst DTW

Depth of Well 14.5 **Measurement Method** Solinst DTW

Volume Removed 5.7/7 **Removal Method** Poly-bailer

Field Test Results

pH 5.52 Spec Cond (mS/cm) 7.20 Turbidity (NTUs) 750

Diss. Oxygen (mg/l) 11.33 Temperature °C 7.1 Salinity (%) /

PID (ppm) 0 Color Brown Odor None

Other: ORP 157mv

Laboratory Analyses Requested

TCL VOCs | TAL Metals | cyanide | _____

_____ | _____ | _____ | _____

Remarks:

Samples for TAL metals + cyanide filtered

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½" = 0.24	3½ = 0.50	6" = 1.46

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda / Marcus Hal Chapman

Sample Location/Well No. MW-9S

Field Sample I.D. Number MW-9S **Time** 1215

Weather Cold, snow, wind 0-10 variable **Temperature** 13 °F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 3.25 **Measurement Method** Solinst DTW

Depth of Well 14.5 **Measurement Method** Solinst DTW

Volume Removed 5.4/7.0 **Removal Method** Poly bailer

Field Test Results

pH 5.61 Spec Cond (mS/cm) 4.45 Turbidity (NTUs) 751

Diss. Oxygen (mg/l) 14.9 Temperature °C 6.0 Salinity (%) /

PID (ppm) 0 Color Brown Odor None

Other: ORP 172 mV

Laboratory Analyses Requested

TCL VOCs | TAL Inorganics | Cyanide | _____

_____ | _____ | _____ | _____

Remarks:

Samples for inorganics + cyanide filtered

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda / Marcus Hatchapman

Sample Location/Well No. MW-11

Field Sample I.D. Number MW-11 **Time** 1115

Weather Cold, snow, wind 0-10 **Temperature** 13°F

Sample Type: variable

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 3.95 **Measurement Method** Solinst OTW

Depth of Well 15.5 **Measurement Method** Solinst OTW

Volume Removed 5.5/15 **Removal Method** Poly bailer

Field Test Results

pH 7.26 Spec Cond (mS/cm) 1.83 Turbidity (NTUs) 450

Diss. Oxygen (mg/l) 12.70 Temperature °C 7.8 Salinity (%) /

PID (ppm) 0 Color Brown Odor none

Other: ORP 79 mv

Laboratory Analyses Requested

TCL VOCs TAL Inorganics cyanide _____

_____ _____ _____ _____

Remarks:

Sample for Inorganics + cyanide filtered

_____

_____

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda / Marcus Hal Chapman

Sample Location/Well No. MW-12

Field Sample I.D. Number MW-12 **Time** 1045

Weather Cold, snow, wind 0-10 variable **Temperature** 13°F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 3.94 **Measurement Method** Solinst DTW

Depth of Well 15.7 **Measurement Method** Solinst DTW

Volume Removed 5.6/15 **Removal Method** Poly bailer

Field Test Results

pH 7.51 Spec Cond (mS/cm) 1.74 Turbidity (NTUs) 400

Diss. Oxygen (mg/l) 8.64 Temperature °C 7.1 Salinity (%) ~

PID (ppm) 0 Color Light brown Odor none

Other: ORP 285

Laboratory Analyses Requested

TCL VOCs TAL inorganics cyanide _____

_____ _____ _____ _____

Remarks:

Sample for inorganics + cyanide filtered

_____

_____

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda/Marcus Halchapman

Sample Location/Well No. MW-13

Field Sample I.D. Number MW-13 **Time** 1430

Weather cold, snow, wind 0-10 variable **Temperature** 13°F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 6.10 **Measurement Method** Solinst DTW

Depth of Well 17.5 **Measurement Method** Solinst DTW

Volume Removed 5.4/15 **Removal Method** poly bailer

Field Test Results

pH 7.26 Spec Cond (mS/cm) 1.80 Turbidity (NTUs) 487

Diss. Oxygen (mg/l) 12.01 Temperature °C 7.5 Salinity (%) 1

PID (ppm) 0 Color Light brown Odor none

Other: ORP 86 mv

Laboratory Analyses Requested

TCL VOCs | TAL inorganics | cyanide | _____

_____ | _____ | _____ | _____

Remarks:

Samples for TAL inorganics + cyanide filtered

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½" = 0.24	3½ = 0.50	6" = 1.46

Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

Date: 1/20/05

SAMPLE INFORMATION RECORD

Site: Trimmer Road Landfill **Sample Crew:** Jim Magda / Marcus Halchapman

Sample Location/Well No. MW-14

Field Sample I.D. Number MW-14 **Time** 1500

Weather cold, snow, wind 0-10 variable **Temperature** 13°F

Sample Type:

Groundwater X **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil _____ **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water 4.17 **Measurement Method** Solinst DTW

Depth of Well 16.9 **Measurement Method** Solinst DTW

Volume Removed 6.11/15 **Removal Method** poly bailer

Field Test Results

pH 7.32 Spec Cond (mS/cm) 1.72 Turbidity (NTUs) 500

Diss. Oxygen (mg/l) 11.79 Temperature °C 7.9 Salinity (%) /

PID (ppm) 0 Color Brown Odor none

Other: orp 75 mv

Laboratory Analyses Requested

TCL VOCs TAL inorganics cyanide _____

MS/MSD collected For the same parameters

Remarks:

Samples for TAL inorganics + cyanide filtered

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ = 0.10	2½" = 0.24	3½ = 0.50	6" = 1.46

APPENDIX G

AIR MONITORING DATA

Dvirka and Bartilucci CONSULTING ENGINEERS

AIR MONITORING FORM

PROJECT NAME: Trimmer Road Landfill DATE: 12/21/04

PROJECT NUMBER 2273 INSTRUMENT: PID - Photovac

RECORDED BY: Jim Magda CALIBRATION DATE: 12/21/04

WEATHER CONDITIONS: Cloudy, Temperature 17°F, humidity high wind 0-5 mph variable

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
1000	MW-13	0-5/variable	0.0ppm	
1015	MW-13	0-5/variable	0.0ppm	
1030	MW-13	0-5/variable	0.0ppm	
1045	MW-13	0-5/variable	0.0ppm	
1100	MW-13	0-5/variable	0.0ppm	
1115	MW-13	0-5/variable	0.0ppm	
1130	MW-13	0-5/variable	0.0ppm	
1145	MW-13	0-5/variable	0.0ppm	
1200	MW-13	0-5/variable	0.0ppm	
1215	MW-13	0-5/variable	0.0ppm	
1230	MW-13	0-5/variable	0.0ppm	

RECORDING PROCEDURES/REMARKS: Breathing zone in work areas monitored with MIE PDR-1000 + PID Photovac 2020. See PDR data Log For PDR readings

Dvirka and Bartilucci CONSULTING ENGINEERS

AIR MONITORING FORM

PROJECT NAME: Trimmer Road Landfill DATE: 12/22/04

PROJECT NUMBER 2273 INSTRUMENT: PID - PhotoVac

RECORDED BY: J Magda CALIBRATION DATE: 12/22/04

WEATHER CONDITIONS: Cloudy, Temperature 34°F, humidity High, wind calm

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
0835-	N/A	N/A	N/A	Arrive on-site
0919	MW-12	<5mph/ west	0.0 ppm	
0930	mw-12	<5mph/ west	0.0ppm	
0945	MW-12	<5 mph/ west	0.0ppm	
1000	mw-12	<5mph/ west	0.0ppm	
1015	mw-12	<5mph/west	0.0 ppm	
1030	mw-12	5PH / west	0.0 ppm	
1045	mw-12	<5mph/west	0.0 ppm	
1127	MW-11	<5mph/variable	0.0ppm	
1145	MW-11	<5mph/variable	0.0ppm	
1200	MW-11	<5mph/variable	0.0ppm	
1215	MW-11	<5mph/variable	0.0ppm	
1230	MW-11	<5mph/variable	0.0ppm	
1245	MW-11	<5mph/variable	0.0ppm	
1355	MW-14	<5mph/west	0.0 ppm	
1315	MW-14	<5mph/ west	0.0ppm	
1330	MW-14	<5mph/west	0.0ppm	
1345	MW-14	<5mph/ west	0.0ppm	
1400	MW-14	<5mph/ west	0.0 ppm	
1415	MW-14	<5mph/west	0.0 ppm	
1430	MW-14	<5mph/ west	0.0 ppm	
1445	MW-14	<5mph/west	0.0 ppm	

RECORDING PROCEDURES/REMARKS: Breathing zone in work areas at MW-12 MW-11 + MW-14 continuously monitored with MIE PDR-1000 + PID PhotoVac 2020. PID Readings Recorded at 15 minute intervals during intrusive work. See PDR data Log for PDR Readings.

pDR-1000
Tag Number: 01
Number of logged points: 334
Start time and date: 10:03:16 21-Dec
Elapsed time: 05:34:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 0.682 mg/m³
Time at maximum: 12:21:32 Dec 21
Max STEL Concentration: 0.028 mg/m³
Time at max STEL: 12:31:47 Dec 21
Overall Avg Conc: 0.006 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	21 Dec	10:04:16	0.029
2	21 Dec	10:05:16	0.006
3	21 Dec	10:06:16	0.032
4	21 Dec	10:07:16	0.004
5	21 Dec	10:08:16	0.001
6	21 Dec	10:09:16	0.000
7	21 Dec	10:10:16	0.001
8	21 Dec	10:11:16	0.001
9	21 Dec	10:12:16	0.000
10	21 Dec	10:13:16	0.011
11	21 Dec	10:14:16	0.004
12	21 Dec	10:15:16	0.002
13	21 Dec	10:16:16	0.001
14	21 Dec	10:17:16	0.001
15	21 Dec	10:18:16	0.088
16	21 Dec	10:19:16	0.002
17	21 Dec	10:20:16	0.001
18	21 Dec	10:21:16	0.001
19	21 Dec	10:22:16	0.000
20	21 Dec	10:23:16	0.000
21	21 Dec	10:24:16	0.003
22	21 Dec	10:25:16	0.002
23	21 Dec	10:26:16	0.002
24	21 Dec	10:27:16	0.001
25	21 Dec	10:28:16	0.036
26	21 Dec	10:29:16	0.001
27	21 Dec	10:30:16	0.004
28	21 Dec	10:31:16	0.001
29	21 Dec	10:32:16	0.002
30	21 Dec	10:33:16	0.003
31	21 Dec	10:34:16	0.005
32	21 Dec	10:35:16	0.017
33	21 Dec	10:36:16	0.033
34	21 Dec	10:37:16	0.003
35	21 Dec	10:38:16	0.005
36	21 Dec	10:39:16	0.001
37	21 Dec	10:40:16	0.006
38	21 Dec	10:41:16	0.002
39	21 Dec	10:42:16	0.033
40	21 Dec	10:43:16	0.003
41	21 Dec	10:44:16	0.010
42	21 Dec	10:45:16	0.003
43	21 Dec	10:46:16	0.005
44	21 Dec	10:47:16	0.002
45	21 Dec	10:48:16	0.003
46	21 Dec	10:49:16	0.001
47	21 Dec	10:50:16	0.003
48	21 Dec	10:51:16	0.003
49	21 Dec	10:52:16	0.001
50	21 Dec	10:53:16	0.004
51	21 Dec	10:54:16	0.001
52	21 Dec	10:55:16	0.002
53	21 Dec	10:56:16	0.003
54	21 Dec	10:57:16	0.002
55	21 Dec	10:58:16	0.005
56	21 Dec	10:59:16	0.002
57	21 Dec	11:00:16	0.002

58,	21	Dec,	11:01:16,	0.002
59,	21	Dec,	11:02:16,	0.002
60,	21	Dec,	11:03:16,	0.003
61,	21	Dec,	11:04:16,	0.003
62,	21	Dec,	11:05:16,	0.001
63,	21	Dec,	11:06:16,	0.010
64,	21	Dec,	11:07:16,	0.002
65,	21	Dec,	11:08:16,	0.002
66,	21	Dec,	11:09:16,	0.006
67,	21	Dec,	11:10:16,	0.002
68,	21	Dec,	11:11:16,	0.004
69,	21	Dec,	11:12:16,	0.047
70,	21	Dec,	11:13:16,	0.003
71,	21	Dec,	11:14:16,	0.001
72,	21	Dec,	11:15:16,	0.004
73,	21	Dec,	11:16:16,	0.109
74,	21	Dec,	11:17:16,	0.002
75,	21	Dec,	11:18:16,	0.002
76,	21	Dec,	11:19:16,	0.003
77,	21	Dec,	11:20:16,	0.003
78,	21	Dec,	11:21:16,	0.002
79,	21	Dec,	11:22:16,	0.002
80,	21	Dec,	11:23:16,	0.002
81,	21	Dec,	11:24:16,	0.002
82,	21	Dec,	11:25:16,	0.003
83,	21	Dec,	11:26:16,	0.002
84,	21	Dec,	11:27:16,	0.002
85,	21	Dec,	11:28:16,	0.005
86,	21	Dec,	11:29:16,	0.007
87,	21	Dec,	11:30:16,	0.002
88,	21	Dec,	11:31:16,	0.003
89,	21	Dec,	11:32:16,	0.001
90,	21	Dec,	11:33:16,	0.002
91,	21	Dec,	11:34:16,	0.004
92,	21	Dec,	11:35:16,	0.002
93,	21	Dec,	11:36:16,	0.004
94,	21	Dec,	11:37:16,	0.002
95,	21	Dec,	11:38:16,	0.003
96,	21	Dec,	11:39:16,	0.001
97,	21	Dec,	11:40:16,	0.002
98,	21	Dec,	11:41:16,	0.004
99,	21	Dec,	11:42:16,	0.006
100,	21	Dec,	11:43:16,	0.003
101,	21	Dec,	11:44:16,	0.004
102,	21	Dec,	11:45:16,	0.055
103,	21	Dec,	11:46:16,	0.002
104,	21	Dec,	11:47:16,	0.003
105,	21	Dec,	11:48:16,	0.005
106,	21	Dec,	11:49:16,	0.007
107,	21	Dec,	11:50:16,	0.002
108,	21	Dec,	11:51:16,	0.004
109,	21	Dec,	11:52:16,	0.002
110,	21	Dec,	11:53:16,	0.001
111,	21	Dec,	11:54:16,	0.001
112,	21	Dec,	11:55:16,	0.004
113,	21	Dec,	11:56:16,	0.002
114,	21	Dec,	11:57:16,	0.002
115,	21	Dec,	11:58:16,	0.005
116,	21	Dec,	11:59:16,	0.004
117,	21	Dec,	12:00:16,	0.003
118,	21	Dec,	12:01:16,	0.004
119,	21	Dec,	12:02:16,	0.004
120,	21	Dec,	12:03:16,	0.005
121,	21	Dec,	12:04:16,	0.005
122,	21	Dec,	12:05:16,	0.004
123,	21	Dec,	12:06:16,	0.018
124,	21	Dec,	12:07:16,	0.004
125,	21	Dec,	12:08:16,	0.007
126,	21	Dec,	12:09:16,	0.002
127,	21	Dec,	12:10:16,	0.004
128,	21	Dec,	12:11:16,	0.014

129, 21 Dec, 12:12:16, 0.011
130, 21 Dec, 12:13:16, 0.008
131, 21 Dec, 12:14:16, 0.002
132, 21 Dec, 12:15:16, 0.002
133, 21 Dec, 12:16:16, 0.002
134, 21 Dec, 12:17:16, 0.003
135, 21 Dec, 12:18:16, 0.002
136, 21 Dec, 12:19:16, 0.004
137, 21 Dec, 12:20:16, 0.005
138, 21 Dec, 12:21:16, 0.003
139, 21 Dec, 12:22:16, 0.187
140, 21 Dec, 12:23:16, 0.081
141, 21 Dec, 12:24:16, 0.001
142, 21 Dec, 12:25:16, 0.022
143, 21 Dec, 12:26:16, 0.025
144, 21 Dec, 12:27:16, 0.006
145, 21 Dec, 12:28:16, 0.009
146, 21 Dec, 12:29:16, 0.006
147, 21 Dec, 12:30:16, 0.022
148, 21 Dec, 12:31:16, 0.036
149, 21 Dec, 12:32:16, 0.011
150, 21 Dec, 12:33:16, 0.005
151, 21 Dec, 12:34:16, 0.007
152, 21 Dec, 12:35:16, 0.004
153, 21 Dec, 12:36:16, 0.000
154, 21 Dec, 12:37:16, 0.002
155, 21 Dec, 12:38:16, 0.000
156, 21 Dec, 12:39:16, 0.000
157, 21 Dec, 12:40:16, 0.000
158, 21 Dec, 12:41:16, 0.000
159, 21 Dec, 12:42:16, 0.001
160, 21 Dec, 12:43:16, 0.000
161, 21 Dec, 12:44:16, 0.000
162, 21 Dec, 12:45:16, 0.000
163, 21 Dec, 12:46:16, 0.001
164, 21 Dec, 12:47:16, 0.002
165, 21 Dec, 12:48:16, 0.037
166, 21 Dec, 12:49:16, 0.027
167, 21 Dec, 12:50:16, 0.013
168, 21 Dec, 12:51:16, 0.005
169, 21 Dec, 12:52:16, 0.006
170, 21 Dec, 12:53:16, 0.005
171, 21 Dec, 12:54:16, 0.004
172, 21 Dec, 12:55:16, 0.005
173, 21 Dec, 12:56:16, 0.007
174, 21 Dec, 12:57:16, 0.003
175, 21 Dec, 12:58:16, 0.003
176, 21 Dec, 12:59:16, 0.002
177, 21 Dec, 13:00:16, 0.005
178, 21 Dec, 13:01:16, 0.005
179, 21 Dec, 13:02:16, 0.005
180, 21 Dec, 13:03:16, 0.006
181, 21 Dec, 13:04:16, 0.007
182, 21 Dec, 13:05:16, 0.006
183, 21 Dec, 13:06:16, 0.006
184, 21 Dec, 13:07:16, 0.005
185, 21 Dec, 13:08:16, 0.011
186, 21 Dec, 13:09:16, 0.012
187, 21 Dec, 13:10:16, 0.009
188, 21 Dec, 13:11:16, 0.010
189, 21 Dec, 13:12:16, 0.008
190, 21 Dec, 13:13:16, 0.007
191, 21 Dec, 13:14:16, 0.010
192, 21 Dec, 13:15:16, 0.007
193, 21 Dec, 13:16:16, 0.009
194, 21 Dec, 13:17:16, 0.008
195, 21 Dec, 13:18:16, 0.004
196, 21 Dec, 13:19:16, 0.006
197, 21 Dec, 13:20:16, 0.009
198, 21 Dec, 13:21:16, 0.003
199, 21 Dec, 13:22:16, 0.005

200, 21 Dec, 13:23:16, 0.003
201, 21 Dec, 13:24:16, 0.003
202, 21 Dec, 13:25:16, 0.003
203, 21 Dec, 13:26:16, 0.004
204, 21 Dec, 13:27:16, 0.004
205, 21 Dec, 13:28:16, 0.010
206, 21 Dec, 13:29:16, 0.009
207, 21 Dec, 13:30:16, 0.007
208, 21 Dec, 13:31:16, 0.007
209, 21 Dec, 13:32:16, 0.006
210, 21 Dec, 13:33:16, 0.003
211, 21 Dec, 13:34:16, 0.005
212, 21 Dec, 13:35:16, 0.004
213, 21 Dec, 13:36:16, 0.005
214, 21 Dec, 13:37:16, 0.005
215, 21 Dec, 13:38:16, 0.004
216, 21 Dec, 13:39:16, 0.003
217, 21 Dec, 13:40:16, 0.003
218, 21 Dec, 13:41:16, 0.002
219, 21 Dec, 13:42:16, 0.003
220, 21 Dec, 13:43:16, 0.002
221, 21 Dec, 13:44:16, 0.001
222, 21 Dec, 13:45:16, 0.002
223, 21 Dec, 13:46:16, 0.001
224, 21 Dec, 13:47:16, 0.001
225, 21 Dec, 13:48:16, 0.004
226, 21 Dec, 13:49:16, 0.002
227, 21 Dec, 13:50:16, 0.001
228, 21 Dec, 13:51:16, 0.001
229, 21 Dec, 13:52:16, 0.003
230, 21 Dec, 13:53:16, 0.006
231, 21 Dec, 13:54:16, 0.006
232, 21 Dec, 13:55:16, 0.006
233, 21 Dec, 13:56:16, 0.009
234, 21 Dec, 13:57:16, 0.008
235, 21 Dec, 13:58:16, 0.003
236, 21 Dec, 13:59:16, 0.004
237, 21 Dec, 14:00:16, 0.004
238, 21 Dec, 14:01:16, 0.005
239, 21 Dec, 14:02:16, 0.003
240, 21 Dec, 14:03:16, 0.004
241, 21 Dec, 14:04:16, 0.003
242, 21 Dec, 14:05:16, 0.005
243, 21 Dec, 14:06:16, 0.004
244, 21 Dec, 14:07:16, 0.008
245, 21 Dec, 14:08:16, 0.008
246, 21 Dec, 14:09:16, 0.005
247, 21 Dec, 14:10:16, 0.005
248, 21 Dec, 14:11:16, 0.003
249, 21 Dec, 14:12:16, 0.003
250, 21 Dec, 14:13:16, 0.004
251, 21 Dec, 14:14:16, 0.005
252, 21 Dec, 14:15:16, 0.003
253, 21 Dec, 14:16:16, 0.004
254, 21 Dec, 14:17:16, 0.004
255, 21 Dec, 14:18:16, 0.001
256, 21 Dec, 14:19:16, 0.001
257, 21 Dec, 14:20:16, 0.000
258, 21 Dec, 14:21:16, 0.001
259, 21 Dec, 14:22:16, 0.002
260, 21 Dec, 14:23:16, 0.002
261, 21 Dec, 14:24:16, 0.001
262, 21 Dec, 14:25:16, 0.001
263, 21 Dec, 14:26:16, 0.001
264, 21 Dec, 14:27:16, 0.006
265, 21 Dec, 14:28:16, 0.009
266, 21 Dec, 14:29:16, 0.009
267, 21 Dec, 14:30:16, 0.005
268, 21 Dec, 14:31:16, 0.004
269, 21 Dec, 14:32:16, 0.006
270, 21 Dec, 14:33:16, 0.007

271, 21 Dec, 14:34:16, 0.011
272, 21 Dec, 14:35:16, 0.008
273, 21 Dec, 14:36:16, 0.009
274, 21 Dec, 14:37:16, 0.007
275, 21 Dec, 14:38:16, 0.005
276, 21 Dec, 14:39:16, 0.007
277, 21 Dec, 14:40:16, 0.006
278, 21 Dec, 14:41:16, 0.005
279, 21 Dec, 14:42:16, 0.007
280, 21 Dec, 14:43:16, 0.005
281, 21 Dec, 14:44:16, 0.003
282, 21 Dec, 14:45:16, 0.005
283, 21 Dec, 14:46:16, 0.003
284, 21 Dec, 14:47:16, 0.002
285, 21 Dec, 14:48:16, 0.002
286, 21 Dec, 14:49:16, 0.003
287, 21 Dec, 14:50:16, 0.002
288, 21 Dec, 14:51:16, 0.001
289, 21 Dec, 14:52:16, 0.003
290, 21 Dec, 14:53:16, 0.003
291, 21 Dec, 14:54:16, 0.003
292, 21 Dec, 14:55:16, 0.002
293, 21 Dec, 14:56:16, 0.001
294, 21 Dec, 14:57:16, 0.002
295, 21 Dec, 14:58:16, 0.001
296, 21 Dec, 14:59:16, 0.001
297, 21 Dec, 15:00:16, 0.004
298, 21 Dec, 15:01:16, 0.002
299, 21 Dec, 15:02:16, 0.001
300, 21 Dec, 15:03:16, 0.001
301, 21 Dec, 15:04:16, 0.002
302, 21 Dec, 15:05:16, 0.002
303, 21 Dec, 15:06:16, 0.003
304, 21 Dec, 15:07:16, 0.000
305, 21 Dec, 15:08:16, 0.000
306, 21 Dec, 15:09:16, 0.000
307, 21 Dec, 15:10:16, 0.000
308, 21 Dec, 15:11:16, 0.000
309, 21 Dec, 15:12:16, 0.000
310, 21 Dec, 15:13:16, 0.001
311, 21 Dec, 15:14:16, 0.001
312, 21 Dec, 15:15:16, 0.000
313, 21 Dec, 15:16:16, 0.001
314, 21 Dec, 15:17:16, 0.000
315, 21 Dec, 15:18:16, 0.001
316, 21 Dec, 15:19:16, 0.001
317, 21 Dec, 15:20:16, 0.000
318, 21 Dec, 15:21:16, 0.000
319, 21 Dec, 15:22:16, 0.000
320, 21 Dec, 15:23:16, 0.000
321, 21 Dec, 15:24:16, 0.000
322, 21 Dec, 15:25:16, 0.000
323, 21 Dec, 15:26:16, 0.000
324, 21 Dec, 15:27:16, 0.001
325, 21 Dec, 15:28:16, 0.000
326, 21 Dec, 15:29:16, 0.000
327, 21 Dec, 15:30:16, 0.010
328, 21 Dec, 15:31:16, 0.005
329, 21 Dec, 15:32:16, 0.010
330, 21 Dec, 15:33:16, 0.016
331, 21 Dec, 15:34:16, 0.015
332, 21 Dec, 15:35:16, 0.007
333, 21 Dec, 15:36:16, 0.006
334, 21 Dec, 15:37:16, 0.004

pDR-1000
Tag Number: 02
Number of logged points: 93
Start time and date: 09:13:06 22-Dec
Elapsed time: 01:33:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 0.495 mg/m³
Time at maximum: 09:13:31 Dec 22
Max STEL Concentration: 0.060 mg/m³
Time at max STEL: 10:22:06 Dec 22
Overall Avg Conc: 0.049 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22 Dec	09:14:06	0.136
2	22 Dec	09:15:06	0.026
3	22 Dec	09:16:06	0.025
4	22 Dec	09:17:06	0.029
5	22 Dec	09:18:06	0.027
6	22 Dec	09:19:06	0.027
7	22 Dec	09:20:06	0.027
8	22 Dec	09:21:06	0.025
9	22 Dec	09:22:06	0.028
10	22 Dec	09:23:06	0.029
11	22 Dec	09:24:06	0.033
12	22 Dec	09:25:06	0.028
13	22 Dec	09:26:06	0.030
14	22 Dec	09:27:06	0.029
15	22 Dec	09:28:06	0.033
16	22 Dec	09:29:06	0.032
17	22 Dec	09:30:06	0.031
18	22 Dec	09:31:06	0.027
19	22 Dec	09:32:06	0.030
20	22 Dec	09:33:06	0.035
21	22 Dec	09:34:06	0.030
22	22 Dec	09:35:06	0.029
23	22 Dec	09:36:06	0.029
24	22 Dec	09:37:06	0.032
25	22 Dec	09:38:06	0.031
26	22 Dec	09:39:06	0.030
27	22 Dec	09:40:06	0.033
28	22 Dec	09:41:06	0.039
29	22 Dec	09:42:06	0.045
30	22 Dec	09:43:06	0.041
31	22 Dec	09:44:06	0.045
32	22 Dec	09:45:06	0.042
33	22 Dec	09:46:06	0.042
34	22 Dec	09:47:06	0.040
35	22 Dec	09:48:06	0.039
36	22 Dec	09:49:06	0.047
37	22 Dec	09:50:06	0.049
38	22 Dec	09:51:06	0.050
39	22 Dec	09:52:06	0.046
40	22 Dec	09:53:06	0.049
41	22 Dec	09:54:06	0.051
42	22 Dec	09:55:06	0.056
43	22 Dec	09:56:06	0.053
44	22 Dec	09:57:06	0.055
45	22 Dec	09:58:06	0.061
46	22 Dec	09:59:06	0.058
47	22 Dec	10:00:06	0.063
48	22 Dec	10:01:06	0.062
49	22 Dec	10:02:06	0.060
50	22 Dec	10:03:06	0.061
51	22 Dec	10:04:06	0.064
52	22 Dec	10:05:06	0.057
53	22 Dec	10:06:06	0.055
54	22 Dec	10:07:06	0.050
55	22 Dec	10:08:06	0.053
56	22 Dec	10:09:06	0.057
57	22 Dec	10:10:06	0.058

58, 22 Dec, 10:11:06, 0.059
59, 22 Dec, 10:12:06, 0.059
60, 22 Dec, 10:13:06, 0.061
61, 22 Dec, 10:14:06, 0.069
62, 22 Dec, 10:15:06, 0.061
63, 22 Dec, 10:16:06, 0.061
64, 22 Dec, 10:17:06, 0.060
65, 22 Dec, 10:18:06, 0.059
66, 22 Dec, 10:19:06, 0.058
67, 22 Dec, 10:20:06, 0.059
68, 22 Dec, 10:21:06, 0.062
69, 22 Dec, 10:22:06, 0.058
70, 22 Dec, 10:23:06, 0.057
71, 22 Dec, 10:24:06, 0.057
72, 22 Dec, 10:25:06, 0.057
73, 22 Dec, 10:26:06, 0.058
74, 22 Dec, 10:27:06, 0.058
75, 22 Dec, 10:28:06, 0.055
76, 22 Dec, 10:29:06, 0.056
77, 22 Dec, 10:30:06, 0.055
78, 22 Dec, 10:31:06, 0.055
79, 22 Dec, 10:32:06, 0.057
80, 22 Dec, 10:33:06, 0.055
81, 22 Dec, 10:34:06, 0.056
82, 22 Dec, 10:35:06, 0.055
83, 22 Dec, 10:36:06, 0.054
84, 22 Dec, 10:37:06, 0.054
85, 22 Dec, 10:38:06, 0.056
86, 22 Dec, 10:39:06, 0.056
87, 22 Dec, 10:40:06, 0.054
88, 22 Dec, 10:41:06, 0.056
89, 22 Dec, 10:42:06, 0.055
90, 22 Dec, 10:43:06, 0.057
91, 22 Dec, 10:44:06, 0.058
92, 22 Dec, 10:45:06, 0.056
93, 22 Dec, 10:46:06, 0.059

pDR-1000
Tag Number: 03
Number of logged points: 275
Start time and date: 11:36:51 22-Dec
Elapsed time: 04:35:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 3.177 mg/m³
Time at maximum: 12:55:32 Dec 22
Max STEL Concentration: 0.141 mg/m³
Time at max STEL: 13:08:21 Dec 22
Overall Avg Conc: 0.047 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)
1	22 Dec	11:37:51	0.086
2	22 Dec	11:38:51	0.111
3	22 Dec	11:39:51	0.081
4	22 Dec	11:40:51	0.079
5	22 Dec	11:41:51	0.300
6	22 Dec	11:42:51	0.095
7	22 Dec	11:43:51	0.102
8	22 Dec	11:44:51	0.091
9	22 Dec	11:45:51	0.089
10	22 Dec	11:46:51	0.082
11	22 Dec	11:47:51	0.080
12	22 Dec	11:48:51	0.082
13	22 Dec	11:49:51	0.082
14	22 Dec	11:50:51	0.086
15	22 Dec	11:51:51	0.083
16	22 Dec	11:52:51	0.089
17	22 Dec	11:53:51	0.083
18	22 Dec	11:54:51	0.079
19	22 Dec	11:55:51	0.082
20	22 Dec	11:56:51	0.080
21	22 Dec	11:57:51	0.078
22	22 Dec	11:58:51	0.080
23	22 Dec	11:59:51	0.078
24	22 Dec	12:00:51	0.079
25	22 Dec	12:01:51	0.072
26	22 Dec	12:02:51	0.079
27	22 Dec	12:03:51	0.082
28	22 Dec	12:04:51	0.074
29	22 Dec	12:05:51	0.074
30	22 Dec	12:06:51	0.074
31	22 Dec	12:07:51	0.083
32	22 Dec	12:08:51	0.073
33	22 Dec	12:09:51	0.082
34	22 Dec	12:10:51	0.087
35	22 Dec	12:11:51	0.077
36	22 Dec	12:12:51	0.087
37	22 Dec	12:13:51	0.084
38	22 Dec	12:14:51	0.075
39	22 Dec	12:15:51	0.081
40	22 Dec	12:16:51	0.079
41	22 Dec	12:17:51	0.077
42	22 Dec	12:18:51	0.083
43	22 Dec	12:19:51	0.075
44	22 Dec	12:20:51	0.109
45	22 Dec	12:21:51	0.084
46	22 Dec	12:22:51	0.081
47	22 Dec	12:23:51	0.080
48	22 Dec	12:24:51	0.082
49	22 Dec	12:25:51	0.085
50	22 Dec	12:26:51	0.072
51	22 Dec	12:27:51	0.063
52	22 Dec	12:28:51	0.081
53	22 Dec	12:29:51	0.082
54	22 Dec	12:30:51	0.083
55	22 Dec	12:31:51	0.087
56	22 Dec	12:32:51	0.081
57	22 Dec	12:33:51	0.089

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59, 22 Dec, 12:35:51, 0.078
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61, 22 Dec, 12:37:51, 0.077
62, 22 Dec, 12:38:51, 0.073
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64, 22 Dec, 12:40:51, 0.077
65, 22 Dec, 12:41:51, 0.073
66, 22 Dec, 12:42:51, 0.078
67, 22 Dec, 12:43:51, 0.074
68, 22 Dec, 12:44:51, 0.075
69, 22 Dec, 12:45:51, 0.078
70, 22 Dec, 12:46:51, 0.073
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72, 22 Dec, 12:48:51, 0.072
73, 22 Dec, 12:49:51, 0.075
74, 22 Dec, 12:50:51, 0.072
75, 22 Dec, 12:51:51, 0.080
76, 22 Dec, 12:52:51, 0.078
77, 22 Dec, 12:53:51, 0.068
78, 22 Dec, 12:54:51, 0.073
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82, 22 Dec, 12:58:51, 0.081
83, 22 Dec, 12:59:51, 0.079
84, 22 Dec, 13:00:51, 0.073
85, 22 Dec, 13:01:51, 0.063
86, 22 Dec, 13:02:51, 0.072
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123, 22 Dec, 13:39:51, 0.050
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190, 22 Dec, 14:46:51, 0.010
191, 22 Dec, 14:47:51, 0.010
192, 22 Dec, 14:48:51, 0.009
193, 22 Dec, 14:49:51, 0.009
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199, 22 Dec, 14:55:51, 0.006

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209, 22 Dec, 15:05:51, 0.003
210, 22 Dec, 15:06:51, 0.006
211, 22 Dec, 15:07:51, 0.005
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243, 22 Dec, 15:39:51, 0.004
244, 22 Dec, 15:40:51, 0.001
245, 22 Dec, 15:41:51, 0.003
246, 22 Dec, 15:42:51, 0.003
247, 22 Dec, 15:43:51, 0.002
248, 22 Dec, 15:44:51, 0.002
249, 22 Dec, 15:45:51, 0.002
250, 22 Dec, 15:46:51, 0.001
251, 22 Dec, 15:47:51, 0.003
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253, 22 Dec, 15:49:51, 0.001
254, 22 Dec, 15:50:51, 0.001
255, 22 Dec, 15:51:51, 0.002
256, 22 Dec, 15:52:51, 0.002
257, 22 Dec, 15:53:51, 0.002
258, 22 Dec, 15:54:51, 0.002
259, 22 Dec, 15:55:51, 0.001
260, 22 Dec, 15:56:51, 0.002
261, 22 Dec, 15:57:51, 0.003
262, 22 Dec, 15:58:51, 0.001
263, 22 Dec, 15:59:51, 0.001
264, 22 Dec, 16:00:51, 0.001
265, 22 Dec, 16:01:51, 0.001
266, 22 Dec, 16:02:51, 0.001
267, 22 Dec, 16:03:51, 0.002
268, 22 Dec, 16:04:51, 0.001
269, 22 Dec, 16:05:51, 0.001
270, 22 Dec, 16:06:51, 0.000

271, 22 Dec, 16:07:51, 0.001
272, 22 Dec, 16:08:51, 0.037
273, 22 Dec, 16:09:51, 0.101
274, 22 Dec, 16:10:51, 0.069
275, 22 Dec, 16:11:51, 0.105

APPENDIX H

GROUNDWATER ELEVATION DATA

Appendix H
Groundwater Elevation Data
List of Figures

Figure I-1
Trimmer Road Landfill Site
Water Table Potentiometric Surface Map
December 16, 2004

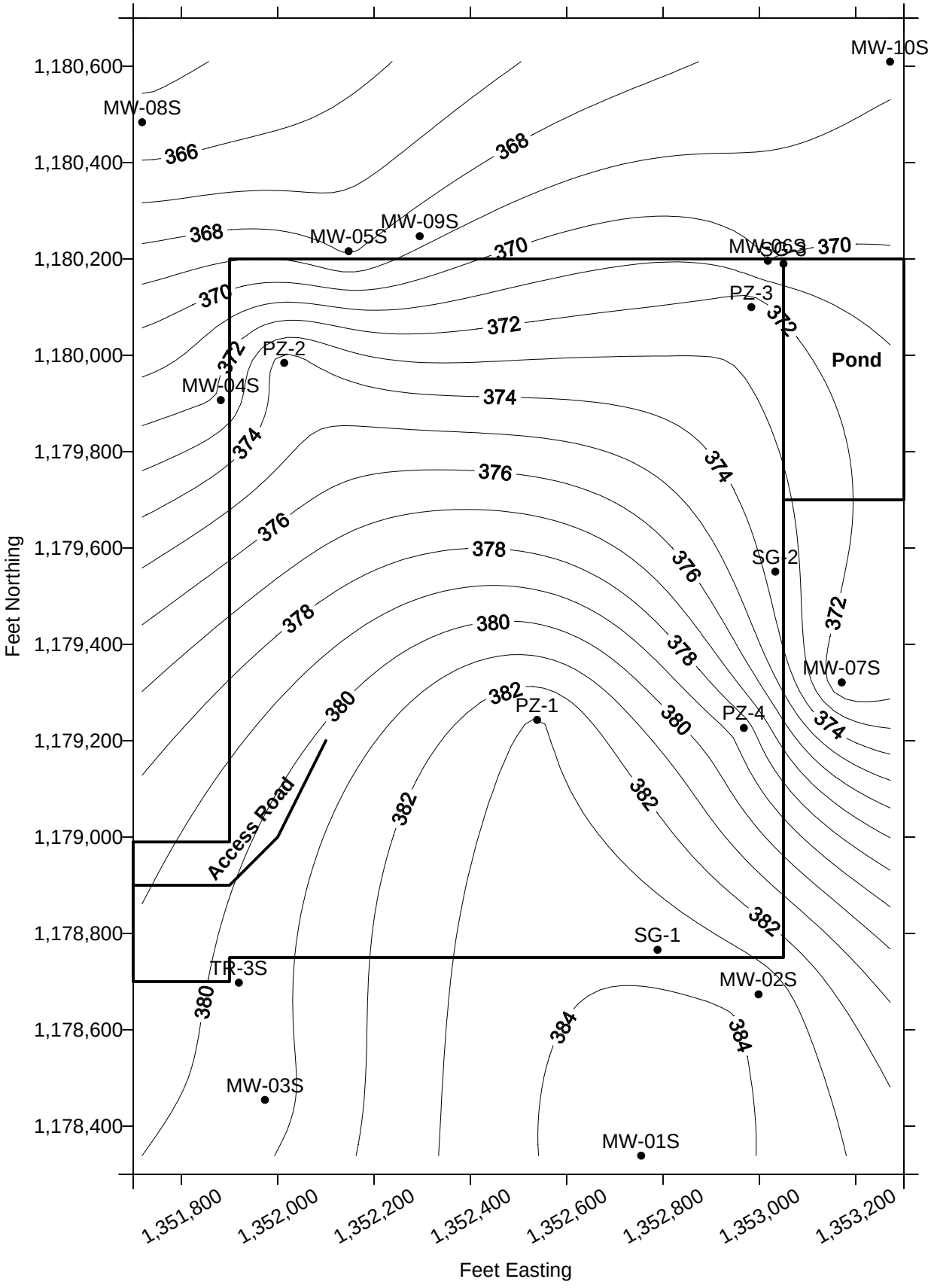


Figure I-2
Trimmer Road Landfill Site
Bedrock Well Potentiometric Surface Map
December 16, 2004

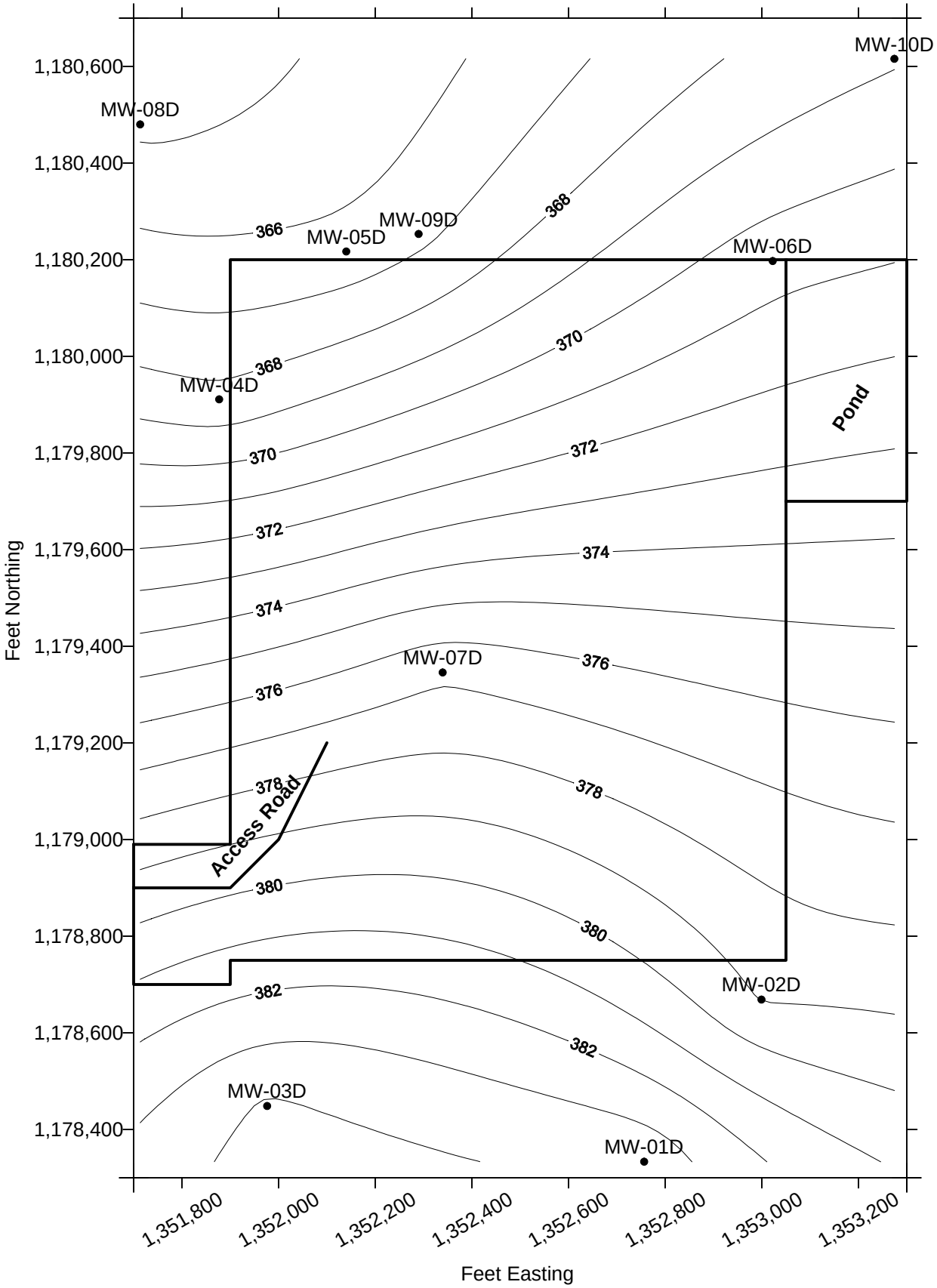


Figure I-3
Trimmer Road Landfill Site
Water Table Potentiometric Surface Map
March 10, 2005

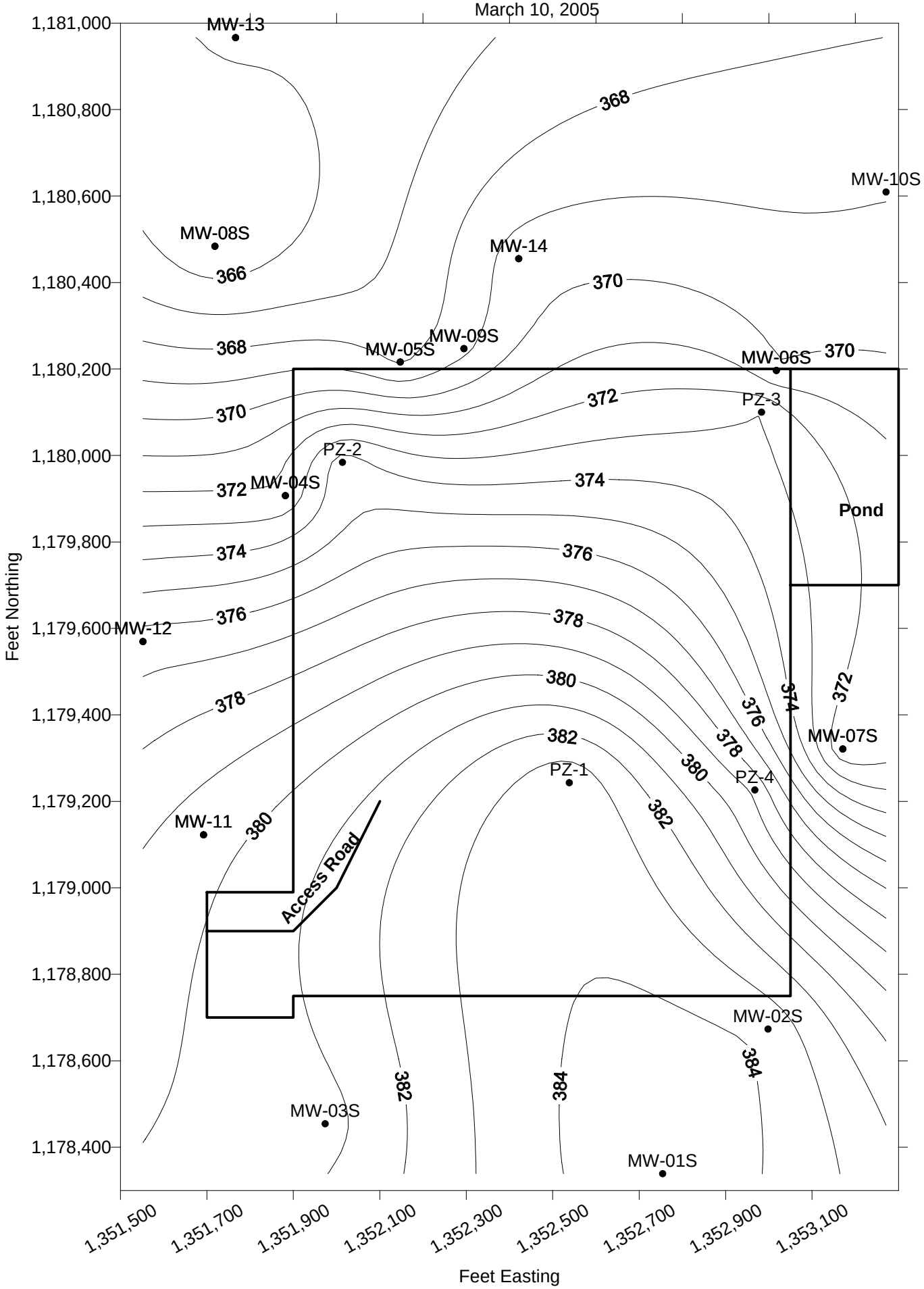
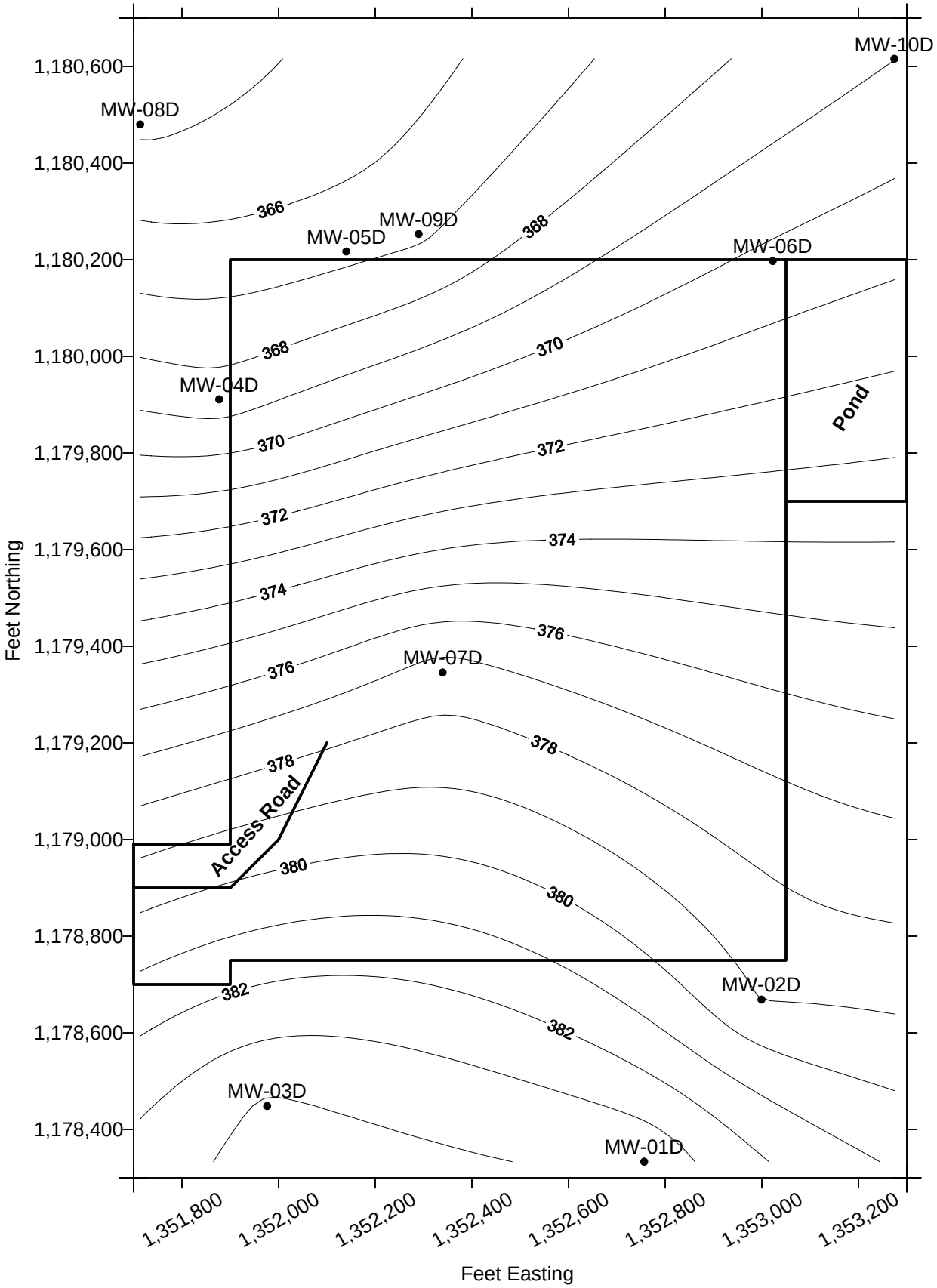


Figure I-4
Trimmer Road Landfill Site
Bedrock Well Potentiometric Surface Map
March 10, 2005



APPENDIX I

ANALYTICAL RESULTS

Appendix I
Analytical Results
List of Tables

TABLE 1a.
TRIMMER ROAD LANDFILL SITE
PRE-DESIGN INVESTIGATION
GROUNDWATER SAMPLE RESULTS - JANUARY 2005
VOLATILE ORGANIC COMPOUNDS

Sample Identification	MW-4S	MW-5S	MW-6S	MW-7S	MW-8S	MW-9S	MW-11	MW-12	MW-13	MW-14	Contract Required Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	02/05/05	01/20/05	01/20/05	02/05/05	01/20/05	01/20/05	01/20/05	01/20/05	01/20/05	01/20/05		
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Dichlorodifluoromethane	U	U	2 J	U	U	U	U	U	U	U	10	5 ST
Chloromethane	U	U	U	U	U	U	U	U	U	U	10	5 ST
Vinyl Chloride	**90**	**50**	U	U	U	**6 J**	U	U	**11**	U	10	2 ST
Bromomethane	U	U	U	U	U	U	U	U	U	U	10	5 ST
Chloroethane	U	**13**	2 J	U	U	**32**	U	U	5 J	U	10	5 ST
Trichlorofluoromethane	U	U	U	U	U	U	U	U	U	U	10	5 ST
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	10	5 ST
1,1,2-trichloro-1,2,2-trifluoroethane	U	U	U	U	U	U	U	U	U	U	10	----
Acetone	U	U	U	U	U	U	U	U	U	U	10	50GV
Carbon Disulfide	U	U	U	U	U	U	2 J	U	1 J	U	10	60GV
Methyl Acetate	U	U	U	U	U	U	U	U	U	U	10	----
Methylene Chloride	U	U	U	U	U	U	U	U	U	U	10	5 ST
trans-1,2-dichloroethene	3 J	1 J	U	U	U	U	U	U	U	U	10	5 ST
Methyl tert-Butyl Ether	U	U	U	U	U	U	U	U	U	U	10	10GV
1,1-Dichloroethane	U	1 J	U	U	U	**61**	U	U	**7 J**	U	10	5 ST
cis-1,2-Dichloroethene	**38**	**13**	U	U	U	**8 J**	U	U	**25**	U	10	5 ST
2-Butanone	U	U	U	U	U	U	U	U	U	U	10	50GV
Chloroform	U	U	U	U	U	U	U	U	U	U	10	7 ST
1,1,1-Trichloroethane	U	U	U	U	U	**6 J**	U	U	1 J	U	10	5 ST
Cyclohexane	U	U	U	U	U	U	U	U	U	U	10	----
Carbon Tetrachloride	U	U	U	U	U	U	U	U	U	U	10	5 ST
Benzene	**5 J**	**7 J**	**5 J**	U	U	**6 J**	U	U	U	U	10	1 ST
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	10	0.6 ST
Trichloroethene	U	U	U	U	U	4 J	U	U	4 J	U	10	5 ST
Methylcyclohexane	U	U	U	U	U	U	U	U	U	U	10	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	U	U	10	1 ST
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	10	50GV
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U	10	0.4 ST *
4-Methyl-2-Pentanone	U	U	U	U	U	U	U	U	U	U	10	----
Toluene	U	U	U	U	U	U	U	U	U	U	10	5 ST
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U	10	0.4 ST *
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	10	1 ST
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	10	5 ST
2-Hexanone	U	U	U	U	U	U	U	U	U	U	10	50GV
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	10	50GV
1,2-Dibromoethane	U	U	U	U	U	U	U	U	U	U	10	----
Chlorobenzene	**15**	**16**	**9 J**	U	U	**26**	U	U	1 J	2 J	10	5 ST
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	10	5 ST
Total Xylenes	U	U	U	U	U	U	U	U	U	U	10	5 ST
Styrene	U	U	U	U	U	U	U	U	U	U	10	5 ST
Bromoform	U	U	U	U	U	U	U	U	U	U	10	50GV
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	10	5 ST
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	U	U	10	5 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	U	U	10	3 ST
1,4-Dichlorobenzene	3 J	3 J	2 J	U	U	**5 J**	U	U	U	U	10	3 ST
1,2-Dichlorobenzene	U	U	U	U	U	1 J	U	U	U	U	10	3 ST
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	U	U	U	U	10	0.04 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	10	5 ST
Total VOCs	154	104	20	0	0	155	2	0	55	2		----
Total VOC TICs	71	94	121	0	0	88	0	0	13	7		----

QUALIFIERS:
U: Compound analyzed for but not detected
J: Compound found at a concentration below the CRDL, value estimated
D: Result is taken from reanalysis at a secondary dilution

NOTES:
*: Value pertains to the sum of the isomers
GV: Guidance Value
ST: Standard
----: Not established
Indicates value exceeds standard or guidance value.

TABLE 1b.
TRIMMER ROAD LANDFILL SITE
PRE-DESIGN INVESTIGATION
GROUNDWATER SAMPLE RESULTS - JANUARY 2005
INORGANIC PARAMETERS - FILTERED

Sample Identification	MW-4S	MW-5S	MW-6S	MW-7S	MW-8S	MW-9S	MW-11	MW-12	MW-13	MW-14	Instrument Detection Limit	NYSDEC Class GA Groundwater Standard or Guidance Value
Date of Collection	02/05/05	01/20/05	01/20/05	02/05/05	01/20/05	01/20/05	01/20/05	01/20/05	01/20/05	01/20/05		
Dilution Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Aluminum	18.9 B	14.1 B	U	U	U	25.2 B	U	69.2 B	U	U	6	----
Antimony	**4.3 B**	**6.8 B**	**7.4 B**	2.6 B	**7.7 B**	**6.5 B**	**3.9 B**	**5.5 B**	**7.2 B**	**5.4 B**	3	3 ST
Arsenic	20.0	13.5	**41.0**	U	U	13.2	4.2 B	3.3 B	U	8.1 B	3	25 ST
Barium	**1,450**	**1,400**	**1,380**	99.1 B	62.0 B	**1,550**	72.7 B	566	507	531	0.3	1,000 ST
Beryllium	U	U	U	U	U	U	U	U	U	U	0.3	3 GV
Cadmium	U	U	U	U	0.92 B	0.76 B	0.44 B	1.6 B	0.76 B	0.68 B	0.2	5 ST
Calcium	296,000	352,000	354,000	137,000	694,000	288,000	208,000	234,000	310,000	280,000	74	----
Chromium	3.6 B	U	U	0.45 B	U	1.5 B	U	U	U	U	0.4	50 ST
Cobalt	12.3 B	9.8 B	2.2 B	U	1.4 B	21.2 B	4.0 B	3.0 B	3.9 B	4.2 B	0.3	----
Copper	U	U	U	U	U	2.4 B	U	25.8	7.6 B	U	0.9	200 ST
Iron	**2,160**	**3,700**	**5,850**	22.5 B	233	**762**	**2,030**	62.3 B	32.9 B	**1,310**	3	300 ST ^
Lead	U	U	U	U	U	U	U	U	U	U	2	25 ST
Magnesium	**87,700**	**95,500**	**86,900**	20,700	**253,000**	**90,100**	**50,000**	**56,400**	**72,100**	**57,100**	6	35,000 GV
Manganese	**3,330**	**2,810**	**2,140**	17.8	169	**2,050**	**699**	**383**	279	**1,790**	0.5	300 ST ^
Mercury	U	U	U	U	U	U	U	U	U	U	0.1	0.7 ST
Nickel	52.5	62.4	29.1 B	1.1 B	6.7 B	83.3	10.4 B	8.0 B	26.7 B	17.9 B	0.5	100 ST
Potassium	38,700	29,300	11,400	980 B	14,200	83,400	12,400	21,200	34,000	16,700	58	----
Selenium	U	U	U	U	U	U	U	U	U	U	4	10 ST
Silver	U	U	U	U	U	U	U	U	U	U	2	50 ST
Sodium	**454,000**	**375,000**	**294,000**	16,500	**576,000**	**598,000**	**160,000**	**86,100**	**246,000**	**149,000**	45	20,000 ST
Thallium	**3.0 B**	**4.8 B**	**5.0 B**	U	U	**3.0 B**	U	**3.2 B**	U	U	3	0.5 GV
Vanadium	2.9 B	1.1 B	0.90 B	U	0.44 B	3.2 B	U	0.51 B	0.52 B	U	0.7	----
Zinc	7.6 B	4.4 B	14.0 B	4.0 B	U	2.1 B	3.1 B	5.0 B	7.9 B	4.1 B	2	2,000 GV
Cyanide	U	2.2 B	2.3 B	U	U	5.3 B	U	U	8.2 B	8.4 B	3	200 ST

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:
^: The combined standard for iron and manganese is 500 ug/l
GV: Guidance Value
ST: Standard
----: Not established
Indicates value exceeds NYSDEC Class GA groundwater standard or guidance value