US EPA RECORDS CENTER REGION 5
436375

2011 ANNUAL REPORT
POWELL ROAD LANDFILL

Prepared for:

WASTE MANAGEMENT OF OHIO, INC.

Prepared by:

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April 23, 2012

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TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1

2.0 ENVIRONMENTAL COVENANT 2

3.0 SITE SECURITY 3
- 3.1 Inspection 3
- 3.2 Corrective Action 3

4.0 FINAL COVER 4
- 4.1 Description 4
- 4.2 Maintenance 4
- 4.3 Inspection 5
- 4.4 Corrective Action 5

5.0 SURFACE-WATER DRAINAGE CONTROL AND FLOOD PROTECTION 6
- 5.1 Description 6
- 5.2 Maintenance 6
- 5.3 Inspection 7
- 5.4 Corrective Action 8

6.0 LEACHATE/CONDENSATE MANAGEMENT SYSTEM AND COMPRESSED AIR SUPPLY SYSTEM 8
- 6.1 Description 8
- 6.2 Operation 9
  - 6.2.1 Pneumatic Pumps 9
  - 6.2.2 Air Compressor 9
  - 6.2.3 Leachate Storage Tank 9
  - 6.2.4 Auto-Dialer 9
- 6.3 Maintenance 10
- 6.4 Inspection 10
- 6.5 Corrective Action 11
- 6.6 Leachate Levels 12
  - 6.6.1 Monitoring 12
  - 6.6.2 Results 13
  - 6.6.3 Corrective Action 14
- 6.7 Leachate Volume Monitoring 16
- 6.8 Leachate Quality Monitoring 16

7.0 LANDFILL GAS MANAGEMENT SYSTEM 17
- 7.1 Description 17
- 7.2 Operation 17

TABLE OF CONTENTS

7.2.1 Normal Operation 17
7.2.2 Downtime 18
7.3 Maintenance 18
7.3.1 Landfill Gas Header 19
7.3.2 Valves 19
7.3.3 Flare 19
7.3.4 Blower 20
7.4 Inspection 20
7.5 Corrective Action 21

8.0 LANDFILL GAS MIGRATION MONITORING SYSTEM 22
8.1 Description 22
8.2 Inspection 23
8.3 Corrective Action 23
8.4 Monitoring 23
8.4.1 Sampling 24
8.4.2 Results 24
8.4.3 Corrective Action 24

9.0 GROUND-WATER MONITORING SYSTEM 24
9.1 Description 24
9.2 Inspection 25
9.3 Corrective Action 26
9.4 Monitoring 26
9.4.1 Sampling 26
9.4.2 Results 27
9.4.3 Conclusions 27

10.0 EVALUATION OF THE REMEDIAL ACTION 27
10.1 Introduction 27
10.2 Evaluations 28

FIGURES

Figure 1. Landfill Gas/Leachate Extraction system
Figure 2. Monitoring System

APPENDICES

Appendix A. Environmental Covenant
Appendix B. 2011 Semiannual Progress Reports

TABLE OF CONTENTS

Appendix C. Post-Closure Quarterly Inspection Forms (and Related Systems Inspection and Maintenance Forms)
Appendix D. Auto-Dialer Call Out Summaries and Auto-Dialer Protocol
Appendix E. Landfill Gas and Condensate Collection Systems Maintenance Summary Reports
Appendix F. Blower/Flare Station Data Sheets
Appendix G. Wellfield Monitoring Data (Fluid Levels)
Appendix H. Leachate Hauling Data
Appendix I. Leachate Analytical Data Summary
Appendix J. Wellfield Monitoring Data
Appendix K. Downtime Reports
Appendix L. Sierra Monitor Inspection Reports
Appendix M. Gas Probe Monitoring Reports
Appendix N. Monitoring Well Integrity Reports
Appendix O. Ground-Water Quality Data Summaries

1.0 INTRODUCTION

This report is the 2011 Annual Report for Powell Road Landfill (PRL) in Montgomery County, Ohio. Included in this report are data on systems operation and maintenance, system and facility inspections, corrective actions, monitoring events and sampling results, and an evaluation of the effectiveness of each of the remedial action components.

Pursuant to the approved Remedial Design documents and the approved Operation and Maintenance (O&M) Plan, the remedial action components covered in this Annual Report include:

- Site Security,
- Landfill Cover,
- Surface-Water Controls,
- Landfill Gas Extraction/Treatment,
- Leachate/Condensate Extraction and Storage,
- Landfill Gas Monitoring, and
- Ground-Water Monitoring.

Remedial Action (RA) activities at PRL were conducted in accordance with the approved Powell Road Landfill O&M Plan, April 2002 revision. Semiannual RA Progress Reports were prepared by Waste Management and were submitted to U.S. EPA and Ohio EPA per the requirements of UAO's, V-W-98-C-466 and V-W-98-C-465 and per the frequency approved by U.S. EPA on May 10, 2004. Copies of the semiannual reports are included in Appendix B. Quarterly inspections were performed on March 22, 2011; June 24, 2011; September 28, 2011; and December 16, 2011. Copies of the quarterly inspection reports are included in Appendix C of this annual report.

2.0 ENVIRONMENTAL COVENANT

A new Environmental Covenant (EC) was developed for the Powell Road Landfill in 2010. The EC was recorded with the Montgomery County Recorder's office on September 29, 2010. A copy of the recorded EC was submitted to U. S. EPA on October 22, 2010. A copy of the EC document [text only] is included in Appendix A of this annual report. The title search and supporting documentation are not included herein. The Owner or any Transferee shall submit to U.S. EPA on an annual basis written documentation verifying that the activity and use limitations remain in place and are in compliance with the Environmental Covenant.

In accordance with Section 10 of the Environmental Covenant (Document SP-I-10-059281, Montgomery County, Ohio) for the Powell Road Landfill, Waste Management of Ohio, Inc., the owner of the Powell Road Landfill verifies that the activity and use limitations remain in place and are in compliance with the EC.

Date: 4/23/12

Robin Jones

District Manager, WMO

3.0 SITE SECURITY

Site access is controlled by perimeter fencing. All fencing has three strands of barbed wire on the top. The vehicle site entrance from Powell Road is secured with gates and locks. All other access points are gated and locked. Signs are posted on all gates at 200-foot intervals along the perimeter fence as a warning to potential trespassers. Quarterly inspections must include identification of fencing, barbed wire, gates, locks, and signs that require repair or replacement. Repairs are to be made as soon as practical after discovery.

3.1 Inspection

The site security systems were inspected once per quarter in 2011. Site security items that were inspected included condition of perimeter fencing, presence and condition of signs posted on gates and perimeter fencing, security of the site access road, and whether undesirable uses of the property were being prevented. The quarterly inspection forms are included in Appendix C.

For all four quarters, the inspectors determined that the security systems were performing as intended and were effective at preventing undesirable use or unauthorized access of the property.

3.2 Corrective Action

The March and June quarterly inspection reports indicated that four sections of perimeter fencing that were damaged due to trees and flooding. Repairs to the perimeter fence were made prior to the September inspection. Minor fence damage due to flooding was noted on the inspection forms for September and December. The observed damage did not affect the integrity of the perimeter fence so repairs were planned for early 2012.

On February 18, 2011 a technician noticed a USEPA sign on the ground. The sign was re-attached properly to the fence.

4.0 FINAL COVER

4.1 Description

The PRL landfill cover is constructed over the waste mass. The constructed landfill cover system includes (from bottom to top):

- A low permeability, compacted, soil barrier layer, with a minimum compacted thickness of 24 inches, constructed to limit surface-water infiltration into the waste mass,
- A grading layer placed over the soil barrier layer in areas where the surface of the placed/existing barrier grades were less than the required minimum 3 percent grade,
- A 12-inch thick granular drainage layer to drain infiltrated surface water off the soil barrier and grading layers to prevent unstable soil conditions from developing,
- A geotextile layer, placed over the granular drainage layer, to prevent overlying soils from clogging the drainage layer, and
- An 18-inch thick vegetative soil layer designed to sustain plant growth, reduce erosion, promote drainage, and provide frost protection.

4.2 Maintenance

Annual maintenance of the final cover system consists of mowing the grass at least two times per year. The landfill was mowed in July 2011. The site did not require mowing in September 2011.

4.3 Inspection

The final cover was inspected once per quarter in 2011. The purpose of the quarterly inspections is to identify and record on the inspection report any areas of sparse vegetation, areas where erosion has taken place in the form of surface scour or formation of rills or gullies, locations of any animal intrusions, and any areas which have settled enough to trap surface water.

Items evaluated and noted on the quarterly inspection form during quarterly inspections of the final cover include:

- Final cover erosion,
- Top slope good drainage,
- Side slope good drainage,
- Evidence of gas or leachate, and
- Vegetation quality and density.

The quarterly inspections indicated no problems with regard to erosion and drainage and there was no evidence of gas or leachate.

4.4 Corrective Action

The March and June inspections noted ground hog holes next to the well casings at extraction wells G/L-4, 6, 10, 11, 14, and 18. These holes were filled with rodent repellant and soil and were seeded in July 2011. A small area of sparse vegetation near well G/L-17 was noted during the March and June inspections. The area was seeded and graded in July 2011.

5.0 SURFACE-WATER DRAINAGE CONTROL AND FLOOD PROTECTION

5.1 Description

The surface-water drainage control system consists of diversion swales on the final cover, perimeter drainage channels, culverts, and stone riprap. Ditches and channels are grass-lined and are designed to handle flow from a 25-year, 24-hour storm. Riprap is provided where surface-water velocities cannot be controlled by vegetation alone. Corrugated steel culverts are used where a perimeter channel must cross an access road.

Due to the close proximity of the Great Miami River to the PRL, a flood protection system is necessary to protect the final cover system during flood events. The existing trees and vegetation surrounding the landfill and the vegetative cover of the landfill provide adequate erosion control for the 100-year flood and constitute the flood-protection mechanisms. Mature trees and brush that currently exist between the Great Miami River and the landfill reduce the velocity of floodwaters that might come in contact with the landfill. The vegetative cover installed on the landfill cap within the floodplain is a deep-rooted, flood-resistant seed mix. The root system of the established vegetative cover holds the landfill final cover soils in place during flooding.

5.2 Maintenance

The surface-water ditches and channels require mowing and, from time to time, reshaping to better control runoff. Ditches and channels are mowed on the same schedule as the landfill cover to control excess vegetation within the ditches. Ditches and channels are cleaned out as a corrective action when necessary. The ditches and channels were mowed in July 2011 and did not require mowing again in September.

Corrective actions which may be required for the drainage-control/flood-protection system include periodic removal of silt, repair of gravel roadways, and repair of eroded grass channels. If erosion occurs repeatedly in a specific area, a design engineer may be consulted to

determine if riprap is necessary. Any required final cover materials, riprap, vegetation, or culverts shall be obtained and placed in accordance with Technical Specifications in Section 6.0 of the O&M Plan.

5.3 Inspection

The surface-water drainage-control/flood-protection system was inspected once per quarter in 2011. Inspection reports and Surface Water Control Inspection Logs are included in Appendix C.

Items evaluated and noted on the quarterly inspection form for the surface-water drainage system are:

- Appropriate runoff controls,
- Diversion ditches,
- Perimeter ditches,
- Perimeter stone,
- Outlet structures, and
- Roads.

Items evaluated on the Surface-Water Control Inspection Log are:

- Erosion and sediment control measures,
- Non-structural practices including surface grading, vegetative cover, mulch, and channel riprap,
- Structural practices including silt fencing and ditch checks,
- Surface grading,
- Vegetative cover,
- Riprap channel lining,
- Discharge locations checked for sediment buildup, and
- Vehicles tracking sediment off-site.

5.4 Corrective Action

The quarterly inspection reports identified surface-water drainage items that needed attention in 2011. The March quarterly inspection report indicated that an area in the southwest corner of the landfill had washed out and needed to be lined with riprap. The berm on the south side of the landfill near GW-2 had also washed out. The discharge point to the creek on the east side of the landfill also washed out and needed re-lined with riprap. Repair work to the surface-water drainage system was completed in July 2011.

6.0 LEACHATE/CONDENSATE MANAGEMENT SYSTEM AND COMPRESSED AIR SUPPLY SYSTEM

6.1 Description

The leachate/condensate-extraction system consists of 3 leachate-extraction wells, 26 dual gas/leachate-extraction wells, well pumps, dual gas/leachate-header piping, 3 leachate/gas condensate-knockout sumps, 2 leachate/condensate-knockout pumps, force mains, a gravity leachate/condensate main, a leachate/condensate storage tank, and a load out facility and pump. Pneumatic pumps are installed in leachate/condensate Knockouts 1 and 2 and those leachate wells and dual leachate/gas-extraction wells which contain leachate in sufficiently recoverable quantities as defined by the approved Remedial Design. Leachate is pumped out of the wells and discharged into the dual gas/leachate header where it flows by gravity to one of three leachate/gas-condensate knockouts. At Knockouts 1 and 2, the accumulated liquid is pumped to a high point in the header piping system. From the high point, the liquid flows by gravity to Knockout 3. Leachate/gas condensate flows by gravity from Knockout 3 to the leachate storage tank. The landfill gas and leachate extraction systems are shown on Figure No. 1.

Well pumps and knockout pumps are pneumatically powered. An air compressor and associated equipment is housed in the Air Compressor Building, shown on Figure 1, located near

the Blower/Flare Station. From the compressor, a network of underground 2-inch diameter compressed air supply piping feeds each of the well and sump pumps.

6.2 Operation

6.2.1 Pneumatic Pumps

The knockout pumps and well pumps operate automatically when activated by liquid levels within the knockout or well. They are not expected to require adjustments to operate. The pump regulators are subject to freezing and need to be checked periodically during cold weather. The regulators and leachate discharge lines need to be thawed out, weather permitting, when they are found to be frozen.

6.2.2 Air Compressor

The air compressor is operated full-time when the leachate extraction system is in operation. All of the knockout pumps and well pumps are powered by compressed air. In the event of a high level alarm in the leachate/condensate storage tank, the air compressor is automatically shut down so that the pumps cannot pump any more leachate.

6.2.3 Leachate Storage Tank

The leachate storage tank contains level switches which signal the controller to activate notification lights and the auto-dialer. In the event of a high-level alarm, the controller shuts down the air compressor. The level switches, controls, and alarms for the leachate storage tank functioned properly in 2011 with only routine maintenance.

6.2.4 Auto-Dialer

The auto-dialer notifies individuals of tank-level information (1/2-full, 3/4-full, or full), air compressor system shutdown, and flare system shutdown according to a pre-programmed call

list and continues dialing until an individual acknowledges the call. The auto-dialer protocol was revised in January 2012 and is included in Appendix D. The auto-dialer functioned properly in 2011.

6.3 Maintenance

Maintenance for well pumps, knockout pumps, the air compressor, storage tank pump, auto-dialer, level switches, etc., is performed in accordance with the Maintenance Schedule in Appendix D of the O&M Plan or as maintenance requirements are identified during inspection or operation of the system. All maintenance is performed in accordance with the manufacturers' recommendations.

6.4 Inspection

The 30-year O&M Schedule included in Appendix D of the O&M Plan calls for quarterly inspections and checks of the leachate management system, and for semiannual cleaning of the flame arrestor on the vent for the leachate/condensate storage tank, and semiannual inspection of the compressed air distribution piping system for signs of leakage. The required inspections and maintenance activities have been performed in accordance with the O&M plan in 2011. Landfill Systems Equipment Inspection Reports are included in Appendix C and Landfill Gas and Condensate Collection Systems Maintenance Summary Reports are included in Appendix E. Compressor and sump inspection information also is included on the Blower/Flare Station Data Reports in Appendix F.

The system components inspected, evaluated, and noted on the quarterly inspection forms in Appendix C for the leachate/condensate management system and the compressed air supply system include:

- Collection sumps and risers
- Electrical components
- Mechanical components

- Extraction wells/pumps
- Storage tank
- Leachate loading pad
- Security of system
- Auto-dialer

The March quarterly inspection report indicated that wells G/L-7 and G/L-11 needed new air- supply lines installed from the 2-inch line to the regulators due to stretching. The June, September, and December quarterly inspection reports did not indicate any deficiencies for these system components in 2011.

6.5 Corrective Action

The following corrective actions were performed on the leachate management and compressed air supply systems in 2011.

- On January 13, 2011 the west side condensate sump was not pumping. It was discovered that the discharge line was frozen. After thawing the discharge line, the technician reinstalled the discharge hose and restarted the pump. The sump was then operating properly.

- On April 7, 2011 the technician replaced the quick-connect sample ports on the test port header risers on the east and west leachate condensate sumps. Sample ports were also replaced at G/L-1, 2, 3, 9, 17, and 18. Cycle counters were replaced at G/L-17 and 22. Air lines were replaced at G/L-7 and 11.

- On May 13, 2011 it was discovered that the east condensate sump pump was not cycling. The technician pulled the inoperable pump and replaced it with a working pump form G/L-13. The technician also noticed excess moisture in the air supply line. The regulator was removed and the moisture was cleared from the line. A water trap was installed in

the air line before the regulator to keep water in the air line from getting to the pump actuator.

- On June 3, 2011 the sample port at G/L-25 was replaced.
- On August 19, 2011 the cycle counter was replaced at G/L-14.
- On August 25, 2011 the cycle counter was replaced at G/L-23.
- On September 23, 2011 the casing of G/L-2 was found to be broken at the flange/reducer and the cam-lock cap was missing. The casing was repaired and the cap was replaced. The airline at G/L-11 was replaced.
- On September 26, 2011, the belts were replaced on the air compressor.
- The gas/leachate extraction system was shut down from December 1 through December 20, 2011 due to excessively high fluid levels caused by significant river flooding that was causing surging of the flare and excessive ignition cycling.
- On December 28, 2011, the technician noted that the channel #5 UST float alarm wasn't calling out when actuated. The problem was found to be due to faulty wiring between the auto-dialer and the floats. The wiring was temporarily repaired on December 28 and permanently repaired in January 2012.

6.6 Leachate Levels

6.6.1 Monitoring

Leachate levels were measured monthly in 2011 with the exceptions of January, May, and November and are recorded on the Well Field Monitoring Data sheets in Appendix G. The O&M Plan only requires quarterly monitoring. The purpose of leachate-level monitoring is to determine whether the leachate management system is effective at maintaining or reducing

leachate levels within the landfill and to evaluate whether sufficient recoverable depth of leachate is present in any of the wells that do not have leachate extraction pumps installed. "Recoverable depth" of leachate in a well is defined as 18 inches or more. If the amount of liquid in any well without a pump is determined to be more than 18 inches and remains above 18 inches for the next two months, under normal operating conditions, a leachate extraction pump will be installed in that well. *Normal operating conditions do not include operations during extreme weather conditions such as flooding or subzero temperatures.*

For background information on leachate-level monitoring prior to 2000 and information pertaining to initial pump installation and extraction pump operation and maintenance, refer to RA Technical Memorandum No. 7, "Leachate Pump Installations, Leachate Levels", dated January 11, 2000.

6.6.2 Results

Leachate levels in the extraction wells without pumps were below 18 inches (1.50 feet) during the four quarterly sets of measurements in March, June, September, and December 2011 with the following exceptions:

- L-1 had 2.30 feet of fluid on March 24, 2011, 2.50 feet of fluid on June 3, 2011, and 2.85 feet of fluid on December 29, 2011, but was below 1.00 feet (0.75 feet) on September 23, 2011 and on February 24, 2012.

- G/L-6 had 3.15 feet of fluid on March 24, 2011, 3.25 feet of fluid on June 3, 2011, 2.10 feet of fluid on September 23, 2011, 4.04 feet of fluid on December 29, 2011, and 1.25 feet on February 24, 2012.

- G/L-15 had 1.55 feet of fluid on March 24, 2011, 1.95 feet of fluid on June 3, 2011, 1.06 feet of fluid in G/L-15 on September 23, 2011, and 1.05 feet on February 24, 2012.

High leachate levels in March and June were due to high ground water and river stage related to flooding and are not representative of normal operating conditions, so extraction pumps were not installed at L-1 or G/L-15. High water levels also were responsible for the high leachate levels at G/L-6 during all four quarters in 2011. The precipitation total for 2011 was 56.74 inches, which is a record annual precipitation total for the area.

6.6.3 Corrective Action

- On February 18, 2011, the pump at well G/L-9 was not cycling. The pump could not be repaired in the field and was replaced with a site spare. The fluid levels were also above 18 inches at wells G/L-4, 8, 11, 13, 14, 17, 18, 22, 23, and 26. The technician noted that these pumps were not operating properly. A pump service was scheduled for a later date. River flooding was noted, likely contributing to the high liquid levels.

- On March 24, 2011, the technician noted a high liquid level in G/L-23 and the pump was not operating properly. Attempts to fix the pump at the well were unsuccessful. Further investigation of the problem was planned to determine if sludge in the well might be affecting performance of the pump. River flooding was noted, likely contributing to the high liquid levels.

- On April 21, 2011, the pumps at G/L-4 and G/L-9 were not cycling. The technician indicated that G/L-4 needed a new regulator and the pump at G/L-9 was scheduled for service. It was also noted that pumps at G/L-8 and G/L-18 were removed for service and were awaiting parts.

- On May 13, 2011, the pump at well G/L-7 was not cycling. The pump was pulled and a broken quick connect fitting on the air line was replaced. The technician indicated that G/L-4 still needs a new regulator and the pump at G/L-26 was not cycling and is scheduled for service. It was also noted that pumps at G/L-8 and G/L-18 were removed for service and were awaiting parts.

- On June 3, 2011, the pump in well G/L-10 was not working properly. An attempt was made to repair the pump at the well, but it would not work properly. Additional work was scheduled for the annual pump pulling event in July. Pumps at G/L-4, 8, 18, and 26 were still awaiting service and the pump at G/L-13 had not been replaced.

- On July 12, 2011, pumps were pulled and cleaned at wells G/L-1, 2, 3, 4, 7, 10, 11, 12, 14, 18, 19, 20, 21, 24, 25, and 26. Pumps were pulled and replaced at wells G/L-8, 13, 17, 23 and both sumps.

- On July 13, 2011, the following pump repairs were performed:

  G/L-1 - Missing bolts were installed on the flange adaptor.
  G/L-4 - The air regulator was replaced.
  G/L-11 - A 90° elbow to air regulator was installed.
  G/L-12 - Bolts were replaced on flange adaptor, a bracket was installed for the air regulator, and a compression fitting was installed in the blind flange.
  G/L-13 - A bracket for the air regulator was installed and a compression fitting was installed in the blind flange.
  G/L-15 - A new sample port and dust cap were installed on the lateral, and the Vanstone flange was replaced.
  G/L-16 - A new brass hose barb and dust cover were installed in the lateral.
  G/L-17 - Sample ports were replaced, a new compression fitting was installed on the regulator, and the broken cycle counter was hard-piped.
  G/L-23 - A kink in the air line was repaired.

- On August 19, 2011, a new pump with lengthened tubing was installed at G/L-23.

- On August 24, 2011, the pump in well G/L-23 was not pumping and was pulled and inspected. A build-up on the air poppet led to the cleaning of the air system.

- On August 25, 2011, the pumps at wells G/L-13, 21, and 26 were pulled, cleaned and replaced. The pump at G/L-18 was not working properly and was removed for service.

- On September 23, 2011, pumps were pulled at wells G/L-18, 21, 22, and 23 for cleaning and testing.

- On October 12 and 13, 2011, reconditioned pumps were placed in wells G/L-13, 18, 21, 22, and 23.

- On October 21, 2011, a high fluid level in well G/L-20 led to examination of the pump. A hole in the discharge line was noted by the technician. Two inches of tubing (at the hole) were removed and re-attached. The fluid was noted to be at the proper level a couple hours after the repairs had been made.

At the end of 2011, operable extraction pumps were installed in all of the extraction wells except G/L-5, 6, 15, and 16, and L-1, 2, and 3. Extraction pumps are not required for these wells due to low leachate levels. In addition to pump maintenance, five new extraction pumps were purchased in 2011.

6.7 Leachate Volume Monitoring

A monthly summary of the quantity of leachate hauled in 2011 is included in Appendix H. All leachate was removed from the site via tanker truck and was hauled by Veolia Industrial to the United Wastewater Treatment Facility for disposal. The total amount of leachate removed from PRL in 2011 was 290,900 gallons.

6.8 Leachate Quality Monitoring

The required annual leachate sample was collected and analyzed in May 2011 in accordance with Section 2.9 of the approved O&M Plan. Leachate analytical results are

summarized on Table I-1 in Appendix I. Only detected VOCs, SVOCs, pesticides, herbicides, and PCBs are listed on Table I-1. The leachate sample was analyzed for all the parameters of the approved reduced leachate monitoring analyte list. The analytical data on Table I-1 show consistency in the parameters detected with some variation in the detected concentrations between events.

7.0 LANDFILL GAS MANAGEMENT SYSTEM

7.1 Description

Landfill gas (LFG) is collected from a network of 26 dual gas/leachate extraction wells. The design allows for simultaneous extraction of gas and leachate from the landfill. A blower is used to create a vacuum within the headers and wells to extract the gas from the landfill. The collected landfill gas is conveyed through buried high-density polyethylene (HDPE) pipes (laterals) connected to a common buried main HDPE header. The landfill gas is conveyed to a flare for combustion. Condensate from the landfill gas extraction system is separated from the gas and combines with extracted leachate in three knockouts located at low points within the header system. The landfill gas and leachate extraction systems are shown on Figure 1.

7.2 Operation

The landfill gas extraction system includes the wells, wellhead assemblies, transmission piping and valves, blower, and flare. The landfill gas extraction system components need to be operated simultaneously to result in a balanced system.

7.2.1 Normal Operation

The gas/leachate wells are required to be monitored quarterly for oxygen content, percent methane, differential pressure (to determine flow), gas temperature, cover settlement and desiccation, vegetative stress, and the physical condition of the wellhead. These measurements

and observations are made in order to determine the overall physical condition and operating status of the gas well system.

Quarterly monitoring of the blower/flare station also is required for oxygen, methane content, gas temperature and flow rate, blower amps, flare temperature, and physical condition of equipment. These measurements and observations are made in order to determine the overall physical condition and operating status of the blower/flare station.

The system was inspected, monitored, and adjusted by gas system operations specialists from American Environmental Group, Ltd. once per month in 2011. Appendix J contains the Well Field Monitoring Data Reports for 2011. The reports document methane and oxygen concentrations, applied vacuum, and any adjustments made to the control valve for improving operations at each well. Blower/ Flare Station Data reports are included in Appendix F. These reports document vacuum, percent methane, percent oxygen, and total system flow in cubic feet per minute (cfm) at the blower/ flare station. The flare operates for 12 hours each day from 8:00 am to 8:00 pm. This operating cycle prevents flare outages due to insufficient gas flow and/or poor gas quality.

7.2.2 Downtime

Monthly downtime reports for the gas extraction and leachate/condensate management systems are included in Appendix K. The auto-dialer call-out summary reports that itemize the date and reason for each call-out and responses by the gas system contractor are included in Appendix D.

7.3 Maintenance

Maintenance for landfill gas header valves, the flare, and blower is carried out in accordance with the O&M Plan, as identified during inspection or operation of the system, and in accordance with the manufacturer's recommendations.

The 30-year O&M schedule included in Appendix D of the O&M Plan calls for the flare stack to be drained, the blower to be lubricated, and several checks on the system to be performed quarterly. In addition, the flame arrestor is to be cleaned semiannually. These maintenance activities were carried out in 2011. Other maintenance activities were performed as necessary in 2011 as described on the Landfill Gas and Condensate Collection System Maintenance Summary Reports in Appendix E.

7.3.1 Landfill Gas Header

Maintenance on the landfill gas header is expected to be minimal based on experience from other sites. The most typical concerns are crushing due to unexpected traffic or excavation, and water blockage due to settlement of waste. Since the landfill header is designed as a looped system, repair on an individual segment or leg would not impact the entire system. The repair area could be isolated by valves or temporary plugs. There were no landfill gas header system breaks or blockages in 2011.

7.3.2 Valves

The landfill gas transmission valves and valves at the wellheads are plastic. During inspections, the valve handles were turned to determine if each valve was operable. Excessive resistance could mean partial blockage of the valve. There were no operational problems with the valves in 2011.

7.3.3 Flare

Scheduled inspections of the flare are performed to monitor the physical condition of the stack metal and flame arrestor. The stack will be replaced when excessive corrosion or perforation of the metal stack is noted. No such deterioration has occurred. The flame arrestor is maintained in accordance with the manufacturer's requirements included in Appendix F-9 of the

O&M Plan. During each inspection, the drain plug at the base of the flare stack was opened and any accumulated condensate was collected and disposed in the leachate/condensate storage tank.

Maintenance of the area near the pad on which the flare is mounted includes removal of vegetation/weeds by spraying or cutting. Weeds and vegetation were removed throughout 2011. Concrete surface maintenance is limited to repairs on an as-needed basis.

7.3.4 Blower

An Aerovent Model 26/6-HPB-3500-15 high pressure, fan-type blower provides vacuum extraction to the well field and discharges the gas to a Landfill Gas Specialties flare package model PCF61816 utility flare for thermal destruction. The O&M Manual for the flare system is included in Appendix F-9 of the PRL O&M Plan.

7.4 Inspection

The landfill gas management system was inspected at least once per quarter in 2011 and inspection reports are included in Appendix C. The inspections were performed to identify gas system components in need of repair. The inspections included observation and operation of all system components to identify any damage and verify optimal operation.

The components of the landfill gas management system noted on the quarterly inspection forms include:

- Electrical components,
- Mechanical components,
- Extraction wells,
- Flare/blower operation, and
- Security of system.

Maintenance on the extraction wells is described in Section 5.6.3. No deficiencies were noted on the quarterly inspection forms in 2011.

7.5 Corrective Action

- On February 28, 2011, technicians noticed that the flare was operating in an erratic manner. The well-field was checked for any air leaks and some small air leaks were repaired, but the flare was still not operating properly. The actuator was removed, inspected, lubricated, and replaced and the flare resumed normal proper operation. The technician noticed water from the airline getting into the pump air inlet port and stalling condensate pump #2. A water trap was installed on the air line before the existing air regulator and another water trap to remove the excessive water found in the air line.

- On April 21, 2011, technicians noticed that the flare was operating in an erratic manner. The well-field was checked for any air leaks and some small air leaks were repaired, but the flare was still not operating properly. The actuator was removed, inspected, lubricated, and replaced and the flare resumed normal proper operation. The technician noticed water from the airline getting into the pump air inlet port and stalling condensate pump #2. A water trap was installed on the air line before the existing air regulator and another water trap to remove the excessive water found in the air line.

- On December 28, 2011, the flame arrestors were pulled, cleaned, and reinstalled.

8.0 LANDFILL GAS MIGRATION MONITORING SYSTEM

8.1 Description

The landfill gas migration monitoring system consists of Sierra monitors within structures and permanent gas monitoring probes near the property boundaries. The landfill gas monitoring system is shown on Figure 2.

Horizontal and vertical layout of the gas monitoring probes is based on site-specific geologic conditions. The gas probes are horizontally positioned outside the limits of waste and in line with off-site structures. Their depths were determined based on the estimated bottom of refuse elevation in the landfill and the ground-water elevation.

The landfill gas migration monitoring system includes six permanent gas monitoring probes (GP-1 through GP-6). These probes are located along the north and northeast perimeters of the landfill as shown on Figure 2. The installation of the six gas probes is documented in a report titled, "Perimeter Gas Monitoring Probe Construction Report," February 2000, prepared by SCS Engineers, and is included in Appendix E of the Explosive Gas Monitoring Plan (October 2000).

The landfill gas migration monitoring system at Powell Road Landfill also includes two Sierra Model 2001 Combustible Gas Monitors. One is installed in the house located at 4010 Powell Road. The other is located within the Compressor Building. The monitors continuously check atmospheric concentrations of combustible gas with a trigger level of 1 percent v/v (20 percent LEL). If the trigger level is reached or exceeded, both audio and visual alarms alert the occupants to the presence of elevated levels of combustible gas within the structure. (Occupants would then follow the instructions included in the "Residential Emergency Procedure", included in Appendix F of the Explosive Gas Monitoring Plan as Exhibit 10.)

8.2 Inspection

The landfill gas migration monitoring system was inspected at least once per quarter in 2011. The quarterly inspections were performed to identify any system components in need of repair. Inspection reports in Appendix C did not note any deficiencies. The Sierra Combustible Gas Monitors also were inspected quarterly and copies of the inspection forms are included in Appendix L.

8.3 Corrective Action

No corrective actions were required in 2011.

8.4 Monitoring

Landfill gas monitoring was performed in accordance with the approved explosive gas monitoring plan. Each monitoring station must be monitored at the following minimum frequencies:

1. Quarterly monitoring, for a minimum of 1 year following approval of the Explosive Gas Monitoring Plan.

2. Semiannually thereafter until released from the requirement by the Director of the Ohio EPA in accordance with OAC 3745-27-12(L) and with the approval of the U.S. EPA.

Gas monitoring at the site follows safety and procedural methods included in the "Standard Monitoring Procedures" portion of the Explosive Gas Monitoring Plan.

8.4.1 Sampling

Sampling of the landfill gas monitoring probes was performed quarterly in 2011. The following information was recorded:

1. Percent methane,
2. Gas pressure in the probe,
3. Water level in the probe,
4. Ambient barometric pressure, and
5. Observed weather conditions at the time of sampling.

The results are recorded on the Permanent Gas Probe Monitoring Reports included in Appendix M.

8.4.2 Results

Pressure readings ranging from -15.06 to 3.27 inches w.c. were recorded in 2011 as noted on the monitoring reports. No methane was detected and there were no alarms from the Sierra Combustible Gas Monitors.

8.4.3 Corrective Action

No corrective actions were required in 2011.

9.0 GROUND-WATER MONITORING SYSTEM

9.1 Description

The ground-water monitoring system at PRL consists of 19 monitoring wells for the collection of ground-water samples and five monitoring wells that are used only for measurement of ground-water levels. The monitoring well locations are shown on Figure 2.

Ground-water monitoring wells MW02AR, MW04AR, MW05AR, MW07AR, MW16A, MW17A, and MW18A are downgradient site monitoring wells completed in the shallow zone north of the Great Miami River. MW07AR is used only for water-level measurements. MW12A is an upgradient well completed in the shallow zone.

Monitoring wells MW02B, MW04BRR, MW05BR, MW16B, MW17B, and MW18B are downgradient monitoring wells completed in the primary aquifer north of the Great Miami River. Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are primary aquifer monitoring wells south of the Great Miami River. MW12B is the upgradient primary aquifer monitoring well.

Monitoring wells MW3S, MW3D, MW4S, and MW4D are shallow and deep primary aquifer well pairs that belong to the City of Dayton. These wells are used only for ground-water level measurements.

The purpose of the ground-water monitoring program is to generate data that can be used to evaluate the effectiveness of the containment components of the remedial action at reducing risks and achieving cleanup levels in the ground water in the shallow zone adjacent to PRL. The program also monitors for changes in ground-water flow and potential migration of contaminated ground water from the site.

9.2 Inspection

The ground-water monitoring system was inspected once per quarter in 2011 and the quarterly inspection forms are included in Appendix C. The purpose of the quarterly inspections is to identify any system components in need of repair.

Items evaluated during the quarterly inspections are:

- Construction integrity,
- Security of wells, and

- Identification of wells.

None of these items required attention during 2011.

The ground-water monitoring system was also inspected during ground-water monitoring events. Monitoring Well Integrity Reports are included in Appendix N for inspections conducted on May 2 and October 10, 2011. The report form includes 22 questions in four categories. The categories are:

- Location/Identification
- Surface Seal
- External Casing
- Internal Casing

An explanation of items marked "no" on the inspection forms is included with each form in Appendix N. All items marked "no" were either unavoidable or done on purpose as explained in the appendix. There were no items marked indicating damage or poor physical condition of ground-water monitoring wells in 2011.

9.3 Corrective Action

The ground-water monitoring system did not require any corrective action in 2011.

9.4 Monitoring

9.4.1 Sampling

Ground-water samples were collected from site ground-water monitoring wells in May and October 2011, in accordance with the site-specific Ground-Water Monitoring Plan (Appendix H to the O&M Plan). During each ground-water monitoring event, samples were

collected and analyzed for the parameters required for regular semiannual monitoring and additional parameters for monitored natural attenuation.

9.4.2 Results

Ground-water quality results for the Powell Road Landfill are summarized in Appendix O on Tables O-1 (VOCs), O-2 (Metals), and O-3 (Wet Chemistry Analytes). The validated data plus trend plots for the 2011 ground-water monitoring events were submitted to the Agencies in separate data reports. Non-CLP analyses were done by TestAmerica (fka Severn Trent Laboratories). Data validation was performed by Eagon & Associates, Inc., in accordance with the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004", "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999", and the TestAmerica method SOPs.

9.4.3 Conclusions

The ground-water study report, submitted to the Agencies in January 2003, and the 2008 update to the ground-water study report submitted in April 2008, demonstrated that the containment components of the remedial action, in conjunction with natural attenuation, have been and continue to be effective at reducing concentrations of volatile organic compounds in ground-water downgradient of PRL. The results of the 2008 second five-year review by U.S. EPA supported the conclusions of the 2008 ground-water study report. Ground-water monitoring results from 2011 generally show declining or stable trends in VOC concentrations and reduction of overall ground-water risks.

10.0 EVALUATION OF THE REMEDIAL ACTION

10.1 Introduction

The purpose of this section is to report on the effectiveness of the remedial action components at meeting the design goals and protecting human health and the environment at

Powell Road Landfill in 2011. The remedial action components covered in this Annual Report include:

- Site security,
- Final cover,
- Surface-water drainage and flood control,
- Leachate/condensate management system,
- Landfill gas management system,
- Landfill gas migration monitoring, and
- Ground-water monitoring.

10.2 Evaluations

In this section, each of the above components is evaluated as to its effectiveness in meeting performance standards in 2011.

The site security system was effective at preventing undesirable access or use of the site.

The final cover system was effective in reducing infiltration of surface water into the waste mass.

Surface-water drainage was maintained to effectively route water off the final cover system so that ponding did not occur and infiltration of surface water into the final cover was minimized. The flood protection system was maintained to reduce the erosive effects of flooding of the Great Miami River on the landfill. Mature trees, brush, and grasses located between the landfill and the river were not disturbed or mowed in 2011 so as to maintain the natural buffers which reduce the velocity of flood waters that came in contact with the landfill. The vegetative cover installed on the lower reaches of the landfill is a deep-rooted flood-resistant seed mix which was maintained in 2011 to hold the final cover soils in place during flooding.

The leachate/condensate management system was effective at reducing leachate levels within the landfill. Approximately 290,900 gallons of leachate were removed from the PRL in 2011. Much of the leachate was extracted during times when ground-water levels were extremely high due to high precipitation amounts and flooding of the Great Miami River.

The landfill gas management system was maintained to effectively remove and combust landfill gas from the PRL such that migration of combustible concentrations of methane gas did not occur.

The landfill gas migration monitoring system was properly maintained and monitored in 2011. There were no methane detections at the gas monitoring probes and there were no alarms from the Sierra monitors.

The ground-water monitoring system was maintained and ground-water samples were collected and analyzed in May and October 2011 in accordance with the site-specific Ground-Water Monitoring Plan. The update to the ground-water study report submitted to the Agencies in 2008 demonstrated that the containment components of the remedial action, in conjunction with natural attenuation, have been effective at reducing concentrations of VOCs and reducing overall ground-water risks in ground-water downgradient of PRL. The second five-year review by U.S. EPA in 2008 agreed with the conclusions of the ground-water study. Ground-water monitoring results from 2011 showed declining to stable VOC concentrations and reduction of risks from ground water.

In summary, the remedial action components at Powell Road Landfill were effective at meeting the performance standards in 2011.

FIGURES

LEGEND

- LEACHATE WELL
- GAS LEACHATE WELLS
- GAS CONTROL VALVE
- GAS SUMPS (KNOCKOUTS)
- OLD CHAIN LINK FENCE
- NEW 6' HIGH, CHAINLINK FENCE
- GRAVEL ROADS
- TREES (NEW)
- UNDG. ELECTRIC
- UNDG. TELEPHONE
- WASTE LIMIT
- PROPERTY LINE

GAS / LEACHATE WELL CONSTRUCTION SUMMARY
POWELL ROAD LANDFILL

Well Number	Survey Coordinates Northing	Survey Coordinates Easting	Top of Casing Elevation (feet MSL)	Ground Elevation (feet MSL)	Stick Up (feet)	Total Depth (feet TOC)	Gas Screen Interval (feet TOC)	Leachate Screen Interval (feet TOC)
G/L-1	671624.1	1502093.2	792.82	786.7	6.1	41.90	22.9–35.9	36.4–41.4
G/L-2	671622.8	1501871.2	795.38	789.3	6.1	43.55	20.0–31.0	33.0–43.0
G/L-3	671643.7	1501652.3	797.89	791.8	6.1	46.35	20.8–25.8	27.8–45.8
G/L-4	671686.7	1501397.5	786.50	780.7	5.8	36.60	21.1–24.1	26.1–36.1
G/L-5	671886.1	1501446.7	794.83	788.7	6.1	40.80	23.3–33.3	35.3–40.3
G/L-6	672086.2	1501459.0	791.99	786.1	5.9	39.95	22.4–32.4	34.4–39.4
G/L-7	672291.3	1501460.7	793.85	787.8	6.1	39.90	18.9–23.9	25.9–39.4
G/L-8	672469.5	1501471.2	793.52	787.2	6.3	40.95	20.4–33.4	35.4–40.4
G/L-9	672446.2	1501650.3	792.26	786.1	6.2	41.15	20.6–33.6	35.6–40.6
G/L-10	672426.5	1501867.5	794.93	788.6	6.3	43.70	23.2–36.2	38.2–43.2
G/L-11	672394.6	1502098.6	795.70	789.8	5.9	44.75	21.2–37.2	39.2–44.2
G/L-12	672340.2	1502308.3	797.92	792.2	5.7	47.40	20.6–39.9	41.9–46.9
G/L-13	672292.3	1502540.3	796.06	790.0	6.1	47.60	21.1–40.1	42.1–47.1
G/L-14	672068.2	1502675.9	788.55	782.9	5.6	36.20	20.7–28.7	30.7–35.7
G/L-15	671852.0	1502733.8	791.33	785.6	5.7	40.25	21.7–32.7	34.7–39.7
G/L-16	671662.8	1502762.2	787.75	781.8	6.0	37.40	—	20.9–36.9
G/L-17	671638.5	1502564.4	790.18	784.4	5.8	37.85	21.3–28.3	30.3–37.3
G/L-18	671623.9	1502310.2	789.62	784.0	5.6	39.20	20.7–31.7	33.7–38.7
G/L-19	671891.8	1502155.5	808.18	802.0	6.2	55.50	—	31.0–55.0
G/L-20	671883.1	1502448.9	800.58	794.6	6.0	41.90	28.2–34.4	36.4–41.4
G/L-21	672110.5	1502381.0	802.46	796.0	6.5	54.40	30.7–41.9	43.9–53.9
G/L-22	672150.2	1502152.1	805.88	799.7	6.2	53.95	29.9–46.4	48.4–53.4
G/L-23	672146.5	1501914.1	807.40	801.4	6.0	52.60	31.1–35.1	37.1–52.1
G/L-24	672189.2	1501695.1	804.02	797.8	6.2	50.90	29.4–43.4	45.4–50.4
G/L-25	671904.8	1501643.1	806.44	800.6	5.8	52.75	30.7–35.7	37.7–51.7
G/L-26	671886.3	1501671.9	810.93	804.8	6.1	60.85	38.3–53.3	55.3–60.3
L-1	672250.8	1502199.5	799.48	795.8	3.7	46.60	—	28.6–46.1
L-2	672240.1	1502405.1	799.71	795.5	4.2	47.50	—	27.5–47.5
L-3	672213.9	1502609.2	786.29	782.7	3.6	29.10	—	18.9–28.6

BLOW-UP / FLARE PAD AREA

BLOW-UP / TANK PAD AREA

0 50' 100' 200'

REV	DATE	DESCRIPTION	DR BY	APP BY
3.	5-05-06	WELL TABLE MODIFIED BY EAGON & ASSOCIATES, INC.		
2.	5-26-00	LABELING OF HOUSE, DECON PAD & MAIN GATE		
1.	5-26-00	4" PVC FROM KO-3 TO TANK		

COLLINS-SADDLER & ASSOCIATES
ENGINEERS – SURVEYORS
AERIAL SURVEYS
1599 NORTH CENTRAL DRIVE
DAYTON, OHIO 45432
(937) 426-8545

DES BY		PROJECT NO. 88-1525 DATE: MAY 2006
DRN BY	BDK	PROJECT: REMEDIAL ACTION CONSTRUCTION RECORD DRAWINGS - POWELL ROAD LANDFILL
CHK BY		DRAWING TITLE: LANDFILL GAS/LEACHATE EXTRACTION SYSTEM
ERV BY		
GRV BY		
APP BY		

WASTE MANAGEMENT OF OHIO
POWELL ROAD LANDFILL
MONTGOMERY COUNTY, OHIO

FILE NO.
DRAWING NO. 1

C: ACADDRWG\POWELL\DWG6-REV.DWG 03/13/2012

LEGEND

- OLD CHAIN LINK FENCE
- NEW 6' HIGH, CHAINLINK FENCE
- SILT FENCE
- DIVERSION DITCHES
- GRAVEL ROADS
- TREES (NEW)
- ROCK RIP RAP
- MW5BR — GROUND WATER MONITORING WELLS
- GP1 — GAS PROBES
- WASTE LIMIT
- PROPERTY LINE

SCS CONSTRUCTION SUMMARY
POWELL ROAD LANDFILL

Probe Number	Survey Coordinates Northing	Survey Coordinates Easting	Surface Elevation (feet MSL)	Bottom of Probe (feet MSL)	Probe Depth (feet)	Screen Length (feet)
GP-1	672808.76	1501516.30	768	747	21	13
GP-2	672759.51	1501889.26	771	747	24	16
GP-3	672806.10	1502345.49	762.5	747	15.5	7.5
GP-4	672734.51	1502696.99	765	747	18	10
GP-5	672464.68	1502766.25	760	747	13	5
GP-6	672252.75	1502866.39	763	747	16	8

GROUND-WATER MONITORING SYSTEM CONSTRUCTION DETAILS
POWELL ROAD LANDFILL

Well Number	UTM Coordinates Northing	UTM Coordinates Easting	Gradient	Measuring Point Elevation (feet MSL)	Well Depth TOC (feet TOC)	Screen Interval (feet TOC)	Ground Elevation (feet MSL)
MW02AR	671406.36	1501336.19	Down	759.14	20.5	10.0–20.0	756.5
MW02B	671408.64	1501326.32	Down	759.39	58.5	53.5–58.5	756.7
MW04AR	671443.61	1502316.61	Down	756.62	20.5	10.0–20.0	754.2
MW04BRR	671441.60	1502306.82	Down	756.48	61.1	55.9–60.9	754.1
MW05AR	671451.03	1502896.31	Down	755.99	20.2	9.7–19.7	753.2
MW05BR	671451.40	1502907.09	Down	755.79	52.4	46.9–51.9	753.4
MW07AR*	671882.86	1501170.49	Down	761.51	22.9	12.4–22.4	759.1
MW12A	672869.46	1502343.25	Up	766.12	22.0	12.0–22.0	762.0
MW12B	672859.20	1502352.50	Up	763.55	49.6	44.4–49.4	761.6
MW13B	670457.65	1501815.11	Down	758.85	70.0	65.0–70.0	756.0
MW13C	670450.06	1501818.81	Down	758.27	115.2	110.2–115.2	756.0
MW14B	670535.07	1502338.76	Down	759.81	90.0	85.0–90.0	757.5
MW15B	670873.86	1502774.93	Down	762.46	50.3	45.3–50.3	759.5
MW15C	670867.52	1502763.78	Down	762.71	121.5	116.5–121.5	760.0
MW16A	671499.54	1502560.23	Down	756.95	19.6	9.6–19.6	754.5
MW16B	671500.24	1502569.13	Down	756.89	38.2	33.2–38.2	754.0
MW17A	671388.23	1501996.35	Down	757.15	20.0	9.5–19.5	754.6
MW17B	671387.04	1501985.84	Down	756.55	59.3	54.1–59.1	754.4
MW18A	671340.89	1501644.47	Down	758.23	20.1	9.6–19.6	756.0
MW18B	671338.44	1501654.37	Down	758.25	62.5	57.3–62.3	756.0
MW3S**	672353.29	1501251.91	Side	759.91	55.6	45.6–55.6	759.1
MW3D**	672280.58	1501233.07	Side	760.28	132.4	122.4–132.4	759.1
MW4S**	671662.78	1501164.77	Side	760.04	49.3	39.3–49.3	759.2
MW4D**	671643.74	1501196.25	Side	760.91	127.2	117.2–127.2	759.2

* Well to be used for water-level measurements only

** City of Dayton monitoring well

0 50' 100' 200'

REVISION 1

1. ADDED 0 TO WELL No.'s MW02B, MW02AR, MW04AR MW04BRR, MW05AR, MW05BR & MW07AR REVISED ELEVATIONS OF CITY OF DAYTON WELLS MW3S, MW3D, MW4S & MW4D

REV	DATE	DESCRIPTION	DR BY	APP BY
2.	5-05-08	WELL TABLE MODIFIED BY EAGON & ASSOCIATES, INC.		
1.	5-26-00	SEE NOTE #1 TO LEFT		

DES BY
DRN BY BDK
CHK BY
ERV BY
GRV BY
APP BY

PROJECT NO. 98-1525 DATE: MAY 2008

PROJECT: REMEDIAL ACTION CONSTRUCTION RECORD DRAWINGS – POWELL ROAD LANDFILL

DRAWING TITLE: MONITORING SYSTEM

COLLINS-SADDLER & ASSOCIATES
ENGINEERS – SURVEYORS
AERIAL SURVEYS
1589 NORTH CENTRAL DRIVE
BEAVERCREEK, OHIO 45432
(937) 426-8145

WASTE MANAGEMENT OF OHIO
POWELL ROAD LANDFILL
MONTGOMERY COUNTY, OHIO

FILE NO.

DRAWING NO. 2

C:\ACADDRWG\POWELL\DWG5-REV.DWG 03/13/2012

APPENDIX A.

ENVIRONMENTAL COVENANT

$5,292.00 09/29/10 11:07:44
SP-I-10-059281 0660
Montgomery County
Willis E. Blackshear Recorder

ENVIRONMENTAL COVENANT

Affecting 75.258 Acres of Land, Wayne Twp., Montgomery County, OH

Commonly known as the Powell Road Landfill Site

DOCUMENT DATED:	June 21, 2010
COVENANTOR, OWNER AND HOLDER:	WASTE MANAGEMENT OF OHIO, INC., an Ohio corporation
LEGAL DESCRIPTION & ALTA/ACSM SURVEY:	Attached as Exhibit A to Environmental Covenant
DEED REFERENCE:	I.R. Deed No. 08-081942
PREPARED BY:	Rachel A. Schneider, Esq. QUARLES & BRADY, LLP 411 East Wisconsin Avenue, Suite 2040 Milwaukee, WI 53202-4497
AFTER RECORDING, MAIL TO:	WASTE MANAGEMENT OF OHIO, INC. C/o Deborah Nendick, Real Estate Department 720 East Butterfield Road, 4th Floor Lombard, IL 60148

To be recorded with Deed
Records – ORC § 317.08

ENVIRONMENTAL COVENANT

This Environmental Covenant is entered into by Waste Management of Ohio, Inc. ("WMOI"), an Ohio corporation ("Owner"), and WMOI ("Holder") pursuant to Ohio Revised Code ("ORC") §§ 5301.80 to 5301.92, for the purpose of subjecting the Property (as defined herein) to the activity and use limitations and to the rights of access set forth herein.

WHEREAS, Owner is the owner of certain real property consisting of parcels of land situated in Wayne Township, Montgomery County, Ohio and legally described in Exhibit "A" hereto (collectively referred to herein as the "Property"); and

WHEREAS, the Property comprises the former Powell Road Landfill Site ("Site"), encompassing approximately 76 acres, located at 4060 Powell Road, Huber Heights, Wayne Township, Montgomery County, Ohio, where the storage, and/or disposal of hazardous substances, and/or the discharge into waters of the state of industrial waste and/or other waste may have occurred; and

WHEREAS, pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, the United States Environmental Protection Agency ("U.S. EPA") placed the Site on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register, 49 Fed. Reg. 37070, 37085 (Sept. 21, 1984); and

WHEREAS, pursuant to certain orders from the U.S. EPA, as identified on Exhibit "B", Owner has undertaken certain investigation and remedial activities to address identified risks; and

WHEREAS, following Owner's completion of the Remedial Investigation/Feasibility Study, U.S. EPA issued its Record of Decision ("ROD") on September 30, 1993, documenting threats and contaminants including: methane and volatile organic compounds ("VOCs") in landfill gases, VOCs, semi-VOCs and inorganic compounds in landfill leachate, semi-VOCs in surface and near-surface soils, and VOCs in the shallow and primary aquifers; and

WHEREAS, the cleanup actions selected in the ROD included excavation and consolidation of contaminated soils, groundwater monitoring, storm water and flood controls, active landfill gas collection and treatment, groundwater extraction and treatment, leachate extraction and treatment, and institutional controls; and

WHEREAS, an Explanation of Significant Differences was signed in January 1997, which provided for delay in the construction of a groundwater pump and treat system in order to continue to evaluate steady and improving groundwater quality trends; and

WHEREAS, the construction of the ROD remedy was completed in January 2000 with landfill gas, leachate collection and treatment, and groundwater monitoring continuing post-construction; and

WHEREAS, the administrative record for the Site is located at Ohio EPA's Southwest District Office, 401 East 5th Street, Dayton, Ohio 45402 and U.S. EPA Region 5, 77 West Jackson Street, Chicago, Illinois 60606; and

WHEREAS, the Owner is alleged to be liable as a potentially responsible party under CERCLA, as amended, 42 U.S.C. § 9601 et seq. with respect to the Property; and

WHEREAS, it is necessary to impose certain activity and use limitations on the Property as stated herein for the purpose of protecting human health and the environment.

NOW THEREFORE, Owner and U.S. EPA agree to the following:

1. Environmental Covenant. This instrument is an environmental covenant developed and executed pursuant to ORC §§ 5301.80 to 5301.92.

2. Property. This Environmental Covenant concerns approximately 76 acres of real property in Wayne Township, Montgomery County, Ohio and more particularly described in Exhibit "A" attached hereto and hereby incorporated by reference herein.

3. Owner. Waste Management of Ohio, Inc., an Ohio corporation is the owner of the Property.

4. Holder. Waste Management of Ohio, Inc., is the Holder of this Environmental Covenant.

5. Activity and Use Limitations. In order to facilitate the implementation of future operation, monitoring and maintenance work by U.S. EPA and/or Owner, and to protect human health and the environment, Owner hereby imposes and agrees to comply with the following activity and use limitations:

A. No water wells, other than remedial or monitoring wells, shall be installed on any part of the Property. Groundwater located at or underlying any part of the Property shall not be used for any purpose, potable or otherwise, except for groundwater remediation, monitoring or investigation.

B. The Property shall not be used for Residential Activities. The term "Residential Activities" shall include but not be limited to the following:

i. Single and multi-family dwelling units (both owner-occupied and rental);
ii. Day care centers;
iii. Hotels, motels and rooming houses;
iv. Correctional facilities and detention centers;
v. Transient or other residential facilities;
vi. Elementary and secondary schools; and/or
vii. Hospitals.

C. The Property shall only be used:

i. for purposes consistent with commercial/retail, light industrial, and limited recreational uses such as walking trails, ball fields and other activities that will not disturb or compromise the landfill cap; or

ii. in a manner that does not interfere with the investigation, monitoring or remediation activities described in the Orders, and that is consistent with the remedy.

D. There shall be no drilling, digging, building, or installation, construction, removal or use of any buildings, wells, pipes, roads, ditches, or any other structures that will disturb or compromise the landfill cap, unless associated with operation and maintenance of the remedy.

In the event that any action on the Property constitutes a violation of these activity and use limitations, Owner or Transferee, as defined herein, shall notify U.S. EPA within thirty (30) days of becoming aware of the event or action, and Owner or Transferee shall remedy the violation of the activity and use limitations within sixty (60) days of becoming aware of the event or action, or such other time frame as may be agreed to by the Owner or Transferee and U.S. EPA.

6. Running with the Land. This Environmental Covenant shall be binding upon the Owner and all assigns and successors in interest, including any Transferee, and shall run with the land, pursuant to ORC § 5301.85, subject to amendment or termination as set forth herein. The term "Transferee," as used in this Environmental Covenant, shall mean any future owner of any interest in the Property or any portion thereof, including, but not limited to, owners of an interest in fee simple, mortgagees, easement holders, and/or lessees.

7. Compliance Enforcement. Compliance with this Environment Covenant may be enforced pursuant to ORC § 5301.91 or other applicable law. Failure to timely enforce compliance with this Environmental Covenant or the activity and use limitations contained herein by any party shall not bar subsequent enforcement by such party and shall not be deemed a waiver of the party's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict the Administrator of U.S. EPA from exercising any authority under applicable law.

8. Rights of Access. Owner hereby grants to U.S. EPA, its successors and assigns, and its respective officers, agents, contractors and employees (collectively, "Access Grantees"), the right of access to the Property to undertake the Permitted Uses described in Paragraph 9 below. The right of access granted under this Paragraph 8 shall be irrevocable while this Environmental Covenant remains in full force and effect.

9. Permitted Uses. The right of access granted under Paragraph 8 above shall provide Access Grantees with access to the Property, at reasonable times upon reasonable notice to Owner or any Transferee, for the purpose of conducting the following activities:

a) Monitoring the remedy;

and

b) Determining whether the Property is being used in a manner that is prohibited or restricted or that may need to be prohibited or restricted by or pursuant to this Environmental Covenant.

10. Compliance Reporting. Owner or any Transferee shall submit to U.S. EPA on an annual basis written documentation verifying that the activity and use limitations remain in place and are in compliance with this Environmental Covenant.

11. Notice upon Conveyance. Each instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recorded location of this Environmental Covenant. The notice shall be substantially in the following form:

> THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED 6/21, 2010, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE MONTGOMERY COUNTY RECORDER ON 9/29, 2010, IN [DOCUMENT SPI 10 059281, or BOOK, _____ PAGE ____]. THE ENVIRONMENTAL COVENANT CONTAINS THE FOLLOWING ACTIVITY AND USE LIMITATIONS: GROUNDWATER RESTRICTION; RESIDENTIAL USE RESTRICTION; AND RESTRICTION ON USE INCONSISTENT WITH INVESTIGATION, MONITORING, OR REMEDIATION.

12. Owner or any Transferee shall notify U.S. EPA within ten (10) days after each conveyance of an interest in any portion of the Property. Notice by the Owner or Transferee shall include the name, address, and telephone number of the Transferee of such Property interest, a copy of the deed or other documentation evidencing the conveyance, a legal description of the Property interest being transferred, a survey map of the Property interest being transferred, and the closing date of the transfer of ownership of the Property interest.

13. Representations and Warranties. Owner hereby represents and warrants:

A. that the Owner is the sole owner of the Property;

B. that the Owner holds fee simple title to the Property;

C. that the Owner has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;

D. that the Owner has identified all other persons that own an interest in or hold an encumbrance on the Property and notified such persons of the Owner's intention to enter into this Environmental Covenant;

E. that this Environmental Covenant does not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which Owner is a party or by which Owner may be bound or affected; and

F. to the extent that any interests in or encumbrances on the Property conflict with the activity and use limitations set forth in this Environmental Covenant, the persons who own such interests or hold such encumbrances have agreed to subordinate such interests or encumbrances to the Environmental Covenant, pursuant to ORC § 5301.86, or Owner has provided notice to U.S. EPA of such person's refusal to so subordinate their interests or encumbrances.

14. Consent for Amendment or Termination. This Environmental Covenant may be amended or terminated only by written consent of all of the following: the Owner or a Transferee, and the U.S. EPA, pursuant to ORC § 5301.90 and other applicable law. Amendment means any changes to the Environmental Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations when there is at least one limitation remaining. Termination means the elimination of all activity and use limitations set forth herein and all other obligations under this Environmental Covenant.

15. Written Instrument for Amendment or Termination. This Environmental Covenant may be amended or terminated only by a written instrument duly executed by the U.S. EPA and the Owner or Transferee of the Property or portion thereof, as applicable. Within thirty (30) days of signature by all requisite parties on any amendment or termination of this Environmental Covenant, the Owner or Transferee shall file such instrument for recording with the Montgomery County Recorder's Office and shall provide a true copy of the recorded instrument to U.S. EPA.

16. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

17. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Ohio.

18. Recordation. Within thirty (30) days after the date of the final required signature upon this Environmental Covenant, Owner shall file this Environmental Covenant for recording in the Office of the Montgomery County Recorder in the same manner as a deed to the Property,

pursuant to ORC § 5301.88. Within ten (10) days of the recording of this Environmental Covenant, Owner shall certify to U.S. EPA that the Environmental Covenant has been filed for recording, and shall include with the certification a filed and date-stamped copy of the recorded Environmental Covenant.

19. Effective Date. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded as a deed record for the Property with the Montgomery County Recorder's Office.

20. Distribution of Environmental Covenant. The Owner shall distribute copies of the recorded Environmental Covenant to: U.S. EPA, Ohio EPA, any lessee, and each person holding a recorded interest in the Property.

21. Notice. Unless otherwise notified in writing by or on behalf of any party hereto, any document or communication required by this Environmental Covenant shall be submitted to:

U.S. EPA, Region 5
c/o Pam Molitor
Remedial Project Manager - Superfund
77 West Jackson Blvd.
Chicago, Illinois 60604

Waste Management of Ohio, Inc.
c/o James C. Forney
Area Director, Waste Management Closed Sites - Mideast
3965 Okemos Road, Suite B4
Okemos, Michigan 48864

The undersigned representative of Owner represents and certifies that he is authorized to execute this Environmental Covenant.

This Environmental Covenant has been executed as of the 21st day of June, 2010

WASTE MANAGEMENT OF OHIO, INC.,
an Ohio corporation

By: _____

Its: Jack S. Parker
Authorized Representative

STATE OF Illinois)
) SS:
COUNTY OF Will)

This instrument was acknowledged before me this 21 day of June, 2010 by Jack S Parker, Authorized Representative of Waste Management of Ohio, Inc., an Ohio corporation, on behalf of the corporation.

OFFICIAL SEAL
D NENDICK
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:12/15/13

D Nendick
Notary Public

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Richard C. Karl, Director
Superfund Division

3-24-10
Date

STATE OF ILLINOIS)
) SS:
COUNTY OF COOK)

Before me, a notary public, in and for said county and state, personally appeared Richard C. Karl, Director, Superfund Division of the United States Environmental Protection Agency, who acknowledged to me that he did execute the foregoing instrument on behalf of the United States Environmental Protection Agency.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 24TH day of MARCH, 2010.

Notary Public

OFFICIAL SEAL
JOHN V FAGIOLO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:03/13/14

EXHIBIT "A"

COLLINS-SADDLER & ASSOCIATES
Civil Engineers-Surveyors
Aerial Surveys
1599 North Central Drive
Dayton, Ohio 45432
(937) 426-8145 Fax: (937) 426-8893

September 16, 2010

Description of 75.258 Acres
Restricted Area of the Powell Road
Landfill for Waste Management of Ohio, Inc.

Situate in Section 33, *Town* 2, *Range* 8 MRs., *City of Huber Heights*, Montgomery County, Ohio, being part of the lands conveyed to Waste *Management of Ohio, Inc.* by deed recorded in I.R. Deed No. 08-081942 in the Deed Records of Montgomery County, Ohio, more particularly described as follows:

Commencing at an iron pin found in the centerline of Powell Road at the northeast corner of the Holstine Plat as recorded in Plat Book "GG", Page 62 in the Plat Records of Montgomery County, Ohio; thence South 4°-45'-50" West with the east line of said Holstine Plat 40.08 feet to an iron pin found at the northeast corner of Lot 7 of said Holstine Plat and being at the true point of beginning of this description:

Thence South 81°-31'-10" East parallel to the centerline of Powell Road 206.16 feet to a point; thence South 70°-52'-40" East parallel to the centerline of Powell Road 269.95 feet to a point; thence South 61°-44'-00" East parallel to the centerline of Powell Road 20.68 feet to a point in the west line of a 4.1038 acre

tract conveyed to Maverick Homes, LLC by deed recorded in I.R. Deed No. 07-096339 in the Deed Records of Montgomery County, Ohio; thence South 2°-34'-10" East with a west line of said 4.1038 acre tract 316.12 feet to a set iron pin; thence South 28°-59'-10" East with a west line of said 4.1038 acre tract 619.25 feet to an iron pin set at the southwest corner thereof; thence North 88°-37'-10" East with the south line of said 4.1038 acre tract 146.60 feet to an iron pin set at the southeast corner thereof; thence North 5°-57'-40" West with the east line of said 4.1038 acre tract and the east line of a 1 acre tract conveyed to M.L. and G.S. Lemonds by deed recorded in Microfiche 83-039 A09 in the deed records of Montgomery County, Ohio for a total distance of 624.58 feet to a point; thence South 80°-15'-43" East 54.99 feet to a point being 40 feet perpendicular to the centerline of Powell Road; thence South 61°-43'-55" East parallel to the centerline of Powell Road 119.27 feet to a point; thence North 76°-47'-00" East parallel to the centerline of Powell Road 33.10 feet to a point in the west line of the old Miami & Erie Canal Lands and being in the west line of a 2.143 acre tract conveyed to Gregg A. Montgomery by deed recorded in I.R. Deed No. 07-077660 in the Deed Records of Montgomery County, Ohio; thence with the west line of the old Miami & Erie Canal lands and the west line of said 2.143 acre tract on the following four(4) described courses:

1. South 9°-53'-00" East 195.30 feet to a set iron pin;
2. South 9°-45'-10" East 318.42 feet to a set iron pin;
3. South 9°-14'-35" East 200.63 feet to a set iron pin;
4. South 15°-53'-00" East 64.41 feet to an iron pin set at the northwest corner of a 1.927 acre tract conveyed to Hester J. Young by deed recorded in Microfiche 90-442 E04 in the Deed Records of Montgomery County, Ohio;

thence South 6°-18'-40" West with the west line of said 1.927 acre tract and the east line of Parcel I of aforesaid Waste Management of Ohio, Inc. lands, passing an iron pin set at 400.00 feet, for a total distance of 416.29 feet to a point at the southeast corner of said Parcel I; thence North 60°-09'-10" West with a south line of said Parcel I a distance of 131.80 feet to a set iron pin; thence North 75°-14'-10" West with a south line of said Parcel I a distance of 273.90 feet to a set iron pin; thence North 82°-44'-10" West with a south line of said Parcel I a distance of 25.30 feet to an iron pin set at the southeast corner of Parcel II of aforesaid Waste Management of Ohio, Inc. lands; thence South 76°-09'-40" West with the south line of said Parcel II a distance of 1954.66 feet to an iron pin set at the southwest corner thereof; thence North 4°-45'-50" East with the west line of said Parcel II a distance of 1764.88 feet to an iron pin found at the southwest corner of Parcel IV of aforesaid Waste Management of Ohio, Inc. lands; thence continuing North 4°-45'-50" East with the west line of said Parcel IV and the west line of Parcel III of aforesaid Waste Management of Ohio, Inc. lands a total distance of 315.92 feet to a point being 40 feet perpendicular to the centerline of Powell Road; thence South 81°-31'-10" East parallel to the centerline of Powell Road 123.00 feet to a nail set at the northwest corner of Lot 1 of said Holstine Plat and being in the south right-of-way line of Powell Road; thence continuing

South 81°-31'-10" East with the south right-of-way line of Powell Road a distance of 861.00 feet to the point of beginning containing 75.258 acres more or less, subject however to all legal roads, easements, restrictions and conditions of record.

Survey and description prepared under the direction and supervision of Roger E. Saddler, Registered Professional Surveyor of Ohio No. 5856 in September, 2010. Bearings are based on the centerline of Powell Road (S81°-31'-10"E) per Ohio State Plane Coordinate System South Zone, established by GPS Survey (NAD83, NAVD 88). All iron pins set are 5/8-inch diameter, 30 inches long with plastic cap stamped "ROGER SADDLER 5856".

Roger E. Saddler

STATE OF OHIO
ROGER E.
SADDLER
5856
REGISTERED
PROFESSIONAL SURVEYOR

BEARINGS ARE BASED ON THE CENTERLINE OF POWELL ROAD (S81°31'10"E) PER OHIO STATE PLANE COORDINATE SYSTEM SOUTH ZONE, ESTABLISHED BY GPS SURVEY (NAD 83, NAVD 88).

LEGEND

- GP4 — GAS PROBE
- MW18A — MONITORING WELL
- GL35 — GAS / LEACHATE WELL
- L1 — LEACHATE WELL
- KO8 — KNOCK-OUT
- CHAINLINK FENCE
- WOVEN WIRE FENCE
- LANDFILL CAP LIMIT
- RESTRICTED AREA

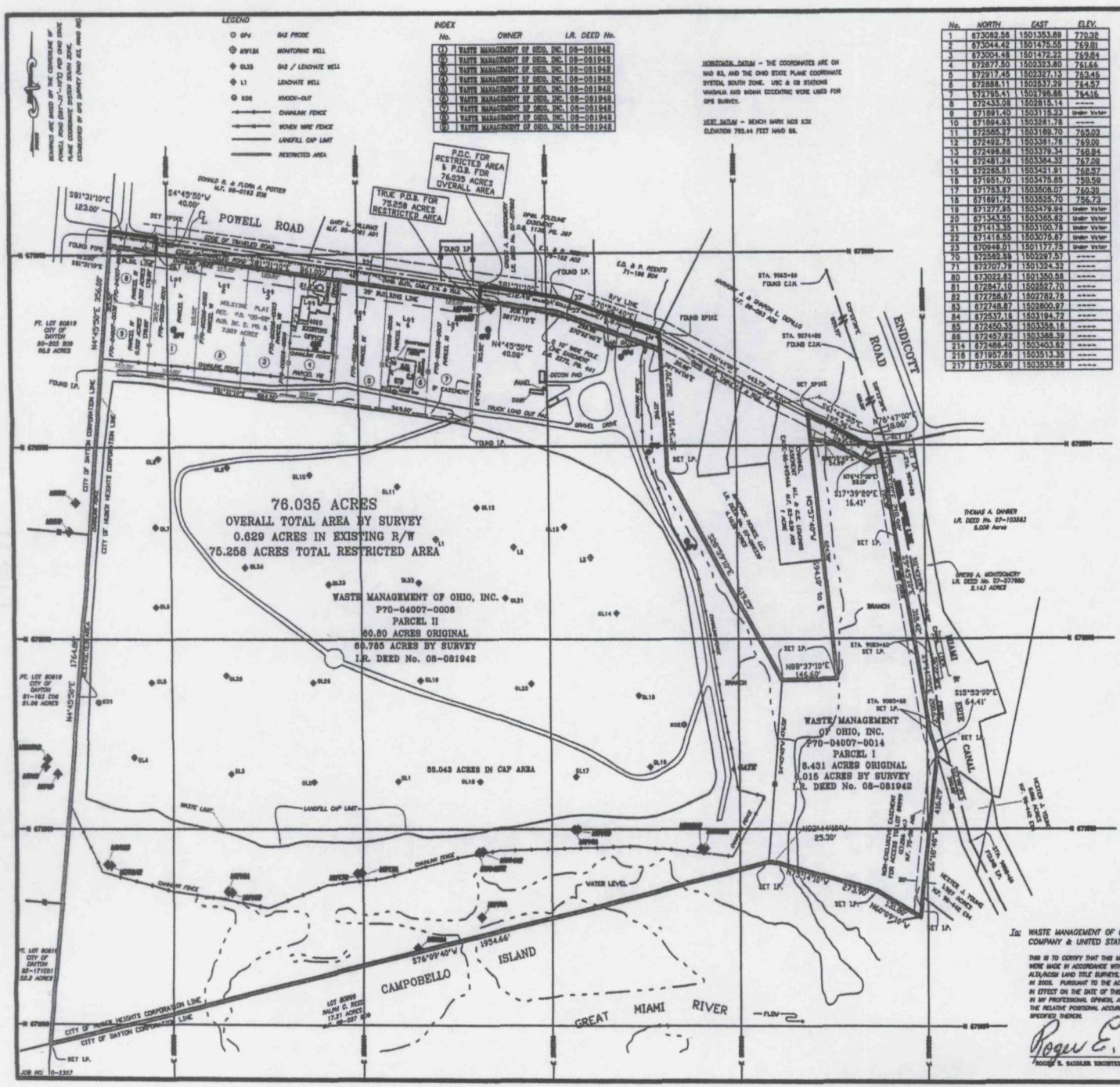
INDEX

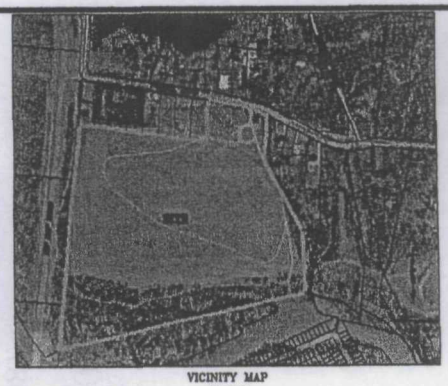
No.	OWNER	I.R. DEED No.
1	WASTE MANAGEMENT OF OHIO, INC.	08-081942
2	WASTE MANAGEMENT OF OHIO, INC.	08-081942
3	WASTE MANAGEMENT OF OHIO, INC.	08-081942
4	WASTE MANAGEMENT OF OHIO, INC.	08-081942
5	WASTE MANAGEMENT OF OHIO, INC.	08-081942
6	WASTE MANAGEMENT OF OHIO, INC.	08-081942
7	WASTE MANAGEMENT OF OHIO, INC.	08-081942
8	WASTE MANAGEMENT OF OHIO, INC.	08-081942
9	WASTE MANAGEMENT OF OHIO, INC.	08-081942
10	WASTE MANAGEMENT OF OHIO, INC.	08-081942

HORIZONTAL DATUM – THE COORDINATES ARE ON NAD 83, AND THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. USC & GS STATIONS WAGNALIA AND BIDWA ECCENTRIC WERE USED FOR GPS SURVEY.

VERT DATUM – BENCH MARK NGS KSX ELEVATION 792.44 FEET NAVD 88.

No.	NORTH	EAST	ELEV.
1	673062.56	1501353.89	770.32
2	673044.42	1501475.55	769.81
3	673004.48	1501472.22	769.64
4	672877.50	1502323.80	761.66
5	672917.45	1502327.13	763.46
6	672888.11	1502537.29	764.57
7	672795.41	1502795.88	764.16
8	672433.08	1502815.14	----
9	671881.40	1503115.23	Under Water
10	671894.93	1503261.78	----
11	672565.27	1503189.70	765.02
12	672492.75	1503361.76	769.00
13	672495.88	1503379.34	768.84
14	672481.24	1503384.32	767.00
15	672265.51	1503421.91	762.57
16	671951.70	1503475.85	758.59
17	671753.67	1503508.07	760.30
18	671601.72	1503525.70	756.73
19	671277.85	1503479.94	Under Water
20	671343.55	1503365.62	Under Water
21	671413.35	1503100.78	Under Water
22	671418.55	1503075.67	Under Water
23	670948.01	1501177.75	Under Water
70	672582.89	1502297.57	----
71	672707.79	1501324.32	----
80	673022.82	1501350.58	----
81	672847.10	1502527.70	----
82	672756.87	1502782.78	----
83	672748.87	1502800.97	----
84	672537.18	1503194.72	----
85	672450.35	1503358.16	----
86	672457.82	1503388.39	----
214	672488.40	1503403.82	----
216	671957.86	1503513.35	----
217	671758.90	1503535.56	----





VICINITY MAP
NO SCALE

NOTES:

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR. ALL INFORMATION REGARDING RECORD EASEMENTS, ADJOINERS AND OTHER DOCUMENTS THAT MIGHT AFFECT THE QUALITY OF TITLE TO TRACT SHOWN HEREON WAS GAINED FROM TITLE COMMITMENT NUMBER 2613010R PREPARED BY CHICAGO TITLE INSURANCE COMPANY WITH AN EFFECTIVE DATE OF JUNE 24, 2008, REVISED JULY 7, 2008, AMENDED DECEMBER 8, 2008. THE FOLLOWING COMMENTS CORRESPOND TO THE ITEMS NUMBERED IN THE ABOVE-REFERENCED COMMITMENT.

SCHEDULE B EXCEPTIONS

AS TO PARCEL I:

ITEM NO.	COMMENT
1.	NON-EXCLUSIVE EASEMENT FOR ACCESS TO LOT 80999 (17.208 ACRES) SHOWN HEREON.
2. & 3.	NOT SUPPLIED.
4.	CHANNEL EASEMENT SHOWN HEREON.

AS TO PARCEL II:

ITEM NO.	COMMENT
5.	POLE LINE EASEMENT IN POWELL ROAD RIGHT OF WAY SHOWN HEREON.
6.	CENTERLINE OF 10 FOOT WIDE POLE LINE EASEMENT ALONG POWELL ROAD SHOWN HEREON.

AS TO PARCELS III AND IV:

ITEM NO.	COMMENT
7.	POLE LINE EASEMENT IN POWELL ROAD RIGHT OF WAY SHOWN HEREON.
8.	80 FOOT BUILDING LINE SHOWN HEREON.
9.	NOT ADDRESSED.

AS TO PARCEL V:

ITEM NO.	COMMENT
10.	POLE LINE EASEMENT IN POWELL ROAD RIGHT OF WAY SHOWN HEREON.
11.	80 FOOT BUILDING LINE SHOWN HEREON.
12.	BUILDING LINE AND EASEMENTS SHOWN HEREON.

AS TO PARCELS VI, VII, VIII, IX, X AND XI:

ITEM NO.	COMMENT
13.	POLE LINE EASEMENT IN POWELL ROAD RIGHT OF WAY SHOWN HEREON.
14.	BUILDING LINE AND EASEMENTS SHOWN HEREON.

AS TO ALL PARCELS:

ITEM NO.	COMMENT
15.	POWELL ROAD RIGHT OF WAY SHOWN HEREON. VARIES BETWEEN 66 FEET AND 73 FEET.
16.	ACREAGES ARE SHOWN AS APPLICABLE.

GRAPHIC SCALE 1"=400'

0' 80' 100' 150' 200' 300' 400' 800'

STATE OF OHIO
ROGER R. SADDLER
5898
PROFESSIONAL SURVEYOR

To: WASTE MANAGEMENT OF OHIO, INC., CHICAGO TITLE INSURANCE COMPANY & UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2005. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF OHIO, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

Roger E. Saddler 9-23-10

ROGER E. SADDLER REGISTERED SURVEYOR OF OHIO, #5898 — DATE

ALTA/ACSM LAND TITLE SURVEY

FOR

WASTE MANAGEMENT OF OHIO, INC.

OF

POWELL ROAD LANDFILL

LOCATED IN SECTION 33, TOWN 2, RANGE 6, M.R.S.

CITY OF HUBER HEIGHTS,

MONTGOMERY COUNTY, OHIO

Scale: 1"=400' — November, 2008 — Revised September, 2010

COLLINS-SADDLER & ASSOCIATES
ENGINEERS – SURVEYORS
AERIAL SURVEYS
1599 NORTH CENTRAL DR.
BEAVERCREEK, OHIO 45432
(937) 426-8145

EXHIBIT "B"

List of Orders for Site

U.S. EPA Administrative Order on Consent, Docket No. V-W-94-C-239 (June 21, 1994).

U.S. EPA Administrative Order, Docket No. V-W-98-C-465 (May 6, 1998).

U.S. EPA Administrative Order, Docket No. V-W-98-C-466 (May 6, 1998).

APPENDIX B.

2011 SEMIANNUAL PROGRESS REPORTS

WASTE MANAGEMENT

CLOSED SITE MANAGEMENT GROUP
1700 North Broad Street
Fairborn, OH 45324
(937) 318-5342
(832) 668-3169 Fax

August 1, 2011

FEDERAL EXPRESS

Ms. Pamela Molitor
Remedial Project Manager
U.S. EPA, SR-6J
77 West Jackson Boulevard
Chicago, IL 60604

SUBJECT: 2011 FIRST SEMI-ANNUAL PROGRESS REPORT
REMEDIAL ACTION
POWELL ROAD LANDFILL
U.S. EPA DOCKET NO. V-W-98-C- 466/465

Dear Pamela:

Pursuant to the above referenced Orders WMO is presenting you with the progress report for the Remedial Action O&M activities at the Powell Road Landfill. This report is for the period of January 1, 2011 thru June 30, 2011. This report was prepared per the requirements specified in the above referenced UAO's and per the frequency approved by USEPA on May 10, 2004.

1.0 DESCRIPTION OF TASKS/ACTIONS PERFORMED IN ACCORDANCE WITH UAO V-W-98-C-466 DURING THIS REPORTING PERIOD

The following submittals were made:
02/10/11 – SA Progress Report
03/16/11 – SA GW Report
04/18/11 – GW Sampling Notification
04/21/11 – Annual Report

2.0 SUMMARY OF WORK COMPLETED (01/11-06/11)

The following occurred:
1st SA GW event – 05/2/11
quarterly inspection – 03/22/11
quarterly inspection – 06/24/11
mowing – 07/11 completed
cap repairs – 07/11 completed

LEACHATE SUMMARY	
January	8,000 gals
February	9,000 gals
March	58,600 gals
April	50,000 gals
May	59,000 gals
June	15,000 gals
Total	199,600 gals

GAS WELL TUNING	
January	01/13/11
February	02/18/11
March	03/24/11
April	04/21/11
May	05/20/11
June	06/03/11

The (03/22/11; 06/24/11) quarterly inspections and (03/22/11; 06/24/11) gas probe monitoring forms are attached. The G/L liquid levels were measured on 2/18/11, 03/24/11, 4/21/11 and 06/03/11 see attached. The site was mowed and cap repairs noted in the previous inspection were completed in June & July. The system downtime and maintenance reports are attached.

3.0 90 DAY SCHEDULE(S) WORK PLANNED (07/11-12/11)

The next semi-annual report will be submitted in January 2012.

Leachate pump maintenance – 7/11
Qtrly inspection – 09/11
Fence/cap repairs – 09-10/11
G/L liquids – 09/11
Qtrly gas probes – 09/11
1st SA GW Report – 08/11
2nd SA GW event – 11/11
Qtrly inspection - 12/11
Qtrly gas probes – 12/11
G/L liquids – 12/11
SA Progress Report – 01/12

4.0 SCHEDULE VARIANCES FROM APPROVED RA PROJECT SCHEDULE

No significant activity this reporting period.

5.0 SUMMARY OF GROUNDWATER ACTIVITY PER UAO V-W-98-C-465 DURING THIS PERIOD

No significant activity.

6.0 SUMMARY AND DISCUSSION OF ALL APPROVED AND UNAPPROVED CHANGES MADE IN THE RA DURING THIS PERIOD

No significant activity.

7.0 SUMMARY OF PROBLEMS/DELAYS OR POTENTIAL PROBLEMS/DELAYS ENCOUNTERED DURING THIS PERIOD

No significant activity.

8.0 ACTIONS BEING TAKEN TO RECTIFY PROBLEMS/DELAYS

See attached downtime reports.

9.0 CHANGES IN PERSONNEL DURING THIS REPORTING PERIOD

No changes in personnel; WM submitted change in contact information for Robin Jones on 5/5/2011.

10.0 PROJECTED WORK FOR THE NEXT REPORTING PERIOD

See items in Section 3 above.

11.0 COPIES OF REPORTS AND SAMPLING RESULTS GENERATED DURING THIS PERIOD

See attached downtime, gas and quarterly inspection reports.

Please contact Robin Jones regarding this submittal at 937-318-5342.

Respectfully,

Robin L. Jones
District Manager
WM Closed Sites
Powell Road Landfill Project Coordinator

attachment

cc. Jim Forney, WM CSMG
Scott Glum, OEPA/SWDO/DERR
PRL Distribution

WASTE MANAGEMENT

CLOSED SITE MANAGEMENT GROUP
1700 North Broad Street
Fairborn, OH 45324
(937) 318-5342
(832) 668-3169 Fax

February 16, 2012

FEDERAL EXPRESS

Ms. Pamela Molitor
Remedial Project Manager
U.S. EPA, SR-6J
77 West Jackson Boulevard
Chicago, IL 60604

SUBJECT: 2011 SECOND SEMI-ANNUAL PROGRESS REPORT
REMEDIAL ACTION
POWELL ROAD LANDFILL
U.S. EPA DOCKET NO. V-W-98-C- 466/465

Dear Pamela:

Pursuant to the above referenced Orders WMO is presenting you with the progress report for the Remedial Action O&M activities at the Powell Road Landfill. This report is for the period of July 1, 2011 thru December 31, 2011. This report was prepared per the requirements specified in the above referenced UAO's and per the frequency approved by USEPA on May 10, 2004.

1.0 DESCRIPTION OF TASKS/ACTIONS PERFORMED IN ACCORDANCE WITH UAO V-W-98-C-466 DURING THIS REPORTING PERIOD

The following submittals were made:
08/01/11 – SA Progress Report
09/29/11 – GW Sampling Notification
10/11/11 – SA GW Report

2.0 SUMMARY OF WORK COMPLETED (07/11-12/11)

The following occurred:
2nd SA GW event – 10/12/11
quarterly inspection – 09/28/11
quarterly inspection – 12/16/11
leachate pump maintenance – 07-09/11

LEACHATE SUMMARY	
July	15,000 gals
August	18,000 gals
September	14,000 gals
October	10,000 gals
November	19,800 gals
December	14,500 gals
Total	91,300 gals

GAS WELL TUNING	
July	07/22/11
August	08/19/11
September	09/23/11
October	10/21/11
November	11/18/11
December	12/29/11

The (09/28/11; 12/16/11) quarterly inspections and (09/28/11; 12/16/11) gas probe monitoring forms are attached. The G/L liquid levels were measured on 7/12/11, 07/22/11, 8/19/11, 9/23/11, 10/21/11 and 12/29/11 see attached. The system downtime and maintenance reports are attached.

3.0 90 DAY SCHEDULE(S) WORK PLANNED (01/12-06/12)

The next semi-annual report will be submitted in July 2012.

Qtrly inspection – 03/12
Fence repairs – 03/12
G/L liquids – 03/12
Qtrly gas probes – 03/12
2nd SA GW Report – 3/12
Annual Report – 04/12
1st SA GW event – 05/12
Qtrly inspection - 06/12
Qtrly gas probes – 06/12
G/L liquids – 6/12
SA Progress Report – 07/12

4.0 SCHEDULE VARIANCES FROM APPROVED RA PROJECT SCHEDULE

No significant activity this reporting period.

5.0 SUMMARY OF GROUNDWATER ACTIVITY PER UAO V-W-98-C-465 DURING THIS PERIOD

No significant activity.

6.0 SUMMARY AND DISCUSSION OF ALL APPROVED AND UNAPPROVED CHANGES MADE IN THE RA DURING THIS PERIOD

No significant activity.

7.0 SUMMARY OF PROBLEMS/DELAYS OR POTENTIAL PROBLEMS/DELAYS ENCOUNTERED DURING THIS PERIOD

No significant on-going issues, please note that the leachate system was down during significant flooding in December.

8.0 ACTIONS BEING TAKEN TO RECTIFY PROBLEMS/DELAYS

See attached downtime reports.

9.0 CHANGES IN PERSONNEL DURING THIS REPORTING PERIOD

No changes in personnel.

10.0 PROJECTED WORK FOR THE NEXT REPORTING PERIOD

See items in Section 3 above.

11.0 COPIES OF REPORTS AND SAMPLING RESULTS GENERATED DURING THIS PERIOD

See attached downtime, gas and quarterly inspection reports.

Please contact Robin Jones regarding this submittal at 937-318-5342.

Respectfully,

Robin L. Jones
District Manager
WM Closed Sites
Powell Road Landfill Project Coordinator

attachment

cc. Jim Forney, WM CSMG
Scott Glum, OEPA/SWDO/DERR
PRL Distribution

APPENDIX C.

POST-CLOSURE QUARTERLY INSPECTION FORMS (AND RELATED SYSTEMS INSPECTION AND MAINTENANCE FORMS)

POST-CLOSURE QUARTERLY INSPECTION FORM
Powell Road Landfill

Date:	3/22/2011	**Last Inspection Date:**	12/14/2010
Landfill Type:	Closed Municipal/CERCLA	**Evaluator:**	TOM MILLER
Total Acreage: 76	76	**Filled Acreage:**	38
Date Closed: 1984	1984	**Date Capped:**	1985 - 2000

	GOOD	ADEQUATE	ATTENTION	NOT APPLICABLE
SECURITY & ACCESS:				
1. Perimeter Fencing			√	
2. Signs Posted	√			
3. Access Road	√			
4. Undesirable Uses Prevented	√			
COVER & VEGETATION:				
1. Final Cover Erosion	√			
2. Top Slope Good Drainage	√			
3. Side Slope Good Drainage	√			
4. Evidence of Gas or Leachate	√			
5. Vegetation Quality & Density	√			
DRAINAGE:				
1. Appropriate Runoff Controls		√		
2. Diversion Ditches		√	√	
3. Perimeter Ditches		√		
4. Perimeter Stone		√		
5. Outlet Structures		√	√	
6. Roads	√			
GW MONITORING WELLS:				
1. Construction Integrity	√			
2. Security of Wells	√			
3. Identification of Wells	√			
LEACHATE & GAS SYSTEMS:				
1. Collection Sumps/Risers	√			See Below
2. Electrical Components	√			
3. Leachate Pad Loading	√			
4. Storage Tank	√			
5. Security of System	√			
6. Flare/Blower Operation	√			
7. Extraction Wells/Pumps		√	√	
8. Mechanical Components	√			
9. Gas Probes	√			
9. Evidence of Odors/Migration	√			
10. Autodialer	√			

COMMENTS: Please see attached map.

1) AREA IN THE SW CORNER NEEDS TO BE LINED W/ RIP RAP. AREA IS CURRENTLY LINED W/ SAND BAGS THAT ARE WASHING OUT.

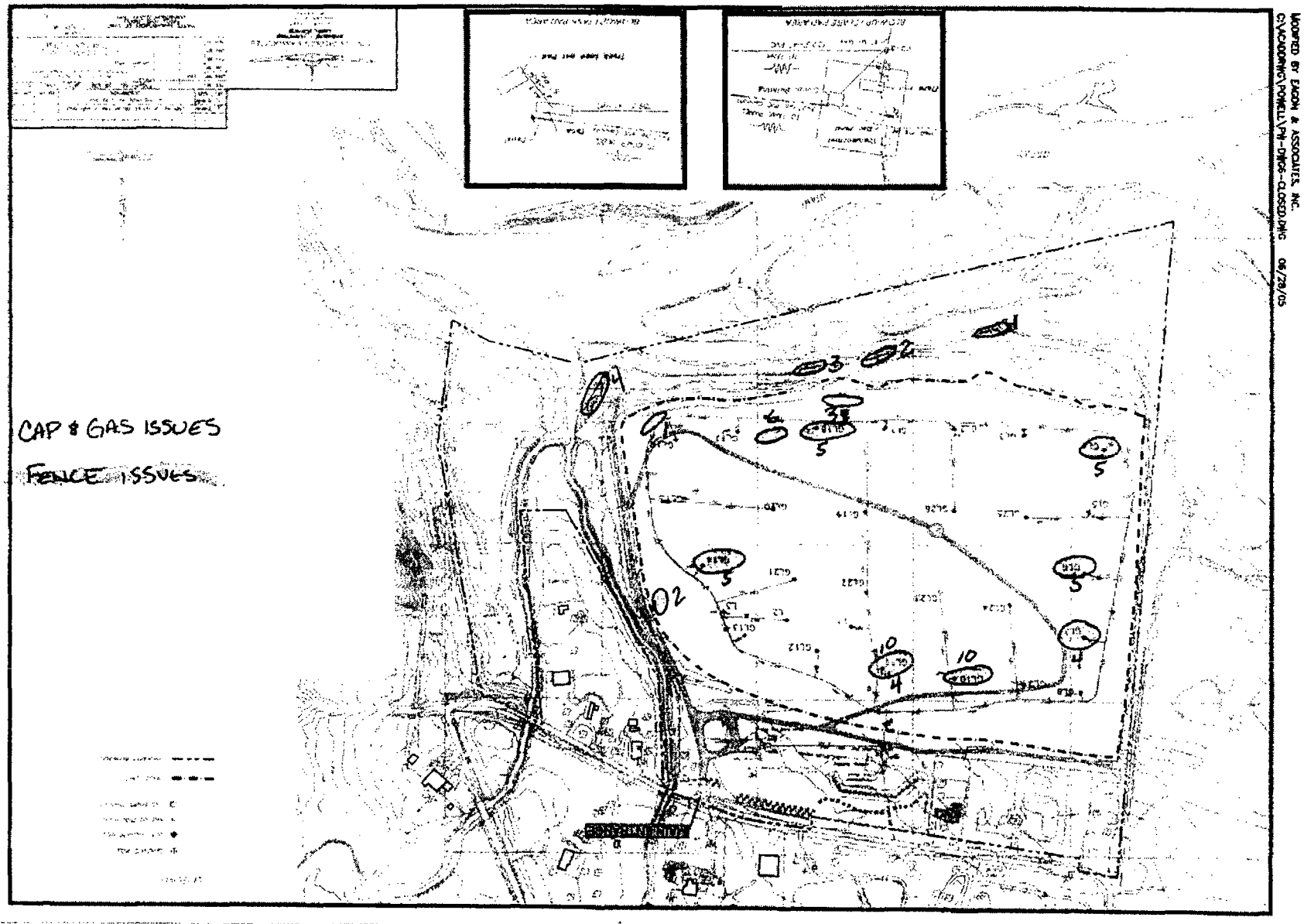
2) DISCHARGE POINT TO CREEK NEEDS TO BE RELINED W/ ROCK DUE TO CREEK WASH OUT.

3) BERM ON SOUTH SIDE NEAR GW-2 HAS WASHED OUT.

4) G/L 7 and G/L 11 need to have new air supply lines install from 2" line to the regulators they are being stretched

5) G/L 6,4,18,10,11,and 14 have rodent holes dug next to the well casing.

6) Area of sparse veg. SW 50' of GL-17 (20' x 10')


CAP & GAS ISSUES
FENCE ISSUES
MODIFIED BY EAGON & ASSOCIATES, INC.
C:\ACADDWG\POWELL\PW-DWG6-CLOSED.DWG 06/28/05

1ST QTR 2011

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification:	Powell Rd	**Landfill Owner/Client:**	Robin Jones
Technician:	TOM MILLER	**Landfill Location:**	Huber Heights
Date of Inspection:	March 22, 2011		

Property Perimeter Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:		√	See Below
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:		√	See Below
Does the fence have barb wire runners installed atop the fence:	√		See Below
If so, are all barb wire hangers in good condition and in place:		√	See Below
And are all barb wire strands in good condition and in place:		√	See Below
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:		√	See Below

Flare / UST Station Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		No Comments

Man way and Main Site Entrance Gates Inspection Data:	**Yes**	**No**	**Comments**
Are all gates in good condition:	√		No Comments
Are all gate hinges in good condition:	√		No Comments
Do all gates close completely and evenly:	√		No Comments
Are all gates locked only with approved site locks:	√		No Comments
Are all security chains heavy duty & in good condition:	√		No Comments
Are all security chains tightly wrapped twice around the gate & the support pole:	√		No Comments
Are all required signs attached to the main entrance site gate(s):	√		No Comments
Are all required signs attached to the man way gate(s):	√		No Comments

Additional Comments:	Several areas on the south side of the site have fence damage due to river flooding.
1-40' section East of GW18B has been pushe over to a 45 degree angle	
2-25' section East of GW 17A has been damaged by a tree falling on it.	
3-30' section of barbwire West of GW-4BRR was broken due to fallen tree.	
4-40' of fence damged on the east side where the creek and river meet due to debris from flooding hitting and pushing the fence over	

SURFACE WATER CONTROL INSPECTION LOG

Date Filed:_____

Ohio EPA Storm Water Construction General Permit No._____.
Powell Road Landfill, Montgomery County, Ohio

Date of Inspection: 3/22/11

Name of Inspector & Title: TOM MILLER-LANDFILL SUPERVISOR

Affiliation: WM EMPLOYEE

Qualifications

Weather Conditions: PARTLY CLOUDY 61 DEGREES

Completely fill in the information required below and sign where noted. Forward to Remedial Project Manager for filing.

1. Are measures to prevent erosion and sediment control adequate and properly implemented: YES
   (If no, describe observations, repairs needed, design changes needed, or other actions below.)
2. Are non structural practices (surface grading, vegetative cover, mulch, channel riprap) adequate: YES
3. Are structural practices (silt fencing and ditch checks) adequa N/A

Observations (NOTE: location, problem, erosion, sediment build up, damage, etc.):

A. Stabilization/Nonstructural Practices.

1. Surface Grading: In good condition

Actions to correct problem: N/A

2. Vegetative Cover In good condition

Actions to correct problem: N/A

3. Erosion Control Blanket and Mulch(NOTE: erosion control blankets and mulch are temporary controls and are designed to degrade overtime) In good condition

Actions to correct problem: N/A

Riprap Channel Lining: Spill way to creek on east side of site is washing out due to creek flow. Area on SE corner has washed out and needs to be re lined with rip rap.

Inspection Log - Cont. Date: 3/22/2011

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): N/A

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE: location and problems):

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: _ Signature on file

Date: 3/22/2011

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 3/24/2011 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Gerald Cuffe

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Properly Greased	Yes			No additional comments
	Excessive Noise		No		No additional comments
Blower Motor	Properly Greased	Yes			No additional comments
	Excessive Noise	Yes			No additional comments
LFG Flare	Operating Properly	Yes			No additional comments
	Igniter Functioning Properly	Yes			No additional comments
	Pilot Fuel Operating Properly	Yes			No additional comments
	Propane Supply Adequate	Yes			No additional comments
Control Panel	Temperature Display Present	Yes			No additional comments
	Display Lights Functioning	Yes			No additional comments
	Blower Amps Functioning	Yes			No additional comments
	Auto-Dialer Ready / Functioning	Yes			No additional comments
Electric Valves	Open During Operation	Yes			No additional comments
	Closed During Shut-Down	Yes			No additional comments

Air Supply:

Compressor	Maintaining Pressure	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Proper Oil Level	Yes			No additional comments
	Excessive Noise		No		No additional comments

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes			No additional comments
	Fluids at an Acceptable Level	Yes			No additional comments
	Control Panel OK	Yes			No additional comments
	Air Supply OK	Yes			No additional comments
Storage Tank	Fluids at an Acceptable Level		No		Veolia has been notified
	Proper Valve operation	Yes			No additional comments

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes			No additional comments
	Pump Connections Secure	Yes			No additional comments
	Proper Air Supply	Yes			No additional comments
	Cycle Counter Functioning	Yes			No additional comments
	Observed Pump Cycle	Yes			No additional comments

Comments: Fluids in the leachate tank were scheduled for removal under our normal callout procedure.

POST-CLOSURE QUARTERLY INSPECTION FORM
Powell Road Landfill

Date:	6/24/2011	**Last Inspection Date:**	3/22/2011
Landfill Type:	Closed Municipal/CERCLA	**Evaluator:**	TOM MILLER
Total Acreage: 76	76	**Filled Acreage:**	38
Date Closed: 1984	1984	**Date Capped:**	1985 - 2000

	GOOD	ADEQUATE	ATTENTION	NOT APPLICABLE
SECURITY & ACCESS:				
1. Perimeter Fencing		√	√	
2. Signs Posted	√			
3. Access Road	√			
4. Undesirable Uses Prevented	√			
COVER & VEGETATION:				
1. Final Cover Erosion	√			
2. Top Slope Good Drainage	√			
3. Side Slope Good Drainage	√			
4. Evidence of Gas or Leachate	√			
5. Vegetation Quality & Density	√			
DRAINAGE:				
1. Appropriate Runoff Controls		√		
2. Diversion Ditches		√		
3. Perimeter Ditches		√		
4. Perimeter Stone		√		
5. Outlet Structures		√		
6. Roads	√			
GW MONITORING WELLS:				
1. Construction Integrity	√			
2. Security of Wells	√			
3. Identification of Wells	√			
LEACHATE & GAS SYSTEMS:				
1. Collection Sumps/Risers	√			
2. Electrical Components	√			
3. Leachate Pad Loading	√			
4. Storage Tank	√			
5. Security of System	√			
6. Flare/Blower Operation	√			
7. Extraction Wells/Pumps		√	√	
8. Mechanical Components	√			
9. Gas Probes	√			
9. Evidence of Odors/Migration	√			
10. Autodialer	√			

COMMENTS: Please see attached map.

1) G/L 6,4,18,10,11,and 14 have rodent holes dug next to the well casing, will be fixed by 8/30/11.

2) Area of sparse veg. SW 50' of GL-17 (20' x 10'), will be graded and re-seeded in late September.

3) Fence repairs scheduled for 4QTR, no security issues.

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification:	Powell Rd	**Landfill Owner/Client:**	Robin Jones
Technician:	TOM MILLER	**Landfill Location:**	Huber Heights
Date of Inspection:	June 24, 2011		

Property Perimeter Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:		√	See Below
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:		√	See Below
Does the fence have barb wire runners installed atop the fence:	√		See Below
If so, are all barb wire hangers in good condition and in place:		√	See Below
And are all barb wire strands in good condition and in place:		√	See Below
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:		√	See Below

Flare / UST Station Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		No Comments

Man way and Main Site Entrance Gates Inspection Data:	**Yes**	**No**	**Comments**
Are all gates in good condition:	√		No Comments
Are all gate hinges in good condition:	√		No Comments
Do all gates close completely and evenly:	√		No Comments
Are all gates locked only with approved site locks:	√		No Comments
Are all security chains heavy duty & in good condition:	√		No Comments
Are all security chains tightly wrapped twice around the gate & the support pole:	√		No Comments
Are all required signs attached to the main entrance site gate(s):	√		No Comments
Are all required signs attached to the man way gate(s):	√		No Comments

Additional Comments:	Several areas on the south side of the site have fence damage due to river flooding.
1-40' section East of GW18B is leaning at a 45 degree angle	
2-25' section East of GW 17A has been damaged by a tree falling on it.	
3-30' section of barbwire West of GW-4BRR was broken due to fallen tree.	
4-40' of fence damged on the east side where the creek and river meet due to debris from flooding hitting and pushing the fence over	

SURFACE WATER CONTROL INSPECTION LOG

Date Filed:_____

Ohio EPA Storm Water Construction General Permit No._____.
Powell Road Landfill, Montgomery County, Ohio

Date of Inspection: 6/24/11

Name of Inspector & Title: TOM MILLER-LANDFILL SUPERVISOR

Affiliation: WM EMPLOYEE

Qualifications _____

Weather Conditions: PARTLY CLOUDY 72 DEGREES

Completely fill in the information required below and sign where noted. Forward to Remedial Project Manager for filing.

1. Are measures to prevent erosion and sediment control adequate and properly implemented: YES
   (If no, describe observations, repairs needed, design changes needed, or other actions below.)
2. Are non structural practices (surface grading, vegetative cover, mulch, channel riprap) adequate: YES
3. Are structural practices (silt fencing and ditch checks) adequa N/A

Observations (NOTE: location, problem, erosion, sediment build up, damage, etc.):

A. Stabilization/Nonstructural Practices.

1. Surface Grading: In good condition

Actions to correct problem: N/A

2. Vegetative Cover In good condition

Actions to correct problem: N/A

3. Erosion Control Blanket and Mulch(NOTE: erosion control blankets and mulch are temporary controls and are designed to degrade overtime) In good condition

Actions to correct problem: N/A

Riprap Channel Lining: In good condition

Inspection Log - Cont. Date: 6/24/2011

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): N/A

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE: location and problems):

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: _ Signature on file

Date: 6/24/2011

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 5/20/2011 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Gerald Cuffe

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Properly Greased	Yes			No additional comments
	Excessive Noise		No		No additional comments
Blower Motor	Properly Greased	Yes			No additional comments
	Excessive Noise	Yes			No additional comments
LFG Flare	Operating Properly	Yes			No additional comments
	Igniter Functioning Properly	Yes			No additional comments
	Pilot Fuel Operating Properly	Yes			No additional comments
	Propane Supply Adequate	Yes			No additional comments
Control Panel	Temperature Display Present	Yes			No additional comments
	Display Lights Functioning	Yes			No additional comments
	Blower Amps Functioning	Yes			No additional comments
	Auto-Dialer Ready / Functioning	Yes			No additional comments
Electric Valves	Open During Operation	Yes			No additional comments
	Closed During Shut-Down	Yes			No additional comments

Air Supply:

Compressor	Maintaining Pressure	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Proper Oil Level	Yes			No additional comments
	Excessive Noise		No		No additional comments

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes			No additional comments
	Fluids at an Acceptable Level	Yes			No additional comments
	Control Panel OK	Yes			No additional comments
	Air Supply OK	Yes			No additional comments
Storage Tank	Fluids at an Acceptable Level	Yes			No additional comments
	Proper Valve operation	Yes			No additional comments

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes			No additional comments
	Pump Connections Secure	Yes			No additional comments
	Proper Air Supply	Yes			No additional comments
	Cycle Counter Functioning	Yes			No additional comments
	Observed Pump Cycle	Yes			No additional comments

Comments: No additional comments.

POST-CLOSURE QUARTERLY INSPECTION FORM
Powell Road Landfill

Date:	9/28/2011	**Last Inspection Date:**	6/24/2011
Landfill Type:	Closed Municipal/CERCLA	**Evaluator:**	TOM MILLER
Total Acreage: 76	76	**Filled Acreage:**	38
Date Closed: 1984	1984	**Date Capped:**	1985 - 2000

	GOOD	ADEQUATE	ATTENTION	NOT APPLICABLE
SECURITY & ACCESS:				
1. Perimeter Fencing		√		
2. Signs Posted	√			
3. Access Road	√			
4. Undesirable Uses Prevented	√			
COVER & VEGETATION:				
1. Final Cover Erosion	√			
2. Top Slope Good Drainage	√			
3. Side Slope Good Drainage	√			
4. Evidence of Gas or Leachate	√			
5. Vegetation Quality & Density	√			
DRAINAGE:				
1. Appropriate Runoff Controls		√		
2. Diversion Ditches		√		
3. Perimeter Ditches		√		
4. Perimeter Stone		√		
5. Outlet Structures		√		
6. Roads	√			
GW MONITORING WELLS:				
1. Construction Integrity	√			
2. Security of Wells	√			
3. Identification of Wells	√			
LEACHATE & GAS SYSTEMS:				
1. Collection Sumps/Risers	√			
2. Electrical Components	√			
3. Leachate Pad Loading	√			
4. Storage Tank	√			
5. Security of System	√			
6. Flare/Blower Operation	√			
7. Extraction Wells/Pumps	√	√		
8. Mechanical Components	√			
9. Gas Probes	√			
9. Evidence of Odors/Migration	√			
10. Autodialer	√			

COMMENTS:

1) G/L 6,4,18,10,11,and 14 have rodent holes dug next to the well casing. Repairs made.

Previously noted cap and surfacewater repairs were made in July 2011.

SURFACE WATER CONTROL INSPECTION LOG

Date Filed:_____

Ohio EPA Storm Water Construction General Permit No._____.
Powell Road Landfill, Montgomery County, Ohio

Date of Inspection: 9/28/11

Name of Inspector & Title: TOM MILLER-LANDFILL SUPERVISOR

Affiliation: WM EMPLOYEE

Qualifications _____

Weather Conditions: PARTLY CLOUDY 72 DEGREES

Completely fill in the information required below and sign where noted. Forward to Remedial Project Manager for filing.

1. Are measures to prevent erosion and sediment control adequate and properly implemented: YES
   (If no, describe observations, repairs needed, design changes needed, or other actions below.)
2. Are non structural practices (surface grading, vegetative cover, mulch, channel riprap) adequate: YES
3. Are structural practices (silt fencing and ditch checks) adequa N/A

Observations (NOTE: location, problem, erosion, sediment build up, damage, etc.):

A. Stabilization/Nonstructural Practices.

1. Surface Grading: In good condition

Actions to correct problem: N/A

2. Vegetative Cover In good condition

Actions to correct problem: N/A

3. Erosion Control Blanket and Mulch(NOTE: erosion control blankets and mulch are temporary controls and are designed to degrade overtime) In good condition

Actions to correct problem: N/A

Riprap Channel Lining: In good condition, repairs made in July.

Inspection Log - Cont. Date: 9/28/2011

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): N/A

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE: location and problems):

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: _ Signature on file

Date: 9/28/2011

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 9/23/2011 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Gerald Cuffe

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Properly Greased	Yes			No additional comments
	Excessive Noise		No		No additional comments
Blower Motor	Properly Greased	Yes			No additional comments
	Excessive Noise		No		No additional comments
LFG Flare	Operating Properly	Yes			No additional comments
	Igniter Functioning Properly	Yes			No additional comments
	Pilot Fuel Operating Properly	Yes			No additional comments
	Propane Supply Adequate	Yes			No additional comments
Control Panel	Temperature Display Present	Yes			No additional comments
	Display Lights Functioning	Yes			No additional comments
	Blower Amps Functioning	Yes			No additional comments
	Auto-Dialer Ready / Functioning	Yes			No additional comments
Electric Valves	Open During Operation	Yes			No additional comments
	Closed During Shut-Down	Yes			No additional comments

Air Supply:

Compressor	Maintaining Pressure	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Proper Oil Level	Yes			No additional comments
	Excessive Noise		No		No additional comments

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes			No additional comments
	Fluids at an Acceptable Level	Yes			No additional comments
	Control Panel OK	Yes			No additional comments
	Air Supply OK	Yes			No additional comments
Storage Tank	Fluids at an Acceptable Level	Yes			No additional comments
	Proper Valve operation	Yes			No additional comments

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes			No additional comments
	Pump Connections Secure	Yes			No additional comments
	Proper Air Supply	Yes			No additional comments
	Cycle Counter Functioning	Yes			No additional comments
	Observed Pump Cycle	Yes			No additional comments

Comments: No additional comments.

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification: Powell Rd
Landfill Owner/Client: Robin Jones
Technician: TOM MILLER
Landfill Location: Huber Heights
Date of Inspection: September 28, 2011

Property Perimeter Fence Inspection Data:	Yes	No	Comments
Are all fence posts straight & free of damage:		√	See Below
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		See Below
Does the fence have barb wire runners installed atop the fence:	√		See Below
If so, are all barb wire hangers in good condition and in place:		√	See Below
And are all barb wire strands in good condition and in place:		√	See Below
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:		√	See Below

Flare / UST Station Fence Inspection Data:	Yes	No	Comments
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		No Comments

Man way and Main Site Entrance Gates Inspection Data:	Yes	No	Comments
Are all gates in good condition:	√		No Comments
Are all gate hinges in good condition:	√		No Comments
Do all gates close completely and evenly:	√		No Comments
Are all gates locked only with approved site locks:	√		No Comments
Are all security chains heavy duty & in good condition:	√		No Comments
Are all security chains tightly wrapped twice around the gate & the support pole:	√		No Comments
Are all required signs attached to the main entrance site gate(s):	√		No Comments
Are all required signs attached to the man way gate(s):	√		No Comments

Additional Comments:

Minor fence damage along river. Fence still intact.

Inspection Log - Cont. Date: 12/16/2011

Actions to correct problem: N/A

B. Structural Practices.

1. Silt fencing (NOTE: silt fencing is designed as a temporary control measure and will be removed once the vegetation is established): N/A

Actions to correct problems: N/A

2. Ditch checks (NOTE: ditch checks are designed as a temporary control measure and will be removed once the vegetation is established): In good condition

Actions to correct problems: N/A

C. Discharge locations (NOTE: any discharge of sediments off site): No

Actions to correct problems: N/A

D. Vehicles Tracking Sediment Off-Site NO

Actions to correct problem: N/A

E. Status of Previous Maintenance Activities (NOTE. location and problems):

Actions to correct problems: N/A

F. Other Remarks: N/A

Inspector's Signature: _ Signature on file

Date: 12/16/2011

Waste Management, Inc.
Closed Site Management Group

Landfill Systems Equipment Inspection Report

Date: 11/18/2011 Location: Powell Rd Landfill Huber Heights, OH

Inspector: Gerald Cuffe

Landfill Gas Collection System:

					Comments
LFG Blower	Operating	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Properly Greased	Yes			No additional comments
	Excessive Noise		No		No additional comments
Blower Motor	Properly Greased	Yes			No additional comments
	Excessive Noise		No		No additional comments
LFG Flare	Operating Properly	Yes			No additional comments
	Igniter Functioning Properly	Yes			No additional comments
	Pilot Fuel Operating Properly	Yes			No additional comments
	Propane Supply Adequate	Yes			No additional comments
Control Panel	Temperature Display Present	Yes			No additional comments
	Display Lights Functioning	Yes			No additional comments
	Blower Amps Functioning	Yes			No additional comments
	Auto-Dialer Ready / Functioning	Yes			No additional comments
Electric Valves	Open During Operation	Yes			No additional comments
	Closed During Shut-Down	Yes			No additional comments

Air Supply:

Compressor	Maintaining Pressure	Yes			No additional comments
	Vibrations Noticed		No		No additional comments
	Proper Oil Level	Yes			No additional comments
	Excessive Noise		No		No additional comments

Leachate System:

Pump Stations	Sump Pumps Functioning	Yes			No additional comments
	Fluids at an Acceptable Level	Yes			No additional comments
	Control Panel OK	Yes			No additional comments
	Air Supply OK	Yes			No additional comments
Storage Tank	Fluids at an Acceptable Level	Yes			No additional comments
	Proper Valve operation	Yes			No additional comments

LFG Dual Extraction Wells:

LFG Wells	Wellhead in Good Condition	Yes			No additional comments
	Pump Connections Secure	Yes			No additional comments
	Proper Air Supply	Yes			No additional comments
	Cycle Counter Functioning	Yes			No additional comments
	Observed Pump Cycle	Yes			No additional comments

Comments: No additional comments.

Fence, Signs, Gates, and Locks Inspection Sheet

Landfill Identification:	Powell Rd	**Landfill Owner/Client:**	Robin Jones
Technician:	TOM MILLER	**Landfill Location:**	Huber Heights
Date of Inspection:	December 16, 2011		

Property Perimeter Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:		√	See Below
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:		√	See Below
And are all barb wire strands in good condition and in place:		√	See Below
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:		√	See Below

Flare / UST Station Fence Inspection Data:	**Yes**	**No**	**Comments**
Are all fence posts straight & free of damage:	√		No Comments
Are all fence panels in good condition (no breaks in the fence):	√		No Comments
Are all fence panels securely fastened to all fence posts:	√		No Comments
Does the fence have barb wire runners installed atop the fence:	√		No Comments
If so, are all barb wire hangers in good condition and in place:	√		No Comments
And are all barb wire strands in good condition and in place:	√		No Comments
Are there any signs of trespassing:		√	No Comments
Are there any gaps in the fence between the ground & the bottom of the fence:		√	No Comments
Are all required signs attached to the fence in 150 ft intervals:	√		No Comments
Are all signs clearly legible and in good condition:	√		No Comments
Are all fence panels and barb wire runners clear of vegetation:	√		No Comments

Man way and Main Site Entrance Gates Inspection Data:	**Yes**	**No**	**Comments**
Are all gates in good condition:	√		No Comments
Are all gate hinges in good condition:	√		No Comments
Do all gates close completely and evenly:	√		No Comments
Are all gates locked only with approved site locks:	√		No Comments
Are all security chains heavy duty & in good condition:	√		No Comments
Are all security chains tightly wrapped twice around the gate & the support pole:	√		No Comments
Are all required signs attached to the main entrance site gate(s):	√		No Comments
Are all required signs attached to the man way gate(s):	√		No Comments

Additional Comments:
Minor fence damage due to flooding, fence intact; repairs will be scheduled when weather permits.

APPENDIX D.

AUTO-DIALER CALL OUT SUMMARIES AND AUTO-DIALER PROTOCOL

American Environmental Group, Ltd.
3600 Brecksville Rd., Suite 100
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

11-Jan

Powell Rd Landfill, Huber Heights, Ohio

1/28/2011	**Channel 5 Alarm - UST is 75% full - Technician called Veolia Transportation to dispatch pump truck to remove one load from UST**

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio

Feb-2011

Date	Auto Dialer Alarm	Corrective Action
2/2/2011	Channel 1 Alarm - Pilot failure	Automatic flare shutdown due to power outage. AEGL technician co-ordinated with Tom Miller to restart flare when power was restored to site.
2/5/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
2/21/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
Mar-2011

Date	Auto Dialer Alarm	Corrective Action
3/3/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/6/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/11/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/12/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/13/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/14/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/15/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/16/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/18/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/19/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/22/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

3/24/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/25/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/28/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
3/29/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

5/8/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
5/9/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
5/13/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
5/16/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
5/17/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
5/25/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
5/29/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
5/30/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio

Jun-2011

Date	Auto Dialer Alarm	Corrective Action
6/10/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/12/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/13/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/14/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/15/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/16/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/17/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/18/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
6/21/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
Jul-2011

Date	Auto Dialer Alarm	Corrective Action
7/12/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
7/14/2011	Channel 8 Alarm - Flare Failure	Pilot ignition system was initiated 3 times in 80 minutes
7/21/2011	Channel 8 Alarm - Flare Failure	Pilot ignition system was initiated 3 times in 80 minutes
7/23/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio

Aug-2011

Date	Auto Dialer Alarm	Corrective Action
8/7/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
8/9/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
8/20/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
8/21/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
8/22/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
8/23/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
8/23/2011	Channel 8 Alarm - Flare Failure	Pilot ignition system was initiated 3 times in 80 minutes
8/29/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
Sep-2011

Date	Auto Dialer Alarm	Corrective Action
9/2/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
9/4/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
9/15/2011	Channel 5 Alarm - UST is 75% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio

Oct-2011

Date	Auto Dialer Alarm	Corrective Action
10/12/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
10/14/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
10/19/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
10/30/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio
Nov-2011

Date	Auto Dialer Alarm	Corrective Action
11/8/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST
11/17/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

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Waste Management - Closed Site Management Group

Auto-Dialer Call-Out Summary

Powell Rd Landfill, Huber Heights, Ohio

Dec-2011

Date	Auto Dialer Alarm	Corrective Action
12/28/2011	Channel 6 Alarm - UST is 100% full	Technician called Veolia Transportation to dispatch pump truck to remove one load from UST

Autodialer Protocol for Powell Road Landfill

(Revised: 1-18-12)

An incident report must be submitted to Robin Jones, Waste Management (WM) via phone (937-318-5342), email (rjones2@wm.com), or fax (832-668-3169) within 24 hours of any occurrence that *may* result in extended downtime, landfill odors, gas migration issues, or leachate management issues. All autodialer alarm calls must be listed in a callout log and submitted at the end of each month. The call out log must list the nature and details of the alarm and the action taken for all callouts.

1. The autodialer is programmed to call up to four phone numbers when in an alarm mode.

2. AEGL has first response priority to acknowledge the alarm before the autodialer calls additional parties.

3. American Environmental Group, Ltd. (AEGL) personnel are called in order of response priority as follows:

Gerald Cuffe	330-351-3623
Corey Schreck	330-351-8375
Greg Tracy	330-523-0465
Randy Everett	330-351-2299

4. To acknowledge an alarm call received from the autodialer, the responding party must press "9" once the alarm message has been played and a tone has sounded. If the called party misses the call from the autodialer, the party must call the site phone number (937-236-2514). The autodialer will recite the channel number on which the alarm has occurred. Once the alarm is acknowledged, the autodialer may be called at a later time to get an update to note that the alarm is "NOW NORMAL", which means the LFG extraction system has restarted and is operating correctly.

5. Alarm response party will initiate the appropriate phone calls and/or physically visit the site to respond to the alarm condition and perform the necessary correction procedure within 12 hours of autodialer contact.

CHANNEL 1 – PILOT FAILURE

- AEGL will visit the site to check/refill the propane pilot system including the propane supply tank and restart the flare.

CHANNEL 2 – FLAME OUT (low temperature or loss of flame/UV scanner signal alarm)

- Flare will attempt to relight if flame-out condition occurs. AEGL will call the autodialer to ensure restart has been achieved and/or visit the site to inspect the flame supervisory system components and restart the flare. **Routine daily flare shutdowns (shutdowns initiated by the control panel cycle timer) will activate this alarm channel.** The only action that needs to be taken during the programmed shutdown time frame (8:00 PM shutdown thru 8:00 AM start-up) is to acknowledge the alarm.

CHANNEL 3 – FLARE INLET GAS HIGH TEMPERATURE & MANUAL RUN TIMER SHUTDOWN

- AEGL will visit the site to inspect the LFG collection system for any signs back draft in the flare piping and regain normal operations of the LFG collection system or reset the manual timer, set the control panel to automatic mode, and restart the system.

CHANNEL 4 – Alarm currently not used

CHANNEL 5 – TANK 75% FULL (UST 75% full level alarm)

- AEGL will contact Veolia Transportation (937-237-1097) to schedule an appropriate haul date for fluid disposal. Veolia Transportation will haul at least one full load for any one call-out event. The driver will determine if there is another load ready to haul after pulling the first one and if so, the driver will schedule an immediate return trip to the site to pull another load. Veolia Transportation is responsible to coordinate disposal with United Wastewater (513-733-4666) and will provide and complete a wastewater manifest to United Wastewater and WM.

CHANNEL 6 – TANK FULL (UST high level alarm)

- Correction procedure the same as with Channel 5 alarm; AEGL will contact Veolia Transportation to schedule an appropriate haul date, etc., to reduce the fluid to an appropriate tank level. NOTE: During the high level alarm, the air compressor field supply valve will close thus shutting off compressed air to the field. This will keep the pumps in the field from continuing to pump and will reduce the chances of tank overflow. The valve will remain closed until the high level float lowers. AEGL will also respond to any down flare alarms as a result of a "high level" alarm condition.

CHANNEL 7 – COMPRESSOR LOW PRESSURE (low air pressure alarm)

- AEGL will confirm power supply to the site and inspect the air compressor and associated components for system pressure leaks or problems. Air Handling (937-492-5331, local air compressor service company) will be contacted if repairs or troubleshooting are required for the air compressor or air dryer system.

CHANNEL 8 – FLARE FAILURE (pilot ignition system was initiated three times in 80 minutes)

- Alarm indicates that the pilot ignition system was lit three times in three hours. AEGL will assess the condition of the system and determine if the flare was able to relight after the third ignition sequence over the phone. If the system was successful in achieving normal operations after the third ignition, AEGL will monitor flare operations via phone for any continued trouble (the PLC is NOT programmed to shut down the entire system during this alarm. With the PLC being programmed in this fashion, it gives the flare additional attempts to relight and operate if successful). If it is determined that the flare was unable to relight after the third ignition in three hours, an AEGL technician will visit the site to troubleshoot and correct the system to regain normal operations. If the pilot ignition system is initiated three times in 80 minutes, a problem most likely exists within the LFG system that warrants attention.

In the event of a power outage (power related shutdown) channel number 1 and 3 will both be activated at the same time. Additionally, the autodialer will call out with its own internal "Power Is Off" alert.

APPENDIX E.

LANDFILL GAS AND CONDENSATE COLLECTION SYSTEMS MAINTENANCE SUMMARY REPORTS

American Environmental Group Ltd.

American Environmental Group, Ltd.
3600 Brecksville Rd., Suite 100
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

January-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
01/13/11	West Condensate Sump	Reactive	Pump Required Thawing	AEGL technician found the west sump was frozen and not operating properly. Technician pulled discharge hose and found it to be frozen solid. Once the discharge hose was thawed, the technician reinstalled the discharge hose the same day onto west sump. Once the discharge line was reinstalled, the pump was turned on, AEGL verified the sump was operating properly.

Additional Comments: River within banks.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

February-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
02/18/11	Fence	Reactive	USEPA sign was found on the ground	Upon arrival to site the AEGL technician noticed that the USEPA sign was on the ground and not hanging as it should be. The technician re-attached the sign properly to the fence and made sure that it was visible and durably attached.
02/18/11	G/L-9	Reactive	well not cycling	AEGL technician pulled, disassembled, cleaned pump, and fixed an air leak. Technician then re-assembled the pump and re-installed it back into the well. Technician noted the pump was still not operating. Technician then pulled the pump and replaced with a site spare pump. The pump was taken back to the office to be serviced. After the pump is serviced and confirmed operating correctly the pump will be taken back to site.
02/18/11	G/L-18, 20,22,23,26	Reactive	not operating properly	During the routine wellfield sounding event the technician noted these wells as having fluid levels greater than 2.7 feet. Several other wells were in the vicinity of 18-24 in. AEGL will schedule a service event as soon as weather conditions permit. Note river flooding.
02/28/11	Air Compressor	Preventative	SA maintenance	Unit inspected by Air Handling Equip Inc. Filters and oil replaced. Belts ordered for replacement next event. Dryer working ok.

Additional Comments: River flooding, river is out of its banks in February.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

March-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
03/24/11	G/L-23	Reactive	high water level	AEGL technician pulled and cleaned pump set back in well. Pump cycled three times and stopped. Technician noted an air leak, pulled the pump back out of well and fixed the leak. Pump was re-installed in well and cycled three more times before stopping. Technician called project manager to discuss that muck from well could be clogging and stalling the pump. Technician reinstalled the pump and reassembled the well. Will monitor the pumps performance.

Additional Comments: River flooding, river is at the bank top.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

April-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
04/07/11	G/L 7	Reactive	Air line fit was too tight	AEGL technician replaced air line with onsite spare. The new air line was longer and allowed for some slack. This reduced and tension in the air line and elongates it life in the field.
04/07/11	G/L 11	Reactive	Air line fit was too tight	AEGL technician replaced air line with onsite spare. The new air line was longer and allowed for some slack. This reduced and tension in the air line and elongates it life in the field.
04/07/11	G/L 17, 22	Reactive	Cycle counter wasn't operating properly	The technician noticed that the cycle counter was not responding when the pump was cycling. After trying to adjust the counter sensitivity the technician replaced the cycle counter with onsite spare.
04/07/11	G/L 9, 18,17,1,2,3	Proactive	Old sample port was old and deteriorated	AEGL technician replaced the old white broken quick connect sample ports on the lateral side well. The existing sample ports were deteriorated and could allow ambient air to enter the gas collection systems during monitoring.
04/07/11	East/West	Proactive	Old sample port was old and deteriorated	AEGL technician replaced the old white broken quick connect sample ports on the lateral side well. The existing sample ports were deteriorated and could allow ambient air to enter the gas collection systems during monitoring.
04/21/11	Condensate Sump #2.	Reactive	Water from airline getting into the pump air inlet port and stalling pump	Technicians noticed that the pump was stalling. Investigation revealed that there was a significant amount of moisture in the air line reducing the ability of the pump to operate. The technicians then installed an additional water trap on the air line before the existing air regulator and water trap to remove the excessive water found in the airline.

04/21/11	Actuator Valve	Proactive	AEGL suspected that the actuator valve was not fully opening	The technicians started the flare and noticed that the flare was running inconsistently. The technicians investigated the wellfield for any air leaks and repaired some small air leaks. Then they went back to check the flare operation. The flare was still not operating correctly. The technicians removed the actuator and checked for proper operation and noticed that the actuator was moving slowly. They applied WD40 to the moving components of the actuator and reinstalled it. The flare was restarted and the the technicians observed that it was operating properly.
04/21/11	G/L 04	Reactive	Pump not cycling	Regulator is bad and not allowing pump to cycle. New regulator will be ordered with new pumps and installed.
04/21/11	G/L 08	Reactive		Pump has been removed for service and AEGL is waiting for parts from QED.
04/21/11	G/L 09	Reactive	Pump not cycling	Pump is scheduled for Service.
04/21/11	G/L 18	Reactive		Pump has been removed for service and AEGL is waiting for parts from QED.
04/21/11	G/L-2, 10,11,12,13,14,22,23,26	Reactive		Pumps cannot keep up with recharge rate, river flooding above banks. AEGL will monitor pump performance.

Additional Comments: River flooding, river is at the base of the south and west perimeter fence.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

May-2011

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
05/13/11	East Condensate Sump	Reactive	Pumps not cycling and the sump was filled with water	During the technicians sump check the technician noted that the water level in the sump was very high. The technician pulled the pump and diagnosed that it wasn't working properly. The technician removed the pump and replaced it with the pump from well G/L 13. Technician took the pump from the east condensate sump back to the AEGL Richfield, Ohio office for testing.
05/13/11	G/L 7	Reactive	Pump not cycling	While tuning the wellfield the technician noticed that the pump in the well was not cycling even after being jumped. The technician pulled the pump and determined that one of the quick connect fittings on the air line had broken not allowing any compressed air to operate the pump. The technician replaced the quick connect fitting and checked the pump for proper operation.
05/13/11	Flare Enclosure	Proactive		String trimmed the inside of the flare compound and the base of the fence line.
05/13/11	East Condensate Sump	Reactive	Technician noted an excessive amount of water in the air line.	While changing the pump in the east condensate sump the technician noticed a buildup amount of moisture in the air supply. The technician removed the regulator water trap and blew the moisture out of the air lines. After reinstalling the regulator water trap the technician installed a water trap before the air regulator to remove excess moisture from the air supply before reaching the actuator.
05/13/11	G/L 26	Reactive	Pump not cycling	Pump is scheduled for service
05/13/11	G/L 18	Reactive		Pump is currently removed for service. Replacement parts have been ordered.
05/13/11	G/L 04	Reactive	Pump not cycling	Regulator is bad and not allowing pump to cycle. New regulator will be ordered with new pumps and installed.
05/13/11	G/L 08	Reactive		Pump has been removed for service and AEGL is waiting for parts from QED (QED sent wrong parts in first shipment)

Additional Comments: River flooding, river is at the bank top.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

June-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
06/03/11	G/L 10	Reactive	Technician suspected that there was an air leak in the pump	The technician pulled pump and noted that air line assembly and breather line hose barb leading into the brain of the pump were both broken. The technician replaced them with spares. The technician then cleaned the pump and it's components. The technician also noted that the check ball was damaged, so the technician replaced the check ball. The technician then re-installed the pump and noted it didn't pump. This pump will a priority pull during the July annual wellfield pump pull event.
06/03/11	Leachate Control	Reactive	Technician noted that the roof on top of the control panel had fallen.	As the technician performed the flare check the technician noted that the roof covering the control panel had fallen off. The technician then removed the contents of the roof
06/03/11	Flare Enclosure	Proactive		Technician weed whipped the flare enclosure.
06/03/11	G/L 25	Reactive	Technician noted that the sample port on well G/L 25 was broken	During the monthly welfield tuning the technician noted that a sample port on G/L 25 was broken. The technician used a spare sample port and replaced the existing sample port with the new one.
06/03/11	G/L 18	Reactive		Pump has been removed for service. AEGL has repaired the pump in our Richfield office and will install during the annual pump maintenance event in July.
06/03/11	G/L 08	Reactive		Pump has been removed for service. AEGL has repaired the pump in our Richfield office and will install during the annual pump maintenance event in July.
06/03/11	G/L 04	Reactive	Pump not cycling	New regulator has been ordered with new pumps and will be installed once delivered.
06/03/11	G/L 26	Reactive	Pump not cycling	Pump is scheduled for service
06/03/11	G/L 13	Reactive		Pump removed for placement in the East Sump.

Additional Comments: River flooding, river is at the bank top.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

July-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
07/12/11	Pump	Reactive	Pump maintenance	As part of the annual pump pull event the pumps in the following wells were pulled, cleaned, inspected, and serviced as necessary: G/L-4, 3, 2, 1, 18, 17, 14, 12,11, 10, 24, 21, 20, 19, 26, 25, 7.
07/12/11	Pump	Reactive	Pump maintenance	During the annual pump pull event the pumps from G/L-17, 13, 23, 8 and both sumps were removed and replaced with new QED AP4 LDD's. These pumps were taken back to the AEGL office for servicing and repairs. Any pumps that were beyond repair were used for parts in servicing other functional pumps.
07/13/11	G/L-12	Reactive	Bad bolts on flange	The bolts on the flange adapter were severely corroded and the technicians were unable to unscrew them. The technicians cut the bolts to remove them and replaced them with new bolts for more efficient removal in the future.
07/13/11	G/L-1	Reactive	Missing bolts	There were not enough bolts to fill all of the allotted holes in the flange adapter. The technicians added bolts to the existing holes to complete the flange adapter.
07/13/11	G/L-18	Reactive	Animal burrow	There was an animal hole next to the well casing, the technicians placed an animal deterrent in the hole and filled the hole with dirt.
07/13/11	G/L-17	Reactive	Cycle counter not operating, sparse vegetation around well casing	The cycle counter was not operating, even after attempting to adjust the sensitivity. The cycle counter was removed from in-between two air hoses and hard piped on each side. Th allowed the counter to begin operating again. The vegetation around the well was spars . Dirt and grass seed were placed in the area around the well casing to prevent any erosion from taking place.
07/13/11	G/L-04	Reactive	Animal burrow, regulator not operating	The regulator was not allowing the correct amount of compressed air through and the pressure gauge was inoperable. The regulator was replaced with a new QED regulator and tested for effectiveness. There was also an animal burrow next to the well casing so an animal deterrent was placed in the whole. Then the whole was filled with dirt and covered with seed.

07/13/11	G/L-17	Reactive	Bad sample ports and compression fitting on regulator	The sample ports were worn. The sample ports were replaced with new sample ports. The compression fitting on the regulator was not operating correctly so the regulator was disassembled and the compression fitting was replaced. After the regulator was reinstalled it was checked for proper operation.
07/13/11	G/L-11	Reactive	Regulator needs adjusted	The air line leading into the regulator was stretching and cracking form the severe angle that it was being bent at. A brass 90 degree elbow was installed to relieve the tension off the air line and allow it to hang freely.
07/13/11	G/L-13	Reactive	Regulator needs new bracket and compression fitting on blind flange	The regulator was not mounted correctly on the flange because the bracket was broken. The regulator was laying on top on the flange not allowing it to effectively separate any moisture in the compressed air. A new bracket was installed and the regulator was hung vertically to allow it to function properly. The compression fitting in the blind flange was not sealing completely so it was replaced and observed for any leaks
07/13/11	G/L-12	Reactive	Regulator needs new bracket and compression fitting on blind flange	The regulator was not mounted correctly on the flange because the bracket was broken. The regulator was laying on top on the flange not allowing it to effectively separate any moisture in the compressed air. A new bracket was installed and the regulator was hung vertically to allow it to function properly. The compression fitting in the blind flange was not sealing completely so it was replaced and observed for any leaks
07/13/11	G/L-23	Reactive	Air line twisted up	The air line from the ball valve to the regulator was twisted and kinked. This was not allowing an adequate amount of compressed air to reach the pump for proper operation of the pump. The air line was unkinked and reset to prevent it from kinking again in the future.
07/13/11	G/L-25	Reactive	Animal burrow	An animal deterrent was placed in the animal burrow. The burrow was filled with dirt and covered in grass seed.
07/13/11	G/L-15	Reactive	Sparse vegetation around well, bad sample ports	The sample port on the lateral was leaking and allowing ambient air to enter the gas collection system. The port was replaced with a new one and a dust cap was placed over the port. The vegetation around the well was very sparse and could lead to erosion issues. Dirt and grass seed were placed in the area around the well casing to prevent any erosion from taking place in the future. The Vanstone flange was cracked. The flange was replaced to avoid any ambient air leaks.
07/13/11	G/L-16	Reactive	Bad sample ports	The sample port in the lateral was broken and had the potential to allow ambient air into the gas collection simple. The sample port was replaced with a brass hose barb and dust cover to prevent and leaks.
07/22/11	Flare Enclosure	Proactive		The flare compound was string trimmed to prevent the ground cover from becoming a nuisance in the future.

Additional Comments: River flooding, river is at the bank top.

8/25/2011	G/L-21	Reactive	Pump not operating properly	The pump was not operating properly so it was pulled from the well. The pump was cleaned and inspected. The pump was dropped back down the well and observed for correct operation.
8/25/2011	G/L-13	Reactive	Pump not operating properly	The pump was not operating properly so it was pulled from the well. The pump was cleaned and inspected. The pump was dropped back down the well and observed for correct operation.
8/25/2011	G/L-18	Reactive	Pump not operating properly	Pump was removed for service and will be installed next site visit.

Additional Comments: River flooding, river is at the bank top.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

August-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
8/19/2011	Flare Enclosure	Proactive		The vegetation inside the flare compound was actively growing. The area was string trimmed to prevent unwanted vegetative growth inside the flare enclosure.
8/19/2011	G/L-14	Reactive	Cycle counter not functioning	The cycle counter sensitivity was adjusted. After observation the adjustment was verified to not have fixed the issue. The cycle counter was replaced with a new one and was tested for proper operation.
8/19/2011	G/L-23	Reactive	Fluid level was high and pump was not cycling	The fluid level was too high so the pump was pulled from the well for inspection. After pulling the pump it was noted that there was a noticeable difference in the DTB and the length of the pump tubing. The pump tubing length was increased so that the pump was sitting lower in the well casing. After the pump was cleaned it was dropped back in the well and observed for proper operation.
8/24/2011	Pumps	Reactive	Cleaned two pumps	Two Solos, that did not have serial numbers, were cleaned and inspected. It was observed that they needed new brains. A call was made to QED to see if they still make them and have them available for purchase.
8/24/2011	G/L-23	Reactive	Pump not operating properly	Pulled QED #4-4049 out of well because it was not pumping. The pump was taken apart and a build up was found on air poppet. New tubing was installed in July so air system was cleaned out and put back together.
8/25/2011	G/L-26	Proactive	Pump not operating properly	The pump was not operating properly so it was pulled from the well. The pump was cleaned and inspected. The pump was dropped back down the well and observed for correct operation.
8/25/2011	G/L-23	Reactive	Cycle counter not functioning	The cycle counter sensitivity was adjusted. After observation the adjustment was verified to not have fixed the issue. The cycle counter was replaced with a new one and was tested for proper operation.
8/25/2011	UST	Reactive	UST Control Panel	Posts were loose and panel was wobbling when pushed on. Secured panel rack with 2x4 lumber, panel is now secured.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

September-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
09/23/11	Well G/L-2	Reactive	Well came apart at the Vanstone flange reducer fitting	The wellhead was reassembled and resealed. The 3" cam lock cap was missing so it was replaced with one from L2. The cam lock that was removed from L2 was replaced with duct tape, a new cam lock was ordered.
09/23/11	Well G/L-11	Reactive	Technician noted air line leading into regulator was tight and air was leaking out	The air line from the ball valve to the regulator was too tight and was allowing for compressed air to escape the system. The air hose was replaced with a new one and checked for leaks.
09/23/11	Flare Enclosure	Proactive	Vegetation control	The flare enclosure was string trimmed to prevent unwanted growth within the flare compound.
09/23/11	Well G/L-23	Reactive	Pump not cycling	The pump had stopped cycling and was not able to be jumped into operation. The pump was removed to be investigated at the AEGL office. The pump will be replaced upon next visit to the site after the appropriate servicing and repairs are made.
09/23/11	Well G/L-22	Reactive	Pump was cycling but not keeping up with required fluid levels	The pump had stopped cycling and was not able to be jumped into operation. The pump was removed to be investigated at the AEGL office. The pump will be replaced upon next visit to the site after the appropriate servicing and repairs are made.
09/23/11	Well G/L-21	Reactive	Pump was cycling but not keeping up with required fluid levels	The pump had stopped cycling and was not able to be jumped into operation. The pump was removed to be investigated at the AEGL office. The pump will be replaced upon next visit to the site after the appropriate servicing and repairs are made.
09/23/11	Well G/L-18	Reactive	Pump was cycling but not keeping up with required fluid levels	The pump had stopped cycling and was not able to be jumped into operation. The pump was removed to be investigated at the AEGL office. The pump will be replaced upon next visit to the site after the appropriate servicing and repairs are made.

09/26/11	Air Compressor	Preventative	SA maintenance	Unit inspected by Air Handling Equip Inc. Filters and oil replaced. Replaced 3 belts. Dryer working ok.

Additional Comments: River flooding, river is at the bank top.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

October-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
10/21/2011	Flare Enclosure	Proactive	Vegetation Control	The flare enclosure was string trimmed to prevent unwanted growth within the flare compound
10/21/2011	G/L-20	Reactive	Well had high fluid level and was pumping constantly but was not discharging proper amount of fluid	As the pump was being pulled a hole was found where a kink had formed in the discharge line inside of the well causing fluid to be discharged back into well. Two inches of the discharge line was removed and then reattached. The pump was discharging properly into the lateral after the service was completed. The well was sounded after a couple hours and the fluid was noted to again be at the proper level
10/12/11	G/L-13	Reactive	Pump maintenance	A pump that was reconditioned at the AEGL office was installed. The pump was observed for proper operation.
10/12/11	G/L-18	Reactive	Pump maintenance	A pump that was reconditioned at the AEGL office was installed. The pump was observed for proper operation.
10/13/11	G/L-21	Reactive	Pump maintenance	A pump that was reconditioned at the AEGL office was installed. The pump was observed for proper operation.
10/13/11	G/L-22	Reactive	Pump maintenance	A pump that was reconditioned at the AEGL office was installed. The pump was observed for proper operation.
10/13/11	G/L-23	Reactive	Pump maintenance	A pump that was reconditioned at the AEGL office was installed. The pump was observed for proper operation.

Additional Comments: River flooding, river is at the base of the south and west perimeter fence.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

November-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
No routine or non-routine maintenance was performed during November 2011				

Additional Comments: River flooding, river is at the bank top and out of banks at then end of November.

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Waste Management, Powell Rd Landfill
Landfill Gas and Condensate Collection Systems Maintenance Summary Report

December-11

Date	System Repaired	Proactive/ Reactive	Diagnosis of Problem Causing Reactive Action	Corrective Action / Description of Maintenance Performed
12/28/2011	Flame Arrestors	Proactive	Flame Arrestor Inspection	Technician pulled and cleaned flame arrestors
12/28/2011	UST Floats	Reactive	Technician noted that the Channel #5 float alarm wasn't calling out when actuated	The autodialer was not alarming for channel 5. All of the callouts were for channel 6. the float that activates the channel 5 alarm was tested and not sending an alarm signal to the autodialer. Steve Lingafelter was called and came to site to investigate the problem. He determined that there is an issue with the wiring between the autodialer and the floats. This was interim rewired and confirmed the problem.
12/28/2011	G/L-23	Reactive	Pump not cycling	Pump had stalled technician restarted pump.
NA	NA	Reactive & preventative	Flare surging, flooding	System shutdown from 12/01/11 until 12/20/11 due to significant river flood stage; system could not keep up with liquid levels, this caused flare surging and excessive ignition recycling. Manual Restart.

Additional Comments: River flooding, river is at the bank top.

APPENDIX F.

BLOWER/FLARE STATION DATA SHEETS

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	1/13/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	22°F
Barometric Press.:	30.47"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	27.8	22.8	4.3	45.1	-35.1	48	206	None
Blower Out	27	22	4.8	46.2	4.6	59	206	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	36.1	28.6	0.7	34.6	-34.9	47	216	None
Blower Out	34.6	27.7	0.9	36.8	3.8	53	216	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:		√	Check Flame Arrestor:	√	
Check Propane: PSI 58%	√		Check Compressor:	√	
Blower Hours:	11409.3		Check Auto-Dialer:	√	
Blower Amps:	11.0		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1484		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		313,557	DTF 3.8 / DTB 14.9
East	√		769,799	DTF 9.8 / DTB 14.4

Comments: No Additional Comment

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	2/18/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	51°F
Barometric Press.:	30.05"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	30.2	26.4	0.8	42.6	-33.1	46	208	None
Blower Out	29.5	25.8	1.3	43.4	5.2	74	208	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	30.3	26.8	1.1	41.8	-35.4	50	205	None
Blower Out	29.1	25.9	1.4	43.6	4.1	80	205	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:		√	Check Flame Arrestor:	√	
Check Propane: PSI 80%	√		Check Compressor:	√	
Blower Hours:	11831.1		Check Auto-Dialer:	√	
Blower Amps:	10.6		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1300		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		347,743	None
East	√		251,284	None

Comments: No Additional Comment

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	3/24/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	36°F
Barometric Press.:	29.90"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	45.2	26.9	1.9	26	3.7	55	207	None
Blower Out	47.7	28.2	1	23.1	-34.6	46	207	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	48.3	28.7	1	22	-35.8	47	199	None
Blower Out	45.5	27.1	1.9	25.5	4.1	61	199	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:		√	Check Flame Arrestor:	√	
Check Propane: PSI 47%	√		Check Compressor:	√	
Blower Hours:	1209.7		Check Auto-Dialer:	√	
Blower Amps:	10.1		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1273		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		398,011	None
East	√		779,497	None

Comments: No Additional Comment

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician: Gerald Cuffe
Date: 4/21/2011
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 44°F
Barometric Press.: 30.33"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	24.8	22	2.3	50.9	-21.9	57	168	None
Blower Out	23.8	21.5	2.8	51.9	4.8	85	168	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	26	22.9	2	49.1	-28.5	56	220	None
Blower Out	26.3	22.7	2.4	48.6	4.7	82	220	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:		√	Check Flame Arrestor:	√	
Check Propane: PSI 74%	√		Check Compressor:	√	
Blower Hours:	12408.6		Check Auto-Dialer:	√	
Blower Amps:	9.5		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1245		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		415,349	None
East	√		266,177	None

Comments: Technician ran the flare in Manual Control Mode because the flare was not firing up in Automatic Mode. The flare was then switched into Automatic mode for continous operations.

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	5/20/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	63°F
Barometric Press.:	30.06"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	28.1	24	1.2	46.7	-30.7	63	198	None
Blower Out	27.2	23.2	1.8	47.8	3.9	97	198	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	34.6	24.7	1.7	39	-29.8	64	220	None
Blower Out	34.5	25.2	1.7	38.6	3.6	107	220	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 62%	√		Check Compressor:	√	
Blower Hours:	12694.8		Check Auto-Dialer:	√	
Blower Amps:	9.8		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1374		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	N/A	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		415,745	None
East	√		555,925	None

Comments: No Additional Comment

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	6/3/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	68°F
Barometric Press.:	29.96"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	28.2	25.7	1	45.1	-26.9	59	225	None
Blower Out	27.2	25.4	1.8	45.6	4.9	93	225	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	31.7	30.8	1.1	36.4	-27.2	65	237	None
Blower Out	30.6	30.3	1.6	37.5	4.1	110	237	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 59%	x		Check Compressor:	√	
Blower Hours:	12855.5		Check Auto-Dialer:	√	
Blower Amps:	10.2		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1151		Check Ignition System:	√	
Drain Flare Stack:	x		Other:	N/A	

Compressor Data:

System Pressure:	160	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		442,610	None
East	√		825,940	None

Comments: No Additional Comment

Project Manager: Nick Jordon

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	7/22/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	88°F
Barometric Press.:	29.94"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	44.8	30	0.8	24.4	-22.5	75	330	None
Blower Out	44	28.9	1.2	25.9	4.3	120	330	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	44.7	29.1	0.4	25.8	-22.2	77	349	None
Blower Out	43.5	28.4	0.8	27.3	4	125	349	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 55%	√		Check Compressor:	√	
Blower Hours:	13411.4		Check Auto-Dialer:	√	
Blower Amps:	10		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1042		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	None	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		480,187	None
East	√		578,351	None

Comments: No Additional Comment

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	8/19/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	74°F
Barometric Press.:	30.02"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	36.6	29.5	0.1	33.8	-23.5	75	347	None
Blower Out	35.9	28.5	0.7	34.9	4	113	347	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	34.8	27.1	0.9	37.2	-29	77	349	None
Blower Out	34.6	26.3	1.4	37.7	3.9	124	349	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 55%	√		Check Compressor:	√	
Blower Hours:	13744.7		Check Auto-Dialer:	√	
Blower Amps:	10		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1196		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	None	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		512,210	None
East	√		780,370	None

Comments: No Additional Comment

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	9/23/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	58°F
Barometric Press.:	30.04"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	32.1	23.4	5.3	39.2	-20.8	67	285	None
Blower Out	31.3	22.8	5.8	40.1	4.4	73	285	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	40.9	30.3	0.5	28.3	-21.9	67	308	None
Blower Out	39.4	29.6	1.2	29.8	4.5	82	308	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 44%	x		Check Compressor:	x	
Blower Hours:	14136.2		Check Auto-Dialer:	x	
Blower Amps:	10.8		Long Distance Service Active:	x	

Flare Data:

Flare Temperature:	1433		Check Ignition System:	x	
Drain Flare Stack:	x		Other:	None	

Compressor Data:

System Pressure:	160	psi	Check Compressor Drains:	x	
Dryers Functioning:	x		Check Dryers Drains:	x	
Check Motor:	x		Check Drive Belts:	x	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	x		536,972	None
East	x		54,654	None

Comments: No Additional Comment

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	10/21/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	57°F
Barometric Press.:	30.04"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	38.9	28.7	1.2	31.2	-21.9	64	300	None
Blower Out	37.5	27.9	1.7	32.9	4.5	85	300	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	40.5	28.6	1.7	29.2	-22.4	67	340	None
Blower Out	37.6	27.2	2	33.2	4	94	340	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	√		None
Motor Operating Properly?	√		None

	Yes	No		Yes	No
Lube Blowers:	√		Check Valves:	√	
Check Belts/Drive:	√		Check Actuator:	√	
Drain Blower:	√		Check Flame Arrestor:	√	
Check Propane: PSI 40%	√		Check Compressor:	√	
Blower Hours:	14472.3		Check Auto-Dialer:	√	
Blower Amps:	11.75		Long Distance Service Active:	√	

Flare Data:

Flare Temperature:	1304		Check Ignition System:	√	
Drain Flare Stack:	√		Other:	None	

Compressor Data:

System Pressure:	155	psi	Check Compressor Drains:	√	
Dryers Functioning:	√		Check Dryers Drains:	√	
Check Motor:	√		Check Drive Belts:	√	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	√		546,557	None
East	√		398,205	None

Comments: No Additional Comment

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	11/18/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	47°F
Barometric Press.:	30.30"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	37.3	28.8	1	32.9	-22.4	59	285	None
Blower Out	35.9	28.1	1.6	34.4	4.6	86	285	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	37.8	29.7	0.8	31.7	-22.6	60	295	None
Blower Out	36.7	28.8	1.5	33	3.2	79	295	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	x		
Motor Operating Properly?	x		

	Yes	No		Yes	No
Lube Blowers:	x		Check Valves:	x	
Check Belts/Drive:	x		Check Actuator:	x	
Drain Blower:	x		Check Flame Arrestor:	x	
Check Propane: PSI 77%	x		Check Compressor:	x	
Blower Hours:	14808.1		Check Auto-Dialer:	x	
Blower Amps:	12.5		Long Distance Service Active:	x	

Flare Data:

Flare Temperature:	1082		Check Ignition System:	x	
Drain Flare Stack:	x		Other:	None	

Compressor Data:

System Pressure:	150	psi	Check Compressor Drains:	x	
Dryers Functioning:	x		Check Dryers Drains:	x	
Check Motor:	x		Check Drive Belts:	x	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	x		596,363	None
East	x		623,321	None

Comments: No Additional Comment

American Environmental Group Ltd.

Blower / Flare Station Data

Technician:	Gerald Cuffe
Date:	12/29/2011
Client:	R. Jones, WMI
Site:	Powell Rd
Temperature:	40°F
Barometric Press.:	29.82"Hg

Before Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	48	30.6	1.2	20.2	-22.5	53	305	None
Blower Out	46.2	29.7	1.8	22.3	4.1	63	305	None

After Tuning

Location	CH4	CO2	O2	Bal.	Press./Vac.	Temp.	Flow	Comments
Blower In	48.4	31.4	1.3	18.9	-27.1	53	315	None
Blower Out	46.6	30.5	1.9	21	4.2	76	315	None

Blower Data:

	Yes	No	Comments
Blower Operating Properly?	x		
Motor Operating Properly?	x		

	Yes	No		Yes	No
Lube Blowers:	x		Check Valves:	x	
Check Belts/Drive:	x		Check Actuator:	x	
Drain Blower:	x		Check Flame Arrestor:	x	
Check Propane: PSI 75%	x		Check Compressor:	x	
Blower Hours:	15070.3		Check Auto-Dialer:	x	
Blower Amps:	12.1		Long Distance Service Active:	x	

Flare Data:

Flare Temperature:	1040		Check Ignition System:	x	
Drain Flare Stack:	x		Other:	None	

Compressor Data:

System Pressure:	165	psi	Check Compressor Drains:	x	
Dryers Functioning:	x		Check Dryers Drains:	x	
Check Motor:	x		Check Drive Belts:	x	

Sump Pump Data:

Sump Location	Operating Yes	Operating No	Cycle Counter	Comments
West	x		616,070	None
East	x		970,840	None

Comments: No Additional Comment

AIR HANDLING EQUIPMENT INC.

1389 RIVERSIDE DRIVE
SIDNEY, OHIO 45365

(937) 492-5331

INVOICE NUMBER: 22484

INVOICE DATE: 2/28/2011

PAGE: Page 1 of 1

SOLD TO:

WASTE MANAGEMENT
P.O. BOX 13506
DAYTON, OH 45413

Ship To:
AMERICAN ENVIRONMENTAL
POWELL ROAD LANDFILL
DAYTON, OH 45413

Serviced Equipment: SAYLOR BEALL, CDD-PL-91524, S/N: 21-H-9-Y-A00

CUSTOMER ID	CUSTOMER PO	PAYMENT TERMS
1215	VERBAL ROBIN	NET 30 DAYS

SALES REP ID	SHIPPING METHOD	SHIP DATE	DUE DATE
			3/30/2011

QUANTITY	ITEM NUMBER	DESCRIPTION	UNIT PRICE	EXTENSION
.abor				
		Straight Time Labor Work Order #14993, 2/25/11 Service call to plant. We drained the oil and filled unit with new oil. We replaced the air filter. We cleaned the after cooler and checked the tank and drains. All okay. The unit will need new belts. Ran and tested. Unit is running fine at this time. Dryer is also working fine at this time. NOTE: We have the belts on order and will bring with us at the next PM.		$276.00
			Labor Subtotal:	**$276.00**
Parts				
2.00	8389	AIR FILTER - SAYLOR BEALL		$88.00
1.00	606202-1	1 GAL OF MOBIL RARUS 427		$36.00
			Parts Subtotal:	**$124.00**
Miscellaneous				
1.00		SHOP SUPPLIES		$15.00
64.00		MILEAGE		$64.00
			Miscellaneous Subtotal:	**$79.00**

Subtotal:	$479.00
Sales Tax:	$0.00
Total Invoice Amount:	479.00
Payments:	$0.00
TOTAL DUE:	**$479.00**

Air Handling Equipment, Inc.
1977 - 2011
hank you for 34 years of business!

AIR HANDLING EQUIPMENT INC.

1389 RIVERSIDE DRIVE
SIDNEY, OHIO 45365

(937) 492-5331

INVOICE NUMBER: 25968

INVOICE DATE: 9/26/2011

PAGE: Page 1 of 1

SOLD TO:

WASTE MANAGEMENT
P.O. BOX 13506
DAYTON, OH 45413

Ship To:
AMERICAN ENVIRONMENTAL
POWELL ROAD LANDFILL
DAYTON, OH 45413

Serviced Equipment: SAYLOR BEALL, CDD-PL-91524, S/N: 21-H-9-Y-A00

CUSTOMER ID	CUSTOMER PO	PAYMENT TERMS	
1215	VERBAL ROBIN	NET 30 DAYS	
SALES REP ID	**SHIPPING METHOD**	**SHIP DATE**	**DUE DATE**
			10/26/2011

QUANTITY	ITEM NUMBER	DESCRIPTION	UNIT PRICE	EXTENSION
Labor				
		Preventative Maintenance: Work Order #17356, 9/22/11 Service call to plant. We did a PM service. We drained the oil and filled unit with new. We replaced the air filter. Checked the tank and drains. We replaced three belts and made proper adjustments. Ran and tested. Unit is running fine at this time. The dryer is working fine also.		$322.00
			Labor Subtotal:	**$322.00**
Parts				
2.00		8389 AIR FILTER - SAYLOR BEALL		$88.00
1.00		606202-1 1 GAL OF MOBIL RARUS 427		$45.00
3.00		BX96 BELT		$75.48
			Parts Subtotal:	**$208.48**
Miscellaneous				
1.00		SHOP SUPPLIES		$15.00
64.00		MILEAGE		$64.00
			Miscellaneous Subtotal:	**$79.00**

Subtotal:	$609.48
Sales Tax:	$0.00
Total Invoice Amount:	609.48
Payments:	$0.00
TOTAL DUE:	**$609.48**

Air Handling Equipment, Inc.
1977 - 2011
Thank you for 34 years of business!

APPENDIX G.

WELLFIELD MONITORING DATA (FLUID LEVELS)

American Environmental Group Ltd.

Wellfield Monitoring Data (Fluid Levels)

Technician: Gerald Cuffe
Date: 1/13/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 22°F
Barometric Pressure: 30.47"Hg

ID	Date	Depth to Fluid	Depth to Bottom	Fluid in Well	Cycle Counter	Comments
L1	1/13/2011	N/A	48.60	N/A	N/A	None
L2	1/13/2011	N/A	47.50	N/A	N/A	None
L3	1/13/2011	N/A	29.10	N/A	N/A	None
G/L 01	1/13/2011	N/A	41.90	N/A	23,257	None
G/L 02	1/13/2011	N/A	43.55	N/A	950,829	None
G/L 03	1/13/2011	N/A	46.35	N/A	42,397	None
G/L 04	1/13/2011	N/A	36.60	N/A	4,083	None
G/L 05	1/13/2011	N/A	40.80	N/A	N/A	None
G/L 06	1/13/2011	N/A	39.95	N/A	N/A	None
G/L 07	1/13/2011	N/A	39.90	N/A	226,721	None
G/L 08	1/13/2011	N/A	40.95	N/A	285,126	None
G/L 09	1/13/2011	N/A	41.15	N/A	899,667	None
G/L 10	1/13/2011	N/A	43.70	N/A	372,339	None
G/L 11	1/13/2011	N/A	44.75	N/A	686,871	None
G/L 12	1/13/2011	N/A	47.40	N/A	2,535	None
G/L 13	1/13/2011	N/A	47.60	N/A	444,798	None
G/L 14	1/13/2011	N/A	36.20	N/A	173,525	None
G/L 15	1/13/2011	N/A	40.25	N/A	N/A	None
G/L 16	1/13/2011	N/A	37.40	N/A	N/A	None
G/L 17	1/13/2011	N/A	37.80	N/A	90,179	Air turned on by tech
G/L 18	1/13/2011	N/A	39.20	N/A	742,642	None
G/L 19	1/13/2011	N/A	55.50	N/A	585,063	Air turned on by tech
G/L 20	1/13/2011	N/A	41.90	N/A	526,828	None
G/L 21	1/13/2011	N/A	54.40	N/A	323,539	None
G/L 22	1/13/2011	N/A	53.95	N/A	15,764	None
G/L 23	1/13/2011	N/A	52.60	N/A	341,880	None
G/L 24	1/13/2011	N/A	50.90	N/A	593,837	None
G/L 25	1/13/2011	N/A	52.75	N/A	313,143	None
G/L 26	1/13/2011	N/A	60.85	N/A	499,621	None

Comments: Please see maintenance summary report for additional details.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**		
Feb.			**Aug**		
March			**Sept**		
April			**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	2/18/2011	Temperature:	51°F
Client:	R. Jones, WMI	Barometric Pressure:	30.05"Hg

			Previous Month's Data:		January 2011		*Current* Month's Data.		February 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	1/13/2011	N/A	N/A	N/A	2/18/2011	N/A	N/A	N/A	N/A	
L2	47.50	No	1/13/2011	N/A	N/A	N/A	2/18/2011	N/A	N/A	N/A	N/A	
L3	29.10	No	1/13/2011	N/A	N/A	N/A	2/18/2011	N/A	N/A	N/A	N/A	
G/L 01	41.90	Yes	1/13/2011	N/A	N/A	23,257	2/18/2011	41.10	0.80	24,220	963	
G/L 02	43.55	Yes	1/13/2011	N/A	N/A	950,829	2/18/2011	42.20	1.35	960,949	10,120	See additional comment below
G/L 03	46.35	Yes	1/13/2011	N/A	N/A	42,397	2/18/2011	45.20	1.15	42,631	234	
G/L 04	36.60	Yes	1/13/2011	N/A	N/A	4,083	2/18/2011	34.60	2.00	4,085	2	AEGL is scheduled to service this pump and verify tubing length
G/L 05	40.80	No	1/13/2011	N/A	N/A	N/A	2/18/2011	N/A	N/A	N/A	N/A	
G/L 06	39.95	No	1/13/2011	N/A	N/A	N/A	2/18/2011	N/A	N/A	N/A	N/A	
G/L 07	39.90	Yes	1/13/2011	N/A	N/A	226,721	2/18/2011	38.50	1.40	228,561	1,840	
G/L 08	40.95	Yes	1/13/2011	N/A	N/A	285,126	2/18/2011	38.40	2.55	285,133	7	AEGL is scheduled to service this pump and verify tubing length
G/L 09	41.15	Yes	1/13/2011	N/A	N/A	899,667	2/18/2011	37.70	3.45	900,594	927	AEGL is scheduled to service this pump and verify tubing length
G/L 10	43.70	Yes	1/13/2011	N/A	N/A	372,339	2/18/2011	42.50	1.20	372,353	14	
G/L 11	44.75	Yes	1/13/2011	N/A	N/A	686,871	2/18/2011	42.70	2.05	686,878	7	AEGL is scheduled to service this pump and verify tubing length
G/L 12	47.40	Yes	1/13/2011	N/A	N/A	2,535	2/18/2011	45.90	1.50	2,538	3	Measured depth to bottom is 0 3 ft shallower than the template depth to bottom value. Pump working properly
G/L 13	47.60	Yes	1/13/2011	N/A	N/A	444,798	2/18/2011	45.80	1.80	445,099	301	AEGL is scheduled to service this pump and verify tubing length
G/L 14	36.20	Yes	1/13/2011	N/A	N/A	173,525	2/18/2011	33.60	2.60	173,526	1	AEGL is scheduled to service this pump and verify tubing length
G/L 15	40.25	No	1/13/2011	N/A	N/A	N/A	2/18/2011	N/A	N/A	N/A	N/A	
G/L 16	37.40	No	1/13/2011	N/A	N/A	N/A	2/18/2011	N/A	N/A	N/A	N/A	
G/L 17	37.80	Yes	1/13/2011	N/A	N/A	90,179	2/18/2011	35.90	1.90	90,179	0	AEGL is scheduled to service this pump and verify tubing length
G/L 18	39 20	Yes	1/13/2011	N/A	N/A	742,642	2/18/2011	36.30	2.90	742,642	0	AEGL is scheduled to service this pump and verify tubing length
G/L 19	55.50	Yes	1/13/2011	N/A	N/A	585,063	2/18/2011	54 30	1.20	647,194	62,131	See additional comment below
G/L 20	41.90	Yes	1/13/2011	N/A	N/A	526,828	2/18/2011	40.90	1.00	551,378	24,550	See additional comment below
G/L 21	54.40	Yes	1/13/2011	N/A	N/A	323,539	2/18/2011	53.50	0.90	357,831	34,292	See additional comment below
G/L 22	53.95	Yes	1/13/2011	N/A	N/A	15,764	2/18/2011	50.50	3.45	16,670	906	AEGL is scheduled to service this pump and verify tubing length
G/L 23	52.60	Yes	1/13/2011	N/A	N/A	341,880	2/18/2011	32.80	19.80	341,982	102	AEGL is scheduled to service this pump and verify tubing length
G/L 24	50.90	Yes	1/13/2011	N/A	N/A	593,837	2/18/2011	49.10	1.80	623,913	30,076	Pump is working, just can't keep up. See additional comment below
G/L 25	52.75	Yes	1/13/2011	N/A	N/A	313,143	2/18/2011	51.5	1.25	337,901	24,758	See additional comment below
G/L 26	60.85	Yes	1/13/2011	N/A	N/A	499,621	2/18/2011	55.6	5.25	555,661	56,040	AEGL is scheduled to service this pump and verify tubing length, also see additional comment below

Additional Comments: Wells G/L 02, 19, 20, 21, 24, 25, and 26: Cycle counter difference value appears to be legitimate based on river level and pump operations.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**		
Feb.	5.07	Above Banks	**Aug**		
March			**Sept**		
April			**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	3/24/2011	Temperature:	36°F
Client:	R Jones, WMI	Barometric Pressure:	29.90"Hg

			Previous Month's Date:		February 2011		*Current* Month's Date:		March 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	2/18/2011	N/A	N/A	N/A	3/24/2011	46.30	2.30	N/A	N/A	No pump installed
L2	47.50	No	2/18/2011	N/A	N/A	N/A	3/24/2011	46.70	0.80	N/A	N/A	No pump installed
L3	29.10	No	2/18/2011	N/A	N/A	N/A	3/24/2011	28.60	0.50	N/A	N/A	No pump installed
G/L 01	41.90	Yes	2/18/2011	41.10	0.80	24,220	N/A	N/A	N/A	60,613	36,393	
G/L 02	43.55	Yes	2/18/2011	42.20	1.35	960,949	N/A	N/A	N/A	175,355	214,406	Cycle counter turned over 1 *Million Cycles, reset* back to Zero and Continued Cycling
G/L 03	46.35	Yes	2/18/2011	45.20	1.15	42,631	N/A	N/A	N/A	43,875	1,244	
G/L 04	36.60	Yes	2/18/2011	34.60	2.00	4,085	N/A	N/A	N/A	4,089	4	Needs new regulator. New cycle counter to be ordered and installed.
G/L 05	40.80	No	2/18/2011	N/A	N/A	N/A	3/24/2011	39.80	1.00	N/A	N/A	
G/L 06	39.95	No	2/18/2011	N/A	N/A	N/A	3/24/2011	36.80	3.15	N/A	N/A	No pump installed
G/L 07	39.90	Yes	2/18/2011	38.50	1.40	228,561	N/A	N/A	N/A	238,044	9,483	
G/L 08	40.95	Yes	2/18/2011	38.40	2.55	285,133	N/A	N/A	N/A	285,137	4	Pump has been removed for service and AEGL is waiting for parts from QED
G/L 09	41.15	Yes	2/18/2011	37.70	3.45	900,594	N/A	N/A	N/A	900,691	97	
G/L 10	43.70	Yes	2/18/2011	42.50	1.20	372,353	N/A	N/A	N/A	583,451	211,098	
G/L 11	44.75	Yes	2/18/2011	42.70	2.05	686,878	N/A	N/A	N/A	168,400	481,522	Cycle counter turned over 1 Million Cycles, reset back to Zero and Continued Cycling
G/L 12	47.40	Yes	2/18/2011	45.90	1.50	2,538	N/A	N/A	N/A	76,181	73,643	
G/L 13	47.60	Yes	2/18/2011	45.80	1.80	445,099	N/A	N/A	N/A	850,941	405,842	
G/L 14	36.20	Yes	2/18/2011	33.60	2.60	173,526	N/A	N/A	N/A	173,526	0	Needs new cycle counter. *New cycle counter to be* ordered and installed.
G/L 15	40.25	No	2/18/2011	N/A	N/A	N/A	3/24/2011	38.70	1.55	N/A	N/A	Actual DTB is 40.10 and Amt of fluid in well is under 18"
G/L 16	37.40	No	2/18/2011	N/A	N/A	N/A	3/24/2011	36.20	1.20	N/A	N/A	
G/L 17	37.80	Yes	2/18/2011	35.90	1.90	90,179	N/A	N/A	N/A	90,179	0	Needs new cycle counter. New cycle counter to be ordered and installed.
G/L 18	39.20	Yes	2/18/2011	36.30	2.90	742,642	N/A	N/A	N/A	742,642	0	Needs new cycle counter. New cycle counter to be ordered and installed.
G/L 19	55.50	Yes	2/18/2011	54.30	1.20	647,194	N/A	N/A	N/A	671,732	24,538	
G/L 20	41.90	Yes	2/18/2011	40.90	1.00	551,378	N/A	N/A	N/A	567,230	15,852	
G/L 21	54.40	Yes	2/18/2011	53.50	0.90	357,831	N/A	N/A	N/A	445,623	87,792	
G/L 22	53.95	Yes	2/18/2011	50.50	3.45	16,670	N/A	N/A	N/A	87,900	71,230	
G/L 23	52.60	Yes	2/18/2011	32.80	19.80	341,982	N/A	N/A	N/A	341,982	0	Needs new cycle counter. New cycle counter to be ordered and installed.
G/L 24	50.90	Yes	2/18/2011	49.10	1.80	623,913	N/A	N/A	N/A	632,150	8,237	
G/L 25	52.75	Yes	2/18/2011	51.5	1.25	337,901	N/A	N/A	N/A	361,958	24,057	
G/L 26	60.85	Yes	2/18/2011	55.6	5.25	555,661	N/A	N/A	N/A	560,922	5,261	

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**		
Feb.	5.07	Above Banks	**Aug**		
March	3.60	At Banks	**Sept**		
April			**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	4/21/2011	Temperature:	36°F
Client:	R. Jones, WMI	Barometric Pressure:	29.90"Hg

			Previous Month's Date:		March 2011		*Current* Month's Date:		April 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	3/24/2011	46.30	2.30	N/A	N/A	N/A	N/A	N/A	N/A	No pump installed
L2	47.50	No	3/24/2011	46.70	0.80	N/A	N/A	N/A	N/A	N/A	N/A	
L3	29.10	No	3/24/2011	28.60	0.50	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 01	41.90	Yes	N/A	N/A	N/A	60,613	4/21/2011	41.90	0.00	64,163	3,550	
G/L 02	43.55	Yes	N/A	N/A	N/A	175,355	4/21/2011	32.90	10.65	209,559	34,204	Pump cannot keep up with recharge rate, river above banks.
G/L 03	46.35	Yes	N/A	N/A	N/A	43,875	4/21/2011	45.00	1.35	45,219	1,344	
G/L 04	36.60	Yes	N/A	N/A	N/A	4,089	4/21/2011	29.30	7.30	4,091	2	Regulator is bad and not allowing pump to cycle. New regulator will be ordered with new pumps and installed.
G/L 05	40.80	No	3/24/2011	39.80	1.00	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 06	39.95	No	3/24/2011	36.80	3.15	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 07	39.90	Yes	N/A	N/A	N/A	238,044	4/21/2011	39.90	0.00	243,747	5,703	
G/L 08	40.95	Yes	N/A	N/A	N/A	285,137	4/21/2011	37.30	3.65	285,167	30	Pump has been removed for service and AEGL is waiting for parts from QED
G/L 09	41.15	Yes	N/A	N/A	N/A	900,691	4/21/2011	37.80	3.35	900,698	7	Pump is scheduled for Service.
G/L 10	43.70	Yes	N/A	N/A	N/A	583,451	4/21/2011	38.70	5.00	590,225	6,774	River is above banks, but pump will be evaluated if services is needed.
G/L 11	44.75	Yes	N/A	N/A	N/A	168,400	4/21/2011	39.60	5.15	169,420	1,020	Pump cannot keep up with recharge rate, river above banks.
G/L 12	47.40	Yes	N/A	N/A	N/A	76,181	4/21/2011	43.00	4.40	208,517	132,336	Pump cannot keep up with recharge rate, river above banks.
G/L 13	47.60	Yes	N/A	N/A	N/A	850,941	4/21/2011	40.20	7.40	954,841	103,900	Pump cannot keep up with recharge rate, river above banks.
G/L 14	36.20	Yes	N/A	N/A	N/A	173,526	4/21/2011	32.20	4.00	173,526	0	Pump cannot keep up with recharge rate, river above banks. Needs new cycle counter. New cycle counter will be ordered with new pumps and installed.
G/L 15	40.25	No	3/24/2011	38.70	1.55	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 16	37.40	No	3/24/2011	36.20	1.20	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 17	37.80	Yes	N/A	N/A	N/A	90,179	4/21/2011	35.10	2.70	352	352	New Cycle Counter Installed. Pump cannot keep up with recharge rate, river above banks.
G/L 18	39.20	Yes	N/A	N/A	N/A	742,642	4/21/2011	35.10	4.10	742,642	0	Pump Is Currently Removed for Service.
G/L 19	55.50	Yes	N/A	N/A	N/A	671,732	4/21/2011	54.30	1.20	726,654	54,922	
G/L 20	41.90	Yes	N/A	N/A	N/A	567,230	4/21/2011	40.60	1.30	581,877	14,647	
G/L 21	54.40	Yes	N/A	N/A	N/A	445,623	4/21/2011	53.30	1.10	454,507	8,884	
G/L 22	53.95	Yes	N/A	N/A	N/A	87,900	4/21/2011	49.40	4.55	18,729	18,729	New Cycle Counter Installed. Pump cannot keep up with recharge rate, river above banks.
G/L 23	52.60	Yes	N/A	N/A	N/A	341,982	4/21/2011	46.30	6.30	477,479	135,497	Pump cannot keep up with recharge rate, river above banks.
G/L 24	50.90	Yes	N/A	N/A	N/A	632,150	4/21/2011	49.10	1.80	641,304	9,154	River is above banks, but pump will be evaluated if services is needed.
G/L 25	52.75	Yes	N/A	N/A	N/A	361,958	4/21/2011	52.75	0.00	372,239	10,281	
G/L 26	60.85	Yes	N/A	N/A	N/A	560,922	4/21/2011	54.20	6.65	590,926	30,004	Pump cannot keep up with recharge rate, river above banks.

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**		
Feb.	5.07	Above Banks	**Aug**		
March	3.60	At Banks	**Sept**		
April	10.48	At Perimeter	**Oct**		
May			**Nov**		
June			**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	5/20/2011	Temperature:	63°F
Client:	R. Jones, WMI	Barometric Pressure:	30.06"Hg

			Previous Month's Date:		April 2011		*Current* Month's Date:		May 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
L2	47.50	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
L3	29.10	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 01	41.90	Yes	4/21/2011	41.90	0.00	64,163	5/20/2011	N/A	N/A	80,322	16,159	
G/L 02	43.55	Yes	4/21/2011	32.90	10.65	209,559	5/20/2011	N/A	N/A	244,564	35,005	
G/L 03	46.35	Yes	4/21/2011	45.00	1.35	45,219	5/20/2011	N/A	N/A	45,219	0	Needs new cycle counter. New regulator will be ordered with new pumps and installed.
G/L 04	36.60	Yes	4/21/2011	29.30	7.30	4,091	5/20/2011	N/A	N/A	4,091	0	Regulator is bad and not allowing pump to cycle New regulator will be ordered with new pumps and installed.
G/L 05	40.80	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 06	39.95	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 07	39.90	Yes	4/21/2011	39.90	0.00	243,747	5/20/2011	N/A	N/A	244,319	572	
G/L 08	40.95	Yes	4/21/2011	37.30	3.65	285,167	5/20/2011	N/A	N/A	285,167	0	Pump has been removed for service and AEGL is waiting for parts from QED (QED sent wrong parts in first shipment)
G/L 09	41.15	Yes	4/21/2011	37.80	3.35	900,698	5/20/2011	N/A	N/A	900,701	3	
G/L 10	43.70	Yes	4/21/2011	38.70	5.00	590,225	5/20/2011	N/A	N/A	606,063	15,838	
G/L 11	44.75	Yes	4/21/2011	39.60	5.15	169,420	5/20/2011	N/A	N/A	169,421	1	Cycle counter was adjusted to restore proper operations.
G/L 12	47.40	Yes	4/21/2011	43.00	4.40	208,517	5/20/2011	N/A	N/A	208,518	1	Cycle counter was adjusted to restore proper operations.
G/L 13	47.60	Yes	4/21/2011	40.20	7.40	954,841	5/20/2011	N/A	N/A	701,569	-253,272	Pump removed for placement in the East Sump. Cycle counter erroneously turned over 1 million cycles b/c the cycle counter counted more than 1 cycle per pump stroke. Counter was adjusted to correct this issue.
G/L 14	36.20	Yes	4/21/2011	32.20	4.00	173,526	5/20/2011	N/A	N/A	173,526	0	Needs new cycle counter New cycle counter will be ordered with new pumps and installed.
G/L 15	40.25	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 16	37.40	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
G/L 17	37.80	Yes	4/21/2011	35.10	2.70	352	5/20/2011	N/A	N/A	360	8	Cycle counter was adjusted to restore proper operations.
G/L 18	39.20	Yes	4/21/2011	35.10	4.10	742,642	5/20/2011	N/A	N/A	742,642	0	Pump Is Currently Removed for Service. Replacement parts have been ordered.
G/L 19	55.50	Yes	4/21/2011	54.30	1.20	726,654	5/20/2011	N/A	N/A	768,837	42,183	
G/L 20	41.90	Yes	4/21/2011	40.60	1.30	581,877	5/20/2011	N/A	N/A	588,888	7,011	
G/L 21	54.40	Yes	4/21/2011	53.30	1.10	454,507	5/20/2011	N/A	N/A	489,905	35,398	
G/L 22	53.95	Yes	4/21/2011	49.40	4.55	18,729	5/20/2011	N/A	N/A	20,307	1,578	
G/L 23	52.60	Yes	4/21/2011	46.30	6.30	477,479	5/20/2011	N/A	N/A	713,544	236,065	
G/L 24	50.90	Yes	4/21/2011	49.10	1.80	641,304	5/20/2011	N/A	N/A	652,885	11,581	
G/L 25	52.75	Yes	4/21/2011	52.75	0.00	372,239	5/20/2011	N/A	N/A	395,866	23,627	
G/L 26	60.85	Yes	4/21/2011	54.20	6.65	590,926	5/20/2011	N/A	N/A	590,926	0	Pump is scheduled for service

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	July	None
February	Wells with Pumps	August	Wells with Pumps
March	Wells without Pumps	September	Wells without Pumps
April	Wells with Pumps	October	Wells with Pumps
May	None	November	None
June	All Wells	December	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	July		
Feb.	5.07	Above Banks	Aug		
March	3.60	At Banks	Sept		
April	10.48	At Perimeter	Oct		
May	3.20	At Banks	Nov		
June			Dec		

River Level Gauge

Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site	Powell Rd Landfill
Date:	6/3/2011	Temperature	68°F
Client	R Jones, WMI	Barometric Pressure.	29 96"Hg

			Previous Month's Date.		April 2011		*Current* Month's Date		June 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48 60	No	N/A	N/A	N/A	N/A	N/A	46 10	2.50	N/A	N/A	
L2	47.50	No	N/A	N/A	N/A	N/A	N/A	46 60	0.90	N/A	N/A	
L3	29.10	No	N/A	N/A	N/A	N/A	N/A	28 60	0.50	N/A	N/A	
G/L 01	41 90	Yes	4/21/2011	41 90	0.00	80,322	6/3/2011	40 90	1.00	82628	2,306	
G/L 02	43.55	Yes	4/21/2011	32.90	10 65	244,564	6/3/2011	42.10	1 45	254999	10,435	
G/L 03	46 35	Yes	4/21/2011	45 00	1.35	45,219	6/3/2011	45 90	0.45	45219	0	Needs new cycle counter New regulator has been ordered with new pumps and will be installed once delivered
G/L 04	36 60	Yes	4/21/2011	29.30	7.30	4,091	6/3/2011	32.80	3 80	4091	0	Regulator is bad and not allowing pump to cycle. New regulator has been ordered with new pumps and will be installed once delivered
G/L 05	40.80	No	N/A	N/A	N/A	N/A	6/3/2011	39.90	0 90	N/A	N/A	
G/L 06	39.95	No	N/A	N/A	N/A	N/A	6/3/2011	36 70	3 25	N/A	N/A	Pump is scheduled for service
G/L 07	39.90	Yes	4/21/2011	39.90	0 00	244,319	6/3/2011	37 80	2 10	244428	109	Pump is scheduled for service
G/L 08	40 95	Yes	4/21/2011	37.30	3.65	285,167	6/3/2011	36 80	4.15	285167	0	Pump has been removed for service AEGL has repaired the pump in our Richfield office and will install during the annual pump maintenance event in July
G/L 09	41.15	Yes	4/21/2011	37.80	3.35	900,701	6/3/2011	36.90	4 25	900702	1	Pump is scheduled for service
G/L 10	43 70	Yes	4/21/2011	38.70	5.00	606,063	6/3/2011	42 60	1.10	606063	0	Pump serviced in the field, but pump not able to be operational Will be replaced in July.
G/L 11	44.75	Yes	4/21/2011	39.60	5 15	169,421	6/3/2011	40 10	4 65	599377	429 956	Pump cannot keep up with recharge rate Pump will be pulled in July to ensure maximum pumping potential
G/L 12	47 40	Yes	4/21/2011	43.00	4.40	208,518	6/3/2011	43.70	3 70	208520	2	Pump is scheduled for service
G/L 13	47 60	Yes	4/21/2011	40.20	7 40	701,569	6/3/2011	42 40	5.20	701569	0	Pump removed for placement in the East Sump
G/L 14	36.20	Yes	4/21/2011	32.20	4.00	173,526	6/3/2011	32.80	3 40	173526	0	Needs new cycle counter New cycle counter has been ordered with new pumps and will be installed once delivered
G/L 15	40.25	No	N/A	N/A	N/A	N/A	6/3/2011	38 30	1 95	N/A	N/A	No pump installed in well
G/L 16	37.40	No	N/A	N/A	N/A	N/A	6/3/2011	36.40	1.00	N/A	N/A	
G/L 17	37 80	Yes	5/20/2011	35.10	2.70	360	6/3/2011	34 70	3.10	363	3	Pump is scheduled for service
G/L 18	39 20	Yes	5/20/2011	35.10	4 10	742,642	6/3/2011	36.20	3.00	742642	0	Pump has been removed for service. AEGL has repaired the pump in our Richfield office and will install during the annual pump maintenance event in July.
G/L 19	55 50	Yes	4/21/2011	54.30	1 20	768,837	6/3/2011	54.20	1 30	787401	18,564	
G/L 20	41.90	Yes	4/21/2011	40 60	1.30	588,888	6/3/2011	39.70	2 20	595036	6,148	Pump cannot keep up with recharge rate. Pump is scheduled for service
G/L 21	54 40	Yes	4/21/2011	53.30	1.10	489,905	6/3/2011	53 40	1 00	517725	27,820	
G/L 22	53 95	Yes	4/21/2011	49 40	4.55	20,307	6/3/2011	51.00	2.95	21906	1,599	Pump cannot keep up with recharge rate Pump is scheduled for service
G/L 23	52 60	Yes	4/21/2011	46.30	6.30	713,544	6/3/2011	43.30	9 30	783932	70,388	Pump cannot keep up with recharge rate Pump is scheduled for service
G/L 24	50 90	Yes	4/21/2011	49.10	1 80	652,885	6/3/2011	49.30	1 60	660042	7,157	Pump cannot keep up with recharge rate Pump is scheduled for service
G/L 25	52 75	Yes	4/21/2011	52.75	0.00	395,866	6/3/2011	49.7	3 05	419784	23,918	Pump cannot keep up with recharge rate Pump is scheduled for service
G/L 26	60.85	Yes	4/21/2011	54.20	6 65	560,926	6/3/2011	54.2	6 65	560926	0	Pump is scheduled for service

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	July	None
February	Wells with Pumps	August	Wells with Pumps
March	Wells without Pumps	September	Wells without Pumps
April	Wells with Pumps	October	Wells with Pumps
May	None	November	None
June	All Wells	December	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0 63	Below Banks	July		
Feb.	5.07	Above Banks	Aug		
March	3.60	At Banks	Sept		
April	10.48	At Perimeter	Oct		
May	3.20	At Banks	Nov		
June	4.26	At Banks	Dec		

River Level Gauge

Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician	Jake Ayers, Justin Cramer	Site:	Powell Rd. Landfill
Date.	7/12/2011	Temperature	90°F
Client	R. Jones, WMI	Barometric Pressure	28.96"Hg

			Previous Month's Date		June 2011		*Current* Month's Date:		July 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
L2	47.50	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
L3	29.10	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 01	41.90	Yes	6/3/2011	41.90	0.00	82628	7/12/2011	41.30	0.60	N/A	N/A	
G/L 02	43.55	Yes	6/3/2011	32.90	10.65	254999	7/12/2011	42.10	1.45	N/A	N/A	
G/L 03	46.35	Yes	6/3/2011	45.00	1.35	45219	7/12/2011	45.10	1.25	N/A	N/A	
G/L 04	36.60	Yes	6/3/2011	29.30	7.30	4091	7/12/2011	35.20	1.40	N/A	N/A	
G/L 05	40.80	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 06	39.95	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 07	39.90	Yes	6/3/2011	39.90	0.00	244428	7/12/2011	38.30	1.60	N/A	N/A	Pump was serviced and is moving water out of the well.
G/L 08	40.95	Yes	6/3/2011	37.30	3.65	285167	7/12/2011	37.00	3.95	N/A	N/A	Pump was serviced and is moving water out of the well.
G/L 09	41.15	Yes	6/3/2011	37.80	3.35	900702	7/12/2011	37.70	3.45	N/A	N/A	pump stuck in well, AEGL to investigate
G/L 10	43.70	Yes	6/3/2011	38.70	5.00	606063	7/12/2011	42.50	1.20	N/A	N/A	
G/L 11	44.75	Yes	6/3/2011	39.60	5.15	599377	7/12/2011	43.20	1.55	N/A	N/A	Well in compliance according to actual DTB
G/L 12	47.40	Yes	6/3/2011	43.00	4.40	208520	7/12/2011	45.90	1.50	N/A	N/A	Well in compliance according to actual DTB
G/L 13	47.60	Yes	6/3/2011	40.20	7.40	701569	7/12/2011	45.70	1.90	N/A	N/A	Pump was serviced and is moving water out of the well.
G/L 14	36.20	Yes	6/3/2011	32.20	4.00	173526	7/12/2011	33.00	3.20	N/A	N/A	Pump was serviced and is moving water out of the well.
G/L 15	40.25	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 16	37.40	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 17	37.80	Yes	6/3/2011	35.10	2.70	363	7/12/2011	34.50	3.30	N/A	N/A	Pump was serviced and is moving water out of the well.
G/L 18	39.20	Yes	6/3/2011	35.10	4.10	742642	7/12/2011	37.70	1.50	N/A	N/A	Well in compliance according to actual DTB
G/L 19	55.50	Yes	6/3/2011	54.30	1.20	787401	7/12/2011	53.10	2.40	N/A	N/A	Pump was serviced and is moving water out of the well.
G/L 20	41.90	Yes	6/3/2011	40.60	1.30	595036	7/12/2011	40.60	1.30	N/A	N/A	
G/L 21	54.40	Yes	6/3/2011	53.30	1.10	517725	7/12/2011	53.50	0.90	N/A	N/A	
G/L 22	53.95	Yes	6/3/2011	49.40	4.55	21906	7/12/2011	50.80	3.15	N/A	N/A	Pump was serviced and is moving water out of the well.
G/L 23	52.60	Yes	6/3/2011	46.30	6.30	783932	7/12/2011	39.70	12.90	N/A	N/A	Sludge at bottom of well. Pump was serviced and is moving water out of the well.
G/L 24	50.90	Yes	6/3/2011	49.10	1.80	660042	7/12/2011	50.00	0.90	N/A	N/A	
G/L 25	52.75	Yes	6/3/2011	52.75	0.00	419784	7/12/2011	51.3	1.45	N/A	N/A	
G/L 26	60.85	Yes	6/3/2011	54.20	6.65	560926	7/12/2011	58.9	1.95	N/A	N/A	Pump was serviced and is moving water out of the well.

Additional Comments: This fluid level data was collected during the annual pump service event. Cycle counter numbers were not collected during this event but were collected during the July monthly monitoring event.

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**		
Feb.	5.07	Above Banks	**Aug**		
March	3.60	At Banks	**Sept**		
April	10.48	At Perimeter	**Oct**		
May	3.20	At Banks	**Nov**		
June	4.26	At Banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician.	Gerald Cuffe	Site.	Powell Rd. Landfill
Date.	7/22/2011	Temperature:	88°F
Client.	R. Jones, WMI	Barometric Pressure:	29.94"Hg

			Previous Month's Date:		June 2011		*Current* Month's Date:		July 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
L2	47.50	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
L3	29.10	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 01	41.90	Yes	6/3/2011	41.90	0.00	82628	7/22/2011	N/A	N/A	84268	1,640	
G/L 02	43 55	Yes	6/3/2011	32.90	10.65	254999	7/22/2011	N/A	N/A	260999	6,000	
G/L 03	46.35	Yes	6/3/2011	45.00	1.35	45219	7/22/2011	N/A	N/A	45219	0	Needs new cycle counter. New regulator has been ordered with new pumps and will be installed once delivered.
G/L 04	36.60	Yes	6/3/2011	29.30	7.30	4091	7/22/2011	N/A	N/A	4904	813	
G/L 05	40.80	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 06	39.95	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 07	39.90	Yes	6/3/2011	39.90	0.00	244428	7/22/2011	N/A	N/A	244488	60	
G/L 08	40.95	Yes	6/3/2011	37.30	3.65	285167	7/22/2011	N/A	N/A	302794	17,627	
G/L 09	41.15	Yes	6/3/2011	37.80	3.35	900702	7/22/2011	N/A	N/A	900711	9	Pump has been serviced, need to evaluate performance.
G/L 10	43.70	Yes	6/3/2011	38.70	5.00	606063	7/22/2011	N/A	N/A	606075	12	Pump has been serviced, need to evaluate performance.
G/L 11	44.75	Yes	6/3/2011	39.60	5.15	599377	7/22/2011	N/A	N/A	999250	399,873	
G/L 12	47.40	Yes	6/3/2011	43.00	4.40	208520	7/22/2011	N/A	N/A	208526	6	Pump has been serviced, need to evaluate performance.
G/L 13	47.60	Yes	6/3/2011	40.20	7 40	701569	7/22/2011	N/A	N/A	701583	14	Pump has been serviced, need to evaluate performance.
G/L 14	36.20	Yes	6/3/2011	32.20	4.00	173526	7/22/2011	N/A	N/A	173526	0	Needs new cycle counter. New cycle counter has been ordered with new pumps and will be installed once delivered
G/L 15	40.25	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 16	37.40	No	6/3/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No Pump Installed In Well
G/L 17	37.80	Yes	6/3/2011	35.10	2.70	363	7/22/2011	N/A	N/A	97172	96,809	
G/L 18	39.20	Yes	6/3/2011	35.10	4.10	742642	7/22/2011	N/A	N/A	742642	0	Pump has been serviced, need to evaluate performance.
G/L 19	55.50	Yes	6/3/2011	54.30	1.20	787401	7/22/2011	N/A	N/A	787401	0	Pump has been serviced, need to evaluate performance.
G/L 20	41.90	Yes	6/3/2011	40.60	1.30	595036	7/22/2011	N/A	N/A	616429	21,393	
G/L 21	54.40	Yes	6/3/2011	53.30	1.10	517725	7/22/2011	N/A	N/A	549949	32,224	
G/L 22	53.95	Yes	6/3/2011	49.40	4.55	21906	7/22/2011	N/A	N/A	28657	6,751	
G/L 23	52.60	Yes	6/3/2011	46.30	6.30	783932	7/22/2011	N/A	N/A	818999	35,067	
G/L 24	50.90	Yes	6/3/2011	49.10	1.80	660042	7/22/2011	N/A	N/A	729313	69,271	
G/L 25	52.75	Yes	6/3/2011	52.75	0.00	419784	7/22/2011	N/A	N/A	456155	36,371	
G/L 26	60.85	Yes	6/3/2011	54.20	6.65	560926	7/22/2011	N/A	N/A	560929	3	Pump has been serviced, need to evaluate performance.

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**	2.99	At Banks
Feb.	5.07	Above Banks	**Aug**		
March	3.60	At Banks	**Sept**		
April	10.48	At Perimeter	**Oct**		
May	3.20	At Banks	**Nov**		
June	4.26	At Banks	**Dec**		

River Level Gauge

Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	8/19/2011	Temperature:	74°F
Client:	R. Jones, WMI	Barometric Pressure:	30.02"Hg

			Previous Month's Date:		July 2011		*Current* Month's Date:		August 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	N/A	N/A	N/A	N/A	8/19/2011	N/A	N/A	N/A	N/A	None
L2	47.50	No	N/A	N/A	N/A	N/A	8/19/2011	N/A	N/A	N/A	N/A	None
L3	29.10	No	N/A	N/A	N/A	N/A	8/19/2011	N/A	N/A	N/A	N/A	None
G/L 01	41.90	Yes	7/12/2011	41.30	0.60	84268	8/19/2011	41.45	0.45	85120	852	None
G/L 02	43.55	Yes	7/12/2011	42.10	1.45	260999	8/19/2011	42.13	1.42	264806	3,807	None
G/L 03	46.35	Yes	7/12/2011	45.10	1.25	45219	8/19/2011	44.75	1.60	45219	0	Cycle counter will be replaced once all parts are acquired.
G/L 04	36.60	Yes	7/12/2011	35.20	1.40	4904	8/19/2011	35.03	1.57	441803	436,899	Pump is working and well is mostly compliant depending on when the measurement is taken in respect to pump stroke.
G/L 05	40.80	No	N/A	N/A	N/A	N/A	8/19/2011	N/A	N/A	N/A	N/A	None
G/L 06	39.95	No	N/A	N/A	N/A	N/A	8/19/2011	N/A	N/A	N/A	N/A	None
G/L 07	39.90	Yes	7/12/2011	38.30	1.60	244488	8/19/2011	38.75	1.15	244490	2	Well is pumped down
G/L 08	40.95	Yes	7/12/2011	37.00	3.95	302794	8/19/2011	40.05	0.90	341227	38,433	None
G/L 09	41.15	Yes	7/12/2011	37.70	3.45	900711	8/19/2011	39.83	1.32	900711	0	Well is pumped down
G/L 10	43.70	Yes	7/12/2011	42.50	1.20	606075	8/19/2011	42.75	0.95	606075	0	Well is pumped down
G/L 11	44.75	Yes	7/12/2011	43.20	1.55	999250	8/19/2011	42.95	1.80	3503	-995,747	Cycle counter turned over 1 million cycles. Pump is working and well is mostly compliant depending on when the measurement is taken in respect to pump stroke.
G/L 12	47.40	Yes	7/12/2011	45.90	1.50	208526	8/19/2011	46.13	1.27	208527	1	Well is pumped down
G/L 13	47.60	Yes	7/12/2011	45.70	1.90	701583	8/19/2011	45.27	2.33	701584	1	Pump requires service again - AEGL to investigate
G/L 14	36.20	Yes	7/12/2011	33.00	3.20	173526	8/19/2011	31.83	4.37	207	-173,319	New cycle counter installed. Pump is cycling and unable to keep up with fluid level
G/L 15	40.25	No	N/A	N/A	N/A	N/A	8/19/2011	N/A	N/A	N/A	N/A	None
G/L 16	37.40	No	N/A	N/A	N/A	N/A	8/19/2011	N/A	N/A	N/A	N/A	None
G/L 17	37.80	Yes	7/12/2011	34.50	3.30	97172	8/19/2011	36.02	1.78	222954	125,782	Pump is cycling and unable to keep up with fluid level
G/L 18	39.20	Yes	7/12/2011	37.70	1.50	742642	8/19/2011	37.45	1.75	742642	0	Pump was removed for service and will be installed next site visit.
G/L 19	55.50	Yes	7/12/2011	53.10	2.40	787401	8/19/2011	54.44	1.06	894925	107,524	None
G/L 20	41.90	Yes	7/12/2011	40.60	1.30	616429	8/19/2011	40.85	1.05	631234	14,805	None
G/L 21	54.40	Yes	7/12/2011	53.50	0.90	549949	8/19/2011	48.79	5.61	549953	4	Pump requires service again - AEGL to investigate
G/L 22	53.95	Yes	7/12/2011	50.80	3.15	28657	8/19/2011	47.68	6.27	30914	2,257	Pump is cycling, but unable to keep up with fluid level
G/L 23	52.60	Yes	7/12/2011	39.70	12.90	818999	8/19/2011	35.79	16.81	818999	0	See Below
G/L 24	50.90	Yes	7/12/2011	50.00	0.90	729313	8/19/2011	49.91	0.99	880103	150,790	None
G/L 25	52.75	Yes	7/12/2011	51.30	1.45	456155	8/19/2011	50.9	1.90	499925	43,770	Pump is cycling / working. Well is in compliance if actual DTB is factored in.
G/L 26	60.85	Yes	7/12/2011	58.90	1.95	560929	8/19/2011	49.6	11.28	560929	0	Pump requires service again - AEGL to investigate

Additional Comments: **Comment for Well 23: Technician noted pump wasn't cycling and installed new pump. After new pump was installed tech noted the cycle counter wasn't functioning properly and will replace once replacement units are delivered from QED.**

Pumps requiring service again this month will be investigated and will be repaired under warranty if AEGL determines that any pump failed due to AEGL service reasons.

Sounding Schedule:

January	None	July	None
February	Wells with Pumps	August	Wells with Pumps
March	*Wells without Pumps*	September	*Wells without Pumps*
April	Wells with Pumps	October	Wells with Pumps
May	None	November	None
June	All Wells	December	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	July	2.99	At Banks
Feb.	5.07	Above Banks	Aug	3.15	At Banks
March	3.60	At Banks	Sept		
April	10.48	At Perimeter	Oct		
May	3.20	At Banks	Nov		
June	4.26	At Banks	Dec		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	9/23/2011	Temperature:	58°F
Client	R. Jones, WMI	Barometric Pressure:	30.04"Hg

			Previous Month's Date		August 2011		*Current* Month's Date:		September 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	8/19/2011	N/A	N/A	N/A	9/23/2011	47.85	0.75	N/A	N/A	No Pump in Well
L2	47.50	No	8/19/2011	N/A	N/A	N/A	9/23/2011	46.83	0.67	N/A	N/A	No Pump in Well
L3	29.10	No	8/19/2011	N/A	N/A	N/A	9/23/2011	28.68	0.42	N/A	N/A	No Pump in Well
G/L 01	41.90	Yes	8/19/2011	41.45	0.45	85120	N/A	N/A	N/A	86324	1,204	None
G/L 02	43.55	Yes	8/19/2011	42.13	1.42	264806	N/A	N/A	N/A	267276	2,470	None
G/L 03	46.35	Yes	8/19/2011	44.75	1.60	45219	N/A	N/A	N/A	45223	4	Cycle counter will be replaced once all parts are acquired.
G/L 04	36.60	Yes	8/19/2011	35.03	1.57	441803	N/A	N/A	N/A	446746	4,943	None
G/L 05	40.80	No	8/19/2011	N/A	N/A	N/A	9/23/2011	39.87	0.93	N/A	N/A	No Pump in Well
G/L 06	39.95	No	8/19/2011	N/A	N/A	N/A	9/23/2011	37.85	2.10	N/A	N/A	No Pump in Well
G/L 07	39.90	Yes	8/19/2011	38.75	1.15	244490	N/A	N/A	N/A	244499	9	None
G/L 08	40.95	Yes	8/19/2011	40.05	0.90	341227	N/A	N/A	N/A	358558	17,331	None
G/L 09	41.15	Yes	8/19/2011	39.83	1.32	900711	N/A	N/A	N/A	900715	4	None
G/L 10	43.70	Yes	8/19/2011	42.75	0.95	606075	N/A	N/A	N/A	606081	6	None
G/L 11	44.75	Yes	8/19/2011	42.95	1.80	3503	N/A	N/A	N/A	14599	11,096	None
G/L 12	47.40	Yes	8/19/2011	46.13	1.27	208527	N/A	N/A	N/A	208533	6	None
G/L 13	47.60	Yes	8/19/2011	45.27	2.33	701584	N/A	N/A	N/A	701584	0	AEGL has pulled this pump for investigation
G/L 14	36.20	Yes	8/19/2011	31.83	4.37	207	N/A	N/A	N/A	12358	12,151	None
G/L 15	40.25	No	8/19/2011	N/A	N/A	N/A	9/23/2011	39.19	1.06	N/A	N/A	None
G/L 16	37.40	No	8/19/2011	N/A	N/A	N/A	9/23/2011	36.71	0.69	N/A	N/A	None
G/L 17	37.80	Yes	8/19/2011	36.02	1.78	222954	N/A	N/A	N/A	373106	150,152	None
G/L 18	39.20	Yes	8/19/2011	37.45	1.75	742642	N/A	N/A	N/A	742642	0	Pump was removed for service and will be installed next site visit.
G/L 19	55.50	Yes	8/19/2011	54.44	1.06	894925	N/A	N/A	N/A	973670	78,745	None
G/L 20	41.90	Yes	8/19/2011	40.85	1.05	631234	N/A	N/A	N/A	650032	18,798	None
G/L 21	54.40	Yes	8/19/2011	48.79	5.61	549953	N/A	N/A	N/A	549960	7	Pump was removed for service and will be installed next site visit.
G/L 22	53.95	Yes	8/19/2011	47.68	6.27	30914	N/A	N/A	N/A	31487	573	Pump was removed for service and will be installed next site visit.
G/L 23	52.60	Yes	8/19/2011	35.79	16.81	818999	N/A	N/A	N/A	212	-818,787	Pump was removed for service and will be installed next site visit. Cycle counter turned over 1 million cycles
G/L 24	50.90	Yes	8/19/2011	49.91	0.99	880103	N/A	N/A	N/A	95742	-784,361	Cycle counter turned over 1 million cycles
G/L 25	52.75	Yes	8/19/2011	50.9	1.90	499925	N/A	N/A	N/A	543405	43,480	None
G/L 26	60.85	Yes	8/19/2011	49.6	11.28	560929	N/A	N/A	N/A	573783	12,854	None

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**	2.99	At Banks
Feb.	5.07	Above Banks	**Aug**	3.15	At Banks
March	3.60	At Banks	**Sept**	9.76	At Banks
April	10.48	At Perimeter	**Oct**		
May	3.20	At Banks	**Nov**		
June	4.26	At Banks	**Dec**		

River Level Gauge

Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	10/21/2011	Temperature:	57°F
Client:	R. Jones, WMI	Barometric Pressure:	30.04"Hg

			Previous Month's Date.		September 2011		*Current* Month's Date.		October 2011		Difference in Cycle Counter Values	Comments
Well ID	**Depth to Bottom**	**Pump in Well**	**Date**	**Depth to Fluid**	**Fluid in Well**	**Cycle Counter**	**Date**	**Depth to Fluid**	**Fluid in Well**	**Cycle Counter**		
L1	48.60	No	9/23/2011	47.85	0.75	N/A	N/A	N/A	N/A	N/A	N/A	None
L2	47.50	No	9/23/2011	46.83	0.67	N/A	N/A	N/A	N/A	N/A	N/A	None
L3	29.10	No	9/23/2011	28.68	0.42	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 01	41.90	Yes	N/A	N/A	N/A	86324	10/21/2011	40.93	0.97	87994	1,670	None
G/L 02	43.55	Yes	N/A	N/A	N/A	267276	10/21/2011	41.95	1.60	279486	12,210	None
G/L 03	46.35	Yes	N/A	N/A	N/A	45223	10/21/2011	44.81	1.54	45226	3	None
G/L 04	36.60	Yes	N/A	N/A	N/A	446746	10/21/2011	34.97	1.63	446753	7	None
G/L 05	40.80	No	9/23/2011	39.87	0.93	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 06	39.95	No	9/23/2011	37.85	2.10	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 07	39.90	Yes	N/A	N/A	N/A	244499	10/21/2011	39.01	0.89	247208	2,709	None
G/L 08	40.95	Yes	N/A	N/A	N/A	358558	10/21/2011	39.93	1.02	373832	15,274	None
G/L 09	41.15	Yes	N/A	N/A	N/A	900715	10/21/2011	39.69	1.46	900719	4	None
G/L 10	43.70	Yes	N/A	N/A	N/A	606081	10/21/2011	42.27	1.43	606189	108	None
G/L 11	44.75	Yes	N/A	N/A	N/A	14599	10/21/2011	43.48	1.27	28211	13,612	None
G/L 12	47.40	Yes	N/A	N/A	N/A	208533	10/21/2011	45.93	1.47	208537	4	None
G/L 13	47.60	Yes	N/A	N/A	N/A	701584	10/21/2011	45.99	1.61	701593	9	None
G/L 14	36.20	Yes	N/A	N/A	N/A	12358	10/21/2011	34.61	1.59	19808	7,450	None
G/L 15	40.25	No	9/23/2011	39.19	1.06	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 16	37.40	No	9/23/2011	36.71	0.69	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 17	37.80	Yes	N/A	N/A	N/A	373106	10/21/2011	36.73	1.07	489714	116,608	None
G/L 18	39.20	Yes	N/A	N/A	N/A	742642	10/21/2011	37.91	1.29	742642	0	None
G/L 19	55.50	Yes	N/A	N/A	N/A	973670	10/21/2011	54.29	1.21	45834	-927,836	Cycle counter turned over
G/L 20	41.90	Yes	N/A	N/A	N/A	650032	10/21/2011	40.67	1.23	829760	179,728	See maintenance log
G/L 21	54.40	Yes	N/A	N/A	N/A	549960	10/21/2011	52.81	1.59	549980	20	None
G/L 22	53.95	Yes	N/A	N/A	N/A	31487	10/21/2011	52.31	1.64	33939	2,452	None
G/L 23	52.60	Yes	N/A	N/A	N/A	212	10/21/2011	48.51	4.09	6005	5,793	stalled pump. restarted pump. Pump is cycling
G/L 24	50.90	Yes	N/A	N/A	N/A	95742	10/21/2011	49.67	1.23	225110	129,368	None
G/L 25	52.75	Yes	N/A	N/A	N/A	543405	10/21/2011	51.8	0.94	583445	40,040	None
G/L 26	60.85	Yes	N/A	N/A	N/A	573783	10/21/2011	60.4	0.50	588476	14,693	None

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	**Inches**	**River Level**	**Date**	**Inches**	**River Level**	**River Level Gauge**
Jan.	0.63	Below Banks	**July**	2.99	At Banks	Below Banks
Feb.	5.07	Above Banks	**Aug**	3.15	At Banks	At Banks
March	3.60	At Banks	**Sept**	9.76	At Banks	Above Banks
April	10.48	At Fence	**Oct**	3.82	At Fence	At Perimeter Fence
May	3.20	At Banks	**Nov**			Above Perimeter Fence
June	4.26	At Banks	**Dec**			

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician:	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	11/18/2011	Temperature:	47°F
Client.	R. Jones, WMI	Barometric Pressure:	30.30"Hg

			Previous Month's Date:		October 2011		*Current* Month's Date:		November 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None
L2	47.50	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None
L3	29.10	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 01	41.90	Yes	10/21/2011	40.93	0.97	87994	11/18/2011	N/A	N/A	89723	1,729	None
G/L 02	43.55	Yes	10/21/2011	41.95	1.60	279486	11/18/2011	N/A	N/A	297735	18,249	None
G/L 03	46.35	Yes	10/21/2011	44.81	1.54	45226	11/18/2011	N/A	N/A	45491	265	None
G/L 04	36.60	Yes	10/21/2011	34.97	1.63	446753	11/18/2011	N/A	N/A	446753	0	None
G/L 05	40.80	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 06	39.95	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 07	39.90	Yes	10/21/2011	39.01	0.89	247208	11/18/2011	N/A	N/A	250248	3,040	None
G/L 08	40.95	Yes	10/21/2011	39.93	1.02	373832	11/18/2011	N/A	N/A	384474	10,642	None
G/L 09	41.15	Yes	10/21/2011	39.69	1.46	900719	11/18/2011	N/A	N/A	900721	2	None
G/L 10	43.70	Yes	10/21/2011	42.27	1.43	606189	11/18/2011	N/A	N/A	606194	5	None
G/L 11	44.75	Yes	10/21/2011	43.48	1.27	28211	11/18/2011	N/A	N/A	33484	5,273	None
G/L 12	47.40	Yes	10/21/2011	45.93	1.47	208537	11/18/2011	N/A	N/A	208538	1	None
G/L 13	47.60	Yes	10/21/2011	45.99	1.61	701593	11/18/2011	N/A	N/A	701597	4	None
G/L 14	36.20	Yes	10/21/2011	34.61	1.59	19808	11/18/2011	N/A	N/A	27406	7,598	None
G/L 15	40.25	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 16	37.40	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	None
G/L 17	37.80	Yes	10/21/2011	36.73	1.07	489714	11/18/2011	N/A	N/A	559620	69,906	None
G/L 18	39.20	Yes	10/21/2011	37.91	1.29	742642	11/18/2011	N/A	N/A	742642	0	None
G/L 19	55.50	Yes	10/21/2011	54.29	1.21	45834	11/18/2011	N/A	N/A	111583	65,749	None
G/L 20	41.90	Yes	10/21/2011	40.67	1.23	829760	11/18/2011	N/A	N/A	845710	15,950	None
G/L 21	54.40	Yes	10/21/2011	52.81	1.59	549980	11/18/2011	N/A	N/A	549981	1	None
G/L 22	53.95	Yes	10/21/2011	52.31	1.64	33939	11/18/2011	N/A	N/A	37889	3,950	None
G/L 23	52.60	Yes	10/21/2011	48.51	4.09	6005	11/18/2011	N/A	N/A	6134	129	None
G/L 24	50.90	Yes	10/21/2011	49.67	1.23	225110	11/18/2011	N/A	N/A	347325	122,215	None
G/L 25	52.75	Yes	10/21/2011	51.8	0.94	583445	11/18/2011	N/A	N/A	583985	540	None
G/L 26	60.85	Yes	10/21/2011	60.4	0.50	588476	11/18/2011	N/A	N/A	607921	19,445	None

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level
Jan.	0.63	Below Banks	**July**	2.99	At Banks
Feb.	5.07	Above Banks	**Aug**	3.15	At Banks
March	3.60	At Banks	**Sept**	9.76	At Banks
April	10.48	At Perimeter	**Oct**	3.82	At Perimeter
May	3.20	At Banks	**Nov**	6.14	At Banks
June	4.26	At Banks	**Dec**		

River Level Gauge
Below Banks
At Banks
Above Banks
At Perimeter Fence
Above Perimeter Fence

American Environmental Group Ltd.

Wellfield Fluid & Pump Cycle Data (Fluid Levels)

Technician	Gerald Cuffe	Site:	Powell Rd. Landfill
Date:	12/29/2011	Temperature:	40°F
Client:	R. Jones, WMI	Barometric Pressure:	29.82"Hg

			Previous Month's Date:		November 2011		*Current* Month's Date:		December 2011		Difference in Cycle Counter Values	Comments
Well ID	Depth to Bottom	Pump in Well	Date	Depth to Fluid	Fluid in Well	Cycle Counter	Date	Depth to Fluid	Fluid in Well	Cycle Counter		
L1	48.60	No	N/A	N/A	N/A	N/A	12/29/2011	45.75	2.85	N/A	N/A	None
L2	47.50	No	N/A	N/A	N/A	N/A	12/29/2011	46.21	1.29	N/A	N/A	None
L3	29.10	No	N/A	N/A	N/A	N/A	12/29/2011	28.59	0.51	N/A	N/A	None
G/L 01	41.90	Yes	11/18/2011	N/A	N/A	89723	12/29/2011	41.23	0.67	92783	3,060	None
G/L 02	43.55	Yes	11/18/2011	N/A	N/A	297735	12/29/2011	42.53	1.02	355198	57,463	None
G/L 03	46.35	Yes	11/18/2011	N/A	N/A	45491	12/29/2011	44.99	1.36	46410	919	None
G/L 04	36.60	Yes	11/18/2011	N/A	N/A	446753	12/29/2011	35.43	1.17	446855	102	None
G/L 05	40.80	No	N/A	N/A	N/A	N/A	12/29/2011	39.81	0.99	N/A	N/A	None
G/L 06	39.95	No	N/A	N/A	N/A	N/A	12/29/2011	35.91	4.04	N/A	N/A	No Pump
G/L 07	39.90	Yes	11/18/2011	N/A	N/A	250248	12/29/2011	38.97	0.93	254199	3,951	None
G/L 08	40.95	Yes	11/18/2011	N/A	N/A	384474	12/29/2011	40.21	0.74	392285	7,811	None
G/L 09	41.15	Yes	11/18/2011	N/A	N/A	900721	12/29/2011	39.95	1.20	900741	20	None
G/L 10	43.70	Yes	11/18/2011	N/A	N/A	606194	12/29/2011	42.22	1.48	606269	75	None
G/L 11	44.75	Yes	11/18/2011	N/A	N/A	33484	12/29/2011	43.68	1.07	72617	39,133	None
G/L 12	47.40	Yes	11/18/2011	N/A	N/A	208538	12/29/2011	45.81	1.59	208538	0	None
G/L 13	47.60	Yes	11/18/2011	N/A	N/A	701597	12/29/2011	46.73	0.87	701602	5	None
G/L 14	36.20	Yes	11/18/2011	N/A	N/A	27406	12/29/2011	34.61	1.59	35674	8,268	None
G/L 15	40.25	No	N/A	N/A	N/A	N/A	12/29/2011	38.75	1.50	N/A	N/A	None
G/L 16	37.40	No	N/A	N/A	N/A	N/A	12/29/2011	36.05	1.35	N/A	N/A	None
G/L 17	37.80	Yes	11/18/2011	N/A	N/A	559620	12/29/2011	36.78	1.02	850660	291,040	None
G/L 18	39.20	Yes	11/18/2011	N/A	N/A	742642	12/29/2011	38.15	1.05	742642	0	None
G/L 19	55.50	Yes	11/18/2011	N/A	N/A	111583	12/29/2011	54.41	1.09	168881	57,298	None
G/L 20	41.90	Yes	11/18/2011	N/A	N/A	845710	12/29/2011	41.05	0.85	851562	5,852	None
G/L 21	54.40	Yes	11/18/2011	N/A	N/A	549981	12/29/2011	53.31	1.09	550013	32	None
G/L 22	53.95	Yes	11/18/2011	N/A	N/A	37889	12/29/2011	52.75	1.20	43909	6,020	None
G/L 23	52.60	Yes	11/18/2011	N/A	N/A	6134	12/29/2011	50.95	1.65	7115	981	Pump had stalled technician restarted pump
G/L 24	50.90	Yes	11/18/2011	N/A	N/A	347325	12/29/2011	49.85	1.05	479572	132,247	None
G/L 25	52.75	Yes	11/18/2011	N/A	N/A	583985	12/29/2011	52.2	0.60	624147	40,162	None
G/L 26	60.85	Yes	11/18/2011	N/A	N/A	607921	12/29/2011	60.1	0.74	629390	21,469	None

Additional Comments: No Additional Comment

Sounding Schedule:

January	None	**July**	None
February	Wells with Pumps	**August**	Wells with Pumps
March	Wells without Pumps	**September**	Wells without Pumps
April	Wells with Pumps	**October**	Wells with Pumps
May	None	**November**	None
June	All Wells	**December**	All Wells

Precipitation Data:

Date	Inches	River Level	Date	Inches	River Level	River Level Gauge
Jan.	0.63	Below Banks	**July**	2.99	At Banks	Below Banks
Feb.	5.07	Above Banks	**Aug**	3.15	At Banks	At Banks
March	3.60	At Banks	**Sept**	9.76	At Banks	Above Banks
April	10.48	At Perimeter	**Oct**	3.82	At Perimeter	At Perimeter Fence
May	3.20	At Banks	**Nov**	6.14	At Banks	Above Perimeter Fence
June	4.26	At Banks	**Dec**	7.12	At Banks	

APPENDIX H.

LEACHATE HAULING DATA

2011 MONTHLY LEACHATE VOLUMES
POWELL ROAD LANDFILL

Month	Gallons	in. Rain
Jan-11	8,000	1.43
Feb-11	9,000	4.56
Mar-11	58,600	4.18
Apr-11	50,000	8.72
May-11	59,000	6.06
Jun-11	15,000	2.56
Jul-11	15,000	2.22
Aug-11	18,000	2.02
Sep-11	14,000	10.84
Oct-11	10,000	3.00
Nov-11	19,800	5.81
Dec-11	14,500	5.34
Total	**290,900**	**56.74**
Monthly Avg	**24,242**	**4.73**
Daily Avg	**796.99**	**0.16**

APPENDIX I.

LEACHATE ANALYTICAL DATA SUMMARY

TABLE I-1.
PARAMETERS DETECTED IN COLLECTION TANK SAMPLES DURING O & M MONITORING
POWELL ROAD LANDFILL

Parameter	2/17/2000	3/2/2000	3/13/2000	4/10/2000	05/01/00	08/15/00	11/13/00	02/19/01	05/21/01	3/6/02	5/8/03	5/10/04	5/2/05	5/8/06	5/8/07	5/19/08	5/04/09	5/03/10	5/02/11
	Inorganics and Metals (mg/L)																		
Alkalinity						4940	3790	4160	2520	2420	2970	339	2940	3950	2080	2230	1250	2480	1450B
BOD - Five Day	176	262	252	<374	207	156	143	140	70.8	56.9	89.6	190	307	105	50.4	31 2	49 6	59.8	16 6
Chloride	1870	2090	2130	865	<0.5 R	1690	678	1020	937	813	1680	2340	2190	2860	1020	724	400	902	325
COD	2200	2520	2560	908	1720	1520	1540	1660	852	650	1250	1360	1250	1490	569	554	288	763	209
Cyanide, Total	<0.005	<0.005	0 130	<0.005	<0.02	<0.020	<0.020	<0.020	<0.020										
Fats, Oils, and Grease	<5	12	153	<5	<5.0	<5.0	6.0	<5.0	<5 0	6.2	10.4	<5.0	<5.0	<5 0	<5 0	<5 0	10 1	<5.0	<4 9
Fluoride					<0.05	<0.050	<0.050	<0.050	<0 050										
Nitrogen, Ammonia	700	820	890	260	704	901	1120	582	368	235	684	792	570	699	316	273	152	184	93 2
Nitrogen, Nitrate + Nitrite		0.03	<0.02	0 03	<0.05	<2.8	<1.0	<0.50	<0.050	<0.050	<0 050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0 050	0.051
Phosphorus		5 79	4.36	1 62	2.8	2.9	3.7	2.6	1.6	1 5	3.0	3 4	1.8	4.2	0 42	0.54	0.583	1 68	0.15
pH, (Lab) measured in S U	7 53	7 4	7.35	6 92	6.55	7.68	7.72	7 45	7.32	7 40	7.63	7.70	7.54	7.52	7.30	7.39	7 32	7.37	7 37
Solids, Total Dissolved	6060	4300	6250	2890	5150	5900	5950	5780	3150	3110	4780	5540	4480	6520	2800	3070	1910	3480	1660
Solids, Suspended	9	8	11	39	72 0	42 5	8 5	11.0	44 0	18.0	40.0	20 0	15	8	<4 0	30 4	14 4	8.8	13 2
Sulfate	60	84	75	106	92 9	101	128	122	145	116	117	172	181	118	106	140	<100	67.3	135
Sulfide	<2	14 7	15.9	<2	2 0	4 3	<2.0	<2.0	2.4	2.1	3 2	<2 0	4 4	4.8	<2 0	<2 0	<2 0	<2 0	<2 0
Total Organic Carbon (TOC)		673	725	290	483	527	567	511	246	194	461	411	365	455	185	146	97.5	203	63 0
Aluminum	0 33	.252	0.33	0 12	0.41	0.38	0.30	0 29	<0.10	<0.10	0.22	0 23	0.22	0 19	<0 10	<0 10	<0 10	<0.10	<0 10
Antimony	<0 01	0 0023	<0.0050	<0 005	<0 006	<0.0063	<0.0063	<0.006	<0.006	<0 003	<0.003	<0 003	<0.003	<0 015	<0.015	<0 003	<0.003	<0.005	<0 005
Arsenic	0 009	<0 025	0 0019	<0.005	0.046	0 028	0 029	0.036	0 014	0.015	0 028	0.034	0 020	0 033	0 011	0.014	0 0071	0 0169	0.0073
Barium	0 299	0 218	0 267	0.253	0 35	0.39	0.37	0.35	0.27	0.44	0 34	0.37	0 36	0 37	0 33	0.31	0 346	0 382	0.29
Beryllium	<0.0020	<0 0020	<0 020	<0.0020	<0 004	<0 0010	<0 0010	<0.0010	<0 0010										
Cadmium	<0 0020	<0 0020	<0 0050	<0.0050	0 0026	<0 0010	<0 0010	<0 0010	<0 0010	<0.001	<0 001	<0.001	<0 001	<0 001	<0.001	<0 001	<0 001	<0.001	<0 001
Calcium	56	52	59.1	118	88 7	71 4	68 6	65 8	102	140	68 9	68 0	95 9	64.2	131	140	184	158	186
Chromium	0 0529	0 0481	0.0688	0 0231	0.062	0.068	0 077	0 080	0 035	0.021	0 057	0 062	0 06	0 07	0 018	0.018	0 0132	0 0276	<0 010
Cobalt	0 0274	0 0221	0.0286	0.0201	<0.05	<0.050	<0 050	<0 050	<0 050	<0 050	<0 050	<0 050	<0.050	<0 050	<0.050	<0 050	<0.050	<0 050	<0 050
Copper	0.0075	<0 015	0 0222	<0 010	<0 025	<0 025	<0.025	<0 025	<0.025	<0 025	<0 025	<0 025	<0 025	<0 025	<0.025	<0 025	<0.025	<0 025	<0.025
Iron	5 39	7 3	7 31	17.5	11 9	3 2	1 8	6 9	6 2	7 3	4 8	6.4	1 6	5 2	9 8	6.6	5 04	5 60	4 0
Lead	0 0212	0.0161	0 0202	0 0104	0 023	0.014	0 018	0.022	0.0067	0 01	0 0085	0 020	0 025	0 01	<0.005	<0 005	<0 005	<0 005	0 0092
Magnesium	126	111	145	64 3	115	116	128	118	78 3	98.3	114	140	105	132	96 8	90.6	65.8	89 0	65.7
Manganese	0 122	0 092	0 095	0 286	0 18	0 12	0 11	0.092	0 23	0 25	0 10	0 093	0 11	0 079	0 18	0.20	0 326	0 266	0.30
Mercury	<0.0002	<0 0002	<0 0002	<0 0002	<0 0002	<0.00020	<0.00020	<0 00020	<0 00020	<0 00020	<0.00020	<0 00020	<0 00020	<0 00020	<0 00020	<0 00020	<0 00020	<0.00020	<0 00020
Nickel	0 140	0.114	0.156	0 126	0 16	0.15	0.16	0 17	0.085	0.062	0 130	0 130	0.14	0.16	0 062	0 052	<0.040	0 0775	<0 040
Potassium	647	564	836	259	401	955	628	821	322	301	523	571	560	681	258	262	159	325	119
Selenium	<0 050	<0 0250	<0 0050	<0.010	<0.005	<0.0066	<0 0066	<0 0050	<0 0050	<0 005	0.036	0 014	<0 005	<0.025	<0 025	0 0053	<0.005	<0 005	<0 025
Silver	<0 005	<0.001	<0 005	<0 0025	<0 003	<0.0030	<0.0030	<0.0030	<0.0030	<0 003	<0 003	<0.003	<0 003	<0 003	<0 003	<0 003	<0 003	<0 003	<0 003
Sodium	1400	1170	1640	512	1720	2240	1780	1760	693	642	1100	1240	1070	1410	583	552	334	711	248
Thallium	<0 0020	<0 0020	<0.0050	<0.0050	<0 002	<0.0020	<0.0020	<0.0020	<0 0020										
Tin	<2.0	<2 0	<2.0	<2.0	0 094	0.085	0.093	0.11	<0 010	0 021	0.062	0 054	0 097	0 088	0 017	0 010	0 0134	0 0379	<0 010
Vanadium	<0.050	<0.050	<0 050	<0.050	<0 05	<0.050	<0.050	<0 050	<0.050										
Zinc	0.181	0 120	0 164	0 0964	0.16	0.088	0.096	0 10	0 052	0.055	0 057	0 070	0 11	0.068	<0 020	<0 020	<0 020	0 0261	0 026

TABLE I-1.
PARAMETERS DETECTED IN COLLECTION TANK SAMPLES DURING O & M MONITORING
POWELL ROAD LANDFILL

Parameter	2/17/2000	3/2/2000	3/13/2000	4/10/2000	05/01/00	08/15/00	11/13/00	02/19/01	05/22/01	5/6/02	5/8/03	5/10/04	5/2/05	5/8/06	5/8/07	5/19/08	5/04/09	5/03/10	5/02/11
	Detected Volatile Organic Compounds (ug/L)																		
Acetone	1280	3280	861	630	2700	470	<100	1100	470	1400	350	<100	680	380	810	<100	<100	300	<2000
Benzene	<10	10.2	<10	<20	<8	<3	<2	<2	<2	<2	<4	<3	<3	<18	<7	<7	<20	<20	<40
2-Butanone (MEK)	1080	1530	1110	849	3100	730	590	1300	540	1600	470	<29	700	390	1000	<26	<100	250	<100
Carbon Disulfide	<10	<10	<10	<20	<8	<5	7	<5	<5	<5	<5	<5	<5	<24	<5	<5	<20	<20	<100
Chlorobenzene	<10	16.4	<10	<20	<7	<3	<2	3	<2	4	<4	<2	<2	<16	<6	<6	<20	<20	<40
Chloroethane	<50	<50	<50	<100	<8	<5	<5	<5	<5	6	5	<5	<5	<16	<6	<6	<20	<20	<100
1,2-Dibromo-3-chloropropane (DBCP)	<50	<50	<50	<100	<16	<6	<3	<3	<2	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.010	<0.011	0.037J+	<0.011
cis-1,2-dichloroethene		24.2	13.7	<20	17	7	<5	<5	<5	7	<5	<5	<5	<18	<7	<7	<20	<20	<100
1,4-Dichlorobenzene	<100	<100	<100	<100	14	6	<2	9	4	18	10	5	8	<18	<7	<7	<20	<20	<40
Ethylbenzene	59.3	127	76.9	38.4	20	7	<2	<2	8	21	11	<3	3	<17	<7	<7	<20	<20	<40
4-Methyl-2-pentanone (MIK)	143	283	130	<250	190	86	120	120	<50	82	51	<50	<50	<120	64	<50	<100	<100	<1000
Methylene chloride	<50	<50	<50	<100	75	<5	<5	32	<5	9	<8	4	<4	<22	18	<9	<20	<20	<20
Toluene	103	188	124	77.4	52	14	13	16	14	14	17	<4	18	<17	16	<10	<20	<20	<40
Xylenes	198	463	278	60.0	100	50	39	44	39	120	61	<10	43	<46	44	<19	<60	<60	<100
Vinyl Chloride	<10	<10	<10	<20	<8	<3	<2	<2	<2	3	<4	<6	<6	<12	<5	<5	<20	<20	<20
	Detected Semi-Volatile Organic Compounds (ug/L)																		
1,4-Dioxane					76	22	320	210	250	810E, 840D	400	510	200	650	270E, 300D	290E	130	250	130
Meta & para-methylphenol	<100	<100	128	<100	<37	<10	<10	<10	<10	10	<32	<32	<40	<20	<10	<10	<9.4	<95	<19
bis (2-ethylhexyl) phthalate	<100	<100	<100	<100	110	29	25	28	13	<10	<65	<68	<27	<26	<10	<10	<10	<24	<9.4
	Detected Herbicides (ug/L)																		
Silvex (2,4,5-TP)	<5.1	<5.0		1.52	0.24J	2.2	1.3	2.9	2.5	<1.0	<1.0	<1.1	<1.0	4.6	<1.0	<1.0	<0.48	<0.47	<0.47
2,4-D	<5.1	<50.3		<5.15	2.3	<1	<1	<1	<1.0	<1.0	1.4	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<0.47	<0.47
	Detected Pesticides (ug/L)																		
Gamma-BHC(Lindane)	<0.20	<0.20	<2.0	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.047	0.055J-	<0.047
Heptachlor	<0.20	<0.20	<2.0	<0.20	<0.05	<0.05	<0.05	<0.050J	<0.094	<0.05	<0.05	<0.05	0.11	<0.05	0.052	0.082	0.095	<0.048	<0.047
	Detected PCBs (ug/L)																		
PCB 1242	<0.2	<0.2	<2.0	<0.2	1.2	0.61	0.51	<1.0 J	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<0.94
	RSK Results (ug/L)																		
Ethane												<190	<24	<47	<18	<18	<150	<150	<2000
Ethene												<98	<12	<25	<15	<15	<150	<150	<1500
Methane												1800	320	460	220	500	570	140	<1000

J = estimated value

Note: Samples collected from leachate tank after start-up of leachate extraction system

Note Samples collected from leachate tank after start-up of leachate extraction system.

APPENDIX J.

WELLFIELD MONITORING DATA

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 1/13/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 22°F
Barometric Press.: 30.47"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Static Press.	Temp.	Comments
POWLBLIN	1/13/2011 11:28	27.8	22.8	4.3	45.1	-35	48	
POWLBLOT	1/13/2011 11:31	27	22	4.8	46.2	4.5	59	
G/L 01	1/13/2011 14:43	23.7	27.1	0.2	49	-2.2	38	Barely Open, No Change made in Valve Position
G/L 02	1/13/2011 14:47	48.1	32	0	19.9	-22.4	67	No Change made in Valve Position
G/L 03	1/13/2011 15:22	20.8	22.9	6.3	50	-3.7	35	Barely Open, No Change made in Valve Position
G/L 04	1/13/2011 15:25	11.6	13.5	10.9	64	-1.7	33	Barely Open, No Change made in Valve Position
G/L 05	1/13/2011 15:30	12.3	10.6	15.4	61.7	-1.8	33	Barely Open, No Change made in Valve Position
G/L 06	1/13/2011 15:38	39.4	33.9	0	26.7	-4.5	49	Barely Open, No Change made in Valve Position
G/L 07	1/13/2011 15:41	38	32.7	0	29.3	-5.3	33	No Change made in Valve Position, Fully Closed
G/L 08	1/13/2011 15:44	16.5	24.2	2.3	57	-0.8	33	Fully Closed, No Change made in Valve Position
G/L 09	1/13/2011 15:11	20.2	14.3	10.1	55.4	-0.6	37	Barely Open, No Change made in Valve Position
G/L 10	1/13/2011 15:05	27.4	27.4	1.7	43.5	-0.3	37	Barely Open, No Change made in Valve Position
G/L 11	1/13/2011 14:24	26.3	28.5	0	45.2	-3	35	Barely Open, No Change made in Valve Position
G/L 12	1/13/2011 14:19	0	0.4	20.7	78.9	-0.3	37	Fully Closed, No Change made in Valve Position
G/L 13	1/13/2011 13:49	32.7	26.8	1.9	38.6	-5.6	38	No Change made in Valve Position, Barely Open
G/L 14	1/13/2011 13:54	2.7	3.1	17.3	76.9	-5.8	37	Dec Flow Vacuum ,Barely Open, Slightly Closed less than 1/4 turn
G/L 15	1/13/2011 13:58	30.5	22.3	2	45.2	-4.2	58	No Change made in Valve Position
G/L 16	1/13/2011 14:01	3.5	17.7	2.5	76.3	-0.1	62	No Change made in Valve Position
G/L 17	1/13/2011 14:06	37.9	28.6	2.1	31.4	-0.8	37	No Change made in Valve Position
G/L 18	1/13/2011 14:39	29.7	27.3	0.1	42.9	-4.7	51	Barely Open, No Change made in Valve Position
G/L 19	1/13/2011 14:34	20.9	6.2	14.5	58.4	-2.7	38	Dec Flow Vacuum, Barely Open, Slightly Closed less than 1/4 turn
G/L 20	1/13/2011 14:11	62	25.9	1.6	10.5	-33.4	41	Fully Open, No Change made in Valve Position
G/L 21	1/13/2011 14:15	26.2	12.9	9.1	51.8	-2	35	Barely Open, No Change made in Valve Position
G/L 22	1/13/2011 14:29	43.8	19.9	0	36.3	-20.9	48	Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 23	1/13/2011 15:00	64.6	33	0.2	2.2	-32.5	45	Surging, Inc Flow Vacuum, Slightly Opened less than 1/4 turn
G/L 24	1/13/2011 15:15	33.5	18.3	9.6	38.6	-8.8	35	Fully Closed, No Change made in Valve Position
G/L 25	1/13/2011 15:18	24.7	20.8	10.7	43.8	-0.4	35	Barely Open, No Change made in Valve Position
G/L 26	1/13/2011 14:54	62.3	31.5	0.8	5.4	-17.5	43	Inc Flow Vacuum, Slightly Opened less than 1/4 turn
POWLBLIN	1/13/2011 16:10	36.1	28.6	0.7	34.6	-34.8	47	
POWLBLOT	1/13/2011 16:14	34.6	27.7	0.9	36.8	3.9	53	

Comments: No Additional Comment

Revised: 5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 2/18/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 51°F
Barometric Press.: 30.05"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	2/18/2011 9:30	30.2	26.4	0.8	42.6	-33.3	-33.1	47	46	
POWLBLOT	2/18/2011 9:34	29.5	25.8	1.3	43.4	5.2	5.2	72	74	
G/L 01	2/18/2011 12:05	26.3	22.3	2.7	48.7	-2.2	-2	67	67	Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 02	2/18/2011 12:11	42.6	30.8	0	26.6	-24.4	-24.5	69	69	No Change made in Valve Position
G/L 03	2/18/2011 13:13	0	0.1	21	78.9	-5.5	-5.4	66	65	Dec Flow Vacuum, Barely Open, Slightly Closed less than 1/4 turn
G/L 04	2/18/2011 13:19	1.5	4	17.5	77	-3.5	-3.5	67	68	Fully Closed, No Change made in Valve Position
G/L 05	2/18/2011 13:26	34.5	31	0.1	34.4	-17.2	-17.1	66	66	No Change made in Valve Position
G/L 06	2/18/2011 13:30	25	29	0	46	-7.7	-7.8	62	62	Slightly Closed less than 1/4 turn
G/L 07	2/18/2011 13:34	25.2	25.9	2.7	46.2	-7.4	-7.4	67	67	Fully Closed, No Change made in Valve Position
G/L 08	2/18/2011 13:40	1	2.3	18.6	78.1	-1.5	-1.6	67	67	Fully Closed, No Change made in Valve Position
G/L 09	2/18/2011 12:52	14.3	11.1	12.1	62.5	-1.4	-1.5	66	66	No Change made in Valve Position
G/L 10	2/18/2011 12:47	0.7	1.4	19.6	78.3	-0.6	-0.6	65	65	Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 11	2/18/2011 11:42	23	26.6	0	50.4	-3.8	-3.8	67	66	No Change made in Valve Position
G/L 12	2/18/2011 11:36	0	0.1	20.4	79.5	-0.7	-0.8	68	67	Fully Closed, No Change made in Valve Position, Fully Closed, No Change
G/L 13	2/18/2011 10:50	25.1	21.7	4.6	48.4	-6.2	-6.2	65	65	Fully Closed, No Change made in Valve Position
G/L 14	2/18/2011 10:58	4.5	3	17.4	75.1	-1.9	-2	64	64	Barely Open, Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 15	2/18/2011 11:02	23.4	22.9	0	53.7	-7	-6.4	65	65	Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 16	2/18/2011 11:07	0.5	16.7	1.7	81.1	-0.3	-0.3	72	72	No Change made in Valve Position
G/L 17	2/18/2011 11:11	21.1	22.3	3.1	53.5	-1.7	-1.6	63	64	Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 18	2/18/2011 11:59	30.2	25.9	1.4	42.5	-4.2	-4.4	62	62	No Change made in Valve Position
G/L 19	2/18/2011 11:54	58.7	14.6	5.2	21.5	-7.3	-6.3	66	67	Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 20	2/18/2011 11:23	59.8	25.6	2	12.6	-33.1	-32.9	65	65	No Change made in Valve Position, Fully Open, Fully Opened, No Change
G/L 21	2/18/2011 11:29	19.5	10.4	11	59.1	-3	-2.2	66	65	Dec Flow Vacuum, Slightly Closed less than 1/4 turn
G/L 22	2/18/2011 11:47	46	19	0.2	34.8	-16.8	-16.8	68	68	No Change made in Valve Position
G/L 23	2/18/2011 12:24	67.5	32	0.3	0.2	-34.1	-34.2	66	66	Inc Flow Vacuum, Slightly Opened less than 1/4 turn
G/L 24	2/18/2011 12:58	14.9	7.8	15	62.3	-12.4	-12.5	66	67	Fully Closed, No Change made in Valve Position, Fully Closed, No Change
G/L 25	2/18/2011 13:06	11.3	9.2	16.1	63.4	1	0.8	65	65	No Change made in Valve Position
G/L 26	2/18/2011 12:17	55.3	27.2	3.3	14.2	-16.4	-16.6	67	67	No Change made in Valve Position
POWLBLIN	2/18/2011 14:05	30.3	26.8	1.1	41.8	-35.4	-35.4	50	50	
POWLBLOT	2/18/2011 14:08	29.1	25.9	1.4	43.6	3.2	4.1	78	80	

Comments: No Additional Comment

Revised 5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 3/24/2011
Client: R Jones, WMI
Site: Powell Rd
Temperature: 36°F
Barometric Press.: 29.90"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	3/24/2011 11:31	45.2	26.9	1.9	26	3.6	3.7	53	55	
POWLBLOT	3/24/2011 11:34	47.7	28.2	1	23.1	-34.8	-34.6	46	46	
G/L 01	3/24/2011 13:29	31.4	16.1	7.5	45	-5.3	-5.1	38	37	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 02	3/24/2011 13:32	55.8	30.8	0.2	13.2	-25.4	-25.5	64	64	No Change made in Valve Position
G/L 03	3/24/2011 15:04	5.8	5.4	17.4	71.4	-9	-8.9	40	39	Barely Open ,No Change made in Valve Position
G/L 04	3/24/2011 15:10	2.7	3.7	17.1	76.5	-6.8	-6.9	39	38	No Change made in Valve Position
G/L 05	3/24/2011 15:13	54.3	32.8	0.2	12.7	-20.8	-20.8	63	63	No Change made in Valve Position
G/L 06	3/24/2011 15:20	57.8	32.1	0	10.1	-11.4	-12	48	48	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 07	3/24/2011 15:26	47	30.3	1.1	21.6	-10.2	-9.9	40	40	No Change made in Valve Position
G/L 08	3/24/2011 15:30	27.6	24.2	2.6	45.6	-2.2	-2.1	40	39	No Change made in Valve Position
G/L 09	3/24/2011 14:50	0	0.2	20.2	79.6	-1.4	-1.4	41	40	Barely Open ,No Change made in Valve Position
G/L 10	3/24/2011 13:45	0	0.2	20.3	79.5	-1.1	-1.3	40	39	Barely Open ,No Change made in Valve Position
G/L 11	3/24/2011 13:07	49.7	30.4	0.2	19.7	-5.7	-5.7	38	39	Barely Open ,No Change made in Valve Position
G/L 12	3/24/2011 13:03	0	0.1	20.7	79.2	-0.4	0	35	35	Barely Open ,No Change made in Valve Position
G/L 13	3/24/2011 12:19	47.9	28	1.3	22.8	-7.8	-7.8	41	39	Barely Open ,No Change made in Valve Position
G/L 14	3/24/2011 12:25	5.1	3.4	17.9	73.6	-1.6	-1.6	42	40	Barely Open ,No Change made in Valve Position
G/L 15	3/24/2011 12:32	43.3	24.6	1.3	30.8	-3.8	-3.2	56	53	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 16	3/24/2011 12:38	18.8	18.2	0	63	-0.4	-0.4	78	78	Barely Open ,No Change made in Valve Position
G/L 17	3/24/2011 12:44	48.4	26.9	2.8	21.9	-1.5	-1.5	39	38	Barely Open ,No Change made in Valve Position
G/L 18	3/24/2011 13:25	53.4	29.6	1.3	15.7	-5.9	-5.1	51	50	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 19	3/24/2011 13:19	71.4	13.7	3.3	11.6	-23.1	-23.2	42	41	No Change made in Valve Position
G/L 20	3/24/2011 12:15	63	25.2	1.9	9.9	-33.8	-32.8	40	40	No Change made in Valve Position
G/L 21	3/24/2011 12:57	3.8	1.7	19.4	75.1	-2.4	-2.4	40	38	Barely Open ,No Change made in Valve Position
G/L 22	3/24/2011 13:13	48.2	17.5	3.4	30.9	-18	-15.5	36	36	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 23	3/24/2011 13:41	68.2	31.5	0.1	0.2	-34.6	-35	45	45	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 24	3/24/2011 14:54	29.8	14.1	11.6	44.5	-12.7	-12.7	41	39	No Change made in Valve Position
G/L 25	3/24/2011 14:58	34.6	23.6	7.6	34.2	-16.2	-15.4	40	40	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 26	3/24/2011 13:36	61.2	28.2	2.7	7.9	-22.9	-23	41	41	No Change made in Valve Position
POWLBLIN	3/24/2011 15:48	48.3	28.7	1	22	-35.7	-35.8	47	47	
POWLBLOT	3/24/2011 15:50	45.5	27.1	1.9	25.5	4.4	4.1	58	61	

Comments: No Additional Comment

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 4/21/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 44°F
Barometric Press.: 30.33"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	4/21/2011 13:59	24.8	22	2.3	50.9	-21.7	-21.9	57	57	
POWLBLOT	4/21/2011 14:02	23.8	21.5	2.8	51.9	5.1	4.8	81	85	
G/L 01	4/21/2011 15:14	1.2	1.3	19.3	78.2	-0.4	-0.4	65	65	No Change made in Valve Position ,Barely Open
G/L 02	4/21/2011 15:17	37.2	27.8	0	35	-19.9	-19.8	67	67	No Change made in Valve Position
G/L 03	4/21/2011 15:46	0.7	0.9	19.7	78.7	-1.5	-1.4	68	68	Barely Open ,No Change made in Valve Position
G/L 04	4/21/2011 15:52	5.6	15.8	5.4	73.2	-3.1	-3.3	68	64	Barely Open ,Surging ,No Change made in Valve Position
G/L 05	4/21/2011 15:55	36.5	30.6	0	32.9	-13.8	-13.8	71	71	No Change made in Valve Position
G/L 06	4/21/2011 15:59	24.2	27.3	0	48.5	-6.9	-6.8	62	62	No Change made in Valve Position
G/L 07	4/21/2011 16:02	10	10.6	10	69.4	-5.9	-6	68	68	No Change made in Valve Position
G/L 08	4/21/2011 16:05	1	2.4	17.6	79	-1.2	-1.1	69	69	Barely Open ,No Change made in Valve Position
G/L 09	4/21/2011 15:34	0	0	20.3	79.7	-0.1	-0.1	70	70	Barely Open ,No Change made in Valve Position
G/L 10	4/21/2011 15:30	0	0.1	20.5	79.4	-0.1	-0.1	69	70	Barely Open ,No Change made in Valve Position
G/L 11	4/21/2011 14:58	32.3	28.5	0	39.2	-3.8	-3.8	69	68	No Change made in Valve Position
G/L 12	4/21/2011 14:52	0.4	1.9	18.5	79.2	-0.1	-0.1	70	70	Barely Open ,No Change made in Valve Position
G/L 13	4/21/2011 14:13	36.8	27.8	0.4	35	-5.6	-5.5	71	65	No Change made in Valve Position
G/L 14	4/21/2011 14:26	5.3	3.9	17	73.8	-1.5	-1.6	66	66	No Change made in Valve Position
G/L 15	4/21/2011 14:31	53.4	26.2	0.1	20.3	-0.3	-0.8	62	61	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 16	4/21/2011 14:34	11	19.3	0.7	69	-1.3	-1.2	78	78	No Change made in Valve Position
G/L 17	4/21/2011 14:37	24.6	22.8	1.3	51.3	-0.5	-0.5	67	67	No Change made in Valve Position
G/L 18	4/21/2011 15:11	21.9	25.6	0	52.5	-8.9	-8.8	65	65	No Change made in Valve Position
G/L 19	4/21/2011 15:07	64.8	15.6	4.4	15.2	-13.6	-13.6	65	65	No Change made in Valve Position
G/L 20	4/21/2011 14:41	67.6	25.1	1.7	5.6	-25.6	-25.7	68	68	Fully Open ,No Change made in Valve Position
G/L 21	4/21/2011 14:48	2.7	1.4	18.8	77.1	-14	-11.8	66	67	Barely Open ,Dec Flow Vacuum ,Surging ,Slightly Closed less than 1/4 turn
G/L 22	4/21/2011 15:04	48.7	19.7	0.2	31.4	-8.1	-9.8	57	57	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
G/L 23	4/21/2011 15:24	46.2	23.1	1.5	29.2	-28.9	-29	64	64	No Change made in Valve Position
G/L 24	4/21/2011 15:38	38.7	18	8	35.3	-6.1	-6.1	67	67	Barely Open ,No Change made in Valve Position
G/L 25	4/21/2011 15:42	17.6	14.8	12.8	54.8	-13.4	-12.7	63	67	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 26	4/21/2011 15:21	41.2	22.7	3.3	32.8	-12.7	-10.9	63	64	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
POWLBLIN	4/21/2011 16:44	26	22.9	2	49.1	-28.1	-28.5	56	56	
POWLBLOT	4/21/2011 16:47	28.3	22.7	2.4	48.6	4.6	4.7	78	82	

Comments: No Additional Comment

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 5/20/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 63°F
Barometric Press.: 30.06"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	5/20/2011 10:51	28.1	24	1.2	46.7	-30.6	-30.7	63	63	
POWLBLOT	5/20/2011 10:54	27.2	23.2	1.8	47.8	3.8	3.9	96	97	
G/L 01	5/20/2011 12:47	1	1.1	19.5	78.4	-2.3	-2.5	87	87	Barely Open ,No Change made in Valve Position
G/L 02	5/20/2011 12:50	45	27.7	1.3	26	-19.5	-17.1	73	73	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 03	5/20/2011 13:20	1.6	1.4	19.4	77.6	-3.2	-3.3	87	87	Barely Open ,No Change made in Valve Position
G/L 04	5/20/2011 13:23	23	21.6	1	54.4	-6.5	-6.6	77	77	Barely Open ,No Change made in Valve Position
G/L 05	5/20/2011 13:28	27	19.1	10.2	43.7	-1.3	-1.4	89	89	Barely Open ,No Change made in Valve Position
G/L 06	5/20/2011 13:33	58.7	33.9	0	7.4	-6.7	-8.6	68	67	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
G/L 07	5/20/2011 13:36	27.6	27.1	1.2	44.1	-5.3	-5.4	88	88	Barely Open ,No Change made in Valve Position ,Surging
G/L 08	5/20/2011 13:40	0.4	1.5	18.9	79.2	-1.5	-1.5	89	89	Barely Open ,Surging ,No Change made in Valve Position
G/L 09	5/20/2011 13:09	0	0.2	20.2	79.6	-0.6	-0.7	88	88	Barely Open ,No Change made in Valve Position
G/L 10	5/20/2011 13:06	0	0.5	20.1	79.4	-1.3	-1.4	85	85	Barely Open ,No Change made in Valve Position
G/L 11	5/20/2011 12:30	25	23.2	2.2	49.6	-11.1	-10.9	81	81	Barely Open ,Dec Flow Vacuum ,Surging ,Slightly Closed less than 1/4 turn
G/L 12	5/20/2011 12:26	23.3	13.8	9.3	53.6	-0.2	-0.2	83	83	Barely Open ,No Change made in Valve Position
G/L 13	5/20/2011 12:01	56.4	31	0.4	12.2	-0.3	-0.8	82	78	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
G/L 14	5/20/2011 12:04	8.1	3.6	16	74.3	-1.4	-1.4	86	86	Barely Open ,No Change made in Valve Position
G/L 15	5/20/2011 12:09	53.4	28.1	0.2	18.3	-2.8	-2.9	68	68	No Change made in Valve Position ,Barely Open
G/L 16	5/20/2011 12:12	8.2	15.8	1.6	74.4	-0.7	-0.6	77	77	Barely Open ,No Change made in Valve Position
G/L 17	5/20/2011 12:15	20.1	14.7	2.7	62.5	-1.2	-1.2	85	85	Barely Open ,No Change made in Valve Position
G/L 18	5/20/2011 12:43	27.8	26.5	0	45.7	-9.7	-6.4	72	74	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 19	5/20/2011 12:39	52.4	12.9	6.2	28.5	-9	-9.2	82	82	No Change made in Valve Position
G/L 20	5/20/2011 12:19	66.7	24.6	1	7.7	-28.3	-28.4	83	83	Fully Open ,No Change made in Valve Position
G/L 21	5/20/2011 12:22	29.5	15.5	6.4	48.6	-8.2	-7.5	82	82	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 22	5/20/2011 12:35	48.6	18.4	1	32	-8.7	-8.7	78	79	Barely Open ,No Change made in Valve Position
G/L 23	5/20/2011 13:02	51	22.5	2.4	24.1	-29.9	-30.6	76	76	Surging ,No Change made in Valve Position
G/L 24	5/20/2011 13:13	27.9	11.7	11.7	48.7	-7	-7.1	88	88	Barely Open ,No Change made in Valve Position
G/L 25	5/20/2011 13:16	32.1	22.8	8.4	36.7	-0.8	-0.8	83	83	Barely Open ,No Change made in Valve Position
G/L 26	5/20/2011 12:57	47.5	23.8	4	24.7	-11.8	-9.2	84	84	Barely Open ,No Change made in Valve Position
POWLBLIN	5/20/2011 13:59	34.6	24.7	1.7	39	-29.6	-29.8	64	64	
POWLBLOT	5/20/2011 14:01	34.5	25.2	1.7	38.6	3.5	3.6	107	107	

Comments: No Additional Comment

Revised 5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 6/3/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 68°F
Barometric Press.: 29.96"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	6/3/2011 10.17	28.2	25.7	1	45.1	-26.8	-26.9	59	59	
POWLBLOT	6/3/2011 10:21	27.2	25.4	1.8	45.6	4.9	4.9	93	93	
G/L 01	6/3/2011 13:01	5.3	3.2	18.6	72.9	-2.2	-2.2	87	87	Barely Open ,No Change made in Valve Position
G/L 02	6/3/2011 13:08	57	30.8	0.1	12.1	-14.6	-16.5	75	75	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 03	6/3/2011 15.17	0	0.9	20.2	78.9	-6.1	-6.1	89	91	Barely Open ,No Change made in Valve Position
G/L 04	6/3/2011 15:23	11.6	24.7	1.7	62	-8.8	-8.3	83	84	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 05	6/3/2011 15.29	43.5	40	0	16.5	-22.6	-20.9	79	80	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 06	6/3/2011 15:34	21.3	33.3	0	45.4	-19.2	-16.9	68	70	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 07	6/3/2011 15.39	6	9.1	14.2	70.7	-9.5	-9.6	92	93	Barely Open ,No Change made in Valve Position
G/L 08	6/3/2011 15:44	0.1	1.2	19	79.7	-2.1	-1.9	91	91	Barely Open ,No Change made in Valve Position
G/L 09	6/3/2011 14:54	0	0.2	20.5	79.3	-0.9	-0.9	92	92	Barely Open ,No Change made in Valve Position
G/L 10	6/3/2011 13:34	0	0.2	20.9	78.9	-1.8	-1.8	87	87	Barely Open ,No Change made in Valve Position
G/L 11	6/3/2011 12:21	23	23.8	1.7	51.5	-10.5	-10.4	83	84	Barely Open ,No Change made in Valve Position
G/L 12	6/3/2011 12:13	0	0.3	20.9	78.8	-0.4	-0.5	85	85	Barely Open ,No Change made in Valve Position
G/L 13	6/3/2011 11:13	50.5	31.2	0.1	18.2	-2.4	-8.5	67	65	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 14	6/3/2011 11:22	5.1	5	16.4	73.5	-1.2	-1.2	78	78	Barely Open ,No Change made in Valve Position
G/L 15	6/3/2011 11:32	38.6	27	0	34.4	-2.9	-2.1	65	69	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 16	6/3/2011 11:37	1	16.2	2.6	80.2	-0.5	-0.5	76	76	Barely Open ,No Change made in Valve Position
G/L 17	6/3/2011 11:49	22.4	21.7	2.3	53.6	-0.9	-0.9	80	80	Barely Open ,No Change made in Valve Position
G/L 18	6/3/2011 12.56	29.7	27.1	0	43.2	-3.6	-2.6	78	80	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 19	6/3/2011 12.50	62.1	14.4	5.3	18.2	-7.9	-8.8	82	82	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
G/L 20	6/3/2011 11:55	64.1	26.6	1.2	8.1	-23.6	-23.6	77	77	Fully Open ,No Change made in Valve Position
G/L 21	6/3/2011 12:03	16.1	15.3	6.3	62.3	-8	-5.1	78	79	Barely Open ,Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 22	6/3/2011 12:30	49.7	19.8	0.7	29.8	-8.1	-9	78	77	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 23	6/3/2011 13:24	62.2	26	2.4	9.4	-24.8	-24.9	81	81	Fully Open ,Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 24	6/3/2011 15:01	27.1	14.4	10.9	47.6	-10.1	-10.6	89	91	Barely Open ,Surging ,No Change made in Valve Position
G/L 25	6/3/2011 15:11	45.1	22.4	6.2	26.3	-19.7	-17.7	87	89	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 26	6/3/2011 13:15	49.7	21.3	6.5	22.5	-8	-7.4	86	86	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
POWLBLIN	6/3/2011 16:00	31.7	30.8	1.1	36.4	-27.3	-27.2	65	65	
POWLBLOT	6/3/2011 16:02	30.6	30.3	1.6	37.5	4.1	4.1	110	110	

Comments: No Additional Comment

Revised: 5/15/2008 SP

Project Manager: Nick Jordon

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 7/22/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 88°F
Barometric Press.: 29.94"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	7/22/2011 12.40	44.8	30	0.8	24.4	-22 5	-22.7	75	75	
POWLBLOT	7/22/2011 12 43	44	28.9	1.2	25 9	4.3	4 2	120	120	
G/L 01	7/22/2011 13:40	5 2	3 3	14 4	77.1	-0.1	-0 1	104	104	Barely Open ,No Change made in Valve Position
G/L 02	7/22/2011 13.43	58 6	33	0	8.4	-12.9	-14.4	80	79	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 03	7/22/2011 13:07	0	0 3	17.3	82 4	-0.4	-0.4	106	106	Barely Open ,No Change made in Valve Position
G/L 04	7/22/2011 13 10	2 2	5.7	10.7	81.4	-0.1	-0.2	105	105	Barely Open ,No Change made in Valve Position
G/L 05	7/22/2011 13:15	40.6	32	0	27 4	-13	-9.8	81	84	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 06	7/22/2011 13.19	37.8	30.1	0	32.1	-8.7	-8.1	78	80	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 07	7/22/2011 12 58	26.6	22 1	4.9	46.4	-4	-4 1	106	107	Barely Open ,No Change made in Valve Position
G/L 08	7/22/2011 12:55	0	0 6	18.9	80 5	-0.2	-0.2	106	106	Barely Open ,No Change made in Valve Position
G/L 09	7/22/2011 13:56	0	0 2	16.8	83	-0 1	-0.2	105	105	Barely Open ,No Change made in Valve Position
G/L 10	7/22/2011 13 53	0	0 6	16 8	82.6	-0.3	-0.3	101	101	Barely Open ,No Change made in Valve Position
G/L 11	7/22/2011 14:34	48	30.7	0.2	21 1	-6.3	-6.3	104	104	No Change made in Valve Position
G/L 12	7/22/2011 14.31	0	0.2	17.1	82.7	-0.2	-0.1	105	105	Barely Open ,No Change made in Valve Position
G/L 13	7/22/2011 14:49	38.4	27 4	0	34.2	-9 1	-8.1	74	74	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
G/L 14	7/22/2011 14 52	4.9	3.5	14 1	77.5	-1 2	-1.1	104	104	Barely Open ,Surging ,No Change made in Valve Position
G/L 15	7/22/2011 14.57	63.9	36	0	0 1	-0.1	-0.3	105	97	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
G/L 16	7/22/2011 14:59	19.3	19 3	0	61.4	-0.2	-0.3	97	97	Barely Open ,No Change made in Valve Position
G/L 17	7/22/2011 15:03	11.2	7	9.8	72	-0 6	-0.6	106	106	Barely Open ,No Change made in Valve Position
G/L 18	7/22/2011 13.34	64 5	35 4	0	0 1	0	-1 6	107	102	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
G/L 18	7/22/2011 13 37	63.5	36.4	0	0.1	-2.1	-2.2	96	96	No Change made in Valve Position
G/L 19	7/22/2011 13:30	38 9	6 8	8.3	46	-2.8	36 4	104	104	Barely Open ,No Change made in Valve Position
G/L 20	7/22/2011 14 25	61.7	21.7	2.6	14	-21.2	-20.3	103	103	Fully Open ,No Change made in Valve Position
G/L 21	7/22/2011 14.28	13 6	4.9	11.9	69 6	-2.1	-2	104	104	Barely Open ,Surging ,No Change made in Valve Position
G/L 22	7/22/2011 14:37	48.6	18.7	0.9	31.8	-16.6	-16.6	81	81	Surging ,No Change made in Valve Position
G/L 23	7/22/2011 13 50	70.4	28.7	0.2	0.7	-22 9	-23	101	101	Fully Open ,No Change made in Valve Position
G/L 24	7/22/2011 14:00	17.8	8 6	11.1	62 5	-17.1	-17.6	105	105	Surging ,No Change made in Valve Position
G/L 25	7/22/2011 13.04	16.8	13 5	11.3	58.4	-1 7	-1.9	106	106	Barely Open ,Surging ,No Change made in Valve Position
G/L 26	7/22/2011 13 47	27.7	11 7	9.1	51.5	-0 1	-0.5	103	103	Barely Open ,No Change made in Valve Position
POWLBLIN	7/22/2011 15 17	44.7	29 1	0.4	25.8	-22.2	-22 8	77	77	
POWLBLOT	7/22/2011 15:20	43.5	28 4	0.8	27.3	4	4	125	125	

Comments: No Additional Comment

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 8/19/2011
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 74°F
Barometric Press.: 30.02"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	8/19/2011 11:09	36.6	29.5	0.1	33.8	-23.5	-23 5	75	75	
POWLBLOT	8/19/2011 11:11	35.9	28.5	0.7	34.9	4.1	4	108	113	
POWL0001	8/19/2011 12:59	0	0.1	20.1	79.8	-0 9	-0.9	101	102	Barely Open ,No Change made in Valve Position
POWL0002	8/19/2011 13:04	52.3	33	0	14.7	-16.3	-16 3	75	75	No Change made in Valve Position
POWL0003	8/19/2011 14:02	0	0	19 2	80 8	-2.2	-2.2	103	103	Barely Open ,No Change made in Valve Position
POWL0004	8/19/2011 14:08	1.1	4.7	13.2	81	-1.2	-1.2	104	105	Barely Open ,No Change made in Valve Position
POWL0005	8/19/2011 14:13	43.2	32.8	0	24	-8.1	-7.8	82	82	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
POWL0006	8/19/2011 14:16	36 2	31.7	0	32.1	-8.1	-8.1	77	77	Barely Open ,No Change made in Valve Position
POWL0007	8/19/2011 14:32	31 4	27.3	3	38.3	-5	-5.1	103	103	Barely Open ,Surging ,No Change made in Valve Position
POWL0008	8/19/2011 14:36	0.3	0.5	20	79.2	-0.4	-0 5	105	105	Barely Open ,No Change made in Valve Position
POWL0009	8/19/2011 13:45	0	0	19.2	80.8	-0.3	-0.3	102	101	Barely Open ,No Change made in Valve Position
POWL0010	8/19/2011 13:24	0	0	20.1	79.9	-0.5	-0.5	102	102	Barely Open ,No Change made in Valve Position
POWL0011	8/19/2011 12:24	24.8	26 3	0	48.9	-6 4	-6.4	100	100	Barely Open ,No Change made in Valve Position
POWL0012	8/19/2011 12:18	0	0	20.3	79.7	-0.3	-0.3	99	98	Barely Open ,No Change made in Valve Position
POWL0013	8/19/2011 11:44	35.8	28.8	0	35.4	-6.6	-5.7	70	71	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
POWL0014	8/19/2011 11:49	6.5	4.2	15.9	73.4	-1.1	-1.2	96	96	Barely Open ,No Change made in Valve Position
POWL0015	8/19/2011 11:54	44.8	27.9	1.8	25.5	-3	-3	78	80	Barely Open ,No Change made in Valve Position
POWL0016	8/19/2011 11:57	7.9	18.9	0	73.2	-0.3	-0.3	88	88	Barely Open ,No Change made in Valve Position
POWL0017	8/19/2011 12:00	47	31.5	1.8	19.7	-0.8	-1	97	97	Barely Open ,Surging ,No Change made in Valve Position
POWL0018	8/19/2011 12.54	54.7	32.5	0	12.8	-4 7	-4 7	81	81	No Change made in Valve Position
POWL0019	8/19/2011 12:36	62	15.7	4.7	17.6	-13.7	-18.5	90	90	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
POWL0020	8/19/2011 12:06	63.4	23.9	1.9	10.8	-22 3	-22.3	96	96	Fully Open ,No Change made in Valve Position
POWL0021	8/19/2011 12:12	15.7	5.8	13 7	64.8	-3.5	-3.5	99	99	Barely Open ,No Change made in Valve Position
POWL0022	8/19/2011 12:30	34.6	19.5	0	45.9	-20	-19	94	93	Dec Flow Vacuum ,Surging ,Slightly Closed less than 1/4 turn
POWL0023	8/19/2011 13:17	67.3	30.7	0.1	1.9	-23.2	-23.2	96	96	Fully Open ,No Change made in Valve Position
POWL0024	8/19/2011 13:50	19.8	9.9	13.1	57.2	-18.4	-18.3	101	102	Barely Open ,Surging ,No Change made in Valve Position
POWL0025	8/19/2011 13:57	46.4	18.4	6.3	28.9	-16.9	-16.9	100	100	Dec Flow Vacuum ,Surging ,Slightly Closed less than 1/4 turn
POWL0026	8/19/2011 13:10	31.2	14.2	10.5	44.1	-4.4	-4.5	98	98	Barely Open ,Surging ,No Change made in Valve Position
POWLBLIN	8/19/2011 14:45	34.8	27.1	0.9	37.2	-24.2	-29	77	77	
POWLBLOT	8/19/2011 14:48	34.6	26.3	1.4	37.7	4	3.9	120	124	

Comments: No Additional Comment

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 9/23/2011
Client: R. Jones, WMI
Site: Powell Rd
Temperature: 58°F
Barometric Press.: 30.04"Hg

Location	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	9/23/2011 8:58	32 1	23.4	5.3	39.2	-20 9	-20 8	67	67	
POWLBLOT	9/23/2011 9:00	31.3	22.8	5.8	40.1	4 4	4.4	72	73	
POWL0001	9/23/2011 11:19	18.8	11 8	12	57.4	-0 1	-0 1	57	60	Barely Open ,Surging ,No Change made in Valve Position
POWL0002	9/23/2011 13:10	63 5	35.7	0	0 8	-11 7	-13.2	69	69	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
POWL0003	9/23/2011 13 52	12.4	8.4	15 7	63 5	-1 1	-1.2	52	52	Barely Open ,Surging ,No Change made in Valve Position
POWL0004	9/23/2011 13 58	23.2	14.5	10 8	51.5	-0 5	-0 4	58	58	Barely Open ,Surging ,No Change made in Valve Position
POWL0005	9/23/2011 14 06	55.9	37.4	0	6 7	-6.9	-6 8	70	70	Surging ,No Change made in Valve Position
POWL0006	9/23/2011 14 11	46 1	35.1	0	18 8	-7 5	-6 7	64	64	Dec Flow Vacuum ,Slightly Closed less than 1/4 turn
POWL0007	9/23/2011 14:18	42.1	33.8	0.5	23.6	-4.7	-4 6	59	59	No Change made in Valve Position ,Surging
POWL0008	9/23/2011 14:23	8 4	7.5	16.1	68	-0.3	-0 3	58	58	No Change made in Valve Position ,Barely Open
POWL0009	9/23/2011 13:32	0	0.1	21	78 9	-0.2	-0.2	58	56	Barely Open ,No Change made in Valve Position
POWL0010	9/23/2011 13:27	0.3	0.6	20.6	78.5	-0.4	-0.4	57	56	No Change made in Valve Position ,Barely Open
POWL0011	9/23/2011 10.36	30.5	29.1	0	40.4	-5.3	-5.2	57	57	Surging ,No Change made in Valve Position
POWL0012	9/23/2011 10:27	0.4	1.3	20.1	78.2	0	-4.5	55	55	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn ,Positive Pressure
POWL0012	9/23/2011 10 30	14.2	19.4	2.5	63.9	-4 5	-4 5	62	63	Surging ,No Change made in Valve Position
POWL0013	9/23/2011 9.40	48.7	32.7	0	18.6	-4.5	-4 4	61	61	Surging ,No Change made in Valve Position
POWL0014	9/23/2011 9:45	5.2	4.9	15.7	74 2	-0.5	-0 6	58	57	Barely Open ,No Change made in Valve Position
POWL0015	9/23/2011 9:51	48.6	29.1	1.3	21	-2.8	-2 8	62	62	Barely Open ,No Change made in Valve Position ,Surging
POWL0016	9/23/2011 9:56	12.9	20.6	0	66.5	-0.2	-0.2	67	67	Barely Open ,Surging ,No Change made in Valve Position
POWL0017	9/23/2011 10:01	26.9	17.5	12.1	43.5	-0 7	-0 8	55	54	Surging ,No Change made in Valve Position ,Barely Open
POWL0018	9/23/2011 11:12	62.7	37 2	0	0.1	-3.2	-4 1	62	62	Inc Flow Vacuum ,Slightly Opened less than 1/4 turn
POWL0019	9/23/2011 10:50	72.4	20.7	1.1	5 8	-17.6	-19	56	56	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
POWL0020	9/23/2011 10 08	62.2	23.1	2.7	12	-18.9	-18 9	56	56	Fully Open ,Surging ,No Change made in Valve Position
POWL0021	9/23/2011 10:15	9.1	2.9	18.1	69.9	-2	-2 1	55	55	Barely Open ,Surging ,No Change made in Valve Position
POWL0022	9/23/2011 10:44	42.3	20.3	0	37.4	-16	-15.7	56	56	Dec Flow Vacuum ,Surging ,Slightly Closed less than 1/4 turn
POWL0023	9/23/2011 13:21	65.7	34 1	0.1	0.1	-20 9	-20 8	62	62	Surging ,Fully Open ,No Change made in Valve Position
POWL0024	9/23/2011 13:39	29.5	17 4	10.6	42 5	-17	-16.5	58	57	Surging ,No Change made in Valve Position
POWL0025	9/23/2011 13:45	43	18 6	6.9	31.5	-15 8	-16	64	60	Surging ,No Change made in Valve Position
POWL0026	9/23/2011 13:15	66	31.8	1.3	0 9	-8.3	-8 3	58	58	Surging ,No Change made in Valve Position
POWLBLIN	9/23/2011 14:49	40.9	30 3	0 5	28.3	-21.9	-21 9	67	67	
POWLBLOT	9/23/2011 14 51	39 4	29 6	1 2	29.8	4.4	4.5	80	82	

Comments: No Additional Comment

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 10/21/2011
Client: R. Jones, WMI
Site: Powell Rd.
Temperature: 57°F
Barometric Press.: 30.04"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	10/21/2011 10:11	38.9	28.7	1 2	31.2	-21.9	-21 9	64	64	
POWLBLOT	10/21/2011 10:15	37.5	27.9	1.7	32.9	4.5	4 5	85	88	
POWL0001	10/21/2011 12:07	41.7	29.6	0.5	28 2	-3.2	-3 3	67	67	Barely Open ,Surging ,No Change made in Valve Position
POWL0002	10/21/2011 12:12	56.8	34	0.3	8.9	-15 6	-15 7	69	69	Surging ,No Change made in Valve Position
POWL0003	10/21/2011 12:53	6.3	4.9	18 1	70.7	-2.7	-2.7	70	70	No Change made in Valve Position ,Barely Open ,Surging
POWL0004	10/21/2011 13:01	5.7	5.5	15.6	73 2	-1 3	-1 3	72	72	Barely Open ,Surging ,No Change made in Valve Position
POWL0005	10/21/2011 13:04	52.7	35	0 1	12.2	-6.9	-6 9	71	71	Surging ,No Change made in Valve Position
POWL0006	10/21/2011 13:08	46.7	34.6	0 1	18.6	-5.8	-5 7	66	66	Surging ,No Change made in Valve Position
POWL0007	10/21/2011 13:11	44.6	33	0.6	21 8	-4.8	-4 7	70	70	Surging ,No Change made in Valve Position
POWL0008	10/21/2011 13:16	12.3	8.6	15	64.1	-0.5	-0.5	71	71	Barely Open ,No Change made in Valve Position ,Surging
POWL0009	10/21/2011 12:37	0	0.1	20.8	79.1	-0.4	-0.4	65	64	Barely Open ,Surging ,No Change made in Valve Position
POWL0010	10/21/2011 12:30	0	0.1	20.9	79	-0.4	-0 4	64	64	Barely Open ,No Change made in Valve Position ,Surging
POWL0011	10/21/2011 11:47	29.8	28.1	0.2	41.9	-6 3	-6 3	63	63	Surging ,No Change made in Valve Position
POWL0012	10/21/2011 11:42	19.8	20.1	2.8	57.3	-4.1	-4	72	72	Dec Flow Vacuum ,Surging ,Slightly Closed less than 1/4 turn
POWL0013	10/21/2011 11:08	44	30.5	1.1	24.4	-4.8	-4 9	61	61	No Change made in Valve Position ,Surging
POWL0014	10/21/2011 11:14	23.5	13.1	8 6	54.8	-0.2	-0.1	61	61	Barely Open ,Surging ,No Change made in Valve Position
POWL0015	10/21/2011 11:18	51	30.4	0.2	18 4	-3.1	-3	71	71	No Change made in Valve Position
POWL0016	10/21/2011 11:21	9.9	19.7	0 1	70.3	-0.5	-0.5	69	69	Barely Open ,No Change made in Valve Position
POWL0017	10/21/2011 11:24	40.9	29.2	1.3	28.6	-1.8	-1 6	62	62	Surging ,No Change made in Valve Position
POWL0018	10/21/2011 12:03	52.7	34.4	0	12 9	-6.5	-6.6	65	65	Surging ,No Change made in Valve Position
POWL0019	10/21/2011 11:56	63.1	18.8	3.7	14 4	-21.1	-21.1	62	62	Surging ,No Change made in Valve Position
POWL0020	10/21/2011 11:28	12.1	5.2	16.8	65.9	-20.2	-20 2	62	61	Surging ,No Change made in Valve Position
POWL0021	10/21/2011 11:36	0	0.1	20.9	79	-0 4	-0.4	60	64	Barely Open ,Surging ,No Change made in Valve Position
POWL0022	10/21/2011 11:52	43.2	20.1	0 4	36.3	-16.5	-16 5	69	69	No Change made in Valve Position ,Surging
POWL0023	10/21/2011 12:23	65.7	33.8	0 4	0.1	-21.5	-21.5	67	67	Fully Open ,Surging ,No Change made in Valve Position
POWL0024	10/21/2011 12:41	29.3	16.2	10 3	44.2	-18 3	-18	67	68	Surging ,No Change made in Valve Position
POWL0025	10/21/2011 12:47	42.7	18.8	7.1	31.4	-16.3	-16 1	67	67	Surging ,No Change made in Valve Position
POWL0026	10/21/2011 12:17	66.6	32.1	1.1	0.2	-7.1	-16 9	67	66	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
POWLBLIN	10/21/2011 13:29	40.5	28.6	1.7	29.2	-22.4	-22.4	67	67	
POWLBLOT	10/21/2011 13:32	37.6	27.2	2	33.2	4	3.5	94	97	

Comments: No Additional Comment

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 11/18/2011
Client: R Jones, WMI
Site: Powell Rd
Temperature: 47°F
Barometric Press.: 30.30"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	11/18/2011 10.27	37.3	28.8	1	32.9	-22.5	-22.4	60	59	
POWLBLOT	11/18/2011 10:31	35 9	28.1	1 6	34.4	4.6	4.6	85	86	
POWL0001	11/18/2011 12.03	31.5	29.6	0.1	38 8	-3.8	-3.8	64	64	Surging ,No Change made in Valve Position
POWL0002	11/18/2011 12 06	55 1	34.4	0	10.5	-15.6	-15.6	69	69	Surging ,No Change made in Valve Position
POWL0003	11/18/2011 12 32	6	5.1	18.1	70 8	-2 4	-2 4	54	55	Barely Open ,Surging ,No Change made in Valve Position
POWL0004	11/18/2011 12:36	0	0.2	20 8	79	-1.1	-1 2	58	59	Barely Open ,Surging ,No Change made in Valve Position
POWL0005	11/18/2011 12 42	51.2	36 6	0 1	12.1	-6 2	-6.4	67	67	Surging ,No Change made in Valve Position
POWL0006	11/18/2011 12 45	47 1	35.2	0	17.7	-5.3	-5 4	61	61	Surging ,No Change made in Valve Position
POWL0007	11/18/2011 12.48	43 7	33.9	0	22 4	-4.5	-4 5	56	56	Surging ,No Change made in Valve Position
POWL0008	11/18/2011 12:51	22.3	16 8	9.9	51	-0.3	-0.3	53	53	Barely Open ,Surging ,No Change made in Valve Position
POWL0009	11/18/2011 12 22	0	0.1	20.9	79	-0.1	-0.1	54	53	Barely Open ,Surging ,No Change made in Valve Position
POWL0010	11/18/2011 12:19	0	0.3	20.8	78.9	-0.1	-0.1	56	54	Barely Open ,Surging ,No Change made in Valve Position
POWL0011	11/18/2011 11:41	28.6	28.6	0	42.8	-6.4	-6.4	54	53	Surging ,No Change made in Valve Position
POWL0012	11/18/2011 11:37	9.6	16.8	6	67.6	-4.3	-4.3	65	65	No Change made in Valve Position ,Surging
POWL0013	11/18/2011 11:13	46.5	32 3	0.3	20.9	-5.1	-5.1	60	60	Surging ,No Change made in Valve Position
POWL0014	11/18/2011 11 17	27.5	14.9	6.7	50.9	-0.1	-0 1	52	51	No Change made in Valve Position ,Surging
POWL0015	11/18/2011 11:21	48.3	30	0	21.7	-3	-3	54	54	Surging ,No Change made in Valve Position
POWL0016	11/18/2011 11:24	5.3	19	0.4	75.3	-0.5	-0 5	73	73	Surging ,No Change made in Valve Position
POWL0017	11/18/2011 11:27	42.1	31 5	1.2	25 2	-1 6	-1.6	54	54	No Change made in Valve Position ,Surging
POWL0018	11/18/2011 12 00	35.6	31 6	0	32 8	-7.5	-7 5	63	63	Surging ,No Change made in Valve Position
POWL0019	11/18/2011 11:47	65.8	19	3.4	11.8	-21.6	-21.6	50	51	Fully Open ,Surging ,No Change made in Valve Position
POWL0020	11/18/2011 11 31	62.2	22 7	2 4	12.7	-21 3	-21.2	56	55	Fully Open ,Surging ,No Change made in Valve Position
POWL0021	11/18/2011 11:34	1 5	1.1	19.8	77.6	-3.7	-3.7	56	56	Surging ,No Change made in Valve Position
POWL0022	11/18/2011 11.44	38.5	20 6	0	40 9	-17.1	-17.1	55	55	Surging ,No Change made in Valve Position
POWL0023	11/18/2011 12:14	65.8	33.8	0	0.4	-21.6	-21.6	58	58	Fully Open ,Surging ,No Change made in Valve Position
POWL0024	11/18/2011 12:25	34.1	20 3	9.1	36 5	-17.4	-18.2	54	54	Surging ,No Change made in Valve Position
POWL0025	11/18/2011 12:29	37 5	16.8	8 8	36.9	-15 4	-15.5	55	55	No Change made in Valve Position ,Surging
POWL0026	11/18/2011 12:09	65.5	33.9	0.4	0 2	-16	-16.1	58	58	Surging ,No Change made in Valve Position
POWLBLIN	11/18/2011 13:19	37.8	29 7	0 8	31.7	-22.5	-22 6	60	60	
POWLBLOT	11/18/2011 13 22	36.7	28.8	1.5	33	3 3	3.2	74	79	

Comments: No Additional Comment

American Environmental Group Ltd.

Wellfield Monitoring Data

Technician: Gerald Cuffe
Date: 12/29/2011
Client: R Jones, WMI
Site: Powell Rd
Temperature: 40°F
Barometric Press.: 29.82"Hg

ID	Date/Time	CH4	CO2	O2	Balance	Initial Static Press.	Adj. Static Press.	Initial Temp. (Deg F)	Adj. Temp. (Deg F)	Comments
POWLBLIN	12/29/2011 9:42	48	30.6	1.2	20.2	-22.5	-22.5	53	53	
POWLBLOT	12/29/2011 9:45	46.2	29.7	1.8	22.3	4.1	4.1	63	63	
POWL0001	12/29/2011 11:41	41	31.8	0 1	27.1	-3.5	-3.6	57	57	Surging ,No Change made in Valve Position
POWL0002	12/29/2011 11:46	61.1	34.4	0.2	4.3	-15	-15	66	66	Surging ,No Change made in Valve Position
POWL0003	12/29/2011 12.27	9.6	8	16.4	66	-1.2	-1.2	45	45	Barely Open ,Surging ,No Change made in Valve Position
POWL0004	12/29/2011 12:32	0	0.1	20.4	79.5	-0.1	-0.1	48	48	Barely Open ,Surging ,No Change made in Valve Position
POWL0005	12/29/2011 12:37	61.7	38 2	0	0.1	-6.1	-6	64	64	Surging ,No Change made in Valve Position
POWL0006	12/29/2011 12:41	61.7	37.1	0	1.2	-5 1	-5 1	57	57	Surging ,No Change made in Valve Position
POWL0007	12/29/2011 12:46	52.4	36.2	0.3	11.1	-4.1	-4.2	60	60	Surging ,No Change made in Valve Position
POWL0008	12/29/2011 12:50	17.9	13.5	12.2	56.4	-0.2	-0.2	48	48	Barely Open ,Surging ,No Change made in Valve Position
POWL0009	12/29/2011 12:10	0	0.1	20.3	79.6	-0.1	-0.1	45	45	Barely Open ,Surging ,No Change made in Valve Position
POWL0010	12/29/2011 12:04	0	0.2	20.3	79.5	-0.1	-0.1	44	44	Barely Open ,Surging ,No Change made in Valve Position
POWL0011	12/29/2011 10:45	40.5	33.4	0 1	26	-9.2	-9.2	45	45	Surging ,No Change made in Valve Position
POWL0012	12/29/2011 10:39	20.2	24.9	1.1	53.8	-6.1	-6 1	55	55	Surging ,No Change made in Valve Position
POWL0013	12/29/2011 10:00	54	32	0.9	13.1	-5.7	-5.7	57	57	Surging ,No Change made in Valve Position
POWL0014	12/29/2011 10:06	17.2	11.1	10.2	61.5	-0.3	-0.4	39	39	Surging ,No Change made in Valve Position ,Barely Open
POWL0015	12/29/2011 10:12	66.5	33.3	0.1	0.1	-2.8	-3 2	57	58	Inc Flow Vacuum ,Surging ,Slightly Opened less than 1/4 turn
POWL0016	12/29/2011 10:16	32.7	21.5	0	45.8	-0.3	-0.3	54	54	Surging ,No Change made in Valve Position ,Barely Open
POWL0017	12/29/2011 10:22	26.7	21.3	5 4	46.6	-1.1	-1 1	42	41	Barely Open ,Surging ,No Change made in Valve Position
POWL0018	12/29/2011 11:37	57.4	34 4	0.5	7.7	-7.1	-7.1	60	60	Surging ,No Change made in Valve Position
POWL0019	12/29/2011 11:15	65.9	19.4	3.6	11.1	-21.2	-21 2	47	47	Surging ,No Change made in Valve Position
POWL0020	12/29/2011 10:27	51.9	17.9	6.2	24	-12.3	-11.1	41	41	Surging ,No Change made in Valve Position
POWL0021	12/29/2011 10:32	4.7	2.3	18.5	74.5	-5.4	-5.4	40	40	Surging ,No Change made in Valve Position
POWL0022	12/29/2011 10:51	56.5	22.2	0	21.3	-17.2	-17.2	52	52	Surging ,No Change made in Valve Position
POWL0023	12/29/2011 11:57	65.7	33.4	0.7	0.2	-21.6	-21.6	48	48	Surging ,No Change made in Valve Position
POWL0024	12/29/2011 12.16	26.4	13.8	12.1	47.7	-16.9	-17.2	45	45	Surging ,No Change made in Valve Position
POWL0025	12/29/2011 12:22	43.1	19.4	7.5	30	-15.5	-15.8	46	46	Surging ,No Change made in Valve Position
POWL0026	12/29/2011 11:52	63.4	31 8	1.8	3	-16.4	-16.1	49	49	Surging ,No Change made in Valve Position
POWLBLIN	12/29/2011 13:07	48.4	31.4	1.3	18.9	-27.1	-21.1	53	53	
POWLBLOT	12/29/2011 13:10	46.6	30.5	1 9	21	4.2	4.1	76	76	

Comments: No Additional Comment

APPENDIX K.

DOWNTIME REPORTS

American Environmental Group Ltd

American Environmental Group, Ltd.
3600 Blackshire Rd., Suite 100
Richfield, Ohio 44286

Ph (330) 659-5930 Fax (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report January 1, 2011 Thru January 31, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
01/01/11	12 00AM	01/01/11	8 00AM	8 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/01/11	8 00PM	01/02/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/02/11	8 00PM	01/03/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/03/11	8 00PM	01/04/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/04/11	8 00PM	01/05/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/05/11	8 00PM	01/06/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/06/11	8 00PM	01/07/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/07/11	8 00PM	01/08/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/08/11	8 00PM	01/09/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/09/11	9 15 AM	01/10/11	9 35 AM	0 25	Manual Shutdown	Manual Restart
01/10/11	8 00PM	01/11/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/11/11	8 00PM	01/12/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/12/11	8.00PM	01/13/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/13/11	11 35 AM	01/13/11	11:50 AM	0 25	Manual Shutdown	Manual Restart
01/13/11	8 00PM	01/14/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/14/11	8 00PM	01/15/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/15/11	8 00PM	01/16/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/16/11	8 00PM	01/17/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/17/11	8 00PM	01/18/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/18/11	8 00PM	01/19/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/19/11	8 00PM	01/20/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/20/11	8 00PM	01/21/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/21/11	8 00PM	01/22/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/22/11	8 00PM	01/23/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/23/11	8 00PM	01/24/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/24/11	8 00PM	01/25/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/25/11	8:00PM	01/26/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/26/11	8 00PM	01/27/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/27/11	8 00PM	01/28/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/28/11	8 00PM	01/29/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
01/29/11	8 00PM	01/30/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/30/11	8.00PM	01/31/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
01/31/11	8 00PM	01/31/11	12 00 AM	4 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs) 380 50
Total Hours in Month 744
Runtime Percentage 51.55%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of January 2011

Total Downtime (Hrs) 0.00
Total Hours in Month 744
Runtime Percentage 100.00%

American Environmental Group Ltd.

American Environmental Group, Ltd.
3600 Brecksville Rd., Suite 100
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax: (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report February 1, 2011 Thru February 28, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
02/01/11	12:00AM	02/01/11	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/01/11	8:00PM	02/02/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/02/11	8:00PM	02/03/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/03/11	8:00PM	02/04/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/04/11	8:00PM	02/05/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/05/11	8:00PM	02/06/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/06/11	8:00PM	02/07/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/07/11	8:00PM	02/08/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/08/11	8:00PM	02/09/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/09/11	8:00PM	02/10/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/10/11	8:00PM	02/11/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/11/11	8:00PM	02/12/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/12/11	8:00PM	02/13/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/13/11	8:00PM	02/14/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/14/11	8:00PM	02/15/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/15/11	8:00PM	02/16/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/16/11	8:00PM	02/17/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/17/11	8:00PM	02/18/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/18/11	9:40 AM	02/18/11	9:55 AM	0.25	Manual Shutdown	Manual Restart (Flare shutdown for monthly inspection)
02/18/11	8:00PM	02/19/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/19/11	8:00PM	02/20/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
02/20/11	8:00PM	02/21/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/21/11	8:00PM	02/22/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/22/11	8:00PM	02/23/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/23/11	8:00PM	02/24/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/24/11	8:00PM	02/25/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/25/11	8:00PM	02/26/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/26/11	8:00PM	02/27/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/27/11	8:00PM	02/28/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
02/28/11	8:00PM	03/01/11	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs) 336.25
Total Hours In Month 672
Runtime Percentage 49.96%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of February 2011

Total Downtime (Hrs) 0.00
Total Hours In Month 744
Runtime Percentage 100.00%

American Environmental Group Ltd

American Environmental Group Ltd
3400 Brecksville Rd., Suite 100
Richfield Ohio 44286

Ph (330) 659-5930 Fax (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report March 1, 2011 Thru March 31, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr)	Cause of Downtime	Action Taken
03/01/11	12 00AM	03/01/11	8 00AM	8 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/01/11	8 00PM	03/02/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/02/11	8 00PM	03/03/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/03/11	8 00PM	03/04/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/04/11	8 00PM	03/05/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/05/11	8 00PM	03/06/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/06/11	8 00PM	03/07/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/07/11	8 00PM	03/08/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/08/11	8 00PM	03/09/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/09/11	8 00PM	03/10/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/10/11	8 00PM	03/11/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/11/11	8 00PM	03/12/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/12/11	8 00PM	03/13/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/13/11	8:00PM	03/14/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/14/11	8 00PM	03/15/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/15/11	8 00PM	03/16/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/16/11	8 00PM	03/17/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/17/11	8 00PM	03/18/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/19/11	8 00PM	03/20/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/20/11	8 00PM	03/21/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/21/11	8 00PM	03/22/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/22/11	8 00PM	03/23/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/23/11	8 00PM	03/24/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/24/11	11 35 AM	03/24/11	11 50 AM	0 25	Manual Shutdown	Manual Restart (Flare shutdown for monthly inspection)
03/24/11	8 00PM	03/25/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/25/11	8 00PM	03/26/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/26/11	8 00PM	03/27/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/27/11	8 00PM	03/28/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
03/28/11	8 00PM	03/29/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/29/11	8 00PM	03/30/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/30/11	8 00PM	03/31/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
03/31/11	8 00PM	04/01/11	12 00 AM	4 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs) 360 25
Total Hours in Month 744
Runtime Percentage 51 56%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of March 2011

Total Downtime (Hrs) 0 00
Total Hours in Month 744
Runtime Percentage 100 00%

American Environmental Group Ltd.

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Waste Management, Powell Road Landfill
Downtime Report April 1, 2011 Thru April 30, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
04/01/11	12 00AM	04/01/11	8:00AM	8 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/01/11	8 00PM	04/02/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/02/11	8 00PM	04/03/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/03/11	8 00PM	04/04/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/04/11	8 00PM	04/05/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/05/11	8 00PM	04/06/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/06/11	8 00PM	04/07/11	8.00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/07/11	8 00PM	04/08/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/08/11	8 00PM	04/09/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/09/11	8 00PM	04/10/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/10/11	8:00PM	04/11/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/11/11	8 00PM	04/12/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/12/11	8 00PM	04/13/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/13/11	8:00PM	04/14/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/14/11	8 00PM	04/15/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/15/11	8 00PM	04/16/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/16/11	8 00PM	04/17/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/17/11	8 00PM	04/18/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/18/11	8:00PM	04/19/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/19/11	8 00PM	04/20/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/20/11	8 00PM	04/21/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/21/11	8 00AM	04/21/11	1 00PM	5 00	Auto Shutdown	Flare would not restart in automatic mode and was restarted in manual mode
04/21/11	8 00PM	04/22/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/22/11	8 00PM	04/23/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
04/23/11	8 00PM	04/24/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/24/11	8 00PM	04/25/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/25/11	8 00PM	04/26/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/26/11	8.00PM	04/27/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/27/11	8.00PM	04/28/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/28/11	8:00PM	04/29/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/29/11	8 00PM	04/30/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
04/30/11	8 00PM	05/01/11	12 00 AM	4 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs)	365 00
Total Hours in Month	720
Runtime Percentage	49 31%

Notes. The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of April 2011

Total Downtime (Hrs)	0 00
Total Hours in Month	744
Runtime Percentage	100 00%

American Environmental Group Ltd

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Waste Management, Powell Road Landfill
Downtime Report May 1, 2011 Thru May 31, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
05/01/11	12 00AM	05/01/11	8 00AM	8 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/01/11	8 00PM	05/02/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/02/11	8:00PM	05/03/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/03/11	8 00PM	05/04/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/04/11	8 00PM	05/05/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/05/11	8 00PM	05/06/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/06/11	8 00PM	05/07/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/07/11	8 00PM	05/08/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/08/11	8 00PM	05/09/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/09/11	8 00PM	05/10/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/10/11	8 00PM	05/11/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/11/11	8 00PM	05/12/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/12/11	8 00PM	05/13/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/13/11	8 00PM	05/14/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/14/11	8 00PM	05/15/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/15/11	8 00PM	05/16/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/16/11	8 00PM	05/17/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/17/11	8 00PM	05/18/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/18/11	8 00PM	05/19/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/19/11	8 00PM	05/20/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/20/11	10 55 AM	05/20/11	11 15 AM	0 33	Manual Shutdown	Manual Restart
05/20/11	8 00PM	05/21/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/21/11	8 00PM	05/22/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/22/11	8 00PM	05/23/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/23/11	8 00PM	05/24/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/24/11	8 00PM	05/25/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/25/11	8 00PM	05/26/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/26/11	8 00PM	05/27/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
05/27/11	8 00PM	05/28/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/28/11	8 00PM	05/29/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/29/11	8 00PM	05/30/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/30/11	8 00PM	05/31/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
05/31/11	8 00PM	06/01/11	12 00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs)	372 33
Total Hours in Month	744
Runtime Percentage	49 96%

Notes The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of May 2011

Total Downtime (Hrs)	0 00
Total Hours in Month	744
Runtime Percentage	100 00%

American Environmental Group Ltd.

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Waste Management, Powell Road Landfill
Downtime Report June 1, 2011 Thru June 30, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
06/01/11	12:00AM	06/01/11	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/01/11	8:00PM	06/02/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/02/11	8:00PM	06/03/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/03/11	10:55 AM	06/03/11	10:52 AM	0.33	Manual Shutdown	Manual Restart
06/03/11	8:00PM	06/04/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/04/11	8:00PM	06/05/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/05/11	8:00PM	06/06/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/06/11	8:00PM	06/07/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/07/11	8:00PM	06/08/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/08/11	8:00PM	06/09/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/09/11	8:00PM	06/10/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/10/11	8:00PM	06/11/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/11/11	8:00PM	06/12/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/12/11	8:00PM	06/13/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/13/11	8:00PM	06/14/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/14/11	8:00PM	06/15/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/15/11	8:00PM	06/16/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/16/11	8:00PM	06/17/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/17/11	8:00PM	06/18/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/18/11	8:00PM	06/19/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/19/11	8:00PM	06/20/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/21/11	8:00PM	06/22/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/22/11	8:00PM	06/23/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/23/11	8:00PM	06/24/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/24/11	8:00PM	06/25/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/25/11	8:00PM	06/26/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/26/11	8:00PM	06/27/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/27/11	8:00PM	06/28/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/28/11	8:00PM	06/29/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/29/11	8:00PM	06/30/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
06/30/11	8:00PM	07/01/11	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs)	348.33
Total Hours in Month	720
Runtime Percentage	51.62%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of June 2011

Total Downtime (Hrs)	0.00
Total Hours in Month	720
Runtime Percentage	100.00%

American Environmental Group Ltd

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Waste Management, Powell Road Landfill
Downtime Report July 1, 2011 Thru July 31, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
07/01/11	12 00AM	07/01/11	8 00AM	8 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/01/11	8 00PM	07/02/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/02/11	8 00PM	07/03/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/04/11	8 00PM	07/05/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/05/11	8:00PM	07/06/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/06/11	8 00PM	07/07/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/07/11	8.00PM	07/08/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/08/11	8 00PM	07/09/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/09/11	8 00PM	07/10/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/10/11	8 00PM	07/11/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/11/11	8 00PM	07/12/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/12/11	8:00PM	07/13/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/13/11	8:00PM	07/14/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/14/11	8 00PM	07/15/11	8 00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
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07/20/11	8 00PM	07/21/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/21/11	8 00PM	07/22/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/22/11	8:00AM	07/22/11	12:00 PM	4 00	Manual Shutdown	Manual Restart
07/22/11	8:00PM	07/23/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/23/11	8:00PM	07/24/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/24/11	8 00PM	07/25/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/25/11	8.00PM	07/26/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
07/26/11	8 00PM	07/27/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/27/11	8:00PM	07/28/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/28/11	8.00PM	07/29/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/29/11	8 00PM	07/30/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/30/11	8:00PM	07/31/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
07/31/11	8 00PM	08/01/11	12 00 AM	4 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs) 364 00
Total Hours in Month 744
Runtime Percentage 51 08%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of July 2011

Total Downtime (Hrs) 0 00
Total Hours in Month 744
Runtime Percentage 100 00%

American Environmental Group, Ltd
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Waste Management, Powell Road Landfill
Downtime Report August 1, 2011 Thru August 31, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
08/01/11	12:00AM	08/01/11	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/02/11	8:00PM	08/02/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/03/11	8:00PM	08/03/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/04/11	8:00PM	08/04/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/05/11	8:00PM	08/05/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/06/11	8:00PM	08/06/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/07/11	8:00PM	08/07/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/08/11	8:00PM	08/08/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/09/11	8:00PM	08/09/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/10/11	8:00PM	08/10/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/11/11	8:00PM	08/11/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/12/11	8:00PM	08/12/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/13/11	8:00PM	08/13/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/14/11	8:00PM	08/14/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/15/11	8:00PM	08/15/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/16/11	8:00PM	08/16/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/17/11	8:00PM	08/17/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/18/11	8:00PM	08/18/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/19/11	11:12 AM	08/19/11	11:27 AM	0.25	Manual Shutdown	Manual Restart
08/19/11	8:00PM	08/19/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/20/11	8:00PM	08/20/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/21/11	8:00PM	08/21/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/22/11	8:00PM	08/22/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/23/11	8:00PM	08/23/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/24/11	8:00PM	08/24/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/25/11	8:00PM	08/25/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/26/11	8:00PM	08/26/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
08/27/11	8:00PM	08/27/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/28/11	8:00PM	08/28/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/29/11	8:00PM	08/29/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/30/11	8:00PM	08/30/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
08/31/11	8:00PM	09/01/11	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs) 360.25
Total Hours in Month 744
Runtime Percentage 51.58%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of August 2011

Total Downtime (Hrs) 0.00
Total Hours in Month *744*
Runtime Percentage 100.00%

American Environmental Group Ltd.

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Waste Management, Powell Road Landfill
Downtime Report September 1, 2011 Thru September 30, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
09/01/11	12 00AM	09/01/11	8 00AM	8 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/01/11	8 00PM	09/02/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/02/11	8 00PM	09/03/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/03/11	8 00PM	09/04/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/04/11	8 00PM	09/05/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/05/11	8.00PM	09/06/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/06/11	8 00PM	09/07/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/07/11	8 00PM	09/08/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/08/11	8 00PM	09/09/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/09/11	8 00PM	09/10/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/10/11	8 00PM	09/11/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/11/11	8 00PM	09/12/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/12/11	8.00PM	09/13/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/13/11	8 00PM	09/14/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/14/11	8 00PM	09/15/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/15/11	8 00PM	09/16/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/16/11	8.00PM	09/17/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/17/11	8 00PM	09/18/11	8:00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/19/11	8 00PM	09/20/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/20/11	8 00PM	09/21/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/21/11	8:00PM	09/22/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/22/11	8.00PM	09/23/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/23/11	9.03 AM	09/23/11	9 18 AM	0 25	Manual Shutdown	Manual Restart
09/23/11	8 00PM	09/24/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/24/11	8:00PM	09/25/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/25/11	8:00PM	09/26/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
09/26/11	8:00PM	09/27/11	8.00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/27/11	8 00PM	09/28/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/28/11	8 00PM	09/29/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/29/11	8 00PM	09/30/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
09/30/11	8 00PM	10/01/11	8 00AM	12 00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs)	356 25
Total Hours in Month	720
Runtime Percentage	50 52%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of September 2011

Total Downtime (Hrs)	0 00
Total Hours in Month	720
Runtime Percentage	100 00%

American Environmental Group Ltd

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Waste Management, Powell Road Landfill
Downtime Report October 1, 2011 Thru October 31, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
10/01/11	12:00AM	10/01/11	8:00AM	8.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/01/11	8:00PM	10/02/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/02/11	8:00PM	10/03/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/03/11	8:00PM	10/04/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/04/11	8:00PM	10/05/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/05/11	8:00PM	10/06/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/06/11	8:00PM	10/07/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/07/11	8:00PM	10/08/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/08/11	8:00PM	10/09/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/09/11	8:00PM	10/10/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/10/11	8:00PM	10/11/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/11/11	8:00PM	10/12/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/12/11	8:00PM	10/13/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/13/11	8:00PM	10/14/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/14/11	8:00PM	10/15/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/15/11	8:00PM	10/16/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/16/11	8:00PM	10/17/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/17/11	8:00PM	10/18/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/18/11	8:00PM	10/19/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/19/11	8:00PM	10/20/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/20/11	8:00PM	10/21/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/21/11	10:20 AM	10/21/11	10:50 AM	0.25	Manual Shutdown	Manual Restart
10/21/11	8:00PM	10/22/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
10/22/11	8:00PM	10/23/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/23/11	8:00PM	10/24/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/24/11	8:00PM	10/25/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/25/11	8:00PM	10/26/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/26/11	8:00PM	10/27/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/27/11	8:00PM	10/28/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/28/11	8:00PM	10/29/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/29/11	8:00PM	10/30/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/30/11	8:00PM	10/31/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
10/31/11	8:00PM	11/01/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs) 380.25
Total Hours in Month 720
Runtime Percentage 47.19%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of October 2011

Total Downtime (Hrs) 0.00
Total Hours in Month 720
Runtime Percentage 100.00%

American Environmental Group Ltd.

American Environmental Group Ltd
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Waste Management, Powell Road Landfill
Downtime Report November 1, 2011 Thru November 30, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
11/01/11	12:00AM	11/01/11	8:00AM	8:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/01/11	8:00PM	11/02/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/02/11	8:00PM	11/03/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/03/11	8:00PM	11/04/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/04/11	8:00PM	11/05/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/05/11	8:00PM	11/06/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/06/11	8:00PM	11/07/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/07/11	8:00PM	11/08/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/08/11	8:00PM	11/09/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/09/11	8:00PM	11/10/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/10/11	8:00PM	11/11/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/11/11	8:00PM	11/12/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/12/11	8:00PM	11/13/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/13/11	8:00PM	11/14/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/14/11	8:00PM	11/15/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/15/11	8:00PM	11/16/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/16/11	8:00PM	11/17/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/17/11	8:00PM	11/18/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/18/11	10:35 AM	11/18/11	10:55 AM	0:33	Manual Shutdown	Manual Restart
11/18/11	8:00PM	11/19/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/19/11	8:00PM	11/20/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/20/11	8:00PM	11/21/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/21/11	8:00PM	11/22/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/22/11	8:00PM	11/23/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/23/11	8:00PM	11/24/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/24/11	8:00PM	11/25/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/25/11	8:00PM	11/26/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/26/11	8:00PM	11/27/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/27/11	8:00PM	11/28/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/28/11	8:00PM	11/29/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/29/11	8:00PM	11/30/11	8:00AM	12:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield
11/30/11	8:00PM	12/01/11	12:00AM	4:00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield

Total Downtime (Hrs)	360.33
Total Hours in Month	720
Runtime Percentage	49.95%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of November 2011

Total Downtime (Hrs)	0.00
Total Hours in Month	720
Runtime Percentage	100.00%

American Environmental Group Ltd.

American Environmental Group, Ltd.
3600 Brecksville Rd., Suite 100
Richfield, Ohio 44286

Ph: (330) 659-5930 Fax (330) 659-5931

Waste Management, Powell Road Landfill
Downtime Report December 1, 2011 Thru December 31, 2011

Flare Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime (Hr.)	Cause of Downtime	Action Taken
12/01/11	12:00AM	12/01/11	9:32 AM	9.50	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/01/11	9:32 AM	12/20/11	7:24 AM	454 10	Manual Shutdown	System shutdown from 12/01/11 until 12/20/11 due to significant river flood stage; system could not keep up with liquid levels, this caused flare surging and excessive ignition recycling. Manual Restart.
12/20/11	8:00PM	12/21/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/21/11	8:00PM	12/22/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/22/11	8:00PM	12/23/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/23/11	8:00PM	12/24/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/24/11	8:00PM	12/25/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/25/11	8:00PM	12/26/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/26/11	8:00PM	12/27/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/27/11	8:00PM	12/28/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/28/11	8:00PM	12/29/11	8.00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/29/11	8.00PM	12/30/11	8.00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/30/11	8:00PM	12/31/11	8:00AM	12.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.
12/31/11	8:00PM	01/01/12	12:00 AM	4.00	Auto Shutdown	Flare was automatically shut down by the flare control panel cycle timer to control down time of flare and improve gas quality from the wellfield.

Total Downtime (Hrs) 599.60
Total Hours in Month 744
Runtime Percentage 19.41%

Notes: The downtime and runtime calculated on this sheet is the result of known downtime only.

Air Compressor Downtime Data

Date	Start of Downtime	Restart Date	Restart Time	Total Downtime	Cause of Downtime	Action Taken
						No compressor downtimes during the month of December 2011
						System shutdown from 12/01/11 until 12/20/11 due to significant river flood stage; system could not keep up with liquid levels, this caused flare surging and excessive ignition recycling. Manual Restart.

Total Downtime (Hrs) 0.00
Total Hours in Month 744
Runtime Percentage 100.00%

APPENDIX L.

SIERRA MONITOR INSPECTION REPORTS

Powell Sierra Monitors

Date: 3/22/2011

Technician: TOM MILLER

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS: No additional comments.

Powell Sierra Monitors

Date: 6/24/2011

Technician: TOM MILLER

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS: No additional comments.

Powell Sierra Monitors

Date: 9/28/2011

Technician: TOM MILLER

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS: No additional comments.

Powell Sierra Monitors

Date: 12/16/2011

Technician: TOM MILLER

	ADDRESS, NAME & PHONE NUMBER	MONITOR FUNCTIONING PROPERLY?	MONITOR CALIBRATED?	MONITOR NEEDS ATTENTION?
1	Waste Management 4010 Powell Rd. 937-235-2382	Yes	No	No
2	Onsite Compressor Building	Yes	No	No

COMMENTS:

APPENDIX M.

GAS PROBE MONITORING REPORTS

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Date Last Calibrated:	3/22/2011	Method:	GA/Mode
Pressure Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Water Level Instrument Type:	SOLINIST MODEL 101	Serial No.:	N/A
Weather Conditions:	PARTLY CLOUDY/ 61 DEGREES	Barometric Pressure:	29.09

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	14:06	0.29	0.0	7.6	No Comments
GP-2	14:00	1.06	0.0	14.5	No Comments
GP-3	13:50	-15.06	0.0	12	No Comments
GP-4	13:43	0.13	0.0	13.3	No Comments
GP-5	13:39	0.20	0.0	8.2	No Comments
GP-6	13:34	3.27	0.0	9.4	No Comments

Date Performed: 3/22/2011

By: TOM MILLER

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Date Last Calibrated:	6/24/2011	Method:	GA/Mode
Pressure Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Water Level Instrument Type:	SOLINIST MODEL 101	Serial No.:	N/A
Weather Conditions:	PARTLY CLOUDY/ 72 DEGREES	Barometric Pressure:	29.79

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	3:14	0.21	0.0	6.8	No Comments
GP-2	3:18	0.96	0.0	14.1	No Comments
GP-3	3:35	-9.03	0.0	11.7	No Comments
GP-4	3:47	0.15	0.0	13.2	No Comments
GP-5	4:01	0.24	0.0	8.4	No Comments
GP-6	4:17	1.46	0.0	9.1	No Comments

Date Performed: 6/24/2011

By: TOM MILLER

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Date Last Calibrated:	9/28/2011	Method:	GA/Mode
Pressure Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Water Level Instrument Type:	SOLINIST MODEL 101	Serial No.:	N/A
Weather Conditions:	PARTLY CLOUDY/ 72 DEGREES	Barometric Pressure:	28.98

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	11:08	0.18	0.0	8.2	No Comments
GP-2	10:54	0.84	0.0	14.9	No Comments
GP-3	10:51	-8.92	0.0	12.6	No Comments
GP-4	10:43	0.14	0.0	12.8	No Comments
GP-5	9:37	0.31	0.0	10.2	No Comments
GP-6	5:31	1.22	0.0	11.3	No Comments

Date Performed: 9/28/2011

By: TOM MILLER

PERMANENT GAS PROBE MONITORING REPORT
LANDFILL GAS EXTRACTION SYSTEM
POWELL ROAD LANDFILL

Combustible Gas Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Date Last Calibrated:	12/16/2011	Method:	GA/Mode
Pressure Instrument Type:	CES Landtec GEM 2000	Serial No.:	GM07951/05
Water Level Instrument Type:	SOLINIST MODEL 101	Serial No.:	N/A
Weather Conditions:	PARTLY CLOUDY/ 47 DEGREES	Barometric Pressure:	29.32

Monitor Point	Time	Pressure In. W.C. (+/-)	Percent Methane	Water Level	Comments
GP-1	4:12	0.13	0.0	7.4	No Comments
GP-2	3:27	0.73	0.0	13.7	No Comments
GP-3	3:09	0.01	0.0	12.1	No Comments
GP-4	2:58	0.50	0.0	12.7	No Comments
GP-5	2:46	0.30	0.0	10	No Comments
GP-6	2:37	1.01	0.0	10.2	No Comments

Date Performed: 12/16/2011

By: TOM MILLER

APPENDIX N.

MONITORING WELL INTEGRITY REPORTS

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Date: 5/2/11

Facility Name: Powell Road Landfill

Inspected by: A. Graham / D. Follett

	Monitoring Well									
	MW02AR	MW02B	MW04AR	MW04BRR	MW05AR	MW05BR	MW07AR	MW12A	MW12B	MW13B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside/outside?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	X	X	X	X	X	X	X	✓	✓	✓
4. Is wellhead area free of waste, stored chemicals, etc.?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1. Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED WITH AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEETS.

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Date: 5/2/11

Facility Name: Powell Road Landfill

Inspected by: A. GAMWAM / D. FOLLETT

	Monitoring Well									
	MW13C	MW14B	MW15B	MW15C	MW16A	MW16B	MW17A	MW17B	MW18A	MW18B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside (outside?)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	✓	✓	✓	✓	X	X	X	X	X	X
4. Is wellhead area free of waste, stored chemicals, etc.?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1. Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED WITH AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEET(S).

The following text provides explanations for the items marked "no" on the Monitoring Well Integrity Report for May 2, 2011.

Item A. Location / Identification

1. Is well flagged / painted?

Most of the monitoring wells at the Powell Road Landfill (PRL) are constructed with silver or gold anodized aluminum guard pipes. These guard pipes are highly visible and do not require paint. Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are located off of the PRL property, south of the Great Miami River. These wells are equipped with 3/8-inch thick steel guard pipes over the anodized aluminum guard pipes. These secondary guard pipes were put on to protect the wells from vandalism (primarily from gun shots). These secondary guard pipes are not painted or flagged so as not to call attention to the wells.

3. Is well situated away from a low point or point of ponded water?

Monitoring wells MW02AR, MW02B, MW04AR, MW04BRR, MW05AR, MW05BR, MW07AR, MW16A, MW16B, MW17A, MW17B, MW18A, and MW18B are located along the southern edge of the landfill area at the PRL; north of the Great Miami River. This area is floodplain and is prone to flooding. Standing water is common in places after flooding or heavy rain. All of these monitoring wells are equipped with surface seals and flood protective well caps on the two inch well casings to prevent surface water from entering the wells.

5. Is well really accessible?

Monitoring wells MW15B and MW15C are located in the wood lot at Eldorado Plat, south of the Great Miami River. At this time piles of wood chips and cut logs make vehicle access to these wells impossible. Pieces of wood and holes in and below the wood chip piles make for treacherous footing in the best of circumstances.

Item C. External Casing

5. Is casing / annulus in good condition and free of water / live animals/ debris.

Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are equipped with secondary guard pipes as explained previously in Item A.1. Insects (wasps, spiders, ants, beetles) are commonly found within these secondary guard pipes.

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Facility Name: Powell Road Landfill

Date: 10/10/11

Inspected by: A. GRAHAM / S. STOOPS

	Monitoring Well									
	MW02AR	MW02B	MW04AR	MW04BRR	MW05AR	MW05BR	MW07AR	MW12A	MW12B	MW13B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside/outside?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	X	X	X	X	X	X	X	✓	✓	✓
4. Is wellhead area free of waste, stored chemicals, etc.?										
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1 Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED WITH AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEET(S).

MONITORING WELL INTEGRITY REPORT

(✓) YES
(X) NO
(NA) NOT APPLICABLE

Date: 10/10/11

Facility Name: Powell Road Landfill

Inspected by: A. GRAHAM / S. STOOPS

	Monitoring Well									
	MW13C	MW14B	MW15B	MW15C	MW16A	MW16B	MW17A	MW17B	MW18A	MW18B
A. Location / Identification										
1. Is well flagged/painted?	X	X	X	X	X	X	X	X	X	X
2. Is well labeled inside (outside)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is well situated away from a low point or point or ponded water?	✓	✓	✓	✓	X	X	X	X	X	X
4. Is wellhead area free of waste, stored chemicals, etc.?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is well readily accessible?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. If in vulnerable traffic area, is well surrounded by protective posts?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7. Is the well location appropriately shown on facility permit and/or design drawing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8. Is well elevation information correct?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
B. Surface Seal										
1. Is there a concrete surface seal in good conditions (i.e., no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is the seal snug against the casing and ground surface?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the seal sloped away from the wellhead?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
C. External Casing										
1. Does well have external casing in good condition (i.e. no cracks)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is well locked?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is lock in good condition (i.e. no severe rust)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Does cap and lock effectively prevent tampering?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing/annulus in good condition and free of water/live animals/debris?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. Do above-ground wells have weep holes at the base of protective casing?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Internal Casing										
1. Is internal casing at least 1 foot above ground?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2. Is casing tight horizontally/vertically/rotationally?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3. Is the cap snugly fitting/in good condition/made of suitable materials?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. Is sampling equipment in good condition (tubing, etc.)?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Is casing free of live animals/debris/kinks or bends?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Comments: ITEMS MARKED WITH AN "X" (NO) ARE EXPLAINED ON THE ATTACHED SHEET(S).

The following text provides explanations for the items marked "no" on the Monitoring Well Integrity Report for October 10, 2011.

Item A. Location / Identification

1. Is well flagged / painted?

Most of the monitoring wells at the Powell Road Landfill (PRL) are constructed with silver or gold anodized aluminum guard pipes. These guard pipes are highly visible and do not require paint. Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are located off of the PRL property, south of the Great Miami River. These wells are equipped with 3/8-inch thick steel guard pipes over the anodized aluminum guard pipes. These secondary guard pipes were put on to protect the wells from vandalism (primarily from gun shots). These secondary guard pipes are not painted or flagged so as not to call attention to the wells.

3. Is well situated away from a low point or point of ponded water?

Monitoring wells MW02AR, MW02B, MW04AR, MW04BRR, MW05AR, MW05BR, MW07AR, MW16A, MW16B, MW17A, MW17B, MW18A, and MW18B are located along the southern edge of the landfill area at the PRL; north of the Great Miami River. This area is floodplain and is prone to flooding. Standing water is common in places after flooding or heavy rain. All of these monitoring wells are equipped with surface seals and flood protective well caps on the two inch well casings to prevent surface water from entering the wells.

5. Is well really accessible?

Monitoring wells MW15B and MW15C are located in the wood lot at Eldorado Plat, south of the Great Miami River. At this time piles of wood chips and cut logs make vehicle access to these wells impossible. Pieces of wood and holes in and below the wood chip piles make for treacherous footing in the best of circumstances.

Item C. External Casing

5. Is casing / annulus in good condition and free of water / live animals/ debris.

Monitoring wells MW13B, MW13C, MW14B, MW15B, and MW15C are equipped with secondary guard pipes as explained previously in Item A.1. Insects (wasps, spiders, ants, beetles) are commonly found within these secondary guard pipes.

APPENDIX O.

GROUND-WATER QUALITY DATA SUMMARIES

TABLE O-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE	MW02A	12/88	-	-	-	-	-	-	-	-	-	-	-	
Shallow Zone		4/89	-	-	-	-	-	3 J	-	-	3 J	-	-	
		1-2/91	-	-	-	-	7	6	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	[4J]	-	4J	-	-	6J	-	-	-	-	-	
		8/95	[7J (7J)]	-	-	-	-	51 (5J)	-	-	-	-	-	
		12/95	0.8J	-	-	-	-	2 2	-	-	-	-	-	
		5/96	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	
		11/96	0.58J	-	-	-	-	5.4	-	-	-	-	-	
		5/97	[3.6(3.9)]	-(-)	-(-)	-(-)	-(-)	2 6(2 6)	-(-)	-(-)	-(-)	-(-)	-(-)	
		11/97	-	-	-	-	-	3.5	-	-	-	-	-	
		9/98	0 86J	-	-	0.66J	-	2 1	-	-	-	-	-	
		5/99	-		-	0.46	-	0.22	-	-	-	-	-	
	MW02AR	5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	-
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	-
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	-
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
		5/10	-	-	-	-	-	-	-	-	-	-	-	-
		11/10	-	-	-	-	-	-	-	-	-	-	-	-
		5/11	-	-	-	-	-	-	-	-	-	-	-	-
		10/11	-	-	-	-	-	-	-	-	-	-	-	-
	MW03A	12/88	-	-	2 J	-	-	-	-	-	-	-	-	
		4/89	[28]	-	8 J	1 J	3 J	48	-	-	-	3 J	-	
		1-2/91	-	12(12)	4 J (4 J)	1 (1 J)	-	-	-	-	1 J	-	1 J	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	0.8J	1.4	-	-	-	-	-	-	-	
		5/96	-	-	0 9J	1J	-	-	-	-	-	-	-	
		11/96	1.2	-	-	1.1	-	2.9	-	-	-	-	-	

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] Risk-level cleanup levels from Powell Road Landfill ROD, Table 21
[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.
[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate
[4] MW16A resampling because of inconsistent results in 5/96. 5/96 results for Vinyl Chloride and 1,2-DCE are suspect.

- = no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for cis-1,2-DCE is 70, for trans-1,2-DCE is 100
[ ] = indicates values above MCL

TABLE O-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE Shallow Zone	MW04A	12/88	[6J]	-	98	3 J	7	1 J	-	-	-	4 J	-	
		4/89	-	-	-	3 J	3 J	-	-	-	-	3 J	-	
		1-2/91	-	-	27	6	8	1 J	-	-	-	1 J	-	
		3/93	1 4 (1 3)	-	35 (31)	4 7 (4 3)	4 9 (3 8)	1 7 (1 4)	-	-	-	-	-	
		2/95	-	-	11	6 J	2 J	-	-	-	-	-	-	
		5/95	-	-	6J	4J	2J	-	-	-	-	-	-	
		8/95	-	-	14	4J	-	-	-	-	-	-	-	
		12/95	-	-	16	5 6	1	0 6J	-	-	-	-	-	
		5/96	-	-	9	6	0 8J	-	-	-	-	0.6J	-	
		11/96	-	-	0.73J	5 2	-	-	-	-	-	-	-	
		5/97	-	-	4.8	5 8	-	-	-	-	-	-	-	
		11/97	-	-	1.1J	5 5J	-	-	-	-	-	-	-	
		9/98	-		3 5	7.2	-	-	-	-	-	-	-	
		5/99	-(-)		16(15)	5 3(5 2)	-(-)	0.25(0 23)	-(-)	-(-)	-(-)	0.34(0.33)	-(-)	
	MW04AR	5/00	-	-	-	4.5	-	-	-	-	-			
		8/00	-	-	9.5	4 4	-	-	-	-	-	-	-	
		11/00	-(-)	-(-)	16(18)	4.8 (4.8)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-
		2/01	-	-	-	2.6	-	-	-	-	-	-	-	
		5/01	-(-)	-(-)	8.5(8 6)	3 6(3.8)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	61(43)
		8/01	-(-)	-(-)	50(49)	3.9(4.3)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	64(74)
		11/01	-	-	13	4.2	-	-	-	-	-	-	-	110
		2/02	-	-	6.8	3 4	-	-	-	-	-	-	-	41
		5/02	-(-)	-(-)	-(-)	3.5(3.7)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	54(49)
		8/02	-	-	-	5 6	-	-	-	-	-	-	-	60
		11/02	-	-	-	5 5	-	-	-	-	-	-	-	110
		5/03	1.0	-	-	2 8	-	-	-	-	-	-	-	40
		11/03	-	-	-	3 7	-	-	-	-	-	-	-	97
		5/04	-	-	-	3 6	-	-	-	-	-	-	-	80
		11/04	-(-)	-(-)	-(-)	5.0(5.1)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	110(110)
		5/05	-	-	-	-[3]	-	-	-	-	-	-	-	53
		11/05	-(-)	-(-)	-(-)	2.9(2.9)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	53(50)
		5/06	-(-)	-(-)	-(-)	3 4(3 2)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	72(76)
		11/06	-(-)	-(-)	-(-)	2.7(2.5)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	50(48)
		05/07	-	-	-	2 8	-	-	-	-	-	-	-	51
		11/07	-(-)	-(-)	-(-)	4.6(4 9)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	68(65)
		5/08	-	-	-	2.3	-	-	-	-	-	-	-	49
		11/08	-(-)	-(-)	-(-)	4 1(4.3)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	74(72)
		5/09	-	-	-	2.3(2 3)	-	-	-	-	-	-	-	20(23J)
		11/09	-(-)	-(-)	-(-)	2.2 (2 2)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
		5/10	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	11(13)
		11/10	-	-	-	3 9(3.7)	-	-	-	-	-	-	-	17(16)
		5/11	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
		10/11	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	17(12)
	MW05A	12/88	-	-	-	-	-	-	-	-	-	-	-	
		4/89	[16]	-	-	-	-	-	-	-	-	-	-	
		1-2/91	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	0.6J	-	-	-	-	-	-	-	-	
		5/96	-	-	1J	-	-	-	-	-	-	-	-	
		11/96	-	-	-	-	-	-	-	-	-	-	-	
		5/97	-	-	-	-	-	-	-	-	-	-	-	
		11/97	-	-	-	-	7 2J	-	-	-	-	-	-	
		9/98	-		-	-	-	-	-	-	-	-	-	
		5/99	-		0.87	-	-	-	-	-	-	-	-	

J = estimated value
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1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] *Risk-level cleanup levels from Powell Road Landfill ROD, Table 21*
[2] *Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22*
[3] *Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate*
[4] *MW16A resampling because of inconsistent results in 5/96 5/96 results for Vinyl Chloride and 1,2-DCE are suspect.*

[5] Result reported as <10ug/l due to dilution, estimated result is 4.6 ug/l
-= no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for cis-1,2-DCE is 70, for trans-1,2-DCE is 100
[ ] = indicates values above MCL

TABLE O-1.
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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

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	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE Shallow Zone	MW05AR	5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	-
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	-
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		5/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	-
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
		5/10	-	-	-	-	-	-	-	-	-	-	-	-
		11/10	-	-	-	-	-	-	-	-	-	-	-	-
		5/11	-	-	-	-	-	-	-	-	-	-	-	-
		10/11	-	-	-	-	-	-	-	-	-	-	-	-
	MW07A	12/88	[12 (16)]	-	23 (31)	-	28 (29)	[110 (120)]	-	48 (49)	-	2 J (2 J)	-	
		4/89	-	-	-	-	-	4 J (-)	-	10 (7)	-	-	-	
		1-2/91	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	-	0.6J	-	-	-	
	MW16A	1-2/91	-	-	6 J	-	-	1 J	-	-	-	-	-	
		3/93	-	-	8 7	-	1 1	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		6/20/95[3]	- - (-)	- - (-)	- - (-)	- - (-)	- - (-)	5J 4J (5J)	- - (-)	- - (-)	- - (-)	- - (-)	- - (-)	
		8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	4 2 (4.1)	0.9J (0 9J)	0 5J (0 5J)	-	-	(0.5J)	-	-	-	
		5/96	[20J]	-	4J	1J	1J	33J	-	-	-	-	-	
		8/96[4]	-	-	6J	1J	0.6J	-	-	-	-	-	-	
		11/96	- (-)	- (-)	2 3J(2 0)	1 1(0.93J)	-	0.69J(0 64J)	- (-)	- (-)	- (-)	- (-)	- (-)	
		5/97	0.73J	-	4 4	0.97J	-	0.72J	-	-	-	-	-	
		11/97	-	-	1.7	1 0	-	-	-	-	-	-	-	
		9/98	-		1.9J	0 93J	-	-	-	-	-	-	-	
		5/99	-		1 1	1.1	-	-	-	-	-	-	-	
		5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-

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HUBER HEIGHTS, OHIO
(concentrations in ug/L)

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	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE Shallow Zone	MW-16A (cont'd)	2/01	-	-	-	-	1.4	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	10
		2/02	1.0(1.2)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	7J
		5/02	-	-	-	-	-	-	-	-	-	-	-	12
		8/02	-	-	-	-	-	-	-	-	-	-	-	8J
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	[2.1](1.8)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
		11/03	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	17(17)
		5/04	-	-	-	-	-	-	-	-	-	-	-	21
		11/04	-	-	-	-	-	-	-	-	-	-	-	10
		5/05	-	-	-	-	-	-	-	-	-	-	-	10
		11/05	-	-	-	-	-	-	-	-	-	-	-	13
		5/06	-	-	-	-	-	-	-	-	-	-	-	11
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	1.5	-	-	-	-	-	-	-	-	-	-	22
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	16
		11/08	-	-	-	-	-	-	-	-	-	-	-	10
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
		5/10	-	-	-	-	-	-	-	-	-	-	-	-
		11/10	-	-	-	-	-	-	-	-	-	-	-	-
		5/11	-	-	-	-	-	-	-	-	-	-	-	-
		10/11	-	-	-	-	-	-	-	-	-	-	-	13
	MW17A	5/00	[5.3]([5.3])	-(-)	-(-)	-(-)	-(-)	7.0 (7.0)	-(-)	-(-)	-(-)	-(-)	-(-)	
		6/00	-(-)											
		8/00	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	
		11/00	1.6	-	-	-	-	-	-	-	-	-	-	-
		2/01	[2.1](1.9)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	
		5/01	[2.3]	-	-	-	-	-	1.2	-	-	-	-	-
		8/01	[5.4]	-	-	-	-	9.2	-	-	-	-	-	
		11/01	[5.4] ([5.3])	-	-	-	-	9.9 (9.7)	-	-	-	-	-	41 (43)
		2/02	[4.5]	-	-	-	-	7.3	-	-	-	-	-	16
		5/02	1.6	-	-	-	-	-	-	-	-	-	-	21
		8/02	-	-	-	-	-	-	-	-	-	-	-	19
		11/02	-	-	-	-	-	-	-	-	-	-	-	28
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	49
		5/04	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	38(43)
		11/04	-	-	-	-	-	-	-	-	-	-	-	35
		5/05	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	21(22)
		11/05	-	-	-	-	-	-	-	-	-	-	-	13
		5/06	-	-	-	-	-	-	-	-	-	-	-	21
		11/06	-	-	-	-	-	-	-	-	-	-	-	28
		05/07	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	23(22)
		11/07	-	-	-	-	-	-	-	-	-	-	-	16
		5/08	-	-	-	-	-	-	-	-	-	-	-	15
		11/08	-	-	-	-	-	-	-	-	-	-	-	29
		5/09	-	-	-	-	-	-	-	-	-	-	-	15
		11/09	-	-	-	-	-	-	-	-	-	-	-	43
		5/10	-	-	-	-	-	-	-	-	-	-	-	21
		11/10	-	-	-	-	-	-	-	-	-	-	-	18
		5/11	-	-	-	-	3.4	-	-	-	-	-	-	25
		10/11	-	-	-	-	6.4	-	-	-	-	-	-	48
	MW18A	5/00	-	-	-	-	-	-	-	-	-	-	-	
		6/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	-
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	4J
		11/02	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
		5/10	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-

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	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE Shallow Zone	MW18A (cont'd)	5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	1	-	-	-	-	-	-	-	-	-	-	-
		6/06	1.3											
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	1.2	-	-	-	-	-	-	-	-	-	-	-
		11/08	1.6	-	-	-	-	-	-	-	-	-	-	10
		5/09	1.3	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	22
		5/10	1.1	-	-	-	-	-	-	-	-	-	-	18
		11/10	-	-	-	-	-	-	-	-	-	-	-	15
		5/11	-	-	-	-	-	-	-	-	-	-	-	11
		10/11	-	-	-	-	-	-	-	-	-	-	-	31
	MW19A	2/02	1.5	-	-	-	-	-	-	-	-	-	-	22
		5/02	-	-	-	-	-	-	-	-	-	-	-	18
		8/02	-	-	-	-	-	-	-	-	-	-	-	24
		11/02	-	-	-	-	-	-	-	-	-	-	-	24
		5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	28
		5/04	-	-	-	-	-	-	-	-	-	-	-	11
		11/04	-	-	-	-	-	-	-	-	-	-	-	32
		5/05	-	-	-	-	-	-	-	-	-	-	-	26
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	23
		11/06	-	-	-	-	-	-	-	-	-	-	-	22
		05/07	-	-	-	-	-	-	-	-	-	-	-	21
		11/07	-	-	-	-	-	-	-	-	-	-	-	18
		5/08	-	-	-	-	-	-	-	-	-	-	-	13
		11/08	-	-	-	-	-	-	-	-	-	-	-	19
		5/09	-	-	-	-	-	-	-	-	-	-	-	15
		11/09	-	-	-	-	-	-	-	-	-	-	-	15
		5/10	-	-	-	-	-	-	-	-	-	-	-	23
		11/10	-	-	-	-	-	-	-	-	-	-	-	34
		5/11	-	-	-	-	1.4	-	-	-	-	-	-	17
		10/11	-	-	-	-	1.7	-	-	-	-	-	-	41
	MW20A	2/02	[3.2]	-	-	-	-	-	-	-	-	-	-	10
		5/02	[4.2]	-	-	-	-	9.4	-	-	-	-	-	11
		8/02	[3.2] [(3.7)]	-	-	-	-	7.6 (8.6)	-	-	-	-	-	13 (15)
		11/02	[3.1]	-	-	-	-	9.0	-	-	-	-	-	18
		5/03	1.1	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	12
		5/04	-	-	-	-	-	-	-	-	-	-	-	11
		11/04	1.1	-	-	-	-	-	-	-	-	-	-	23
		5/05	-	-	-	-	-	-	-	-	-	-	-	15
		11/05	-	-	-	-	-	-	-	-	-	-	-	16
		5/06	-	-	-	-	-	-	-	-	-	-	-	8J
		11/06	-	-	-	-	-	-	-	-	-	-	-	18
		05/07	-	-	-	-	-	-	-	-	-	-	-	13
		11/07	-	-	-	-	-	-	-	-	-	-	-	9J
		5/08	-	-	-	-	-	-	-	-	-	-	-	6J
		11/08	-	-	-	-	-	-	-	-	-	-	-	11
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	16
		5/10	-	-	-	-	-	-	-	-	-	-	-	12
		11/10	-	-	-	-	-	-	-	-	-	-	-	-
		5/11	-	-	-	-	-	-	-	-	-	-	-	-
		10/11	-	-	-	-	1.3	-	-	-	-	-	-	47
ONSITE Primary Aquifer	MW03B	12/88	-	-	-	-	-	-	-	-	-	-	-	
		4/89	-	-	-	-	-	-	-	-	-	-	-	
		1-2/91	-	-	-	-	-	-	-	-	1 J (-)	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
	MW04B	12/88	-	-	-	5 J	150	-	-	-	-	-	-	
		4/89	-	-	-	-	120	-	-	-	-	-	-	
		1-2/91	-	-	-	-	42	-	-	-	-	-	-	

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	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE	MW04BR	1-2/91	-	-	13 (8 J)	-	41 (130)	-	-	-	-	-	-	
Primary Aquifer		3/93	-	-	3.4	-	48 6	-	-	-	-	-	-	
		2/95	-	-	-	-	43	-	-	-	-	-	-	
		5/95	-	-	-	-	34	-	-	-	-	-	-	
		7-8/95	-		-	-	44	-	-	-	-	-	-	
		12/95	-	-	-	-	29	-	-	-	-	-	-	
		5/96	-	-	-	-	44	-	-	-	-	-	-	
		11/96	-	-	-	-	38J	0.62J	-	-	-	-	-	
		5/97	-	-	0 58J	-	38	-	-	-	-	-	-	
		11/97	-		-	-	39 (39)	-	-	-	-	-	-	
		9/98	-		-	-	24	-	-	-	-	-	-	
		5/99	-(-)		-(-)	-(-)	25(25)	0.22(0.20)	-(-)	-(-)	-(-)	-(-)	-(-)	
	MW04BRR	5/00	-		-	-	15	-	-	-	-	-	-	
		8/00	-	-	-	-	11	-	-	-	-	-	-	
		11/00	-	-	-	-	11	-	-	-	-	-	-	-
		2/01	-		-	-	13	-	-	-	-	-	-	
		5/01	-	-	-	-	12	-	-	-	-	-	-	-
		8/01	-	-	-	-	10	-	-	-	-	-	-	
		11/01	-	-	-	-	11	-	-	-	-	-	-	-
		2/02	-	-	-	-	12	-	-	-	-	-	-	
		5/02	-	-	-	-	8 5	-	-	-	-	-	-	-
		8/02	-	-	-	-	10	-	-	-	-	-	-	
		11/02	-	-	-	-	7 5	-	-	-	-	-	-	-
		5/03	-	-	-	-	9.4	-	-	-	-	-	-	-
		11/03	-	-	-	-	7.4	-	-	-	-	-	-	-
		5/04	-	-	-	-	6 5	-	-	-	-	-	-	-
		11/04	-	-	-	-	6.1	-	-	-	-	-	-	-
		5/05	-	-	-	-	5 8	-	-	-	-	-	-	-
		11/05	-	-	-	-	5 3	-	-	-	-	-	-	-
		5/06	-	-	-	-	5.1	-	-	-	-	-	-	-
		11/06	-	-	-	-	4.4	-	-	-	-	-	-	-
		05/07	-	-	-	-	4	-	-	-	-	-	-	-
		11/07	-	-	-	-	4	-	-	-	-	-	-	-
		5/08	-(-)	-(-)	-(-)	-(-)	3 5(3 5)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
		11/08	-	-	-	-	3.7	-	-	-	-	-	-	-
		5/09	-	-	-	-	3.2	-	-	-	-	-	-	-
		11/09	-	-	-	-	3.9	-	-	-	-	-	-	-
		5/10	-	-	-	-	3 8	-	-	-	-	-	-	-
		11/10	-	-	-	-	3.1	-	-	-	-	-	-	-
		5/11	-	-	-	-	3.2	-	-	-	-	-	-	-
		10/11	-	-	-	-	3.5	-	-	-	-	-	-	-
	MW16B	1-2/91	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	[3J]	-	-	-	-	-	-	-	-	-	-	
		7-8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	-	-	-	-	-	
		5/96	-	-	-	-	-	-	-	-	-	-	-	
		11/96	-	-	-	-	-	1.8J	-	-	-	-	-	
		5/97	-	-	-	-	-	-	-	-	-	-	-	
		11/97	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	(-) -	
		9/98	-		-	-	-	-	-	-	-	-	-	
		5/99	-		-	-	-	0.4	-	-	-	-	-	
		5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
- = no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for cis-1,2-DCE is 70; for trans-1,2-DCE is 100
[ ] = indicates values above MCL

[1] *Risk-level cleanup levels from Powell Road Landfill ROD, Table 21*
[2] *Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22*
[3] *Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.*
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TABLE O-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
ONSITE		2/01	-	-	-	-	-	-	-	-	-	-	-	
Primary Aquifer	MW-16B	5/01	-	-	-	-	-	-	-	-	-	-	-	-
	(cont'd)	8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	-
		8/02	-	-	-	-	-	-	-	-	-	-	-	
		11/02	-	-	-	-	-	-	-	-	-	-	-	-
		5/03	-	-	-	-	-	-	-	-	-	-	-	
		11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	-
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	-
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-		-	-	-	-	-	-	-	-	-	-
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	-
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	-
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	-
		11/09	-	-	-	-	-	-	-	-	-	-	-	-
		5/10	-	-	-	-	-	-	-	-	-	-	-	-
		11/10	-	-	-	-	-	-	-	-	-	-	-	-
		5/11	-	-	-	-	-	-	-	-	-	-	-	-
		10/11	-	-	-	-	-	-	-	-	-	-	-	-
OFFSITE	MW13B	4/89	-	-	-	-	-	-	-	-	-	-	-	
Primary Aquifer		1-2/91	-	-	-	-	-	5	[8]	-	-	-	-	
		3/93	-	-	-	-	-	-	-	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		7-8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	-	0.6J	-	-	-	
		5/96	-	-	-	-	-	-	-	-	-	-	-	
		11/96	-	-	-	-	-	-	-	-	-	-	-	
		5/97	-	-	-	-	-	-	-	-	-	-	0.71J	
		11/97	-	-	-	-	-	-	-	-	-	-	-	
		9/98	-		-	-	-	-	-	-	-	-	-	
		5/99	-		-	-	-	-	-	-	-	-	-	
		5/00	-	-	-	-	-	-	-	-	-	-	-	
		8/00	-	-	-	-	-	-	-	-	-	-	-	
		11/00	-	-	-	-	-	-	-	-	-	-	-	-
		2/01	-	-	-	-	-	-	-	-	-	-	-	
		5/01	-	-	-	-	-	-	-	-	-	-	-	
		8/01	-	-	-	-	-	-	-	-	-	-	-	
		11/01	-	-	-	-	-	-	-	-	-	-	-	-
		2/02	-	-	-	-	-	-	-	-	-	-	-	
		5/02	-	-	-	-	-	-	-	-	-	-	-	
		8/02	-	-	-	-	-	-	-	-	-	-	-	
		11/02	-	-	-	-	-	-	-	-	-	-	-	-

J = estimated value
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1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
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- = no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for cis-1,2-DCE is 70, for trans-1,2-DCE is 100
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TABLE O-1.
SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70,100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
OFFSITE Primary Aquifer	MW13B (cont'd)	5/03	-	-	-	-	-	-	-	-	-	-	-	-
		11/03	-	-	-	-	-	-	-	-	-	-	-	-
		5/04	-	-	-	-	-	-	-	-	-	-	-	
		11/04	-	-	-	-	-	-	-	-	-	-	-	-
		5/05	-	-	-	-	-	-	-	-	-	-	-	
		11/05	-	-	-	-	-	-	-	-	-	-	-	-
		5/06	-	-	-	-	-	-	-	-	-	-	-	
		11/06	-	-	-	-	-	-	-	-	-	-	-	-
		05/07	-	-	-	-	-	-	-	-	-	-	-	
		11/07	-	-	-	-	-	-	-	-	-	-	-	-
		5/08	-	-	-	-	-	-	-	-	-	-	-	
		11/08	-	-	-	-	-	-	-	-	-	-	-	-
		5/09	-	-	-	-	-	-	-	-	-	-	-	
		11/09	-	-		-	-	-	-	-	-	-	-	-
		5/10	-	-	-	-	-	-	-	-	-	-	-	-
		11/10	-	-	-	-	-	-	-	-	-	-	-	-
		5/11	-	-	-	-	-	-	-	-	-	-	-	-
		10/11	-	-	-	-	-	-	-	-	-	-	-	-
	MW15B	1-2/91	-		-	-	-	4 J (-)	[7] (-)	-	-	-	-	
		3/93	1.4 (1 4)	-	-	-	-	5.0 (5.3)	[5.6 (5.8)]	-	-	-	-	
		2/95	-	-		-	-	-	3J	-	-	-	-	
		5/95	-	-	--	-	-	2J	3J	-	-	-	-	
		7-8/95	-	-	-	-	-	-	4J	-	-	-	-	
		12/95	-	-	-	-	-	1.8	4.5	-	-	-	-	
		5/96	0.6J	-	-	-	-	3	4	-	-	-	-	
		11/96	-	-	-	-	-	4	4.2	-	-	-	-	
		5/97	-	-	-	-	-	2 7	4.3	-	-	-	-	
		11/97	-	-	-	-	-	2 6J	3.7J	-	-	-	-	
		9/98	-		-	-	-	2 8	3 5	-	-	-	-	
		5/99	-		-	-	-	2.6	3.3	-	-	-	-	
		5/00	-	-	-	-	-	-	2 1	-	-	-	-	
		8/00	-	-	-	-	-	-	2.3	-	-	-	-	
		11/00	-	-	-	-	-	-	2.1J	-	-	-	-	-
		2/01	-	-	-	-	-	-	2.0	-	-	-	-	
		5/01	-	-	-	-	-	-	1.8	-	-	-	-	-
		8/01	-	-	-	-	-	-	2.0	-	-	-	-	
		11/01	-	-	-	-	-	-	2.5	-	-	-	-	-
		2/02	-	-	-	-	-	-	1.8	-	-	-	-	
		5/02	-	-	-	-	-	-	2.1	-	-	-	-	-
		8/02	-	-	-	-	-	-	2.3	-	-	-	-	
		11/02	-	-	-	-	-	-	1.7	-	-	-	-	-
		5/03	-	-	-	-	-	-	1.3	-	-	-	-	-
		11/03	-	-	-	-	-	-	1.8	-	-	-	-	-
		5/04	-	-	-	-	-	-	1.3	-	-	-	-	-
		11/04	-	-	-	-	-	-	1.5	-	-	-	-	-
		5/05	-	-	-	-	-	-	1.7	-	-	-	-	-
		11/05	-	-	-	-	-	-	1.2	-	-	-	-	-
		5/06	-	-	-	-	-	-	1.7	-	-	-	-	-
		11/06	-	-	-	-	-	-	1.6	-	-	-	-	-
		05/07	-	-	-	-	-	-	1.7	-	-	-	-	-
		11/07	-	-	-	-	-	-	1.4	-	-	-	-	-
		5/08	-	-	-	-	-	-	1.5	-	-	-	-	-
		11/08	-	-	-	-	-	-	1.4	-	-	-	-	-
		5/09	-	-	-	-	-	-	1.2	-	-	-	-	-
		11/09	-	-	-	-	-	-	1.1	-	-	-	-	-
		5/10							1 6					
		11/10	-	-	-	-	-	-	1.3	-	-	-	-	-
		5/11	-	-	-	-	-	-	1.3	-	-	-	-	-
		10/11	-	-	-	-	-	-	1.5	-	-	-	-	-

J = estimated value
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1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
[1] Risk-level cleanup levels from Powell Road Landfill ROD, Table 21
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SUMMARY OF VOCS AND SVOCS IN WELLS WITH DETECTIONS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO
(concentrations in ug/L)

	Wells with Detections	Sampling Date	Vinyl Chloride	Acetone	Chloroethane	Chlorobenzene	1,1 DCA	1,2 DCE (total)	TCE	1,1,1 TCA	Tetrachloroethene	Benzene	Xylenes	1,4-Dioxane
	MCLs		2			100		70;100	5	200	5	5	10,000	
	10^{-6} Risk [1]		4						25,000					300
	ARARS [2]		2						5			5		
RESIDENTIAL	P862	12/88	-	-	-	-	-	-	-	-	-	-	-	
		3/93	-	-	-	-	-	0.8 (0.8)	3 0 (2.6)	-	-	-	-	
		4/93	-	-	-	-	-	1 0 (1 0)	2 9 (2.9)	-	-	-	-	
		2/95	-	-	-	-	-	-	-	-	-	-	-	
		5/95	-	-	-	-	-	-	-	-	-	-	-	
		7-8/95	-	-	-	-	-	-	-	-	-	-	-	
		12/95	-	-	-	-	-	-	2	-	-	-	-	
		5/96	-	-	-	-	-	- (0 5J)	2 (1)	-	-	-	-	
		11/96	-	-	-	-	1.3 (-)	1 2 (1 1)	2 5 (2 6)	-	-	-	-	
		5/97	-	-	-	-	-	-	2 6	-	-	-	-	
		11/97	-	-	-	-	-	1 4	3.2	-	-	-	-	

J = estimated value
( ) duplicate analysis
1,2-DCE (total) was detected as cis-1,2-DCE during 3/93, 5/97, and 11/97 events
J values for Methylene Chloride, carbon disulfide, and acetone not listed
- = no detections
Monitoring wells and residential wells not listed had no detections of VOCs
MCL for Cis-1,2-DCE is 70, for trans-1,2-DCE is 100
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[4] *MW16A resampling because of inconsistent results in 5/96 5/96 results for Vinyl Chloride and 1,2-DCE are suspect*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW01A 2/95	MW01A 5/95	MW01A 7-8/95	MW01B 2/95	MW01B 5/95	MW01B 7-8/95	MW01B 11/96	MW02A 2/95	MW02A 5/95	MW02A 7-8/95	MW02A 7-8/95 Dup.	MW02A 5/99
Aluminum, total	ug/L		50-200									--					--
Antimony, total	ug/L	6			10/5							--					--
Arsenic, total	ug/L	50/10[4]		4	50					7.8	10.2	14.4			2.7 J	5.0	--
Barium, total	ug/L	2000					94.1	108	359 0	365	364	--	223.0	276	265	256	--
Beryllium, total	ug/L	4		2	1*							--					--
Cadmium, total	ug/L	5										--					--
Calcium, total	ug/L					90700	90100	94900	91400	89900	88200	--	203000	253000	247000	242000	158000
Chromium, total	ug/L	100															--
Cobalt, total	ug/L											--					--
Copper total	ug/L	**	1000									--					--
Iron, total	ug/L		300			203 0			1780	1760 J	1730	--	3970	5570	3820	3590	4530
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**										--					--
Magnesium, total	ug/L					36900	37700	36900	39200	38000	36300	--	30400	39900	38500	37900	22100
Manganese, total	ug/L		50			7.6		18.9	25 5	25.4 J	24 7	--	1340	1500	1490	1410	519
Mercury, total	ug/L	2			2												--
Nickel, total	ug/L											--					--
Potassium, total	ug/L					2240		2530	1530		1370	--	1830				
Selenium, total	ug/L	50										--					--
Silver, total	ug/L		100									--					--
Sodium, total	ug/L					19400	21100	21500	6890	7220	7140	--	11600	25000	19000	18200	8010
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2															--
Vanadium, total	ug/L											--					--
Zinc, total	ug/L		5000									--					--

Note: Blank spaces represent non-detect values.

-- = Dash represents no analysis

[ ] indicates values above MCL

J Estimated value.

UJ - Estimated nondetection.

[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

[4] MCL for arsenic changed to 10 ug/L effective 2/22/02.

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW02AR															
						5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.7	14	5.4	2.1	1.2	2.2	1.5			1.7	1.5		1.4		1.0	
Barium, total	ug/L	2000				350	--	230	--	170	--	160	--	140	--	120	130	140	130	110	120
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					231000	218000	199000	108000	186000	188000	180000	182000	180000	175000	161000	209000J	224000	217000	188000	201000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			4100	7900	1500	4100	350	1600	900	310	140	1900	420	82J	120J	200	670	50
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--		30	190		40		60	10
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					33800	30300	28800	34000	33100	32200	32400	34600	35800	30200	29400	38600	36800	36100	35400	40100
Manganese, total	ug/L		50			520	--	550	--	330	--	410	--	75	--	360	680	530	510	320	44
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					3400	3300	2500	2400	2000	2000	1700	1600	1600	1800	1800	2700	2000	1700	1900	1800
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					11900	14200 J	17200	20500	17500	16900	16500	15300	12600	13100	13700	16600	12500	10100	10100	10700
Strontium	ug/L					1200	--	1100J	--	930	--	990J	--	1100	--	950	980	1100J	1200	1100	1100
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW02AR (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200															
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			2.0										
Barium, total	ug/L	2000				110	100	100	97	84	88	82	104	123	131	166	100	120
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					194000	203000	164000	164000	140000	151000	153000	170000	171000	189000	189000	155000	169000
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300			220	150	2000	140	140	220		124	371	124	335	210	
Iron, Ferrous	ug/L					100		80	--	100	10		10	150		190	60	140
Lead, total	ug/L	**																
Magnesium, total	ug/L					40300	44400	35400	33600J+	30200	31100	31600	37200	39500	40000	44000	28900	35500
Manganese, total	ug/L		50			47	260	310	100	82	31	85	170	275	201	398	16	190
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					2000	2100	1800	1800	1900	1800	2100	2260	2320	2770	2780	2300	2500
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					14000	10400	14400	8000	13000	9600	9800	14500	17000	18600	19300	10000	14300
Strontium	ug/L					1100	860	760	960	790	830	950	933	934	800	887	740	870
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW02B 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			700	--	1700	--	160	--	1300	--	160	--		310	120	1600	900	
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.7	2.8	2.8	1.9	1.9	1.8	2.6	1.6			2.1	1.6	2.1	1.3	1.7	1.3
Barium, total	ug/L	2000				190	--	200	--	160	--	190	--	170	--	170	170	180	200	190	160
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					104000	102000	111000	102000	101000	105000	114000	104000	95500	91200	102000	109000J	102000	106000	103000	90700
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			4300	4900	5300	3900	3800	4000	5300	3800	3600	3200	3600	4100J	3600J	4900	4300	3100
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	2160	2780	2010	1810	2940	1970	2830	2040
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					32000	32600	34900	32200	32100	33500	36300	33000	29900	29300	32800	34600	32100	33200	32200	27400
Manganese, total	ug/L		50			130	--	150	--	120	--	150	--	120	--	130	130	120	140	140	110
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					2800	3000	2900	2400	2300	2600	2700	2300	2200	2500	2400	2300	2400	3000	2700	2400
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					20900	18800 J	19000	19600	17900	19700	20200	19800	20300	24100	20800	18200	21700	21100	21800	19400
Strontium	ug/L					220	--	210J	--	180	--	190J	--	210	--	200	200	180J	140	210	180
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW02B (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200			110	1900	1100	1800	180	800	550	256	1020	344	388	3900	970
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.2	1.4	1.2						1.0				1.0
Barium, total	ug/L	2000				180	190	190	180	170	170	170	178	175	168	174	200	190
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					106000	102000	102000	90200	95200	95300	94500	99600	98200	99600	104000	108000	100000
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300			3700	5500	4200	4400	3400	3900	3600	3520	3990	3500	3730	5600	3900
Iron, Ferrous	ug/L					2230	2870	2470	--	1150	2400	1590	2990	1260	1200	620	1680	1700
Lead, total	ug/L	**																
Magnesium, total	ug/L					31400	33900	31600	28000J+	28500	29600	29800	31300	31300	30600	32800	33600	32200
Manganese, total	ug/L		50			130	150	130	130	120	130	120	129	126	118	112	150	120
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					2400	3000	2800	2900	2400	2500	2500	2360	2460	2290	2220	3300	2500
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					21000	19800	20900	16900	19000	17000	17500	19700	20000	19900	21800	22400	23500
Strontium	ug/L					200	170	180	180	200	200	210	195	210	163	172	180	190
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW03A			MW04A										
						2/95	5/95	7-8/95	2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97	9/98	5/99	5/99 Dup.
Aluminum, total	ug/L		50-200									--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5							--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			2.2	[71]	[57.4]	[84.9]	[91.4]	[84.3]	[70.9]	[82.9]	[64.3]	[89.9]	[78.2]	[79.2]
Barium, total	ug/L	2000				356 0	305	297	588 0	536	614	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*							--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5										--	--	--	--	--	--	--	--
Calcium, total	ug/L					169000	181000	170000	143000	159000	181000	--	--	--	--	--	--	170000	168000
Chromium, total	ug/L	100										--	--	--	--	--	--	--	--
Cobalt, total	ug/L											--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000									--	--	--	--	--	--	--	--
Iron, total	ug/L		300			19300	8440	9130	13100	11800	11300	--	--	--	--	--	--	15900	15700
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**										--	--	--	--	--	--	--	--
Magnesium, total	ug/L					43300	38500	36000	47000	46200	50100	--	--	--	--	--	--	43700	43500
Manganese, total	ug/L		50			214.0	190	187	252 0	394	312	--	--	--	--	--	--	137	135
Mercury, total	ug/L	2			2							--	--	--	--	--	--	--	--
Nickel, total	ug/L											--	--	--	--	--	--	--	--
Potassium, total	ug/L					10200	7990	9440	18400	17200	18200	--	--	--	--	--	--	11400	11300
Selenium, total	ug/L	50										--	--	--	--	--	--	--	--
Silver, total	ug/L		100									--	--	--	--	--	--	--	--
Sodium, total	ug/L					47100	36100	40800	43800	45800	44300	--	--	--	--	--	--	43400	43700
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2										--	--		--	--	--	--	--
Vanadium, total	ug/L											--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000									--	--	--	--	--	--	--	--

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04AR 5/00	8/00	11/00	11/00 Dup.	2/01	5/01	5/01 Dup.	8/01	8/01 Dup.	11/01	2/02	5/02	5/02 Dup.	8/02	11/02	5/03
Aluminum, total	ug/L		50-200				--			--			--	--		--			--		
Antimony, total	ug/L	6			10/5		--			--			--	--		--			--		
Arsenic, total	ug/L	50/10[4]		4	50	[74]	[76]	[98]	[95]	[61]	[50]	44	49	[51]	47	48	[42]	[44]	[47]	[49]	[36]
Barium, total	ug/L	2000				650	--	680	680	--	530	520	--	--	530	--	410	420	--	640	360
Beryllium, total	ug/L	4		2	1*		--			--			--	--		--			--		
Cadmium, total	ug/L	5					--			--			--	--		--			--		
Calcium, total	ug/L					142000	148000	152000	152000	131000	129000	126000	154000	155000	143000	137000	150000	154000	137000	135000	148000J
Chromium, total	ug/L	100					--			--			--	--		--			--		
Cobalt, total	ug/L						--			--			--	--		--			--		
Copper, total	ug/L	**	1000				--			--			--	--		--			--		
Iron, total	ug/L		300			13600	15300	15800	15800	10800	10400	10100	11000	11200	10800	10600	9200	9600	10300	11600	12400J
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	10440	--	6160	1480	1770
Lead, total	ug/L	**					--			--			--	--		--			--		
Magnesium, total	ug/L					48000	49200	52100	52200	40100	41100	40100	47500	48200	45500	42900	44000	45200	47100	48800	49100
Manganese, total	ug/L		50			150	--	160	160	--	170	160	--	--	190	--	210	220	--	190	110
Mercury, total	ug/L	2			2		--			--			--	--		--			--		
Nickel, total	ug/L						--			--			--	--		--			--		
Potassium, total	ug/L					22400	24300	23700	23800	14800	20000	19600	27300	27800	22600	20800	20200	20600	30800	29700	15100
Selenium, total	ug/L	50					--			--			--	--		--			--		
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					87700	100000 J	113000	114000	60600	72600	71400	100000	102000	76500	69400	65500	67600	95100	87900	55400
Strontium	ug/L					1100	--	1300J	1200J	--	1100	1100	--	--	1300J	--	1300	1200	--	1100	850
Thallium, total	ug/L	2					--			--			--	--		--			--		
Vanadium, total	ug/L						--			--			--	--		--			--		
Zinc, total	ug/L		5000				--			--			--	--		--			--		

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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04AR (cont'd) 11/03	5/04	11/04	11/04 Dup.	3/05	5/05	11/05	11/05 Dup.	5/06	5/06 Dup.	11/06	11/06 Dup.	5/07	11/07	11/07 Dup.	5/08
Aluminum, total	ug/L		50-200																		
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[59]	[60]	[99]	[90]	[50]	[130]	[48]	[51]	[66]	[59]	[46]	[49]	[38]	[48]	[50]	[17]
Barium, total	ug/L	2000				570	350	640	650	--	470	580	590	420	410	530	530	310	630	640	360
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					156000	182000	130000	129000	--	187000	167000	171000	154000	154000	156000	155000	149000	124000	125000	165000
Chromium, total	ug/L	100								--											
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000							--											
Iron, total	ug/L		300			11300J	11700	11400	12300	--	17000	9300	9500	14300	13600	9000	9300	8300	9700	9800	6000
Iron, Ferrous	ug/L					2340	2210	3050	--	--	1220	2890	--	2490	--	2850	--	4940	2050	--	2110
Lead, total	ug/L	**								--											
Magnesium, total	ug/L					50600	53400	45400	45000	--	53900	51300	52700	47900	48000	50000	49600	42000	43800	44200	45600
Manganese, total	ug/L		50			280	370	150	150	--	320	290	300	250	250	280	280	350	100	100	270
Mercury, total	ug/L	2			2					--											
Nickel, total	ug/L									--											
Potassium, total	ug/L					22800	17000	25600	25400	--	17300	18200	18800	15200	15100	14400	14200	12500	19600	19900	11300
Selenium, total	ug/L	50								--											
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					76500	54600	87300	86100	--	51800	57500	59000	55200	55400	50000	50200	45200	65500	66300	41500
Strontium	ug/L					1100J	1300	1200	1200	--	1200	1300	1300	750	750	1000	980	1000	890	880	1100
Thallium, total	ug/L	2								--											
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000							--											

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** *Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04AR (cont'd)													
						11/08	11/08 Dup.	5/09	5/09 Dup.	11/09	11/09 Dup.	5/10	5/10 Dup.	11/10	11/10 Dup.	5/11	5/11 Dup.	10/11	10/11 Dup.
Aluminum, total	ug/L		50-200																
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[42]	[44]	[19.4]	[19.4]	[24.3]	[24.5]	[23.2]	[24.2]	[35.3]	[34.5]	[12.0]J+	[11.0]J+	[17]	[16]
Barium, total	ug/L	2000				730	700	493	486	343	352	322	327	610	622	200	210	320	320
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					143000	136000	160000	15800	167000	171000	136000	137000	136000	136000	114000	116000	150000	148000
Chromium, total	ug/L	100																	
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000																
Iron, total	ug/L		300			11000	10500	6430	6310	6480	6650	6610	6770	10700	10900	2700	2800	4500	4600
Iron, Ferrous	ug/L					1290	--	2030	--	1270	--	1660	--	710	--	1610	--	2660	--
Lead, total	ug/L	**																	
Magnesium, total	ug/L					50400	48300	46500	45900	48900	50300	39000	39400	46600	46600	30200	30400	42200	42300
Manganese, total	ug/L		50			150	150	203	201	306	314	295	296	136	134	280	280	200	200
Mercury, total	ug/L	2			2														
Nickel, total	ug/L																		
Potassium, total	ug/L					21100	20100	12200	12000	10400	10700	8850	8940	16000	16400	4600	4700	8000	7900
Selenium, total	ug/L	50							0 6										
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					75900	72600	31700	31300	20500	20900	30900	31000	50700	50700	14900	15200	42600	42200
Strontium	ug/L					970	1000	946	951	1030	1040	661	671	926	892	790	790	760	970
Thallium, total	ug/L	2																	
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000																

Note: Blank spaces represent non-detect values.

-- - Dash represents no analysis.

[ ] - indicates values above MCL

J - Estimated value.

UJ - Estimated nondetection.

[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

[4] MCL for arsenic changed to 10 ug/L effective 2/22/02.

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04BR											
						2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97	11/97 Dup.	9/98	5/99	5/99 Dup.
Aluminum, total	ug/L		50-200						--	--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5				--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	13.0	17.6	15.8	14.7	15.4	12.6	9.8	10.1	13.6	11.0	11.8	10.4
Barium, total	ug/L	2000				270.0	276	310	--	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5							--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					94500	95300	109000	--	--	--	--	--	--	--	90200	92100
Chromium, total	ug/L	100							--	--	--	--	--	--	--	--	--
Cobalt, total	ug/L								--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000						--	--	--	--	--	--	--	--	--
Iron, total	ug/L		300			1640	1690	1870	--	--	--	--	--	--	--	1530	1540
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--	--	--	--	--
Magnesium, total	ug/L					35700	35700	40100	--	--	--	--	--	--	--	35700	36900
Manganese, total	ug/L		50			40.6	41.7	47.9	--	--	--	--	--	--	--	36.1	37.6
Mercury, total	ug/L	2			2				--	--	--	--	--	--	--	--	--
Nickel, total	ug/L								--	--	--	--	--	--	--	--	--
Potassium, total	ug/L					3930	3810	4450	--	--	--	--	--	--	--		
Selenium, total	ug/L	50							--	--	--	--	--	--	--	--	--
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					20700	21700	24100	--	--	--	--	--	--	--	24500	25400
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2							--	--		--	--	--	--	--	--
Vanadium, total	ug/L								--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000						--	--	--	--	--	--	--	--	--

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J Estimated value

UJ Estimated nondetection

[1] *Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.*

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* *MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

** *Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04BRR															
						5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						120
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	10.0	9.6	13.0	14.0	11.0	11.0	9.8	11.0	[11.0]	9.5	10.0	[11.0]	[11.0]	[11.0]	[14.0]	[13.0]
Barium, total	ug/L	2000				260	--	250	--	250	--	260	--	260	--	250	240	260	270	260	240
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					85200	80700	90600	89200	88900	91500	89500	88600	87700	86600	87700	83000J	88900	93400	87100	83900
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--	64					
Iron, total	ug/L		300			1500	1300	1400	1500	1400	1500	1500	1400	1400	1400	1400	1300J	1400J	1500	1400	1300
Iron, ferrous	ug/L					--	--	--	--	--	--	--	--	1170	1430	1380	1240	1370	1470	1510	1230
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					33700	31000	35400	35100	34500	35900	35500	35400	35000	35400	35000	32200	34900	36200	33200	31600
Manganese, total	ug/L		50			34	--	35	--	34	--	35	--	34	--	34	32	35	36	33	31
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					3100	3100	3000	3000	3100	3200	2700	3000	3100	3000	3000	3000	3300	3400	3200	3000
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					26000	23400 J	24500	24600	22300	23800	24200	24900	25800	26700	26800	30500	31100	30900	28400	26200
Strontium	ug/L					430	--	520J	--	430	--	440J	--	470	--	470	460	470J	870	510	470
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--	36					

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[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD Table 22

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*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

CONTINUED ON NEXT PAGE

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW04BRR (cont'd)													
						11/05	5/06	11/06	5/07	11/07	5/08	5/08 DUP	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200																
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[11]	10.0	[11]	10.0	9.8	[11]	[11]	10.0	10.0	[11.1]	[10.8]	[10.3]	10.0	[12]
Barium, total	ug/L	2000				260	240	260	240	230	230	230	240	239	268	284	301	270	280
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					92500	86400	91200	82000	83500	83900	83700	87200	89200	102000	106000	112000	101000	107000
Chromium, total	ug/L	100																	
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000																
Iron, total	ug/L		300			1500	1400	1600	1200	1300	1500	1500	1400	1400	1660	1680	1910	1700	1800
Iron, Ferrous	ug/L					1440	1360	1460	1250	1270	1230		1310	1430	840	880	790	1480	660
Lead, total	ug/L	**																	
Magnesium, total	ug/L					35300	33300	36600	31500J+	31400	31500	31200	33400	34100	39800	40800	44500	42500	42300
Manganese, total	ug/L		50			34	33	36	32	32	33	33	32	33.1	36.8	35.7	35.9	35.0	34
Mercury, total	ug/L	2			2														
Nickel, total	ug/L																		
Potassium, total	ug/L					3300	3000	2800	3000	2800	2800	2800	3100	2970	3210	3160	3470	3200	3200
Selenium, total	ug/L	50																	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					29600	26400	27000	25400	26700	27000	27200	29500	27600	26[illegible]00	26800	28900	28700	28500
Strontium	ug/L					510	390	480	510	460	470	470	480	493	584	499	553	640	610
Thallium, total	ug/L	2																	
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000																

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05A									
						2/95	2/95 Dup.	5/95	7-8/95	5/96	11/96	5/97	11/97	9/98	5/99
Aluminum, total	ug/L		50-200							--	--	--	--	--	--
Antimony, total	ug/L	6			10/5					--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			11.1	5.8	6.6		11.0		23.3	20.2
Barium, total	ug/L	2000				229.0	233.0	214	231	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*					--	--	--	--	--	--
Cadmium, total	ug/L	5								--	--	--	--	--	--
Calcium, total	ug/L					102000	103000	100000	111000	--	--	--	--	--	120000
Chromium, total	ug/L	100							3.7	--	--	--	--	--	--
Cobalt, total	ug/L									--	--	--	--	--	--
Copper, total	ug/L	**	1000							--	--	--	--	--	--
Iron, total	ug/L		300			2560.0	2480.0	9260	3690	--	--	--	--	--	4110
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**								--	--	--	--	--	--
Magnesium, total	ug/L					36200	36800	34600	40100	--	--	--	--	--	38000
Manganese, total	ug/L		50			220.0	226.0	124	182	--	--	--	--	--	563
Mercury, total	ug/L	2			2					--	--	--	--	--	--
Nickel, total	ug/L									--	--	--	--	--	--
Potassium, total	ug/L					3460	3460	3060	3750	--	--	--	--	--	4100
Selenium, total	ug/L	50								--	--	--	--	--	--
Silver, total	ug/L		100						2.4	--	--	--	--	--	--
Sodium, total	ug/L					37700	38100	58100	52200	--	--	--	--	--	41100
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2								--		--	--	--	--
Vanadium, total	ug/L									--	--	--	--	--	--
Zinc, total	ug/L		5000							--	--	--	--	--	--

Note. Blank spaces represent non-detect values.

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J Estimated value

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

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*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05AR															
						5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.6	3.0	4.3	2.4	1.3	2.0	1.8	2.9	2.8	7.2	3.3	1.6	3.6	9.2	5.1	1.8
Barium, total	ug/L	2000				250	--	260	--	210	--	200	--	190	--	210	220	180	200	200	180
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					100000	94800	109000	99700	107000	107000	110000	103000	104000	101000	110000	130000J	101000	104000	110000	118000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			2300	2200	3400	2500	380	2000	2600	1600	1500	5000	3100	2300J	2700J	9100	3400	710
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	920	1360	1460	1010	2000	2290	2320	480
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					34400	33800	38600	33200	31300	38000	38300	32200	36000	38200	38500	37900	38800	39500	40400	39000
Manganese, total	ug/L		50			270	--	280	--	320	--	300	--	320	--	240	600	200	220	230	300
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					5400	5000	5300	5500	5400	4700	3600	4200	4200	4100	4500	5000	5000	6300	5200	6200
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					45800	68600 J	62700	49500	49600	73400	55000	42600	47100	46700	43300	47400	59300	46800	52600	43800
Strontium	ug/L					770	--	790J	--	660	--	720J	--	880	--	720	780	670J	560	860	780
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05AR (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200															220
Antimony, total	ug/L	6			1 D/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1 8		1 6	1 9	3 1	1 2	2 1		1 0		1 0		3 3
Barium, total	ug/L	2000				170	170	160	260	200	190	160	174	187	149	179	200	140
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					116000	105000	108000	139000	106000	118000	90100	113000	112000	99600	108000	131000	85000
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300			660	730	1000	1300	3000	350	1600	349	664	218	601	210	2500
Iron, Ferrous	ug/L					220	490	510	--	990	50	590		340	40	240	20	290
Lead, total	ug/L	**																
Magnesium, total	ug/L					35600	34200	35800	48200	37600	37600	36100	35200	36400	32700	35900	38300	34100
Manganese, total	ug/L		50			270	480	360	530	260	440	180	459	409	260	446	170	190
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					5500	5000	4200	6800	6000	4700	4500	5000	5290	3990	4660	4500	3000
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					38900	52200	45300	53500	45700	41800	44300	48500	51500	58600	63000	63700	57700
Strontium	ug/L					880	570	680	1100	720	840	650	777	750	532	620	770	480
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

Note: Blank spaces represent non-detect values.

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW05BR 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--				--	--	--
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50											1 J		1 J			
Barium, total	ug/L	2000				220	--	150	--	170	--	160	--	180	--	170	170	180	180	170	210
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					98000	61000	78500	72900	82800	76700	81200	82200	85800	81900	84800	85300J	90100	90200	82800	102000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300														UJ				
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	230					50	20	10
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					39400	23800	31900	29000	32300	30700	33800	34300	36000	35500	35700	34700	36400	35400	33300	39000
Manganese, total	ug/L		50				--		--		--		--		--						
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					3100	2500	2200	2400	2800	2800	2100	2800	2800	2500	2400	2700	2600	2800	2400	2900
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					63800	73700 J	48400	44400	60900	76400	48300	44300	45200	44400	41800	54200	47300	51300	48800	49400
Strontium	ug/L					1100	--	810J	--	780	--	770J	--	950	--	910	830	890J	850	1000	1100
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-1} Risk[1]	ARARS[2]	MW05BR (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200															
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50													
Barium, total	ug/L	2000				160	180	160	160	160	170	170	180	143	173	150	180	150
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					82700	85000	80500	79400	83200	85500	86300	86300	74000	84400	75300	81300	76900
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300				79											
Iron, Ferrous	ug/L					30	20	20	--	30	20			10	20	30	30	220
Lead, total	ug/L	**																
Magnesium, total	ug/L					33200	34100	34300	32300J+	33200	32600	34600	33400	29700	33600	32000	36100	32700
Manganese, total	ug/L		50															
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					2300	2600	2000	2200	2200	2300	2300	2680	2140	2550	2320	2800	2100
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					51800	50600	46200	33800	43500	42600	44700	81000	55400	63400	56800	70500	49400
Strontium	ug/L					980	740	760	980	870	1100	970	1010	877	709	648	780	590
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW07A				MW08B							
						2/95	5/95	5/95 Dup.	7-8/95	2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97
Aluminum, total	ug/L		50-200								9		--	--	--	--	--
Antimony, total	ug/L	6			10/5								--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50								--	--	--	--	--
Barium, total	ug/L	2000				86.9			103	139.0	135	115	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*								--	--	--	--	--
Cadmium, total	ug/L	5											--	--	--	--	--
Calcium, total	ug/L					156000	129000	140000	187000	94500	90400	83100	--	--	--	--	--
Chromium, total	ug/L	100								13.2		14.8	6.0	18.2	45.7	8.9	16.7
Cobalt, total	ug/L												--	--	--	--	--
Copper, total	ug/L	**	1000										--	--	--	--	--
Iron, total	ug/L		300				181	152	535	491.0	498	493	--	--	--	--	--
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**											--	--	--	--	--
Magnesium, total	ug/L					35100	28800	31100	40100	34600	32100	29300	--	--	--	--	--
Manganese, total	ug/L		50						15.4	7.9		5.2	--	--	--	--	--
Mercury, total	ug/L	2			2								--	--	--	--	--
Nickel, total	ug/L											54	--	--	--	--	--
Potassium, total	ug/L					1810			2190	3050	2390	2180	--	--	--	--	--
Selenium, total	ug/L	50											--	--	--	--	--
Silver, total	ug/L		100										--	--	--	--	--
Sodium, total	ug/L					20600	23000	24600	26100	42900	62500	62700	--	--	--	--	--
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2											--	--	--	--	--
Vanadium, total	ug/L												--	--	--	--	--
Zinc, total	ug/L		5000										--	--	--	--	--

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12A															
						2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97	9/98	5/99	5/00	8/00	11/00	2/01	5/01	8/01
Aluminum, total	ug/L		50-200						--	--	--	--	--	--	--		--		--		--
Antimony, total	ug/L	6			10/5				--	--	--	--	--	--	--		--		--		--
Arsenic, total	ug/L	50/10[4]		4	50				--	--	--	--	--	--							1.4
Barium, total	ug/L	2000				129.0	128	115	--	--	--	--	--	--	--	110.0	--	140.0	--	120	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--	--	--		--		--		--
Cadmium, total	ug/L	5							--	--	--	--	--	--	--		--		--		--
Calcium, total	ug/L					86300	87200	86800	--	--	--	--	--	--	79500	84800	82300	91400	77900	86600	96700
Chromium, total	ug/L	100				[119]	80.3	[120]	33	34.4	23.9	[127]	49	83	22	61.0	--	32.0	--	14	--
Cobalt, total	ug/L								--	--	--	--	--	--	--		--		--		--
Copper, total	ug/L	**	1000						--	--	--	--	--	--	--		--		--		--
Iron, total	ug/L		300			817.0	407	785	--	--	--	--	--	--		250	1700	160	170	89	2200
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--	--	--				--		--
Magnesium, total	ug/L					37900	37800	36000	--	--	--	--	--	--	33200	33400	33100	36700	31500	33100	38700
Manganese, total	ug/L		50			8.0			--	--	--	--	--	--			--		--		--
Mercury, total	ug/L	2			2				--	--	--	--	--	--	--		--		--		--
Nickel, total	ug/L								--	--	--	--	--	--	--		--		--		--
Potassium, total	ug/L					3130	2560	2860	--	--	--	--	--	--		2500	3100	3000	2600	2700	3200
Selenium, total	ug/L	50							--	--	--	--	--	--	--	5.0	--		--		--
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--		--	--	--
Sodium, total	ug/L	*				25500	32500	27300	--	--	--	--	--	--	26700	47100	40800 J	37700	34400	65300	38900
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	470	--	610J	--	500	--
Thallium, total	ug/L	2							--	--	--	--	--	--	[10.1]		--		--		--
Vanadium, total	ug/L								--	--	--	--	--	--	--		--		--		--
Zinc, total	ug/L		5000						--	--	--	--	--	--	--		--		--		--

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*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12A (cont'd)															
						11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07	5/08
Aluminum, total	ug/L		50-200				--		--												
Antimony, total	ug/L	6			10/5		--		--				--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50		1 1		2 2			1 4									
Barium, total	ug/L	2000				140	--	95	--	30	120	130	100	120	100	120	110	120	79	110	85
Beryllium, total	ug/L	4		2	1*		--		--				--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--		--				--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					96700	96300	81200	81000	6000R	84500J	91000	83300	80800	83500	87600	81100	94500	71800	79700	76800
Chromium, total	ug/L	100				21	--	25	--		23	12	12		72	29	19	93	12	36	60
Cobalt, total	ug/L						--		--				--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000				--		--												
Iron, total	ug/L		300			240	210	130	5200		89J	220J	57	120	380	190	150	430	140	260	350
Iron, Ferrous	ug/L					--	--					10	10	80	30	70	10	20		20	30
Lead, total	ug/L	**					--		--												
Magnesium, total	ug/L					38200	39800	33700	35100	26600	35500	37700	35900	33600	37000	37500	34900	39000	30800J+	33400	33100
Manganese, total	ug/L		50				--		--												
Mercury, total	ug/L	2			2		--		--												
Nickel, total	ug/L						--		--												
Potassium, total	ug/L					2400	2300	1900	2400	3100	2300	2900	2400	2600	3100	2900	2300	2200	2100	2400	2000
Selenium, total	ug/L	50					--		--												
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					40000	39900	31700	28700	30800	36400	30700	31500	28600	47000	37100	31100	51900	25000	34200	29800
Strontium	ug/L					550J	--	480	--	540	540	620J	400	600	510	560	430	510	490	500	500
Thallium, total	ug/L	2					--		--												
Vanadium, total	ug/L						--		--				--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000				--		--												

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12A (cont'd) 11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200									
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50							
Barium, total	ug/L	2000				120	94.4	111	122	143	120	120
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--
Calcium, total	ug/L					82000	73900	76900	91000	90500	106000	88100
Chromium, total	ug/L	100				[290]	92.5	13.6	18.5	[103]	100	[160]
Cobalt, total	ug/L					--	--	--	--	--	--	--
Copper, total	ug/L	**	1000									
Iron, total	ug/L		300			1700	491	84	162	488	580	81
Iron, Ferrous	ug/L					10		10		30	30	120
Lead, total	ug/L	**										
Magnesium, total	ug/L					35000	32500	33100	38100	37400	36500	37600
Manganese, total	ug/L		50									
Mercury, total	ug/L	2			2							
Nickel, total	ug/L											
Potassium, total	ug/L					2300	2420	2300	2200	2790	2200	2500
Selenium, total	ug/L	50										
Silver, total	ug/L		100			--	--	--	--	--	--	--
Sodium, total	ug/L					28600	109000	31500	45200	39700	78600	36600
Strontium	ug/L					520	434	521	452	558	480	530
Thallium, total	ug/L	2										
Vanadium, total	ug/L					--	--	--	--	--	--	--
Zinc, total	ug/L		5000									

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POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12B 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200				--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	8.6	8.5	10	[12]	9.1	9.7	8.7	8.4	9.8	8.1	10	7.7	9.8	9.4	[13]	[13]
Barium, total	ug/L	2000				380	--	370	--	340	--	370	--	350	--	350	310	350	330	340	350
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					80900	77100	85500	75700	79000	86000	83700	81400	78100	78900	83600	78200J	82300	80300	81800	81100
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			1800	2000	2000	1800	1700	2200	2100	2000	1900	1900	2000	1400J	2000J	2100	2100	2300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1910	1830	1340	1370	1760	1660	1710	1810
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					35900	33700	37700	33400	34000	37500	37200	36200	34700	36400	36900	34800	37100	36300	36100	35700
Manganese, total	ug/L		50			49.0	--	38.0	--	37	--	36	--	31	--	33	42	32	34	34	31
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					2000	2000	2000	2000	2200	2400	1800	2100	1900	2000	2400	2000	2000	2000	1900	1900
Selenium, total	ug/L	50					--		--		--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					24600	23200J	24500	23500	25300	27800	27300	27000	24900	26200	27300	27200	26400	26900	28700	27600
Strontium	ug/L					1900	--	2100J	--	1700	--	1600J	--	2400	--	1900	1600	1900J	1400	1700	1800
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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UJ Estimated nondetection

[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW12B (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200															
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	8.8	8	8.4	8.6	8.6	8.5	9.2	8.4	8.5	2.3	8.6	8.5	9.1
Barium, total	ug/L	2000				330	340	340	350	330	330	320	320	318	61.4	324	340	330
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					85900	81100	81100	77500	80900	78200	77200	79500	78900	80900	77700	80300	77100
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300			2000	2000	2000	1900	2000	1900	2000	1760	1640	1280	1890	1800	1800
Iron, Ferrous	ug/L					1410	1850	1880	1870	1020	1900	1330	1460	660	1040	660	1230	1160
Lead, total	ug/L	**																
Magnesium, total	ug/L					37800	36200	37900	35100J+	36000	34700	34500	35800	35700	13100	35300	35300	34700
Manganese, total	ug/L		50			35	34	33	32	33	32	32	39	44.1	94.2	39.3	38	40
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					1900	1800	1700	1900	1800	1700	1800	2000	1960	1810	2060	2100	2000
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					30200	27600	29300	28500	31600	30600	31000	35600	35400	32800	40300	36000	39000
Strontium,	ug/L					1800	1400	1800	2200	1700	2200	1800	1660	1830	292	1810	2100	2500
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13B 2/95	5/95	7-8/95	5/99	5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03
Aluminum, total	ug/L		50-200						--	--	--		--	--	--		--	--	--		--
Antimony, total	ug/L	6			10/5				--	--	--		--	--	--		--	--	--		--
Arsenic, total	ug/L	50/10[4]		4	50		5.7	4.5	--	3.8	3.4	7.8	4.6	3.7	3.9	2.6	3.9	4.4	4.9	4.6	3.6
Barium, total	ug/L	2000				253.0	226	240	--	--	--	220	--	--	--	220	--	--	--	190	--
Beryllium, total	ug/L	4		2	1*				--	--	--		--	--	--		--	--	--		--
Cadmium, total	ug/L	5							--	--	--		--	--	--		--	--	--		--
Calcium, total	ug/L					106000	94500	105000	95000	99300	93000	101000	92700	94300	102000	105000	99800	94800	96900	95200	93000J
Chromium, total	ug/L	100							--	--	--		--	--	--		--	--	--		--
Cobalt, total	ug/L								--	--	--		--	--	--		--	--	--		--
Copper, total	ug/L	**	1000						--	--	--		--	--	--		--	--	--		--
Iron, total	ug/L		300			3190.0	2520	2720	2520	2600	2500	2600	2500	2500	2700	2800	2800	2600	2600	2600	2500J
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	2710	2540	2230	2110
Lead, total	ug/L	**							--	--	--		--	--	--		--	--	--		--
Magnesium, total	ug/L					38400	33300	36300	35000	34600	32400	35500	32600	32400	35700	36800	35000	33300	34800	34400	33100
Manganese, total	ug/L		50			68.4	57.8	63.8	58.4	--	--	65	--	--	--	72	--	--	--	70	--
Mercury, total	ug/L	2			2				--	--	--		--	--	--		--	--	--		--
Nickel, total	ug/L								--	--	--		--	--	--		--	--	--		--
Potassium, total	ug/L					2280	2270			2600	2700		2800	2700	3000	2800	2600	2700	3000	2700	2600
Selenium, total	ug/L	50							--	--	--		--	--	--		--	--	--		--
Silver, total	ug/L		100					2.2	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					20100	18600	19700	16400	17800	17200 J	17900	17400	16900	18600	18800	18100	17900	18900	18000	19000
Strontium	ug/L					--	--	--	--	--	--	430J	--	--	--	190J	--	--	--	140	--
Thallium, total	ug/L	2							--	--	--		--	--	--		--	--	--		--
Vanadium, total	ug/L								--	--	--		--	--	--		--	--	--		--
Zinc, total	ug/L		5000						--	--	--		--	--	--		--	--	--		--

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13B (cont'd)																
						11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200				--		--		--		--		--		--	568	--	--	--	
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	4.8	4.5	5.7	5.0	4.0	3.5	3.8	3.8	4.0	3.9	3.9	4.2	4.5	4.8	5.5	5.0	4.2
Barium, total	ug/L	2000				200	--	200	--	210	--	210	--	220	--	210	--	234	--	254	--	250
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					95600	90500	92700	96600	97900	96500	93400	93100	95000	94700	93400	96600	115000	98700	103000	95700	99000
Chromium, total	ug/L	100					--		--		--		--		--		--		--	--	--	
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--		--		--	--	--	
Iron, total	ug/L		300			2800J	3200	2800	2600	2700	2600	2600	2600	2700	2600	2500	2560	3470	2680	2970	2260	2800
Iron, Ferrous	ug/L					2380	1960	2310	2560	1870	2390	2220	--	2790	2020	1890	2030	690	2630	530	1240	2260
Lead, total	ug/L	**					--		--		--		--		--		--	8.9	--	--	--	
Magnesium, total	ug/L					33500	32700	31700	32000	32700	33400	33200	33200J+	33200	32900	34100	34900	41600	35700	36600	35600	36400
Manganese, total	ug/L		50			70	--	71	--	70	--	72	--	67	--	64	--	142	--	74.2	--	71
Mercury, total	ug/L	2			2		--		--		--		--		--		--		--	--	--	
Nickel, total	ug/L						--		--		--		--		--		--		--	--	--	
Potassium, total	ug/L					2700	2500	2400	2400	2500	2600	2400	2500	2600	2600	2700	2550	2140	2810	2910	2200	3400
Selenium, total	ug/L	50					--		--		--		--		--		--		--	--	--	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--
Sodium, total	ug/L					21200	19700	20000	20000	20800	21100	19800	21700	23900	22500	21400	22100	22900	24600	27600	20300	33300
Strontium	ug/L					160J	--	200	--	190	--	170	--	180	--	190	--	216	--	208	--	220
Thallium, total	ug/L	2					--		--		--		--		--		--		--	--	--	
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--		--		--	--	--	

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13C 5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			330	--	--	--		--	--	--		--	--		--		--	
Antimony, total	ug/L	6			10/5		--	--	--		--	--	--		--	--		--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	6.0	7.2	15.0	7.9	6.3	5.4	6.0	6.4	6.7	6.9	6.7	6.0	7.2	4.7	8.2	7.2
Barium, total	ug/L	2000				380	--	--	--	340	--	--	--	330	--	--	330	--	320	--	330
Beryllium, total	ug/L	4		2	1*		--	--	--		--	--	--		--	--		--	--	--	--
Cadmium, total	ug/L	5					--	--	--		--	--	--		--	--		--	--	--	--
Calcium, total	ug/L					101000	89300	96800	83500	91200	101000	98600	93300	89100	93200	84700	91800J	92700	90100	86200	94800
Chromium, total	ug/L	100					--	--	--		--	--	--		--	--		--		--	
Cobalt, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Copper, total	ug/L	**	1000				--	--	--		--	--	--		--	--		--		--	
Iron, total	ug/L		300			2700	2400	2500	2200	2400	2700	2600	2500	2400	2500	2200	2400J	2500J	2100	2400	2400
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	2780	2420	2260	2150	2210	1920	2250	2300
Lead, total	ug/L	**					--	--	--		--	--	--		--	--		--		--	
Magnesium, total	ug/L					38100	33300	36200	31800	33900	38100	37500	35900	34200	36200	32900	35800	35300	34000	33000	35000
Manganese, total	ug/L		50			64.0	--	--	--	59	--	--	--	59	--	--	62	--	62	--	59
Mercury, total	ug/L	2			2		--	--	--		--	--	--		--	--		--		--	
Nickel, total	ug/L						--	--	--		--	--	--		--	--		--		--	
Potassium, total	ug/L					2200	1900	1900	1800	2000	2200	2000	1900	1900	1900	1900	1900	2000	2000	1900	1800
Selenium, total	ug/L	50					--	--	--		--	--	--		--	--		--		--	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					16900	15100 J	15200	14500	15000	16400	16600	15900	15400	16600	15600	15100	15800	15600	15700	17000
Strontium	ug/L					420	--	--	--	380	--	--	--	450	--	--	410	--	300	--	380
Thallium, total	ug/L	2					--	--	--		--	--	--		--	--		--		--	
Vanadium, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Zinc, total	ug/L		5000				--	--	--		--	--	--		--	--		--		--	

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HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW13C (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200			--		--		--		--		--		--		--
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.6	5.1	5.4	5.1	6.0	4.9	5.0	5.2	5.6	5.8	5.7	4.0	5.6
Barium, total	ug/L	2000				--	320	--	330	--	330	--	334	--	346	--	260	--
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					91700	89600	88100	86400	86800	92200	91400	94000	92100	92200	89500	106000	92700
Chromium, total	ug/L	100				--		--		--		--		--				--
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--		--		--		--		--		--
Iron, total	ug/L		300			2400	2200	2300	2200	2300	2300	2400	2490	2430	2370	2230	2800	2600
Iron, Ferrous	ug/L					1950	2160	1940	--	2350	2180	1860	2060	790	1460	990	880	1830
Lead, total	ug/L	**				--		--		--		--		--		--		--
Magnesium, total	ug/L					34300	33700	34200	33300J+	31900	34200	35000	35400	34900	34900	35400	37200	36000
Manganese, total	ug/L		50			--	59	--	58	--	65	--	65	--	60.6	--	72	--
Mercury, total	ug/L	2			2	--		--	--	--		--		--		--		--
Nickel, total	ug/L					--		--	--	--		--		--		--		--
Potassium, total	ug/L					1800	1800	1700	1800	1800	1800	1900	1900	1900	1920	2110	3300	2300
Selenium, total	ug/L	50				--		--		--		--		--				--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					17600	17800	18300	17800	17600	17200	16800	17300	18000	18100	19600	31400	26000
Stronuum	ug/L					--	280	--	340	--	340	--	359	--	325	--	220	--
Thallium, total	ug/L	2				--		--		--		--		--				--
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--		--		--		--				--

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*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW14B 2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97	9/98	5/99	5/00	8/00	11/00	2/01	5/01	8/01
Aluminum, total	ug/L		50-200						--	--	--	--	--	--	--	--	--		--	--	--
Antimony, total	ug/L	6			10/5				--	--	--	--	--	--	--	--	--		--	--	--
Arsenic, total	ug/L	50/10[4]		4	50			5.0		5.8	--	--	--	--	6.13	3.9	4.2	4.4	3.9	3.4	4
Barium, total	ug/L	2000				201.0	193	207	--	--	--	--	--	--	--	--	--	200	--	--	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--	--	--	--	--		--	--	--
Cadmium, total	ug/L	5							--	--	--	--	--	--	--	--	--		--	--	--
Calcium, total	ug/L					99400	94300	102000	--	--	--	--	--	--	91300	97200	91500	101000	88700	92100	94700
Chromium, total	ug/L	100									--	--	--	--		--	--		--	--	--
Cobalt, total	ug/L								--	--	--	--	--	--	--	--	--		--	--	--
Copper, total	ug/L	**	1000						--	--	--	--	--	--	--	--	--		--	--	--
Iron, total	ug/L		300			2650.0	2540	2780	--	--	--	--	--	--	2510	2700	2600	2800	2500	2600	2700
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--	--	--	--	--		--	--	--
Magnesium, total	ug/L					38100	35800	37700	--	--	--	--	--	--	35000	36800	34000	38000	33900	33800	35600
Manganese, total	ug/L		50			71.1	67.9	73.1	--	--	--	--	--	--	67.9	--	--	75	--	--	--
Mercury, total	ug/L	2			2		0.12									--	--		--	--	--
Nickel, total	ug/L								--	--	--	--	--	--	--	--	--		--	--	--
Potassium, total	ug/L					1870		1660	--	--	--	--	--	--		1900	1900		1900	2100	2200
Selenium, total	ug/L	50							--	--	--	--	--	--	--	--	--		--	--	--
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					13700	13400	14500	--	--	--	--	--	--	13700	14900	15800 J		15700	17000	17100
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	200J	--	--	--
Thallium, total	ug/L	2									--	--	--	--	[12.1]	--	--		--	--	--
Vanadium, total	ug/L								--	--	--	--	--	--	--	--	--		--	--	--
Zinc, total	ug/L		5000						--	--	--	--	--	--	--	--	--		--	--	--

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW14B (cont'd) 11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07	5/08
Aluminum, total	ug/L		50-200				--	--	--		--		--		--		--		--	--	--
Antimony, total	ug/L	6			10/5		--	--	--		--		--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.5	3.0	4.1	2.7	3.7	3.6	4.4	3.3	4.9	4.2	3.7	3.2	3.5	3.3	3.4	3.5
Barium, total	ug/L	2000				200	--	--	--	190	--	220	--	200	--	210	--	190	--	190	--
Beryllium, total	ug/L	4		2	1*		--	--	--		--		--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--		--		--	--	--	-	--	--	--	--	--
Calcium, total	ug/L					94900	90400	89900	92100	91300	88500J	95800	92300	91900	96700	98500	93200	85800	82900	83100	85000
Chromium, total	ug/L	100					--	--	--		--		--		--		--		--		--
Cobalt, total	ug/L						--	--	--		--		--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000				--	--	--		--		--		--		--		--		--
Iron, total	ug/L		300			2600	2500	2600	2600	2400	2500J	2700J	2600	2600	2600	2800	2600	2500	2400	2400	2400
Iron, Ferrous	ug/L					--	--	2280	2430	1640	1970	2270	1670	2500	2470	2420	2420	1800	--	2410	2060
Lead, total	ug/L	**					--	--	--		--		--		--		--		--		--
Magnesium, total	ug/L					36000	34700	34800	35500	35800	34200	35400	35600	35100	36100	36600	34500	33400	32200J+	30500	31300
Manganese, total	ug/L		50			71	--	--	--	69	--	70	--	71	--	74	--	69	--	65	--
Mercury, total	ug/L	2			2		--	--	--		--		--		--		--		--		--
Nickel, total	ug/L						--	--	--		--		--		--		--		--		--
Potassium, total	ug/L					2000	1900	2000	2000	2000	2000	2300	2200	2000	2100	2100	2100	1900	2000	2000	2000
Selenium, total	ug/L	50					--	--	--		--		--		--		--		--		--
Silver, total	ug/L		100			--	--	--	--	--	--		--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					17100	16300	17500	18300	17500	20200	20600	19600	20300	21000	21800	22300	22400	21200	25600	22900
Strontium	ug/L					210J	--	--	--	190	--	210J	--	220	--	210	--	200	--	180	--
Thallium, total	ug/L	2					--	--	--		--		--		--		--		--		--
Vanadium, total	ug/L						--	--	--		--		--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000				--	--	--		--		--		--		--		--		--

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW14B (cont'd)						
						11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200				--		--		--	
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	3.0	3.4	3.6	3.6	3.4	3.2	3.3
Barium, total	ug/L	2000				180	--	193	--	200	--	210
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--
Calcium, total	ug/L					82100	87600	86100	89000	89100	89800	88900
Chromium, total	ug/L	100					--		--	--	--	
Cobalt, total	ug/L					--	--	--	--	--	--	--
Copper, total	ug/L	**	1000				--		--	--	--	
Iron, total	ug/L		300			2400	2480	2540	2470	2490	2400	2600
Iron, Ferrous	ug/L					1670	2.02	890	500	600	1710	1650
Lead, total	ug/L	**					--		--	--	--	
Magnesium, total	ug/L					31000	32800	32100	32600	32100	31600	32400
Manganese, total	ug/L		50			64	--	71.2	--	77.4	--	75
Mercury, total	ug/L	2			2		--		--	--	--	
Nickel, total	ug/L						--		--	--	--	
Potassium, total	ug/L					2000	2150	2270	2300	2510	2800	3000
Selenium, total	ug/L	50					--		--	--	--	
Silver, total	ug/L		100			--	--	--	--	--	--	--
Sodium, total	ug/L					23900	24700	23900	24100	24200	25000	24200
Strontium	ug/L					180	--	193	--	170	--	170
Thallium, total	ug/L	2					--		--	--	--	
Vanadium, total	ug/L					--	--	--	--	--	--	--
Zinc, total	ug/L		5000				--		--	--	--	

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15B 2/95	5/95	7-8/95	5/99	5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03
Aluminum, total	ug/L		50-200						--	140	--		--		--		--		--		
Antimony, total	ug/L	6			10/5				--		--		--		--		--		--		
Arsenic, total	ug/L	50/10[4]		4	50				--		1							1.2		1.4	
Barium, total	ug/L	2000				259.0	237	269	--	310	--	270	--	270	--	260	--	280	--	250	260
Beryllium, total	ug/L	4		2	1*				--		--		--		--		--		--		
Cadmium, total	ug/L	5							--		--		--		--		--		--		
Calcium, total	ug/L					98900	88400	104000	89400	98500	85600	92200	87300	89700	95400	93400	94300	95100	95000	94100	93500J
Chromium, total	ug/L	100							--		--		--		--		--		--		
Cobalt, total	ug/L								--		--		--		--		--		--		
Copper, total	ug/L	**	1000						--		--		--		--		--		--		
Iron, total	ug/L		300								51				96						UJ
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	140	10		
Lead, total	ug/L	**							--		--		--		--		--		--		
Magnesium, total	ug/L					40900	34600	40100	37200	38200	32800	35800	34600	34000	36800	36600	37200	37200	37200	36400	35800
Manganese, total	ug/L		50			365.0	303	375	616	660	--	450	--	400	--	380	--	420	--	430	390
Mercury, total	ug/L	2			2				--		--		--		--		--		--		
Nickel, total	ug/L								--		--		--		--		--		--		
Potassium, total	ug/L					3170	3240	4390		4200	3400	3200	3200	3500	3600	3000	3100	3300	3300	3400	3700
Selenium, total	ug/L	50							--		--		--		--		--		--		
Silver, total	ug/L		100						--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					35000	28000	39100	29300	38300	41400 J	42000	35100	40600	43300	38500	38000	35500	37400	36100	36400
Strontium	ug/L					--	--	--	--	800	--	750J	--	700	--	740J	--	880	--	770	740
Thallium, total	ug/L	2							--		--		--		--		--		--		
Vanadium, total	ug/L								--		--		--		--		--		--		
Zinc, total	ug/L		5000						--		--		--		--		--		--		

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15B (cont'd) 11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200																	101		
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.0	1.5	1.9	2.5	2.1	2.0	2.2	2.8	3.2	3.4	4.1	3.9	3.9	3.9	6.1	4.0	7.1
Barium, total	ug/L	2000				310	300	270	310	280	270	260	280	230	250	250	257	200	224	228	240	260
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					106000	111000	91700	113000	99600	95400	93200	97200	83300	89900	91000	98000	77600	88100	87500	100000	99000
Chromium, total	ug/L	100																				
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000																			
Iron, total	ug/L		300						72	58	97	96	130	250	330	380	476	461	495	966	760	1300
Iron, Ferrous	ug/L					10	39	120	60	80	90	90	--	220	360	370	420	350	380	470	620	700
Lead, total	ug/L	**																				
Magnesium, total	ug/L					39500	44400	34700	41600	37200	35600	36600	37100J+	31600	33600	34900	38100	30300	33900	33100	38200	38100
Manganese, total	ug/L		50			440	540	490	580	520	510	500	500	400	460	420	455	338	322	319	320	330
Mercury, total	ug/L	2			2																	
Nickel, total	ug/L																					
Potassium, total	ug/L					4200	3700	4000	4300	3800	3600	3100	3600	2900	3700	3800	3270	2310	2840	2960	3100	3500
Selenium, total	ug/L	50																				
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					39800	36700	34200	39400	39600	35900	36200	33300	31900	30700	32100	40100	60500	53100	55600	46300	43200
Strontium	ug/L					790J	750	920	920	870	630	750	840	740	770	780	862	675	674	738	950	890
Thallium, total	ug/L	2																				
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000																			

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METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15C															
						5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			630	--	--	--	260	--	--	--	200	--	--		--		--	120
Antimony, total	ug/L	6			10/5		--	--	--		--	--	--		--	--		--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	13	13	5	15	13	12	12	11	[13]	[11]	[11]	[12]	[13]	[10]	[15]	[15]
Barium, total	ug/L	2000				610	--	--	--	540	--	--	--	510	--	--	500	--	500	--	500
Beryllium, total	ug/L	4		2	1*		--	--	--		--	--	--		--	--		--	--	--	--
Cadmium, total	ug/L	5					--	--	--		--	--	--		--	--		--	--	--	--
Calcium, total	ug/L					92900	80600	87600	79400	84600	87500	88000	81600	79100	83900	81700	808003	84200	81800	79100	86700
Chromium, total	ug/L	100					--	--	--		--	--	--		--	--		--		--	
Cobalt, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Copper, total	ug/L	**	1000				--	--	--		--	--	--		--	--		--		--	
Iron, total	ug/L		300			3500	2400	2600	2600	2800	2800	2700	2800	2400	2500	1800	2200J	2300J	2100	2200	2200
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1740	2060	1400	1830	2070	1970	1730	2010
Lead, total	ug/L	**					--	--	--		--	--	--		--	--		--		--	
Magnesium, total	ug/L					4300	36800	40100	37000	38200	40200	40900	38600	37400	39400	39400	38400	38200	38000	37400	40200
Manganese, total	ug/L		50			33	--	--	--	32	--	--	--	27	--	--	23	--	27	--	28
Mercury, total	ug/L	2			2		--	--	--		--	--	--		--	--		--		--	
Nickel, total	ug/L						--	--	--		--	--	--		--	--		--		--	
Potassium, total	ug/L					2300	1900	2000	1900	2200	2300	2000	2000	2000	2000	2200	2000	2300	2100	2200	1900
Selenium, total	ug/L	50					--	--	--		--	--	--		--	--		--		--	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					13400	12000 J	12300	11700	11600	12700	12700	12200	11800	12800	12000	13000	13400	13500	13300	14900
Strontium	ug/L					5400	--	--	--	640	--	--	--	630	--	--	5300	--	5500	--	7000
Thallium, total	ug/L	2					--	--	--		--	--	--		--	--		--		--	
Vanadium, total	ug/L						--	--	--		--	--	--		--	--		--	--	--	--
Zinc, total	ug/L		5000			310	--	--	--		--	--	--		--	--		--		--	

Note: Blank spaces represent non-detect values

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J - Estimated value.

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[1] Risk-Based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

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[4] MCL for arsenic changed to 10 ug/L effective 2/22/02

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L*

*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

CONTINUED ON NEXT PAGE

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW15C (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200			--	190	--		--		--	189	--				--
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	[12]	[11]	[11]	[11]	[12]	[13]	[11]	[12.9]	[12.9]	[13.1]	[11.7]	[12.0]	[12.0]
Barium, total	ug/L	2000				--	530	--	510	--	520	--	520	--	536	--	550	--
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					86000	85800	78800	79400	76100	88200	82500	86100	82400	84000	80800	87300	85200
Chromium, total	ug/L	100				--		--		--		--		--				--
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--		--		--		--				--
Iron, total	ug/L		300			2200	2300	2100	2100	2000	2400	2200	2760	2280	2400	2170	2500	2700
Iron, Ferrous	ug/L					1840	1950	1900	--	1090	1560	1940	2030	680	1130	420	890	1230
Lead, total	ug/L	**				--		--		--		--		--				--
Magnesium, total	ug/L					40000	39200	37800	38400J+	34600	39000	39000	39800	38600	39100	39900	39600	40000
Manganese, total	ug/L		50			--	30	--	26	--	29	--	30.2	--	24.5	--	25	--
Mercury, total	ug/L	2			2	--		--		--		--		--				--
Nickel, total	ug/L					--		--	--	--		--		--				--
Potassium, total	ug/L					2000	2000	1900	1800	2000	2000	2600	2220	2340	2440	2490	2200	2300
Selenium, total	ug/L	50				--		--		--		--		--				--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					14600	15000	14500	15200	14500	16000	16300	17400	16500	17600	18200	18500	18500
Strontium	ug/L					--	5100	--	6800	--	6100	--	5670	--	4340	--	5400	--
Thallium, total	ug/L	2				--		--		--		--		--				--
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--		--		--	22.6	--				--

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16A 2/95	5/95	6/20/95[3]		6/20/95 Dup.	7-8/95	5/96	11/96	11/96 Dup.	5/97	11/97	9/98	5/99	5/00	8/00	11/00
Aluminum, total	ug/L		50-200									--	--	--	--	--	--	--		--	
Antimony, total	ug/L	6			10/5							--	--	--	--	--	--	--		--	
Arsenic, total	ug/L	50/10[4]		4	50	14.4	12.6	16.9	18.9	19.2	15.9	14.3	12.7	16.0	7.3	13.5	10	6.3	6.6	5.3	7.4
Barium, total	ug/L	2000				641.0	475	476	459	479	464	--	--	--	--	--	--	--	560	--	440
Beryllium, total	ug/L	4		2	1*							--	--	--	--	--	--	--		--	
Cadmium, total	ug/L	5										--	--	--	--	--	--	--		--	
Calcium, total	ug/L					123000	110000	105000	101000	105000	104000	--	--	--	--	--	--	102000	116000	94700	107000
Chromium, total	ug/L	100																		--	
Cobalt, total	ug/L											--	--	--	--	--	--	--		--	
Copper, total	ug/L	**	1000									--	--	--	--	--	--	--		--	
Iron, total	ug/L		300			12500	10100	10900	10700	11100	9960	--	--	--	--	--	--	9620	13800	10000	10300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**										--	--	--	--	--	--	--		--	
Magnesium, total	ug/L					44900	37400	38200	37400	38900	37200	--	--	--	--	--	--	40800	43000	33500	38200
Manganese, total	ug/L		50			225.0	192	169	159	165	177	--	--	--	--	--	--	154	210	--	170
Mercury, total	ug/L	2			2															--	
Nickel, total	ug/L											--	--	--	--	--	--	--		--	
Potassium, total	ug/L					8450	7780	8580	8220	8490	9530	--	--	--	--	--	--	7120	10000	8800	8600
Selenium, total	ug/L	50									1.6	--	--	--	--	--	--	--		--	
Silver, total	ug/L		100									--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					29200	29000	32100	30200	31700	31500	--	--	--	--	--	--	37300	51100	51100 J	34100
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	1000	--	870J
Thallium, total	ug/L	2					[3.8]													--	
Vanadium, total	ug/L											--	--	--	--	--	--	--		--	
Zinc, total	ug/L		5000					39.2				--	--	--	--	--	--	--		--	

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[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16A (cont'd) 2/01	5/01	8/01	11/01	2/02	2/02 Dup.	5/02	8/02	11/02	5/03	5/03 Dup.	11/03	11/03 Dup.	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			--		--		--	--		--								
Antimony, total	ug/L	6			10/5	--		--		--	--		--						--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	6.8	6.8	7	6.5	5.6	5.2	7.3	6.7	6.9	5.3	5.4	6.4	6.3	5.0	6.8	5.0
Barium, total	ug/L	2000				--	440	--	420	--	--	450	--	390	390	400	480	470	490	430	420
Beryllium, total	ug/L	4		2	1*	--		--		--	--		--						--	--	--
Cadmium, total	ug/L	5				--		--		--	--		--						--	--	--
Calcium, total	ug/L					104000	106000	10500	104000	118000	113000	110000	102000	102000	118000J	119000J	124000	121000	134000	111000	120000
Chromium, total	ug/L	100				--		--		--	--		--								
Cobalt, total	ug/L					--		--		--	--		--						--	--	--
Copper, total	ug/L	**	1000			--		--		--	--		--								
Iron, total	ug/L		300			10500	10000	9500	9500	10600	10200	9700	8700	8700	9100J	9200J	9400J	9200J	9700	8500	7700
Iron, Ferrous	ug/L					--	--	--	--	--	--	10840	6040	1440	1280		2690		2660	5280	5280
Lead, total	ug/L	**				--		--		--	--		--								
Magnesium, total	ug/L					37900	37700	37600	38200	42700	41100	40200	38800	36700	40500	40500	46500	45100	48900	40900	41900
Manganese, total	ug/L		50			--	170	--	170	--	--	180	--	160	180	180	190	180	190	160	160
Mercury, total	ug/L	2			2	--		--		--	--		--								
Nickel, total	ug/L					--		--		--	--		--								
Potassium, total	ug/L					7200	7800	7700	6400	8200	8000	8000	7900	6200	6800	6900	9600	9200	8800	6800	8700
Selenium, total	ug/L	50				--		--		--	--		--								
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					32900	33700	36500	36900	42200	41400	41300	39400	33000	34800	35100	47700	45800	43800	35100	38200
Strontium	ug/L					--	820	--	810J	--	--	1000	--	900	940	920	960J	960J	840	1000	1000
Thallium, total	ug/L	2				--		--		--	--		--								
Vanadium, total	ug/L					--		--		--	--		--						--	--	--
Zinc, total	ug/L		5000			--		--		--	--		--								

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16A (cont'd) 11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200										--					
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.0	4.2	4.4	3.6	3.6	2.4	3.5	2.8	3.7	3.9	5.1	[11.0]J+	8.5
Barium, total	ug/L	2000				420	390	410	530	440	420	420	381	350	336	277	210	370
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					116000	110000	114000	123000	116000	120000	108000	116000	120000	104000	119000	122000	114000
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300			8400	7800	8300	8800	8500	8200	8200	8130	8220	7800	11500	9300	8400
Iron, Ferrous	ug/L					1560	6000	2370	2850	1900	2780	2270	2040	1060	1480	2100	740	2460
Lead, total	ug/L	**																
Magnesium, total	ug/L					41800	38800	41700	46600	41600	40700	39000	39000	39700	36000	39400	39500	42600
Manganese, total	ug/L		50			160	160	160	180	180	170	160	173	186	161	287	300	200
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					6800	6600	5800	9300	6200	6700	6400	6070	4940	5880	5400	4800	5600
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					36900	35800	34100	46400	34400	38800	34800	32500	29600	42500	42100	37100	40100
Strontium	ug/L					1100	760	880	1100	870	940	870	787	933	678	805	850	960
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16B															
						2/95	5/95	7-8/95	7-8/95 Dup.	5/96	11/96	5/97	11/97	11/97 Dup.	9/98	5/99	5/00	8/00	11/00	2/01	5/01
Aluminum, total	ug/L		50-200							--	--	--	--	--	--	--	6500	--	310	--	
Antimony, total	ug/L	6			10/5					--	--	--	--	--	--	--		--		--	
Arsenic, total	ug/L	50/10[4]		4	50	13.9	13.2	9.8	9.6	7.8	9.6	10.0	10.8	8.4	11	10.5	9.7	6.7	8.5	7.8	7.9
Barium, total	ug/L	2000				242.0	227	218	215	--	--	--	--	--	--	--	320	--	230	--	210
Beryllium, total	ug/L	4		2	1*					--	--	--	--	--	--	--		--		--	
Cadmium, total	ug/L	5								--	--	--	--	--	--	--		--		--	
Calcium, total	ug/L					89400	83700	82300	81000	--	--	--	--	--	--	81600	84600	77700	84700	77000	77200
Chromium, total	ug/L	100								--	--	--	--	--	--	--		--		--	
Cobalt, total	ug/L									--	--	--	--	--	--	--		--		--	
Copper, total	ug/L	**	1000							--	--	--	--	--	--	--		--		--	
Iron, total	ug/L		300			3140	2780	2020	1850	--	--	--	--	--	--	1660	6300	2600	1800	1400	1500
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**								--	--	--	--	--	--	--	5.7	--		--	
Magnesium, total	ug/L					35800	33500	33100	32800	--	--	--	--	--	--	35300	35900	31800	34800	32000	30900
Manganese, total	ug/L		50			380.0	376	441	453	--	--	--	--	--	--	468	510	--	480	--	430
Mercury, total	ug/L	2			2			0.12	0.13							--		--		--	
Nickel, total	ug/L									--	--	--	--	--	--	--		--		--	
Potassium, total	ug/L					2470	2820			--	--	--	--	--	--		4800	3100	2700	2400	2600
Selenium, total	ug/L	50								--	--	--	--	--	--	--		--		--	
Silver, total	ug/L		100							--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					21400	21700	21000	20600	--	--	--	--	--	--	24400	29100	26400 J	27600	26600	28400
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	770	--	800J	--	650
Thallium, total	ug/L	2								--		--	--	--	--	--		--		--	
Vanadium, total	ug/L									--	--	--	--	--	--	--		--		--	
Zinc, total	ug/L		5000							--	--	--	--	--	--	--	34	--		--	

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16B (cont'd) 8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05	11/05	5/06	11/06	5/07	11/07
Aluminum, total	ug/L		50-200			--		--	270	--			130								
Antimony, total	ug/L	6			10/5	--		--		--				--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	7.3	6.5	8.0	7.2	4.9	7.1	5.9	9.8	6.7	10.0	8.0	5.0	5.3	4.8	6.0	5.7
Barium, total	ug/L	2000				--	230	--	240	--	210	230	250	250	230	240	220	230	200	240	200
Beryllium, total	ug/L	4		2	1*	--		--		--				--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--		--		--				--	--	--	--	--	--	--	--
Calcium, total	ug/L					85500	81900	84600	82500	79300	82400	87500J	92800	90000	85900	91100	90300	85100	81500	89000	83300
Chromium, total	ug/L	100				--		--		--											
Cobalt, total	ug/L					--		--		--				--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--		--											
Iron, total	ug/L		300			4300	1400	3500	1400	1200	1300	1200J	1900J	1600	1700	1100	1200	1200	1000	1200	1400
Iron, Ferrous	ug/L					--	--	--	1100	1240	1110	1060	980	1460	1720	1580	870	1100	1110	1290	1210
Lead, total	ug/L	**				--		--		--											
Magnesium, total	ug/L					34800	33500	35500	34700	34000	34400	36900	39200	37300	33800	37000	36900	35300	35300	38000J+	33700
Manganese, total	ug/L		50			--	490	--	500	--	430	490	560	530	460	480	470	520	460	490	450
Mercury, total	ug/L	2			2	--		--		--											
Nickel, total	ug/L					--		--		--											
Potassium, total	ug/L					3600	2500	3200	2800	2700	2600	2700	2700	3200	2900	3000	2600	2500	1900	2400	2500
Selenium, total	ug/L	50				--		--		--											
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					33400	32600	32400	32100	30600	28600	31000	33400	29600	29000	34800	30800	29000	29900	30000	28300
Strontium	ug/L					--	740J	--	860	--	700	720	900J	680	840	930	950	700	750	1000	750
Thallium, total	ug/L	2				--		--		--											
Vanadium, total	ug/L					--		--		--				--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--		--											

Note: Blank spaces represent non-detect values

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

[4] MCL for arsenic changed to 10 ug/L effective 2/22/02.

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW16B (cont'd) 5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200										
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	5.1	5.6	6.0	7.6	8.0	7.5	6.1	6.7
Barium, total	ug/L	2000				210	200	204	207	201	185	200	200
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--		--	--	--	--	--
Calcium, total	ug/L					80900	79600	86300	92800	88200	81500	83100	88000
Chromium, total	ug/L	100											
Cobalt, total	ug/L					--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000										
Iron, total	ug/L		300			1100	1200	1420	2240	1930	1820	1400	1700
Iron, Ferrous	ug/L					910	1270	1350	1090	810	810	1200	1400
Lead, total	ug/L	**											
Magnesium, total	ug/L					33300	32900	35400	38400	36100	34600	37200	36300
Manganese, total	ug/L		50			460	420	421	381	350	359	420	400
Mercury, total	ug/L	2			2								
Nickel, total	ug/L												
Potassium, total	ug/L					2200	2200	2230	2790	2530	2810	2500	2400
Selenium, total	ug/L	50											
Silver, total	ug/L		100			--	--	--	--	--	--	--	--
Sodium, total	ug/L					27700	27800	35300	47000	42000	40400	41100	34700
Strontium	ug/L					920	800	838	772	656	710	830	740
Thallium, total	ug/L	2											
Vanadium, total	ug/L					--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000										

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[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17A 5/00	5/00 Dup.	8/00	8/00 Dup.	11/00	2/01	2/01 Dup.	5/01	8/01	11/01	11/01 Dup.	2/02	5/02	8/02	11/02	5/03
Aluminum, total	ug/L		50-200			120	250	--	--		--	--		--			--		--		
Antimony, total	ug/L	6			10/5			--	--		--	--		--			--		--		
Arsenic, total	ug/L	50/10[4]		4	50		1.2													1.5	
Barium, total	ug/L	2000				430	430	--	--	380	--	--	360	--	360	370	--	330	--	320	390
Beryllium, total	ug/L	4		2	1*			--	--		--	--		--			--		--		
Cadmium, total	ug/L	5						--	--		--	--		--			--		--		
Calcium, total	ug/L					180000	182000	133000	131000	140000	158000	154000	168000	145000	154000	159000	149000	156000	184000	152000	238000J
Chromium, total	ug/L	100						--	--		--	--		--			--		--		
Cobalt, total	ug/L							--	--		--	--		--			--		--		
Copper, total	ug/L	**	1000					--	--		--	--		--			--		--		
Iron, total	ug/L		300			15000	15100	10200	10000	9600	12000	11700	11500	9700	9700	10000	9300	9300	3400	9200	13900J
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	3100	3380	1410	1030
Lead, total	ug/L	**						--	--		--	--		--			--		--		
Magnesium, total	ug/L					41300	41700	34500	33900	40600	40800	39800	37900	36600	40400	41700	38500	37000	28800	39100	52000
Manganese, total	ug/L		50			420	420	--	--	380	--	--	520	--	390	400	--	380	--	400	570
Mercury, total	ug/L	2			2			--	--		--	--		--			--		--		
Nickel, total	ug/L							--	--		--	--		--			--		--		
Potassium, total	ug/L					14100	14400	16700	16500	17000	13100	12800	12500	14800	12600	12400	12200	10900	5800	12200	9500
Selenium, total	ug/L	50						--	--		--	--		--			--		--		
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					49600	50000	71500 J	70800 J	67500	42700	41800	34600	62800	52800	54300	52000	47700	24600	56500	24600
Strontium	ug/L					780	780	--	--	700J	--	--	710	--	670J	660J	--	790	--	630	960
Thallium, total	ug/L	2						--	--		--	--		--			--		--		
Vanadium, total	ug/L							--	--		--	--		--			--		--		
Zinc, total	ug/L		5000					--	--		--	--		--			--		--		

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*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17A (cont'd)															
						11/03	5/04	5/04 Dup.	11/04	5/05	5/05 Dup.	11/05	5/06	11/06	5/07	5/07 Dup.	11/07	5/08	11/08	5/09	11/09
Aluminum, total	ug/L		50-200										150						120		
Antimony, total	ug/L	6			10/5		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.9	1.3	1.3					1.2	1.0		1.0	1.0	1.1	1.1	1.0	1.5
Barium, total	ug/L	2000				270	270	280	260	240	240	210	250	260	230	220	250	240	230	228	267
Beryllium, total	ug/L	4		2	1*		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					145000	167000	169000	142000	154000	152000	131000	154000	146000	127000	124000	143000	148000	128000	146000	146000
Chromium, total	ug/L	100																			
Cobalt, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000																		
Iron, total	ug/L		300			6900J	8600	8500	7200	6800	6800	6600	10300	6300	6300	6200	7100	7200	6000	6770	6990
Iron, Ferrous	ug/L					2230	1350	--	6200	1340	--	2120	3160	2700	--	--	1660	1980	1930	1800	780
Lead, total	ug/L	**																			
Magnesium, total	ug/L					39100	45500	45900	41000	43500	42900	35800	43300	43000	38200J+	37600J+	38800	39800	36900	38400	45400
Manganese, total	ug/L		50			360	450	460	410	380	380	370	420	360	310	300	400	360	340	388	351
Mercury, total	ug/L	2			2																
Nickel, total	ug/L																				
Potassium, total	ug/L					11700	11700	11500	11900	10100	10000	9900	9500	10500	8300	8100	9700	8300	8800	6900	9290
Selenium, total	ug/L	50																			
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					59500	54300	54600	63300	43600	43700	38600	45000	48200	41400	40500	46900	41100	50400	33800	52700
Strontium	ug/L					690J	1200	1500	660	680	710	650	580	570	560	590	600	620	600	615	680
Thallium, total	ug/L	2																			
Vanadium, total	ug/L						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000																		

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17A (cont'd)			
						5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200				105		
Antimony, total	ug/L	6			10/5	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.1	1.3	1.3	2.3
Barium, total	ug/L	2000				267	292	250	280
Beryllium, total	ug/L	4		2	1*	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--
Calcium, total	ug/L					166000	156000	146000	134000
Chromium, total	ug/L	100							
Cobalt, total	ug/L					--	--	--	--
Copper, total	ug/L	**	1000						
Iron, total	ug/L		300			8290	7290	6100	6200
Iron, Ferrous	ug/L					2370	1210	1570	2860
Lead, total	ug/L	**							
Magnesium, total	ug/L					46500	44100	42300	42600
Manganese, total	ug/L		50			403	430	390	370
Mercury, total	ug/L	2			2		0.2		
Nickel, total	ug/L								
Potassium, total	ug/L					7380	8650	7300	10000
Selenium, total	ug/L	50							
Silver, total	ug/L		100			--	--	--	--
Sodium, total	ug/L					31600	46600	36200	54400
Strontium	ug/L					556	647	660	610
Thallium, total	ug/L	2							
Vanadium, total	ug/L					--	--	--	--
Zinc, total	ug/L		5000						

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17B															
						5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			220	--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.8		2.3	1.9	1.8		2.0	2.0		1.8	2.5	1.9	3.0	2.0	2.6	2.5
Barium, total	ug/L	2000				330	--	280	--	280	--	300	--	310	--	310	320	330	320	320	330
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					105000	87400	97300	89900	93400	95900	94600	94600	92400	94800	98200	99800J	103000	99000	95100	99000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--	58	--		--		--		--						
Iron, total	ug/L		300			1500	1200	1400	1300	1300	1300	1500	1400	1300	1300	1400	1400J	1500J	1400	1300	1300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1132	1350	1410	1070	1440	1230	1340	1360
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					36800	30400	34300	31800	33000	33800	33600	33600	32300	34400	35200	35000	36900	34600	33400	34100
Manganese, total	ug/L		50			75	--	72	--	70	--	72	--	72	--	74	74	81	75	73	73
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					6400	5700	5700	5500	5700	6100	5700	5600	5800	5700	5600	5900	6200	6000	6000	6200
Selenium, total	ug/L	50					--		--	8	--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					29500	25500 J	27000	27000	27500	29500	28900	27600	27900	27100	26400	30700	31600	33100	36500	37800
Strontium	ug/L					260	--	270J	--	260	--	280J	--	330	--	300	300	300J	580	320	290
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000			260	--	33	--		--		--		--						

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW17B (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200															
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.9	2.2	2.2	2.2	2.0	1.9	2.2	2.2	2.2	2.0	2.4	2.3	2.7
Barium, total	ug/L	2000				340	330	350	340	320	300	280	268	267	274	286	310	320
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					104000	104000	109000	101000	100000	94800	92000	86100	87630	90600	92400	99900	105000
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300			1400	1600	1500	1400	1400	1300	1500	1320	1300	1340	1530	1600	1600
Iron, Ferrous	ug/L					1480	1460	1450	--	960	1380	1110	1250	780	1020	560	880	1200
Lead, total	ug/L	**																
Magnesium, total	ug/L					36300	38700	38700	37200J+	35700	33600	33400	30900	31800	32000	33200	39200	39000
Manganese, total	ug/L		50			75	81	80	78	77	72	71	66.7	68.8	69.6	72	85	83
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					6100	6400	6000	5700	5500	5400	5200	4930	4890	5040	4870	5100	5000
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					36800	36300	33400	32300	32100	31300	29600	28200	29800	30100	29900	30300	30000
Strontium	ug/L					320	260	280	300	310	310	320	288	310	234	270	350	340
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18A															
						5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	11/02 Dup	5/03	11/03	5/04	11/04
Aluminum, total	ug/L		50-200			400	--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--					--	--
Arsenic, total	ug/L	50/10[4]		4	50	1.6	1.9	1.6								1.4	1.4	1.4	3.2	2.6	2.6
Barium, total	ug/L	2000				370	--	460	--	370	--	310	--	260	--	280	280	320	340	280	300
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--					--	--
Cadmium, total	ug/L	5					--		--		--		--		--					--	--
Calcium, total	ug/L					190000	192000	201000	181000	184000	194000	181000	183000	159000	129000	170000	171000	180000J	233000	201000	186000
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--					--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			3600	4700	7000	5600	5300	5200	4600	5600	2400	7400	2300	2400	7800J	7300J	7300	6300
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	1620	2830	840	--	1350	4820	2460	3130
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					31100	31500	32000	28800	29100	30200	27400	28400	24200	35300	26700	26800	28500	38000	34400	33700
Manganese, total	ug/L		50			160	--	760	--	450	--	590	--	450	--	280	280	240	760	590	420
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					9300	10600	9800	7800	8000	8100	6600	6000	4400	12400	5500	5600	6200	6000	5100	5600
Selenium, total	ug/L	50					--		--	6.5	--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					24400	33300 J	36200	27400	23500	19600	20200	19300	15500	60600	24400	24500	24500	26200	21700	30000
Strontium	ug/L					880	--	1000J	--	1000	--	970J	--	970	--	790	840	860	1200J	1100	1000
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--					--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18A (cont'd)													
						5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200																
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic total	ug/L	50/10[4]		4	50	3.1	3.4	3.0	2.6	3.1		1.8	2.5	2.8	4.3	2.5	4.9	1.1	4.0
Barium total	ug/L	2000				260	280	250	250	230	260	220	240	240	250	255	308	210	300
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					190000	189000	189000	193000	171000	159000	172000	167000	159000	152000	168000	173000	155000	195000
Chromium, total	ug/L	100																	
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000																
Iron, total	ug/L		300			4500	5200	6500	3400	5200	7400	4800	5400	7200	6440	5490	8020	1600	5900
Iron, Ferrous	ug/L					1520	4720	2280	2000	--	1910	2610	2600	3050	600	1570	900	1400	1930
Lead, total	ug/L	**																	
Magnesium, total	ug/L					34100	33700	37500	36800	33900J+	30200	32700	33200	32700	34000	37100	39400	35200	44500
Manganese total	ug/L		50			540	350	400	450	410	270	240	290	189	123	192	239	92	180
Mercury, total	ug/L	2			2														
Nickel, total	ug/L																		
Potassium, total	ug/L					4600	4800	4900	4900	3700	4700	3600	4400	4450	4600	5280	5870	4200	6700
Selenium, total	ug/L	50																	
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium total	ug/L					23600	30500	20200	29200	17600	30400	17100	27400	32200	45100	37900	43200	22400	51300
Strontium	ug/L					1000	1100	760	840	930	750	840	950	797	810	700	809	870	960
Thallium, total	ug/L	2																	
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000																

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18B															
						5/00	8/00	11/00	2/01	5/01	8/01	11/01	2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	5/05
Aluminum, total	ug/L		50-200			260	--		--		--		--		--						
Antimony, total	ug/L	6			10/5		--		--		--		--		--				--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.1	4.4	3.5	3.6	3.8	3.2	4.1	3.7	3.9	3.9	4.0	4.0	4.8	4.0	5.1	5.0
Barium, total	ug/L	2000				200	--	180	--	170	--	190	--	190	--	180	190	190	190	190	190
Beryllium, total	ug/L	4		2	1*		--		--		--		--		--				--	--	--
Cadmium, total	ug/L	5					--		--		--		--		--				--	--	--
Calcium, total	ug/L					113000	100000	104000	102000	94800	99500	102000	102000	96100	96900	98700	98500J	98400	99000	96200	98200
Chromium, total	ug/L	100					--		--		--		--		--						
Cobalt, total	ug/L						--		--		--		--		--				--	--	--
Copper, total	ug/L	**	1000				--		--		--		--		--						
Iron, total	ug/L		300			3400	3300	2900	2900	2600	2700	2700	2700	2600	2500	2500	2500J	2600J	2600	2500	2400
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	2340	2230	1680	1670	2270	1730	2510	2370
Lead, total	ug/L	**					--		--		--		--		--						
Magnesium, total	ug/L					43400	37800	38800	39100	36000	37800	38600	39000	36500	38100	38500	37300	37100	37300	36100	36300
Manganese, total	ug/L		50			72	--	61	--	57	--	61	--	59	--	60	60	60	62	61	59
Mercury, total	ug/L	2			2		--		--		--		--		--						
Nickel, total	ug/L						--		--		--		--		--						
Potassium, total	ug/L					2000	2000	1900	2000	2100	2400	2300	2300	2300	2300	2200	2400	2500	2500	2400	2400
Selenium, total	ug/L	50					--		--	9.7	--		--		--						
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--		--	--	--
Sodium, total	ug/L					20900	18400	19600	20000	19100	20800	20600	20200	21000	20900	20000	22500	23400	22600	21900	21600
Strontium	ug/L					1000	--	1000J	--	910	--	980J	--	1100	--	910	950	920J	1000	1100	1000
Thallium, total	ug/L	2					--		--		--		--		--						
Vanadium, total	ug/L						--		--		--		--		--				--	--	--
Zinc, total	ug/L		5000				--		--		--		--		--						

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW18B (cont'd)												
						11/05	5/06	11/06	5/07	11/07	5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200										106					
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	4.0	3.8	4.0	3.9	4.2	3.6	3.8	4.1	4.3	4.1	4.1	3.7	5.0
Barium, total	ug/L	2000				200	200	210	220	200	200	200	212	209	213	215	210	230
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					102000	99900	105000	102000	98700	101000	100000	103000	101000	101000	98900	92500	98700
Chromium, total	ug/L	100																
Cobalt, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000															
Iron, total	ug/L		300			2500	2700	2600	2600	2500	2500	2600	2600	2580	2590	2640	2200	3000
Iron, Ferrous	ug/L					1330	2410	1940	--	1380	2430	1440	2500	1260	1130	1370	1280	1820
Lead, total	ug/L	**																
Magnesium, total	ug/L					37500	39400	39200	39800J+	36100	37800	38300	38800	38800	37700	37600	37700	38500
Manganese, total	ug/L		50			59	64	63	64	60	61	62	63.9	63.8	62.2	58.8	66	69
Mercury, total	ug/L	2			2													
Nickel, total	ug/L																	
Potassium, total	ug/L					2400	2600	2500	2600	2500	2500	2600	2600	2600	2720	2630	2800	2900
Selenium, total	ug/L	50																
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					22800	22700	24300	24800	24000	24300	25500	27200	27700	28800	30200	29800	30700
Strontium	ug/L					1100	780	870	1000	920	970	1000	937	1040	810	905	980	910
Thallium, total	ug/L	2																
Vanadium, total	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000															

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW19A																
						2/02	5/02	8/02	11/02	5/03	11/03	5/04	11/04	3/05	5/05	11/05	5/06	11/06	5/07	11/07	5/08	11/08
Aluminum, total	ug/L		50-200			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	11	[10]	[16]	[15]		[12]	[16]	[20]	[21]	[16]	3.0	[14]	[11]	[13]	[17]	10	[12]
Barium, total	ug/L	2000				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					129000	124000	111000	117000	95600J	136000	133000	121000	--	141000	118000	151000	142000	111000	104000	133000	110000
Chromium, total	ug/L	100				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, total	ug/L		300			6600	8100	7600	7500	811	7400J	8900	7400	--	8000	1400	9100	9600	7000	6600	7400	6600
Iron, Ferrous	ug/L					--	9960	6440	2190		1540	1810	2730	--	1560	1280	1700	1900	--	1900	--	1150
Lead, total	ug/L	**				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium, total	ug/L					40000	40500	37900	38800	22000	40400	42200	39400	--	46400	29800	45400	35600	37800J+	36600	40900	36800
Manganese, total	ug/L		50			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury, total	ug/L	2			2	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium, total	ug/L					12400	11700	12200	11600	4600	10900	10300	10600	--	11400	6200	8800	8600	9000	8300	8400	8500
Selenium, total	ug/L	50				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					44900	49100	51800	50300	16200	51600	52800	51000	--	48500	27700	47600	48300	44700	42900	42500	43100
Strontium	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW19A (cont'd) 5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200			--	--	--	--	--	--
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	2.7	[11.6]	[15.1]	[16.9]	8.1	7.5
Barium, total	ug/L	2000				--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*	--	--	--	--	--	--
Cadmium, total	ug/L	5				--	--	--	--	--	--
Calcium, total	ug/L					132000	113000	149000	139000	136000	132000
Chromium, total	ug/L	100				--	--	--	--	--	--
Cobalt, total	ug/L					--	--	--	--	--	--
Copper, total	ug/L	**	1000			--	--	--	--	--	--
Iron, total	ug/L		300			1660	6760	8100	8460	7300	5000
Iron, Ferrous	ug/L					2560	1990	1490	920	1910	5900
Lead, total	ug/L	**				--	--	--	--	--	--
Magnesium, total	ug/L					40100	38000	48000	46400	46600	44200
Manganese, total	ug/L		50			--	--	--	--	--	--
Mercury, total	ug/L	2			2	--	--	--	--	--	--
Nickel, total	ug/L					--	--	--	--	--	--
Potassium, total	ug/L					7500	12800	10100	10300	9600	11900
Selenium, total	ug/L	50				--	--	--	--	--	--
Silver, total	ug/L		100			--	--	--	--	--	--
Sodium, total	ug/L					38200	39400	34500	46400	36600	47500
Strontium	ug/L					--	--	--	--	--	--
Thallium, total	ug/L	2				--	--	--	--	--	--
Vanadium, total	ug/L					--	--	--	--	--	--
Zinc, total	ug/L		5000			--	--	--	--	--	--

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TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW20A															
						2/02	5/02	8/02	8/02 Dup.	11/02	5/03	11/03	5/04	11/04	3/05	5/05	11/05	5/06	11/06	5/07	11/07
Aluminum, total	ug/L		50-200			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	9.7	8.3	9.5	8.8	[13]	8.9	[12]	9.3	[15]	[12]	[12]	[13]	8.3	9.8	8.6	[14]
Barium, total	ug/L	2000				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium, total	ug/L	5				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium, total	ug/L					166000	155000	154000	155000	158000	106000J	178000	174000	162000	--	158000	169000	172000	161000	134000	138000
Chromium, total	ug/L	100				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron, total	ug/L		300			13500	13700	12700	12600	13600	8100J	13000J	14300	11700	--	11700	11500	12800	30400R	9600	9200
Iron, Ferrous	ug/L					--	3060	10920	--	1630	2950	2020	1510	5160	--	2850	2250	2420	1640	--	1100
Lead, total	ug/L	**				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium, total	ug/L					36800	36600	37900	38200	35900	22700	38100	42000	36100	--	40700	39100	40500	126000R	38300J+	35000
Manganese, total	ug/L		50			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury, total	ug/L	2			2	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium, total	ug/L					10200	10100	11000	11000	13200	6800	10000	9500	10100	--	10300	10900	7200	8100	8500	8200
Selenium, total	ug/L	50				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium, total	ug/L					35400	41000	44000	44200	48200	23500	42100	51400	51300	--	47400	50200	35700	728000R	38600	35000
Stronium	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2				--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium, total	ug/L					--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--		--	--	--	--	--	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT PAGE

Note: Blank spaces represent non-detect values

-- Dash represents no analysis

[ ] indicates values above MCL

J = Estimated value

UJ Estimated nondetection

[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate

[4] MCL for arsenic changed to 10 ug/L effective 2/22/02.

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	MW20A (cont'd)							
						5/08	11/08	5/09	11/09	5/10	11/10	5/11	10/11
Aluminum, total	ug/L		50-200			--	--	--	--	--	--	--	--
Antimony, total	ug/L	6			10/5	--	--	--	--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50	10	[11]	8.2	[11.1]	8.2	[10.6]	[11.0]J+	[12]
Cadmium, total	ug/L	5				--	--	--	--	--	--	--	--
Calcium, total	ug/L					147000	140000	110000	141000	128000	109000	125000	164000
Chromium, total	ug/L	100				--	--	--	--	--	--	--	--
Cobalt, total	ug/L					--	--	--	--	--	--	--	--
Copper, total	ug/L	**	1000			--	--	--	--	--	--	--	--
Iron, total	ug/L		300			11000	9400	7290	9530	8000	6410	7900	10400
Iron, Ferrous	ug/L					3090	3210	2700	900	1460	1640	7820	1770
Lead, total	ug/L	**				--	--	--	--	--	--	--	--
Magnesium, total	ug/L					38300	36100	28300	35800	31100	25700	34800	43000
Manganese, total	ug/L		50			--	--	--	--	--	--	--	--
Mercury, total	ug/L	2			2	--	--	--	--	--	--	--	--
Nickel, total	ug/L					--	--	--	--	--	--	--	--
Potassium, total	ug/L					8100	8800	6240	7970	6260	6030	6100	8300
Selenium, total	ug/L	50				--	--	--	--	--	--	--	--
Silver, total	ug/L		100			--	--	--	--	--	--	--	--
Sodium, total	ug/L					33600	34900	29200	36600	29600	32900	34800	44900
Strontium	ug/L					--	--	--	--	--	--	--	--
Thallium, total	ug/L	2				--	--	--	--	--	--	--	--
Vanadium, total	ug/L					--	--	--	--	--	--	--	--
Zinc, total	ug/L		5000			--	--	--	--	--	--	--	--

Note: Blank spaces represent non-detect values.

-- Dash represents no analysis

[ ] - indicates values above MCL

J - Estimated value

UJ - Estimated nondetection.

[1] Risk-based cleanup levels from Powell Road Landfill ROD, Table 21.

[2] Chemical specific Applicable or Relevant and Appropriate Requirements, Powell Road Landfill ROD, Table 22.

[3] Samples associated with pumping test of MW16A. First result is prior to pumping, second is post pumping and third is post pumping duplicate.

[4] MCL for arsenic changed to 10 ug/L effective 2/22/02.

** MCL listed on Table 22 of the ROD for Beryllium is listed as 1 ug/L. The current MCL is 4 ug/L.*

*** Action level at tap for copper is 1,300 ug/L; at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	P859										P862				
						2/95	5/95	5/95 Dup.	7-8/95	12/95	12/95 Dup.	5/96	11/96	5/97	11/97	2/95	2/95 Dup.	2/95 Dup.	5/95	7-8/95
Aluminum, total	ug/L		50-200							--	--	--	--	--	--					
Antimony, total	ug/L	6			10/5					--	--	--	--	--	--					
Arsenic, total	ug/L	50.10[3]		4	50				2.4	--	--	--	--	--	--					
Barium, total	ug/L	2000				361.0	375	389	428	--	--	--	--	--	--	144.0	140.0	140.0	148	185
Beryllium, total	ug/L	4		2	1*					--	--	--	--	--	--					
Cadmium, total	ug/L	5								--	--	--	--	--	--					
Calcium, total	ug/L					92000	93400	96600	108000	--	--	--	--	--	--	81100	78500	78500	83700	90600
Chromium, total	ug/L	100								--	--	--	--	--	--					
Cobalt, total	ug/L									--	--	--	--	--	--					
Copper, total	ug/L	**	1000							--	--	--	--	--	--					
Iron, total	ug/L		300			2150	2190	2260	2530	--	--	--	--	--	--	398.0	401.0	401.0	1580	12800
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							3.2 J	--	--	--	--	--	--					
Magnesium, total	ug/L					36800	36900	38100	42000	--	--	--	--	--	--	33000	31900	31900	34600	35200
Manganese, total	ug/L		50			53.8	54.9	56.7	63.6	--	--	--	--	--	--					
Mercury, total	ug/L	2			2				0.18											
Nickel, total	ug/L									--	--	--	--	--	--					
Potassium, total	ug/L					1660				--	--	--	--	--	--	2460	2420	2420	2170	3670
Selenium, total	ug/L	50								--	--	--	--	--	--					
Silver, total	ug/L		100							--	--	--	--	--	--					
Sodium, total	ug/L					10400	11200	11600	12900	--	--	--	--	--	--	34700	33500	33500	31300	43600
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2								--	--	--	--	--	--					
Vanadium, total	ug/L									--	--	--	--	--	--					
Zinc, total	ug/L		5000			59.5	65.6	64.2	100	--	--	--	--	--	--					28.4

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*** Action level at tap for copper is 1,300 ug/L, at tap for lead is 15 ug/L.*

TABLE O-2.
METALS RESULTS
POWELL ROAD LANDFILL
HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	10^{-4} Risk[1]	ARARS[2]	P865								P868			P869						
						2/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97	2/95	5/95	7-8/95	5/95	7-8/95	12/95	5/96	11/96	5/97	11/97
Aluminum, total	ug/L		50-200						--	--	--	--	--						--	--	--	--	--
Antimony, total	ug/L	6			10/5				--	--	--	--	--						--	--	--	--	--
Arsenic, total	ug/L	50/10[4]		4	50		3.8	2.5											--	--	--		--
Barium, total	ug/L	2000				245.0	239	261	--	--	--	--	--	92.7		103	103	75.2	--	--	--	--	--
Beryllium, total	ug/L	4		2	1*				--	--	--	--	--						--	--	--	--	--
Cadmium, total	ug/L	5							--	--	--	--	--						--	--	--	--	--
Calcium, total	ug/L					96300	94600	107000	--	--	--	--	--	95000	77800	83200	72800	52400	--	--	--	--	--
Chromium, total	ug/L	100							--	--	--	--	--						--	--	--	--	--
Cobalt, total	ug/L								--	--	--	--	--						--	--	--	--	--
Copper, total	ug/L	**	1000						--	--	--	--	--					27.2	--	--	--	--	--
Iron, total	ug/L		300			2600	3060	2940	--	--	--	--	--			183	640	702	--	--	--	--	--
Iron, Ferrous	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead, total	ug/L	**							--	--	--	--	--						--	--	--	--	--
Magnesium, total	ug/L					38900	37200	41300	--	--	--	--	--	31100	28600	30000	35000	20800	--	--	--	--	--
Manganese, total	ug/L		50			50.5	55.1	58.1	--	--	--	--	--				28.0	25.6	--	--	--	--	--
Mercury, total	ug/L	2			2			0.11									3.0						
Nickel, total	ug/L								--	--	--	--	--						--	--	--	--	--
Potassium, total	ug/L					1550			--	--	--	--	--	2070	2400	3010	2620		--	--	--	--	--
Selenium, total	ug/L	50							--	--	--	--	--			1.3			--	--	--	--	--
Silver, total	ug/L		100						--	--	--	--	--			2.7		3.3	--	--	--	--	--
Sodium, total	ug/L					13000	12600	14200	--	--	--	--	--	39400	51800	45100	63400	102000	--	--	--	--	--
Strontium	ug/L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium, total	ug/L	2							--	--		--	--						--	--	--	--	--
Vanadium, total	ug/L								--	--	--	--	--						--	--	--	--	--
Zinc, total	ug/L		5000			555.0	1610	1140	--	--	--	--	--	52.3	50.6	60			--	--	--	--	--

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*** Action level at tap for copper is 1,300 ug L, at tap for lead is 15 ug L.*

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02A										
				Feb-95	May-95	Aug-95	Aug-95 dup.	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99
Alkalinity	mg/l													447J
Ammonia (as N)	mg/l			0.55										0.491
Biological Oxygen Demand	mg/l			<5										
Chemical Oxygen Demand	mg/l			<20										
Chloride	mg/l		250	27										17
Cyanide	ug/l	200		<0.75	<1.4	<1.4J	<1.4J							
Dissolved Oxygen	mg/l													0.06
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		<0.05										<0.1R
Oil and Grease	mg/l			<5.2										
Ortho-Phosphate (Total)	mg/l			<0.02										
Oxidation Reduction Potential	mV													4
Phosphorus (Total)	mg/l													
pH	S.U.		6.5-8.5	6.75	7.22	6.76		7.04	6.87	6.92	6.97	6.95	7.07	6.98
Specific Conductance	umhos/cm			720	1460	1303		954	780	823	910	921	1037	807
Sulfate	mg/l		250	46										45.9
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	650										
Dissolved Organic Carbon	mg/l													2.3
Total Organic Carbon	mg/l			3										2.3
Total Suspended Solids	mg/l			<10										
Ethane	ug/l													<16
Ethene	ug/l													<15
Methane	ug/l													870

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02AR																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			578	533	418	376	363	412	465	341	371	408	369	317	476	387	370	284	369	317
Ammonia (as N)	mg/l			0.13	0.11	0.075	<0.020	0.027	<0.020	<0.020	0.025	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.090	<0.020	0.050	<0.020
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		<10		<10	<10	<10	15.7	<10	<10	<10	<10
Chloride	mg/l		250	21.6	31.3	38.8	37.8	33.2	29.8	30.2	22.3	25.1	28.8	27.8	34.6	20.9	16.0	24.7	15.9	32.2	17.6
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.86R	0.10	0.3	0.2	0.0	0.06	2.9R	0.64	0.17	0.49
Nitrate	mg/l	10			<0.050		0.18		0.24		1.0		<0.050								
Nitrate + Nitrite	mg/l	10		1		<0.05		0.21		0.22		1.5		<0.050	<0.050	<0.050	0.24	<0.050	0.58	<0.050	0.72
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-18	-7	27	7	12	28	82	159	-350R	-41.1	38.6	11.2	12.2	50.4	25.8	20.9	10.9
Phosphorus (Total)	mg/l			<0.02		<0.02		0.022		<0.01		<0.01		0.011	0.010	<0.01	<0.01	0.012	0.017	<0.010	0.012
pH	S.U.		6.5-8.5	6.43	6.7	6.80	6.90	6.92	6.51	6.83	6.87	6.61	7.05	6.87	6.82	6.90	6.61	6.46	6.61	6.91	7.19
Specific Conductance	um/cm			1186	1230	1190	989	965	926	938	1170	1180	1044	941	1140	1170	1208	849	1191	1128	1170
Sulfate	mg/l		250	142	170	189	136	260	201	129	206	209	167	141	232	217	312	255	381	286	310
Sulfide	mg/l			<2	<2.0	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	763		732		850		645		805		601	822	836	859	776	812	751	858
Dissolved Organic Carbon	mg/l			2.4	4.2	1.4	3.7	3.6	4.3	5.8	2.5	3.2	5.1	2.5							
Total Organic Carbon	mg/l			2.2	2.6	<1.0	2.6	3	3.8	3.5	2.1	3.0	3.0	2.1	<1.0	2.9	<1.0	2.2	1.9	3.3	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4.0	<4.0	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<19	<4J	<4	<4	<4
Ethene	ug/l			<3	<3.0	<3.0	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<9.8	<3J	<3	<3	<3
Methane	ug/l			16	260	39	4.5	4	<7	<2	<2	<2	<2	<2	7.6	140	330	3.3J	<2	2.2	<2

E = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

CONTINUED ON NEXT PAGE

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02AR (cont'd)										
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			326	395	345	375	402	458	420	473	512	374	369
Ammonia (as N)	mg/l			<0.020	<0.020	0.15	<0.020	0.28	0.050	0.097	0.044	0.123	<0.20	<0.020
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	26.9	13.9	30.2	17.2	24.6	29.0	32.6	36.9	35.1	21.2	32.2
Cyanide	ug/l	200												
Dissolved Oxygen	mg/l			0.32	0.18	0.34	0.43	0.43	0.11		0.00	0.06	3.49	0.00
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		0.14	<0.05	<0.050	0.22	<0.050	<0.050	<0.050	<0.050	<0.050	2.1	<0.050
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV			30.5	8.1	-40.7	1.2	-28.4	114.1	-11.8	72.6	7	89	62
Phosphorus (Total)	mg/l			0.081	0.042	<0.010	<0.010	<0.010	<0.010	0.0162	<0.010	<0.010 UJ	<0.010	<0.010
pH	S.U.		6.5-8.5	6.60	7.03	6.95	6.83	7.05	6.34	6.70	5.43	6.54	7.32	6.89
Specific Conductance	umo/cm			977	1008	925	985	887	960	1050	903	1159	891	978
Sulfate	mg/l		250	156	152	130	161	160	180	159	165	156	123 EJ	159
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	598	710	630	602	684	743	621	754	760	599	642
Dissolved Organic Carbon	mg/l													
Total Organic Carbon	mg/l			1.3	1.5	2.5	1.9	<1.0	1.7	2.5	2.9	2.0	1.7	<1.0
Total Suspended Solids	mg/l													
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<7.5	<15	<15	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<7.5	<15	<15	<3	<3
Methane	ug/l			<2	120	13	<2	<2	3.6	11	32	51	<2	3.5

1. *Concentration exceeded the calibration range of the instrument*
2. *Analytical result after sample dilution*

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02B																	
				Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05
Alkalinity	mg/l				342J	330	318	323	347	344	347	317	284	294	271	279	237	289	345	302	247
Ammonia (as N)	mg/l				0.129	0.03	<0.020	<0.020	<0.020	0.03	<0.020	0.055	<0.02	<0.02	<0.020	<0.020	<0.020	<0.020	<0.020	0.10	0.04
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					<10		<10		<10		<10		<10		<10	<10	<10	16.7	<10	<10
Chloride	mg/l		250		35.9	38.7	35.6	38.4	37.8	36.3	40.6	41.5	43.0	44.3	45.4	42.5	53.7	40.8	43.5	45.1	43.1
Cyanide	ug/l	200				<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02			
Dissolved Oxygen	mg/l				0.09			0.00	0.00	0.00	0.00	0.00	0.00	0.00R	0.05	0.20	0.20	0.0	0.04	1.7R	0.14
Nitrate	mg/l	10					<0.050		<0.050		<0.050		<0.05		<0.050						
Nitrate + Nitrite	mg/l	10			<0.1R	<0.05		<0.05		<0.05		<0.05		<0.05		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l					<5		<5		<5		<5		<5		<5	<5	<5			
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-72		-109	-142	-145	-148	-128	-153	-108	-115	-311R	-55.0	-120.4	-99.6	-100.8	-103.8	-158.9
Phosphorus (Total)	mg/l					0.06		0.055		0.039		0.052		<0.01		0.022	0.047	<0.01	<0.01	0.067	<0.010
pH	S.U.		6.5-8.5	7.64	7.42	6.91	7.13	7.14	6.85	7.24	6.97	7.12	7.04	6.90	7.20	7.11	7.05	7.54	6.97	7.03	6.81
Specific Conductance	um/cm			761	720	758	949	781	696	663	683	708	806	831	744	737	814	738	804	631	787
Sulfate	mg/l		250		44.6	59.5	51	54.6	53.7	51.3	60.3	65.9	70.4	68.8	67.7	65.0	90.3	60.9	61.9	63.8	64.2
Sulfide	mg/l					<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Total Dissolved Solids	mg/l		500			454		454		453		436		478		427	479	444	476	493	416
Dissolved Organic Carbon	mg/l				<1	1.4	5.7	1.4	3	2.2	2.5	2.8	1.3	2.0	2.5	1.0					
Total Organic Carbon	mg/l				<1	1	<1.0	<1	1.6	1.8	2.5	2.6	1.6	2.2	1.9	1.3	<1.0	1.1	<1.0	1.1	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l				<16	<4	<4	<1.0	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4J	<4
Ethene	ug/l				<15	<3	<3	<3.0	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3J	<3
Methane	ug/l				<8.6	88	12	<2.0	17	7.4	7.4	3.6	<2	<2	<2	<2	<2	<2	18	<2J	5.7

R - Concentration exceeded the calibration range of the instrument

D - Analytical result after sample dilution

CONTINUED ON NEXT PAGE

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW02B (cont'd)												
				Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			285	237	286	301	278	302	269	342	252	297	325	314	274
Ammonia (as N)	mg/l			<0.020	0.039	0.021	<0.020	0.033	0.100	0.090	0.033	0.048	0.028	0.035	<0.20	0.066
Biological Oxygen Demand	mg/l															
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	45.2	38.7	34.9	30.1	33.3	32.1	35.7	38.0	35.6	39.8	45.1	48.7	50.9
Cyanide	ug/l	200														
Dissolved Oxygen	mg/l				0.41	0.24	0.25	0.31	0.22	0.25	0.20		0.00	0.21	0.11	0.02
Nitrate	mg/l	10														
Nitrate + Nitrite	mg/l	10		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.058	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l															
Ortho-Phosphate (Total)	mg/l															
Oxidation Reduction Potential	mV			-62.7	-73.5	-66.0	-92.5	-40.9	-97.6	-91.9	-79.4	-98.2	-66.7	-101.0	-100.0	-95
Phosphorus (Total)	mg/l			0.034	0.071	0.16	0.038	<0.010	<0.010	<0.010	<0.010	0.0686	<0.010	<0.010 UJ	<0.010	0.95
pH	S.U.		6.5-8.5	7.25	7.30	7.50	7.02	7.15	7.07	7.26	6.82	6.94	5.82	6.91	7.35	7.17
Specific Conductance	umhos/cm			789	765	764	720	738	699	677	696	784	634	778	794	752
Sulfate	mg/l		250	71.8	43.7	46.1	44.8	51.3	40.8	42.1	55.0	51.3	47.3	51.8	56.4	60.6
Sulfide	mg/l															
Total Dissolved Solids	mg/l		500	470	442	429	429	374	408	432	463	329	413	483	448	438
Dissolved Organic Carbon	mg/l															
Total Organic Carbon	mg/l			2.5	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	1.7	1.5	1.6	<1.0	<1.0
Total Suspended Solids	mg/l															
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			3.7	<2	2.4	4.1	6.2	8.3	<2	2.9	6.1	10	12	15	15

J: Concentration exceeded the calibration range of the instrument

DJ: Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04A										
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	5/99 dup.
Alcalinity	mg/l												598J	545J
Ammonia (as N)	mg/l			8.4									8.93J	9.09
Biological Oxygen Demand	mg/l			8										
Chemical Oxygen Demand	mg/l			24										
Chloride	mg/l		250	83									88.7	91.3
Cyanide	ug/l	200		<2.2	<1.4	<1.4J								
Dissolved Oxygen	mg/l												0.07	
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		<0.05									0.191J	0.183J
Oil and Grease	mg/l			<5.3										
Ortho-Phosphate (Total)	mg/l			<0.02										
Oxidation Reduction Potential	mV												-125	
Phosphorus (Total)	mg/l													
pH	S.U.		6.5-8.5	6.82	6.99	6.92	6.95	6.85	6.36	6.86	6.93	6.99	6.75	
Specific Conductance	umhos/cm			1149	1394	1346	1295	1251	1064	1165	1186	1265	1178	
Sulfate	mg/l		250	9.8									47.6	47.5
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	650										
Dissolved Organic Carbon	mg/l												8	8.2
Total Organic Carbon	mg/l			7									9.3	8.1
Total Suspended Solids	mg/l			30										
Ethane	ug/l												<16	<16
Ethene	ug/l												<15	<15
Methane	ug/l												3800	3800

E = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04AR																	
				May-00	Aug-00	Nov-00	11/00 dup.	Feb-01	May-01	5/01 dup.	Aug-01	8/01 Dup.	Nov-01	Feb-02	May-02	5-02 dup.	Aug-02	Nov-02	May-03	Nov-03	May-04
Alkalinity	mg/l			604	540	845	743	588	477	543	651	622	579	502	472	468	575	504	378	470	448
Ammonia (as N)	mg/l			11.4	13.7	14.4	15.0	8.9	11.6	11.5	19.2	19.2	16.5	13.5	13.0	12.4	28.2	25.3	6.7	13.5	9.6
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			32.1		41.5	47.8		20.2	18.9			26.2		33.2	30.0		27.1	<10	11.0	28.9
Chloride	mg/l		250	150	174	204	202	63.4	127	128	155	155	136	120	126	126	165	143	126	133	89.7
Cyanide	mg/l	200		<0.02		<0.02	<0.02		<0.02	<0.02			<0.02		<0.02	<0.02		<0.02	<0.02	<0.02	
Dissolved Oxygen	mg/l				0.00	0.00		0.00	0.00		0.00		0.00	0.00	2.09R		0.04	0.30	0.10	0.0	0.03
Nitrate	mg/l	10			<0.050			0.46			0.13	0.13					<0.050				
Nitrate + Nitrite	mg/l	10		<0.05		<0.05	<0.05		0.20	0.20			0.099	0.14	<0.05	<0.05		0.22	<0.050	<0.050	<0.050
Oil and Grease	mg/l			<5		<5	<5		<5	<5			<5		<5	<5		<5	<5UJ	<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-83	-124		-98	-119		-97		-110	-74	-119		-376R	-50.0	-101.5	-94.2	-105.2
Phosphorus (Total)	mg/l			0.08		0.083	0.13		0.039	0.04			0.021		0.046	0.045		0.063	0.051	0.078	<0.01
pH	S.U.		6.5-8.5	6.62	6.65	6.72		6.44	6.67		6.76		6.81	6.72	5.56		6.74	6.74	6.83	7.33	6.60
Specific Conductance	umhos/cm			1404	1630	1760		1430	1140		1500		1570	1490	590		1615	1504	1360	1463	1531
Sulfate	mg/l		250	15.9	14	11.4	11.0	83.4	37.2	37.0	41.1	41.2	39.6	37.5	131.0	125.0	51.1	58.0	142.0	81.6	336
Sulfide	mg/l			<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Total Dissolved Solids	mg/l		500	821		880	861		829	796			810		623	635		788	767J	832	986
Dissolved Organic Carbon	mg/l			10.2	16.7	14.9	15.3	7.1	10	10.5	13.8	15	13.8	7.9	7.1	7.8	14.6	14.4			
Total Organic Carbon	mg/l			10.1	14	14.9	15.0	7.2	10.4	10.5	13.4	13.3	12.3	8.2	8.8	8.5	12.6	11.7	3.5	8.7	4.9
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<47	<19
Ethene	ug/l			7.5	7.5	6.7	8.3	<3.000	<3	3.5	13	8.5	<3	<3	<3	<3	<3	<3	<3	<25	<9.8
Methane	ug/l			3200E	4200E 3100D	4000E 4200D	4600E 5600D	680	1100	1200	5300E 5000D	5000E 6300D	3700E 2700D	350	290	300	270	330	170	510	710

E = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04AR (cont'd)																		
				Nov-04	11/04 Dup	Mar-05	May-05	Nov-05	11/05-Dup	May-06	5/06-Dup	11/06	11/06-Dup	May-07	Nov-07	11/07 Dup	May-08	Nov-08	11/08 Dup	May-09	5/09 Dup	Nov-09
Alkalinity	mg/l			529	438		415	450	503	412	442	467	486	472	458	444	467	537	578	439	436	382
Ammonia (as N)	mg/l			17.3	17.7		8.8	9.3	9.[illegible]	5.9	5.7	5.2	5.1	7.2	10.0	9.8	6.0	12.5	11.8	7.44	7.63	5.52
Biological Oxygen Demand	mg/l																					
Chemical Oxygen Demand	mg/l			<10	28.0		22.8J	24.8J	23.6J	<10	17.5	19.8	<10	15.2J+	25.3J+	20.7J+	<10	16.7J-	21.8J-	11.1	14.2	<10.0
Chloride	mg/l		250	158	150		92.3	113	104	110	118	96.8	93.3	90.4	125	124	78.9	130	132	48	47	35.8
Cyanide	ug/l	200																				
Dissolved Oxygen	mg/l			0.12		0.14	0.14	0.13		0.51		0.19		0.13	0.28		0.27	0.37		1.44		
Nitrate	mg/l	10																				
Nitrate + Nitrite	mg/l	10		<0.050	<0.050		<0.050	0.13	0.13	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.32	0.29	0.085
Oil and Grease	mg/l																					
Ortho-Phosphate (Total)	mg/l																					
Oxidation Reduction Potential	mV			-71.5		124.3	-152.3	-65.3		-69.0		-67.6		-80.4	-127.1		-56.2	-183.3		-99.9		-99.2
Phosphorus (Total)	mg/l			0.091	0.12		0.095	0.078	0.061	0.099	0.085	0.022	0.044	0.058	0.074	0.061	<0.010	<0.010	<0.010	<0.010	<0.010	0.0162
pH	S.U.		6.5-8.5	6.69		6.80	6.71	6.83		6.77		7.20		6.74	6.82		6.70	6.94		6.78		6.77
Specific Conductance	um/cm			1264			1534	1454		1365		1293		1240	1074		1353	1203		1192		1144
Sulfate	mg/l		250	43.0	42.4		248.0	145.0	133.0	96.7	98.6	117.0	113	127	30.1	24.4	135	10.6	10.9	170	170	222
Sulfide	mg/l																					
Total Dissolved Solids	mg/l		500	795	803		935	797	801	765	797	814	789	725	682	692	752	741	716	846J+	807J+	748
Dissolved Organic Carbon	mg/l																					
Total Organic Carbon	mg/l			10.8	10.7		6.8	6.4	4.5	5.5	5.5	5.0	4.8	5.0	8.6	8.8	6.1	5.2	5.5	4.0	3.9	3.7
Total Suspended Solids	mg/l																					
Ethane	ug/l			<19	<19		<19	<4	<4	<4	<4	<4	<9.4	<9.0	<4	<4	<4	<4	<4	<150	<30	<15
Ethene	ug/l			<9.8	<9.8		<9.8	<3	<3	<3	<3	<3	<4.9	<7.5	<3	<3	<3	<3	<3	<150	<30	<15
Methane	ug/l			140	180		720	37	34	370E 710D	9.8	11	230	520	130	91	1100	420E 470D	410E 340D	160	100	44

E Concentration exceeded the calibration range of the instrument

D Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04AR (cont'd)								
				11/09 Dup	May-10	5/10 Dup	Nov-10	Nov-10 Dup	May-11	May-11 Dup	Oct-11	Oct-11 Dup
Alkalinity	mg/l			376	413	418	586	530	373	372	471	459
Ammonia (as N)	mg/l			5.15	4.83	4.56	12.20	12.90	2.43-	2.0	3.2	3.2
Biological Oxygen Demand	mg/l											
Chemical Oxygen Demand	mg/l			<10.0	14.9	12.0	16.9	17.3	<10.0	<10	11.1	12.4
Chloride	mg/l		250	36.5	62.3	61.6	98.3	98.6	30.8J-	30.6	82.1	82.9
Cyanide	ug/l	200										
Dissolved Oxygen	mg/l				0.00		0.00		1.53		0.03	
Nitrate	mg/l	10										
Nitrate + Nitrite	mg/l	10		0.084	<0.050	<0.050	<0.050	<0.050	0.700	0.710	0.69	0.67
Oil and Grease	mg/l											
Ortho-Phosphate (Total)	mg/l											
Oxidation Reduction Potential	mV				-64.4				-41.1		-82	
Phosphorus (Total)	mg/l			<0.0100	<0.0100	<0.0100	0.0916	0.0575	<0.010	<0.010	0.29	<0.010
pH	S.U.		6.5-8.5		6.76		6.64		7.01		6.84	
Specific Conductance	um/cm				862		1252				1161	
Sulfate	mg/l		250	227	88.3	87.3	<5.0 R	<5.0 R	66.7J-	67.0	38.8	38.1
Sulfide	mg/l											
Total Dissolved Solids	mg/l		500	760	623	619	710	701	499	479	644	651
Dissolved Organic Carbon	mg/l											
Total Organic Carbon	mg/l			4.1	2.4	2.6	4.9	4.8	2.7	2.9	2.3	2.2
Total Suspended Solids	mg/l											
Ethane	ug/l			<15	<60	<60	<150	<150	<160	<160	<4	<4
Ethene	ug/l			<15	<60	<60	<150	<150	<120	<120	<3	16
Methane	ug/l			53	260	190	500	1000	190	120	220	390

E: Concentration exceeded the calibration range of the instrument

D: Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04BR										
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	5/99 dup.
Alkalinity	mg/l												327J	332J
Ammonia (as N)	mg/l												0.402J	0.294
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l													
Chloride	mg/l		250										51.1	52.1
Cyanide	ug/l	200		<0.75	<1.4	<1.4J								
Dissolved Oxygen	mg/l												0.58	
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10											<0.1R	<0.1R
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV												-7	
Phosphorus (Total)	mg/l													
pH	S.U.		6.5-8.5	7.66	7.57	7.55	7.16	7.23	7.04	7.38	7.43	7.28	7.43	
Specific Conductance	umh/cm			681	783	756	788	800	753	776	825	764	741	
Sulfate	mg/l		250										44	44.1
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500											
Dissolved Organic Carbon	mg/l												<1	<1
Total Organic Carbon	mg/l												1.6	2.3
Total Suspended Solids	mg/l													
Ethane	ug/l												<16	<16
Ethene	ug/l												<15	<15
Methane	ug/l												80	78

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04BRR																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			302	284	308	334	315	320	280	272	284	289	262	226	262	341	206	266	305	225
Ammonia (as N)	mg/l			0.13	0.12	1.9	0.029	0.14	0.027	0.14	0.085	0.13	0.12	<0.020	0.073	0.046	0.10	0.17	0.17	0.079	0.078
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		13.0		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	46.7	48.2	51.1	52	54.7	56.3	60.8	62.8	68.1	63.7	65.9	65.7	51.5	49.4	53.6	51.5	51.3	50.4
Cyanide	mg/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54R	0.03	0.6	0.1	0.0	0.04	0.15	0.16	0.11	0.36
Nitrate	mg/l	10			<0.050		<0.050		<0.050		<0.05		<0.050								
Nitrate + Nitrite	mg/l	10		<0.05		<0.05		<0.05		<0.05		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-102	-129	-119	-102	-112	-131	-104	-141	-341R	-52.2	-102.3	-102.6	-102.1	-59.7	-104.9	-89.3	-72.0
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010
pH	S.U.		6.5-8.5	7.08	7.17	7.19	6.78	7.15	7.29	7.28	7.14	6.85	7.17	7.17	7.24	7.56	6.97	6.99	7.11	7.33	7.05
Specific Conductance	um/cm			699	867	759	704	701	684	727	813	862	784	764	774	761	842	650	797	800	773
Sulfate	mg/l		250	47.6	47	45.4	48.0	50.9	52.3	51.7	51.1	51.4	50.1	50.6	62.2	71.7	68.3	49.7	94.7	56.7	53.4
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	392		418		487		468		389		483	458	456	513	477	458	433	455
Dissolved Organic Carbon	mg/l			1.8	3.4	<1	3	2.4	2.5	2.4	1.2	1.1	2.1	3.6							
Total Organic Carbon	mg/l			<1	1	<1	<1.0	2	2	2.3	<1.0	1.6	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4,000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4.7	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3,000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3.0	<3	<3	<3	<3
Methane	ug/l			6.2	30	180	130	15	29	22	2.5	<2	<2	<2	<2	5.2	55	6.8	18	<2	4.2

CONTINUED ON NEXT PAGE

E: Concentration exceeded the calibration range of the instrument.
D: Analytical result after sample dilution.

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW04BRR (cont'd)											
				Nov-06	May-07	Nov-07	May-08	5/08 Dup	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			219	309	245	291	276	291	288	355	339	370	344	318
Ammonia (as N)	mg/l			0.062	0.032	0.055	0.074	0.190	0.085	0.089	0.072	0.060	0.045	<0.20	0.041
Biological Oxygen Demand	mg/l														
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	2.8R	54.2	54.3	54.9	54.3	51.0	43	45.5	50.1	55.3	59 UJ-	62.5
Cyanide	ug/l	200													
Dissolved Oxygen	mg/l			0.17	0.07	0.32	0.22		0.08	1.51		0.00	0.00	0.27	0.00
Nitrate	mg/l	10													
Nitrate + Nitrite	mg/l	10		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l														
Ortho-Phosphate (Total)	mg/l														
Oxidation Reduction Potential	mV			-83.8	-90.8	-69.8	-81.2		-79.9	-112.1	-101.-	-55.0	-105.0	-65.3	-93
Phosphorus (Total)	mg/l			0.093	<0.010	0.058	<0.010	<0.010	<0.010	0.0243	<0.0100	<0.0100	<0.0100	<0.010	<0.010
pH	S.U.		6.5-8.5	7.75	7.12	7.28	7.11		7.31	7.18	7.09	6.99	7.00	7.21	7.17
Specific Conductance	mm/cm			781	742	613	777		655	776	825	727	903	920	895
Sulfate	mg/l		250	<5.0R	51.3	49	44.2	44.2	47.9	66.0	62.8	93.7	81.6	90J-	75.5
Sulfide	mg/l														
Total Dissolved Solids	mg/l		500	506	430	433	388	398	441	529J+	491	552	560	604	501
Dissolved Organic Carbon	mg/l														
Total Organic Carbon	mg/l			<1.0	1.2	1.5	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	1.3	1.2
Total Suspended Solids	mg/l														
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<20	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<15	<3
Methane	ug/l			2.6	2.2	<2	5.8	4.5	4.4	2.4	16	18	27	22	40

E - Concentration exceeded the calibration range of the instrument

D - Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05A										
				Feb-95	2/95 dup.	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99
Alkalinity	mg/l													440J
Ammonia (as N)	mg/l			2.6										4.85
Biological Oxygen Demand	mg/l			<5										
Chemical Oxygen Demand	mg/l			<20										
Chloride	mg/l		250	72										74
Cyanide	ug/l	200		<0.75	<0.75	<1.4	<1.4J							
Dissolved Oxygen	mg/l													0.16
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		0.26										<0.1
Oil and Grease	mg/l			<5.1										
Ortho-Phosphate (Total)	mg/l			<0.02										
Oxidation Reduction Potential	mV													28
Phosphorus (Total)	mg/l													
pH	S.U.		6.5-8.5	7.09		7.87	7.46	7.11	7.36	7.11	7.05	7.4	7.42	7.09
Specific Conductance	um/cm			815		981	982	844	1011	786	837	853	935	974
Sulfate	mg/l		250	41										38.1
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	490										
Dissolved Organic Carbon	mg/l													3.5
Total Organic Carbon	mg/l			2										4.6
Total Suspended Solids	mg/l			<10										
Ethane	ug/l													16
Ethene	ug/l													<15
Methane	ug/l													400

J. Concentration exceeded the calibration range of the instrument

D - Individual result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05AR																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			314	295	340	336	311	314	298	294	320	348	329	290	323	348	374	332	347	272
Ammonia (as N)	mg/l			2.4	1.5	2.7	3	1.7	1.2	1.4	0.79	1.2	1.1	1.6	1.8	1.6	2.0	2.1	1.7	1.8	1.3
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		<10		<10	<10	<10	<10	<10	10.4J	11.7J	<10
Chloride	mg/l		250	86.6	122	106	89	107	129	91.2	73.2	97.2	77.9	77.5	117	69.7	88.4	90.8	82.0	75.9	99.3
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.30	0.00	0.00	2.35R	0.26	0.2	0.2	0.0	0.16	0.11	0.12	0.17	0.47
Nitrate	mg/l	10			0.7		0.49		0.43		0.30		0.37								
Nitrate + Nitrite	mg/l	10		0.37		0.16		0.63		0.26		0.33		0.10	0.16	0.28	0.34	0.073	0.33	0.74	0.26
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5UJ	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-71	-100	-67	3	-80	-105	46	-70	-347R	-42.7	-22.1	-71.9	-91.1	-62.6	-42.5	13.7	-8.6
Phosphorus (Total)	mg/l			0.03		0.039		<0.02		<0.01		0.016		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	<0.010
pH	S.U.		6.5-8.5	6.86	6.89	7.00	6.76	7.01	7.11	6.97	7.03	6.92	7.04	6.97	6.83	6.73	6.81	7.43	6.83	6.98	7.01
Specific Conductance	um/cm			872	885	111	892	876	1250	1020	1000	1110	898	962	1126	985	1041	827	1061	995	985
Sulfate	mg/l		250	69.8	65	76.7	93.4	81.9	98.7	115	75.9	91.5	66.2	80.1	131	47.9	40.3	54.8	72.7	90.0	60.8
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	502		583		626		617		504		571	668	569	579	652	595	567	581
Dissolved Organic Carbon	mg/l			1.9	4.7	2.1	3.2	3.6	2.9	4.8	2.4	2.2	2.2	2.3							
Total Organic Carbon	mg/l			2	1.1	<1	1.9	2.9	2.3	3.3	2.3	2.9	2.0	1.9	2.1	2.1	1.4	2.1	2.4	2.8	1.1
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4,000	<4	<4	<4	<4	<4	<4	<4	<4	<4.7	<19	<4.7	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3,000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<9.8	<3.0	<3	<3	<3
Methane	ug/l			<2	30	36	19	6.5	27	120	6.2	5.8	4.1	4.6	170	73	270	28	24	4.3	<2

E Concentration exceeded the calibration range of the instrument

D Analytical result after sample dilution

CONTINUED ON NEXT PAGE

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05AR (cont'd)										
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			296	473	310	407	340	313	366	289	373	313	287
Ammonia (as N)	mg/l			1.1	2.7	3.2	1.4	1.6	1.59	2.22	0.708	1.730	0.73	0.42
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	82.0	98.0	83.3	76.8	81.9	100.0	83.1	107.0	101.0	138.0	94.6
Cyanide	ug/l	200												
Dissolved Oxygen	mg/l			0.21	0.20	0.60	0.23	0.19	1.08		0.00	0.19	0.45	0.49
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		0.096	<0.050	0.074	0.15	0.22	0.55	0.454	<0.050	0.196	0.430	0.440
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV			-30.0	-26.7	-39.4	44.5	-34.4	84.3	-20.2	38.6	-17	99.3	55
Phosphorus (Total)	mg/l			0.093	0.014	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	0.0235	<0.0100	0.054
pH	S.U.		6.5-8.5	7.25	6.90	6.88	6.89	7.18	6.93	6.89	6.97	6.77	7.06	7.09
Specific Conductance	umhos/cm			1001	1139	1021	1083	921	1014	937	972	1065	1100	924
Sulfate	mg/l		250	62.6	83.6	73.1	81.8	48.6	71.0	90.2	63.2	82.9	123.0	49.8
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	569	737	616	576	505	6450+	605	578	586	662	509
Dissolved Organic Carbon	mg/l													
Total Organic Carbon	mg/l			1.8	1.9	3.2	2.5	1.5	1.8	2.4	1.3	2.4	2.5	<1.0
Total Suspended Solids	mg/l													
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<7.5	<4.0	<4.0	<4.0	<4.0
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<7.5	<3.0	<3.0	<3.0	<3.0
Methane	ug/l			6.4	74	6.3	36	2.0	2.6	5.9	12	3.6	8.4	<2.0

+: Concentration exceeded the calibration range of the instrument

UJ: Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05B Sep-98	MW05B May-99
Alkalinity	mg/l				272J
Ammonia (as N)	mg/l				<0.195
Biological Oxygen Demand	mg/l				
Chemical Oxygen Demand	mg/l				
Chloride	mg/l		250		102
Cyanide	ug/l	200			
Dissolved Oxygen	mg/l				2.42
Nitrite	mg/l	10			
Nitrite + Nitrite	mg/l	10			0.716
Oil and Grease	mg/l				
Ortho-Phosphate (Total)	mg/l				
Oxidation Reduction Potential	mV				138
Phosphorus (Total)	mg/l				
pH	S.U.		6.5-8.5	6.9	7.17
Specific Conductance	um/cm			789	833
Sulfate	mg/l		250		43.9
Sulfide	mg/l				
Total Dissolved Solids	mg/l		500		
Dissolved Organic Carbon	mg/l				1.6
Total Organic Carbon	mg/l				1.4
Total Suspended Solids	mg/l				
Ethane	ug/l				<16
Ethene	ug/l				<15
Methane	ug/l				<8.6

E - Concentration exceeded the calibration range of the instrument

D - Analytical result after sample dilution.

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05BR																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			237	231	263	273	267	272	275	279	311	325	293	235	293	322	308	289	237	263
Ammonia (as N)	mg/l			<0.02	<0.02	<0.02	<0.020	<0.02	<0.020	<0.020	<0.02	<0.02	<0.020	<0.020	<0.020	<0.020	<0.020	0.12	<0.020	<0.020	<0.020
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	183	93.3	80.2	87.2	134	105	78.2	82.2	87.2	68.8	78.7	131	76.8	103	84.4	97.1	85.8	92.8
Cyanide	mg/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.020	<0.020					
Dissolved Oxygen	mg/l				0.00	0.00	0.56	3.10	1.87	0.00	0.00	5.15R	0.97	0.6	1.3	0.2	1.88	0.43	1.95	1.18	1.70
Nitrate	mg/l	10			1.4		0.64		1.1		0.62		0.98								
Nitrate + Nitrite	mg/l	10		1		0.36		1.1		0.47		0.40		0.57	1.00	0.49	0.60	0.49	0.68	0.61	0.39
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5UJ	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				285	43	109	125	79	59	103	55	-322R	-19.2	95.4	38.2	58.0	123.7	22.5	39.6	62.8
Phosphorus (Total)	mg/l			<0.02		0.047		0.02		<0.01		<0.01		<0.01	0.011	<0.01	<0.01	<0.01	<0.01	0.016	0.024
pH	S.U.		6.5-8.5	7.03	7.23	7.33	7.02	7.30	7.36	7.18	7.20	7.11	7.25	7.11	7.19	6.58	6.98	6.44	7.01	7.31	7.03
Specific Conductance	um/cm			986	946	784	708	843	930	756	920	980	788	825	934	840	954	680	991	854	832
Sulfate	mg/l		250	51.1	49	45	45.4	46.9	47.5	42.7	43.7	44.9	40.3	42.2	51.2	44.6	39.9	39.2	55.1	41.7	40.6
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	543		374		582		423		422		494	532	462	543	502	546	468	468
Dissolved Organic Carbon	mg/l			1.4	2.7	<1	1.2	2.2	4.1	3.0	<1.0	1.6	2.0	2.3							
Total Organic Carbon	mg/l			<1	<1	<1	<1.0	1.5	1.8	2.5	<1.0	1.8	1.6	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	1.3	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			140	950	<2	<2.000	<2	<2	<2	<2	<2	2	<2	<2	<2	<2	<2	<2	<2	<2

CONTINUED ON NEXT PAGE

1 - Concentration exceeded the calibration range of the instrument

2D - Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW05BR (cont'd)										
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			266	290	250	294	320	236	281	245	298	275	263
Ammonia (as N)	mg/l			<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.138	<0.020	<0.020	<0.20	<0.020
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	75.0	60.6	75.9	81.1	79.7	99.0	90.7	132.0	87.3	131	88
Cyanide	ug/l	200												
Dissolved Oxygen	mg/l			0.58	0.06	1.14	0.84	0.29	6.83		3.29	0.81	1.15	1.5
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		0.33	0.42	0.40	0.32	0.39	1.07	0.551	0.803	0.342	0.280	0.65
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV			6.3	49.0	-35.8	47.2	5.3	90.6	59.2	78.3	52.0	93.9	86
Phosphorus (Total)	mg/l			0.099	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100	<0.0100	<0.010	<0.010
pH	S.U.		6.5-8.5	7.11	7.24	7.09	7.13	7.26	7.18	7.23	7.07	7.07	7.29	7.24
Specific Conductance	um/cm			868	715	848	883	843	1088	767	964	843	910	848
Sulfate	mg/l		250	37.6	42.5	40.4	45.6	36.8	46	39.0	42.1	37.7	43.8	34.5
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	455	482	457	444	467	600	471	534	534	525	444
Dissolved Organic Carbon	mg/l													
Total Organic Carbon	mg/l			<1.0	<1.0	1.8	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	1.1	<1.0
Total Suspended Solids	mg/l													
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	2.1	<2	<2	<2	<2	<2	<2	<2	<2	<2

E = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12A																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												292J	276	292	281	307	332	343	333	304
Ammonia (as N)	mg/l			0.06									<0.1	<0.02	<0.02	<0.02	0.021	0.027	<0.02	<0.02	<0.02
Biological Oxygen Demand	mg/l			<5																	
Chemical Oxygen Demand	mg/l			<20										<10		<10		<10		<10	
Chloride	mg/l		250	58									53	83.9	71.9	76.8	78.3	137	68.4	76.1	93.1
Cyanide	ug/l	200		<0.75	<1.4	<1.4J								<0.02		<0.02		<0.02		<0.02	
Dissolved Oxygen	mg/l												4.34		2.31	1.16	0.00	3.08	1.90	1.57	3.22
Nitrate	mg/l	10													2		0.098		0.44		0.93
Nitrate + Nitrite	mg/l	10		0.97									1.21J	2.3		0.18		1.6		0.18	
Oil and Grease	mg/l			<5.1										<5		<5		<5		<5	
Ortho-Phosphate (Total)	mg/l			<0.02																	
Oxidation Reduction Potential	mV												109		152	106	62	119	36	63	138
Phosphorus (Total)	mg/l													0.02		<0.02		<0.02		<0.01	
pH	S.U.		6.5-8.5	7.32	7.78	6.93	7.35	7.58	7.2	7.48	7.52	7.21	7.45	6.8	6.98	7.13	6.87	7.17	7.23	6.99	7.21
Specific Conductance	umhos			793	828	825	779	841	702	640	731	843	660	760	572	835	579	939	898	834	934
Sulfate	mg/l		250	42									40.5	48.8	50	39.0	41.6	34.9	45.8	39.9	46.8
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/l		500	420										472		408		592		540	
Dissolved Organic Carbon	mg/l												<1	2.3	6.1	<1	1.4	3.7	4.4	3.2	2.1
Total Organic Carbon	mg/l			1									1.9	1.6	<1	<1	<1.0	1.9	2	3.3	1.6
Total Suspended Solids	mg/l			<10																	
Ethane	ug/l												<16	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l												<8.6	<2	<2	<2	<2	<2	<2	<2	<2

CONTINUED ON NEXT PAGE

E Concentration exceeded the calibration range of the instrument

D Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12A (cont'd)																	
				May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10
Alkalinity	mg/l			287	313	242	250	315	318	293	264	304	271	209	309	267	319	295	286	303	318
Ammonia (as N)	mg/l			<0.02	<0.02	<0.02	0.057	<0.02	<0.02	0.08	<0.02	0.062	<0.020	0.022	0.043	<0.020	0.038	<0.020	<0.020	0.070	<0.02
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10	<10
Chloride	mg/l		250	57.8	50.2	53.4	77.0	55.0	54.6	54.2	73.2	67.2	58.4	81.0	49.6	53.8	54.5	60.3	170.0	46.9	88.3
Cyanide	ug/l	200		<0.02		<0.02	<0.02	<0.02													
Dissolved Oxygen	mg/l			3.92R	0.34	0.2	1.0	1.3	3.02	0.54	5.94	0.55	2.45	5.02	0.96	1.05	4.04	0.58			2.91
Nitrate	mg/l	10			0.35																
Nitrate + Nitrite	mg/l	10		0.66		1.25	1.3	0.058	0.58	0.25	0.36	0.68	0.12	0.062	0.2	0.31	0.16	<0.050	1.3	0.526	1.21
Oil and Grease	mg/l			<5		<5	<5J	<5													
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			125	-317R	-10.2	76.5	18.6	38.1	25.4	42.4	17.1	50.6	20.0	13.9	-114.0	79.2	14.7	78.1	47.6	62.3
Phosphorus (Total)	mg/l			0.022		<0.01	<0.01	<0.01	<0.01	0.059	0.015	0.036	0.022	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.0180	<0.0100
pH	S.U.		6.5-8.5	7.14	7.15	7.05	7.12	7.13	6.94	6.87	6.99	7.15	7.28	6.76	7.32	7.10	7.14	7.25	7.41	7.14	6.87
Specific Conductance	um/cm			836	712	767	809	798	774	611	886	802	788	981	690	777	786	770	1080	706	874
Sulfate	mg/l		250	45.4	37.6	33.4	52.2	32.1	36.4	48.2	45.4	42.0	41.5	37.9	35.6	28.9	36.0	32.6	27.0	31.8	40.7
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0													
Total Dissolved Solids	mg/l		500	392		473	480	457	448	431	481	487	452	507	396	390	384	415	629	402	506
Dissolved Organic Carbon	mg/l			2.4	2.4	2.8															
Total Organic Carbon	mg/l			1.4	1.6	<1.0	<1.0	1.4	<1.0	<1.0	1.3	<1.0	<1.0	1.1	<1.0	1.9	<1.0	<1.0	1.2	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	12	3.6	3.6	<2	<2	<2	<2	<2	<2	<2	2.0	<2	<2	<2

CONTINUED ON NEXT PAGE

E = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution.

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12A (cont'd)		
				Nov-10	May-11	Oct-11
Alkalinity	mg/l			257	368	287
Ammonia (as N)	mg/l			<0.02	<0.20	<0.020
Biological Oxygen Demand	mg/l					
Chemical Oxygen Demand	mg/l			<10	<10	<10
Chloride	mg/l		250	70.8	123	71.6
Cyanide	ug/l	200				
Dissolved Oxygen	mg/l			4.31	7.95	0.27
Nitrate	mg/l	10				
Nitrate + Nitrite	mg/l	10		0.162	2.6	0.52
Oil and Grease	mg/l					
Ortho-Phosphate (Total)	mg/l					
Oxidation Reduction Potential	mV			95.0	98.0	73
Phosphorus (Total)	mg/l			<0.0100	<0.010	<0.010
pH	S.U.		6.5-8.5	6.83	7.43	7.05
Specific Conductance	um/cm			858	1096	824
Sulfate	mg/l		250	33.5	49.1	38.6
Sulfide	mg/l					
Total Dissolved Solids	mg/l		500	404	621	458
Dissolved Organic Carbon	mg/l					
Total Organic Carbon	mg/l			1.6	2.4	<1.0
Total Suspended Solids	mg/l					
Ethane	ug/l			<4	<4	<4
Ethene	ug/l			<3	<3	<3
Methane	ug/l			<2	<2	<2

b. Concentration exceeded the calibration range of the instrument

D. Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12B																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			269	254	323	280	269	278	248	252	248	264	204	214	241	277	247	242	215	212
Ammonia (as N)	mg/l			0.065	<0.02	0.053	<0.020	0.088	<0.020	0.10	0.064	0.056	0.054	<0.020	<0.020	0.032	0.088	0.20	0.092	0.099	0.068
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10		<10		<10		<10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	72.3	74.6	72.9	74.5	76.4	75.2	75.2	76.8	81.3	73.1	75.5	87.6	75.9	79.8	80.8	73.4	80.2	77.6
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57R	0.16	0.10	0.20	0.10	0.13	0.13	0.31	0.15	0.38
Nitrate	mg/l	10			<0.05		<0.050		<0.050		<0.05		<0.050								
Nitrate + Nitrite	mg/l	10		<0.05		<0.05		0.073		<0.05		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5UJ	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-118	-137	-143	-136	-139	-161	-116	-144	-336R	-76.1	-109.1	-100.7	-138.4	-135.5	-134.6	-122.5	-95.7
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		0.013	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	0.034
pH	S.U.		6.5-8.5	7.19	7.02	7.29	6.90	7.31	7.43	7.29	7.38	7.20	7.40	7.17	7.35	7.22	7.17	7.08	7.20	7.80	7.54
Specific Conductance	um/cm			716	897	786	558	702	815	732	769	847	724	781	763	756	785	636	815	776	771
Sulfate	mg/l		250	44.6	46.2	45.0	46.8	45.2	44.8	44.9	46.1	47.0	43.3	45.2	53.3	47.7	44.7	48.5	46.3	51.0	45.9
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	447		414		441		454		447		473	432	397	460	464	476	465	470
Dissolved Organic Carbon	mg/l			<1	3.5	<1	2.3	2.6	2.6	2.4	1.0	1.4	2.1	1.1							
Total Organic Carbon	mg/l			<1	<1	<1	<1.0	1.3	1.6	2.2	1.1	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<5	7.4	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			53	42	35	110	9.8	51	42	32	2.1	4.1	<2	<2	2.9	18	<2	5.2	<2	3.2

R Concentration exceeded the calibration range of the instrument

D Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW12B (cont'd)										
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			247	266	230	246	238	277	290	258	269	288	220
Ammonia (as N)	mg/l			0.076	0.075	0.076	0.13	0.14	3.74	0.070	0.079	0.072	<0.20	0.069
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	73.8	80.4	75.9	78.3	77.6	75	71.3	72.1	84.5	78.5	86.3
Cyanide	ug/l	200												
Dissolved Oxygen	mg/l			0.15	0.07	0.26	0.15	0.11	0.88		0.00	0.02	0.01	0.00
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV			-113.3	-124.9	134.1	-111.4	-118.3	-113.2	-129.9	-114.8	-136	-118	-129
Phosphorus (Total)	mg/l			<0.010	0.016	<0.010	<0.010	<0.010	0.0167	<0.0100	0.0518	0.0518	<0.010	<0.010
pH	S.U.		6.5-8.5	8.03	7.38	7.35	7.33	7.49	7.39	7.33	7.29	7.16	7.50	7.33
Specific Conductance	umo/cm			834	775	807	821	790	772	775	721	811	812	792
Sulfate	mg/l		250	46.2	49.2	48.0	49.6	48.1	49.0	45.4	44.5	49.3	47.5	47.8
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	436	383	352	403	437	448	430	431	373	466	451
Dissolved Organic Carbon	mg/l													
Total Organic Carbon	mg/l			<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0
Total Suspended Solids	mg/l													
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			2.8	2.7	3.6	3.9	<2	<2	5.1	3.5	3.5	2.3	<2

E = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13B																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												307J	311	291	331	325	318	331	298	316
Ammonia (as N)	mg/l												<0.117	<0.02	<0.02	<0.02	<0.020	<0.02	<0.020	0.03	<0.020
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l															<10				<10	
Chloride	mg/l		250										36.9	41.7	40	41.7	40.5	39	39.5	43.0	42.3
Cyanide	ug/l	200		<0.75	<1.4	<1.43										<0.02				<0.02	
Dissolved Oxygen	mg/l												0.05		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate	mg/l	10												0.05	<0.05		<0.050		<0.050		<0.05
Nitrate + Nitrite	mg/l	10											<0.1			<0.05		<0.05		<0.05	
Oil and Grease	mg/l															<5				<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV												-57		-106	-133	-117	-129	-128	-155	-107
Phosphorus (Total)	mg/l															<0.02				<0.01	
pH	S.U		6.5-8.5	7.53	7.67	7.72	7.1	7.13	7.55	7.47	7.52	7.1	7.31	7.04	7.27	7.32	6.79	7.19	7.25	7.12	7.22
Specific Conductance	um/cm			553	786	757	735	799	691	706	721	829	742	712	920	779	549	656	797	710	768
Sulfate	mg/l		250										62.4	70.4	64.4	67.1	64.5	59	57.5	57.7	61.7
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/l		500													400				461	
Dissolved Organic Carbon	mg/l												1.1	<1	5	<1	2	2.7	3.1	1.3	1.1
Total Organic Carbon	mg/l												1.5	<1	<1	<1	<1.0	1.1	1.6	1.0	1.1
Total Suspended Solids	mg/l																				
Ethane	ug/l												<16	<4	<4	<4	<4.000	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3.000	<3	<3	<3	<3
Methane	ug/l												<8.6	<2	<2	<2	<2.000	<2	2.2	<2	<2

E = Concentration exceeded the calibration range of the instrument.
D = Analytical result after sample dilution.

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13B (cont'd)																	
				May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10
Alkalinity	mg/l			283	322	284	233	267	301	280	255	271	271	300	290	340	303	296	288	307	310
Ammonia (as N)	mg/l			<0.02	<0.020	<0.020	<0.020	<0.020	<0.020	0.092	<0.020	<0.020	0.066	0.025	0.034	0.033	<0.020	0.061	<0.020	0.094	0.034
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					<10		<10		<10		<10		<10		<10		<10 UJ		<10	
Chloride	mg/l		250	44.0	44.8	44.0	56.6	48.2	46.8	48.3	45.6	43.8	43.7	52.8	49.5	52.6	46.0	44.6	46.0	55.8	61.9
Cyanide	mg/l	200				<0.02		<0.02													
Dissolved Oxygen	mg/l			3.16R	0.05	0.30	0.10	0.00	0.03	0.56	0.14	0.13	0.33	0.15	0.08	0.27	0.10	0.04	1.10		0.00
Nitrate	mg/l	10		<0.05	<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050R
Nitrate + Nitrite	mg/l	10				<0.05		<0.05		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050	
Oil and Grease	mg/l					<5		<5													
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			-126	-313R	-54.7	-118	-98.5	-130.6		-131.2	-105.9	-72.5	-88.5	-107.8	-182.4	-89.3	-116.1	-123.6	-115.7	-91.6
Phosphorus (Total)	mg/l					<0.01		<0.01		<0.01		<0.01		0.1		<0.010		<0.010		0.0143	
pH	S.U.		6.5-8.5	7.15	7.22	7.14	7.23	7.54	7.05	6.93	7.09	7.59	7.30	7.17	6.98	7.22	7.53	7.40	7.23	7.20	7.15
Specific Conductance	um/cm			830	759	703	768	716	769	864	789	741	754	720	805	725	809	659	797	757	649
Sulfate	mg/l		250	62.7	64.2	64.8	75.9	63.3	60.1	58.6	58.3	60.4	58.0	54.3	52.1	46.7	49.5	53.4	50.0	50.1	45.6
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0													
Total Dissolved Solids	mg/l		500			413		459		418		465		397		435		438		396	
Dissolved Organic Carbon	mg/l			2.0	2.5	6.3															
Total Organic Carbon	mg/l			<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	<2	4.4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

CONTINUED ON NEXT PAGE

J: Concentration exceeded the calibration range of the instrument

R: Analytical result after sample validation

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13B (cont'd) Nov-10	May-11	Oct-11
Alkalinity	mg/l			324	355 J+	313
Ammonia (as N)	mg/l			0.020	0.120	0.045
Biological Oxygen Demand	mg/l					
Chemical Oxygen Demand	mg/l			<10		<10
Chloride	mg/l		250	71.6	67.2	54.9
Cyanide	ug/l	200				
Dissolved Oxygen	mg/l			0.23	0.00	0.00
Nitrate	mg/l	10			<0.050	
Nitrate + Nitrite	mg/l	10		<0.050		<0.050
Oil and Grease	mg/l					
Ortho-Phosphate (Total)	mg/l					
Oxidation Reduction Potential	mV			-126	-115	-119
Phosphorus (Total)	mg/l			<0.010		<0.010
pH	S.U.		6.5-8.5	7.01	7.32	7.18
Specific Conductance	um/cm			845	864	831
Sulfate	mg/l		250	49.8	49.9	48.1
Sulfide	mg/l					
Total Dissolved Solids	mg/l		500	485		476
Dissolved Organic Carbon	mg/l					
Total Organic Carbon	mg/l			<1.0	1.2	<1.0
Total Suspended Solids	mg/l					
Ethane	ug/l			<4	<4	<4
Ethene	ug/l			<3	<3	<3
Methane	ug/l			<2	<2	<2

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13C																	
				Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05
Alkalinity	mg/l				292J	302	283	323	302	302	317	285	278	286	318	287	234	262	289	267	246
Ammonia (as N)	mg/l				<0.121	0.06	<0.02	<0.02	<0.020	0.07	<0.020	0.074	0.026	0.034	<0.020	<0.020	<0.020	<0.020	0.051	0.073	0.070
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					25				<10				<10			<10		<10		<10
Chloride	mg/l		250		30.6	35	34.9	38.3	38.1	36.9	37.4	38.1	39.3	41.6	41.9	41.2	52.2	47.8	48.5	50.3	60.8
Cyanide	ug/l	200				<0.02				<0.02				<0.02			<0.02				
Dissolved Oxygen	mg/l				0.06		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79R	0.06	0.10	0.10	0.00	0.05	0.80	0.16
Nitrite	mg/l	10					<0.05		<0.050		<0.050	<0.050	<0.05		<0.050	<0.050				<0.050	
Nitrate + Nitrite	mg/l	10			<0.1	<0.05		<0.05		<0.05				<0.05			<0.05	<0.05	<0.05		<0.050
Oil and Grease	mg/l					<5				<5				<5			<5				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				2		-114	-140	-140	-134	-137	-160	-104	-131	-320R	-62.0	-114.5	-111.1	-125.3		-131.3
Phosphorus (Total)	mg/l					<0.02				<0.02				0.012			<0.01		<0.01		<0.01
pH	S.U.		6.5-8.5	7.1	7.38	7.11	7.28	7.35	7.14	7.27	7.35	7.31	7.31	7.28	7.28	7.28	7.30	7.41	7.11	7.31	7.19
Specific Conductance	um-cm			781	677	676	897	754	538	673	777	686	755	813	736	693	744	705	766	855	769
Sulfate	mg/l		250		52.2	68.2	63	68.5	68.7	64.7	65	65.2	67.2	66.2	62.6	59.4	68.9	60.4	58.6	60.3	75.9
Sulfide	mg/l					<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Total Dissolved Solids	mg/l		500			434				444				434			435J		473		427
Dissolved Organic Carbon	mg/l				<1	2.8	3.7	<1	2.1	2.9	2.4	3.4	1.0	1.5	1.8	<1.0					
Total Organic Carbon	mg/l				1	<1	1.1	<1	<1.0	1.5	1.4	1.0	<1.0	<1.0	1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l				<16	<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l				<15	<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l				<8.6	<2	<2	2	2.2	<2	2.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

J: Concentration exceeds the calibration range of the instrument

R: Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW13C (cont'd)												
				Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			228	236	254	277	285	302	304	275	329	299	315	322	283
Ammonia (as N)	mg/l			0.066	0.068	0.062	0.060	0.083	0.10	0.13	0.079	0.083	0.079	0.055	0.140	0.059
Biological Oxygen Demand	mg/l															
Chemical Oxygen Demand	mg/l				<10		<10		<10		<10		<10		<10	
Chloride	mg/l		250	44.8	41.4	41.3	39.2	38.7	38.9	36.0	39	45.3	43.8	43.3	44.8	43.2
Cyanide	mg/l	200														
Dissolved Oxygen	mg/l			0.17	0.57	0.17	0.04	0.40	1.40	0.22	1.37		0.00	0.04	0.00	0.00
Nitrate	mg/l	10		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050
Nitrate + Nitrite	mg/l	10			<0.050		<0.050		<0.050		<0.050		<0.050		<0.050	<0.050
Oil and Grease	mg/l															
Ortho-Phosphate (Total)	mg/l															
Oxidation Reduction Potential	mV			-112.4	-86.1	-102.5	-110.4	-181.2	-91.2	-108.8	-125.0	-116.8	-93.3	-139.0	-115.0	-124
Phosphorus (Total)	mg/l				0.036		<0.010		<0.010		<0.010		0.0243			
pH	S.U.		6.5-8.5	7.72	7.53	7.30	7.14	7.35	7.65	7.47	7.30	7.26	7.25	7.12	7.41	7.27
Specific Conductance	umhos/cm			713	724	666	748	654	751	623	762	726	572	753	764	752
Sulfate	mg/l		250	63.1	57.2	59.6	57.4	54.6	54.1	50.4	50.0	50.6	49.3	46.9	48.1	44.9
Sulfide	mg/l															
Total Dissolved Solids	mg/l		500		436		511		434		488D+		416		426	
Dissolved Organic Carbon	mg/l															
Total Organic Carbon	mg/l			<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
Total Suspended Solids	mg/l															
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

E: Concentration exceeded the calibration range of the instrument

D: Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW14B																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sept-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												305J	308	284	322	308	296	305	277	268
Ammonia (as N)	mg/l												0.154	<0.02	<0.02	<0.02	<0.020	<0.02	<0.02	0.04	<0.02
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l															<10				<10	
Chloride	mg/l		250										40.6	45.5	43.1	45.9	45.2	44.7	44.7	45.4	46.4
Cyanide	ug/l	200		<0.75	<1.4	<1.4J										<0.02				<0.02	
Dissolved Oxygen	mg/l												1.03		1.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate	mg/l	10												<0.05	<1.05		<0.050		<0.050		<0.05
Nitrate + Nitrite	mg/l	10											<0.1R			<0.05		<0.05		<0.05	
Oil and Grease	mg/l															<5				<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV												-76		-89	-134	-131	-129	-137	-157	-101
Phosphorus (Total)	mg/l															<0.02				<0.01	
pH	S.U.		6.5-8.5	7.16	7.74	7.37	7.37	7.13	7.76	7.43	7.62	7.17	7.26	7.05	7.02	7.20	7.05	7.22	7.20	7.34	7.30
Specific Conductance	umh/cm			542	762	830	722	801	666	691	696	833	689	710	911	766	547	671	752	673	744
Sulfate	mg/l		250										5.72	63.2	56	58.5	57.9	53.3	53	53.3	55.0
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/l		500													446				427	
Dissolved Organic Carbon	mg/l												<1	1.5	3.5	<1	1.2	1.8	1.9	1.9	1.9
Total Organic Carbon	mg/l												1.8	<1	<1	<1	<1.0	1.3	1.4	<1.0	1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l												<16	<4	<4	<4	<4.000	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3.000	<3	<3	<3	<3
Methane	ug/l												<8.6	<2	<2	<2	<2.000	<2	<2	<2	<2

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E - Concentration exceeded the calibration range of the instrument

D - Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW14B (cont'd) May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10
Alkalinity	mg/l			273	309	219	236	262	296	215	247	216	228	272	272	264	286	251	229	284	268
Ammonia (as N)	mg/l			<0.02	<0.020	<0.020	<0.020	<0.020	<0.020	0.071	0.085	0.044	0.062	0.027	0.062	0.029	<0.020	0.053	<0.020	0.034	0.048
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					<10		<10		<10		<40		<10		<10		<10 UJ		<10	
Chloride	mg/l		250	48.5	47.0	47.4	64.7	55.0	55.7	62.4	59.7	59.8	55.7	53.2	50.0	50.3	49.4	50.8	48.0	51.0	52.0
Cyanide	ug/l	200				<0.02		<0.02													
Dissolved Oxygen	mg/l			2.00R	0.06	0.10	0.10	0.00	0.06	0.31	0.28	0.23	0.72	0.23	0.10	0.72	0.17	0.14	1.10		0.00
Nitrate	mg/l	10		<0.05	<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050R
Nitrate + Nitrite	mg/l	10				<0.05		<0.05		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050	
Oil and Grease	mg/l					<5		<5													
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			-139	-300R	-71.4	-115.1	-141.7	-104.1		-129.9	-116.4	-70.5	-98.9	-109.1	-143.3	-88.6	-99.9	-129.2	-105.4	-83.0
Phosphorus (Total)	mg/l					<0.01		<0.01		<0.01				<0.01		<0.010		<0.010		0.0105	
pH	S.U.		6.5-8.5	7.00	7.19	7.21	7.28	6.82	6.91	7.29	7.14	7.86	7.08	7.11	7.13	7.03	7.22	7.41	7.27	7.24	7.04
Specific Conductance	um/cm			833	732	747	775	752	800	886	814	750	758	678	766	654	768	627	726	711	558
Sulfate	mg/l		250	55.4	55.1	56.4	67.5	59.6	56.9	58.0	57.6	57.6	51.4	53.1	51.9	48.7	50.4	50.1	46.0	47.4	48.3
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0													
Total Dissolved Solids	mg/l		500			471		430		423		455		422		407		413		415	
Dissolved Organic Carbon	mg/l			1.5	3.7	5.6															
Total Organic Carbon	mg/l			<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

F = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW14B (cont'd)		
				Nov-10	May-11	Oct-11
Alkalinity	mg/l			308	316	272
Ammonia (as N)	mg/l			0.033	0.15	0.081
Biological Oxygen Demand	mg/l					
Chemical Oxygen Demand	mg/l			<10		<10
Chloride	mg/l		250	53.8	51.4	49.5
Cyanide	ug/l	200				
Dissolved Oxygen	mg/l			0.09	0.03	0.00
Nitrate	mg/l	10			<0.050	
Nitrate + Nitrite	mg/l	10		<0.050		<0.050
Oil and Grease	mg/l					
Ortho-Phosphate (Total)	mg/l					
Oxidation Reduction Potential	mV			-120	-95	-120
Phosphorus (Total)	mg/l			<0.010		<0.010
pH	S.U.		6.5-8.5	6.99	9.04	7.21
Specific Conductance	um/cm			759	734	727
Sulfate	mg/l		250	50.1	45.7	42.6
Sulfide	mg/l					
Total Dissolved Solids	mg/l		500	408		411
Dissolved Organic Carbon	mg/l					
Total Organic Carbon	mg/l			1.1	1.1	<1.0
Total Suspended Solids	mg/l					
Ethane	ug/l			<4	<4	<4
Ethene	ug/l			<3	<3	<3
Methane	ug/l			<2	<2	<2

E: Concentration exceeded the calibration range of the instrument

D: Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15B																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02
Alkalinity	mg/l												349J	329	303	336	336	300	326	287	294
Ammonia (as N)	mg/l												0.808	0.79	0.6	0.57	0.53	0.57	0.37	0.28	0.29
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l													22.8		<10		<10		<10	
Chloride	mg/l		250										62.4	74.7	77.3	72.1	70.1	95	79.5	74.7	73.2
Cyanide	ug/l	200		<0.75	<1.4	<1.4J								<0.02		<0.02		<0.02		<0.02	
Dissolved Oxygen	mg/l												0.4		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate	mg/l	10													<0.05		<0.050		<0.050		<0.05
Nitrate + Nitrite	mg/l	10											<0.1R	<0.05		<0.05		<0.05		<0.05	
Oil and Grease	mg/l													<5		<5		<5		<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV												207		200	40	44	98	-1	46	89
Phosphorus (Total)	mg/l													<0.02		<0.02		<0.02		<0.01	
pH	S.U.		6.5-8.5	7.23	7.33	6.93	7.42	7.66	7.52	7.35	7.49	7.51	7.35	6.87	6.99	7.16	6.77	7.06	7.15	7.16	7.16
Specific Conductance	um/cm			587	846	851	814	836	746	749	766	847	814	777	850	864	622	785	873	752	859
Sulfate	mg/l		250										26.2	36.1	39.1	46.4	47.9	46.3	45.5	44.7	47.6
Sulfide	mg/l													<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/l		500											491		459		536		416	
Dissolved Organic Carbon	mg/l												1.2	1.5	3.1	<1	2.8	3.4	2.8	1.3	1.8
Total Organic Carbon	mg/l												3.8	1	<1	<1	1.2	1	2	1.4	1.4
Total Suspended Solids	mg/l																				
Ethane	ug/l												<16	<4	<4	<4	<4.000	<4	<4	<4	<4
Ethene	ug/l												<15	<3	<3	<3	<3.000	<3	<3	<3	<3
Methane	ug/l												240	210	62	82	140	77	62	68	59

L = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15B (cont'd)																	
				May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10
Alkalinity	mg/l			316	342	249	272	321	361	258	293	277	275	324	269	290	313	318	322	270	298
Ammonia (as N)	mg/l			0.38	0.57	0.32	0.79	0.20	0.73	1.1	1.2	1.2	0.92	0.54	1.0	0.69	1.1	1.2	0.806	0.356	0.203
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			<10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10	<10
Chloride	mg/l		250	74.6	65.7	65.8	88.4	67.4	61.4	68.4	79.3	76.2	66.1	66.0	60.2	64.1	58.8	60.2	84.0	94.6	85.1
Cyanide	mg/l	200		<0.02		<0.02	<0.02	<0.02													
Dissolved Oxygen	mg/l			3.02R	0.04	0.10	0.00	0.00	0.05	0.14	0.11	0.12	0.38	0.15	0.04	0.35	0.14	0.06	1.39		0.00
Nitrate	mg/l	10			<0.050																
Nitrate + Nitrite	mg/l	10		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.33	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l			<5		<5	<5UJ	<5													
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			58	-325R	-15.5	55.8	62.3	14.6		-2.4	-8.6	6.0	-37.9	-30.8	-171.9	-42.0	-36.6	-54.5	-51.1	-42.9
Phosphorus (Total)	mg/l			0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.0100
pH	S.U.		6.5-8.5	7.00	7.07	7.09	7.13	6.87	6.84	7.11	6.97	7.49	7.34	7.16	7.01	7.09	7.45	7.26	7.10	7.20	7.05
Specific Conductance	umho/cm			980	816	831	880	895	994	958	984	853	846	753	700	714	816	705	896	795	486
Sulfate	mg/l		250	50.9	49.0	46.6	53.6	66.6	42.1	37.8	93.8	55.6	40.0	41.1	38.3	39.1	40.5	44.8	38.0	40.8	39.5
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0													
Total Dissolved Solids	mg/l		500	481		519	473J	546	576	497	552	510	512	451	583	421	480	500	555J+	419	443
Dissolved Organic Carbon	mg/l			2.2	3.2	1.7															
Total Organic Carbon	mg/l			1.4	1.9	<1.0	<1.0	1.6	1.5	1.4	1.9	<1.0	1.2	<1.0	<1.0	1.4	<1.0	<1.0	1.4	<1.0	1.4
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<9.4	<47	<9.4	<9.4	<4	<4.7	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<4.9	<25	<4.9	<4.9	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			20	17	5.9	22	120	600	74	51	13	59	4.7	220	26	79	21	15	6.0	19.0

R = Concentration exceeded the calibration range of the instrument

J+ = Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15B (cont'd) Nov-10	May-11	Oct-11
Alkalinity	mg/l			305	369	300
Ammonia (as N)	mg/l			0.24	0.35	0.45
Biological Oxygen Demand	mg/l					
Chemical Oxygen Demand	mg/l			<10	<10	<10
Chloride	mg/l		250	87.8	87.1	73.7
Cyanide	ug/l	200				
Dissolved Oxygen	mg/l			0.00	0.00	0.00
Nitrate	mg/l	10				
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.05
Oil and Grease	mg/l					
Ortho-Phosphate (Total)	mg/l					
Oxidation Reduction Potential	mV			-75	-68	-72
Phosphorus (Total)	mg/l			<0.010	<0.010	<0.010
pH	S.U.		6.5-8.5	6.97	7.27	7.09
Specific Conductance	um/cm			891	920	881
Sulfate	mg/l		250	39.8	40.5	55.7
Sulfide	mg/l					
Total Dissolved Solids	mg/l		500	452	524	501
Dissolved Organic Carbon	mg/l					
Total Organic Carbon	mg/l			1.7	<1.0	<1.0
Total Suspended Solids	mg/l					
Ethane	ug/l			<4	<4	<4
Ethene	ug/l			<3	<3	<3
Methane	ug/l			19	25	27

E - Concentration exceeded the calibration range of the instrument
D - Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15C																	
				Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05
Alkalinity	mg/l				315J	314	292	330	312	284	317	286	284	287	319	234	244	273	309	282	261
Ammonia (as N)	mg/l				0.377	0.24	0.21	0.15	0.14	0.23	0.13	0.25	0.17	0.20	0.18	0.12	0.16	0.16	0.22	0.26	0.26
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					21.9				<10				<10			<10		<10		<10
Chloride	mg/l		250		41.5	46.5	45	48	47.4	49.6	48	49.5	48.4	52.7	50.4	49.4	63.4	53.2	56.3	57.3	67.1
Cyanide	ug/l	200				<0.02				<0.02				<0.02			<0.02				
Dissolved Oxygen	mg/l				0.18		1.47	0.00	0.00	0.00	0.00	0.00	0.00	2.09R	0.10	0.20	0.20	0.10	0.10	0.28	0.26
Nitrate	mg/l	10					<0.050		<0.050		<0.050	<0.050	<0.05		<0.050	<0.050		<0.05		<0.050	
Nitrate + Nitrite	mg/l	10			<0.1R	<0.05		<0.05		<0.05				<0.05			<0.05		<0.05		<0.05
Oil and Grease	mg/l					<5				<5				<5			<5				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-79		-108	-140	-138	-144	-139	-164	-111	-146	-120R	-81.0	-124.6	-124.8	-124.8		-126.8
Phosphorus (Total)	mg/l					<0.02				<0.02				0.019			0.017		<0.01		<0.01
pH	S.U.		6.5-8.5	7.77	7.65	7.14	7.23	7.37	7.15	7.31	7.38	7.39	7.48	7.25	7.30	7.30	7.40	7.02	7.09	7.40	7.23
Specific Conductance	mm/cm			714	677	671	867	738	526	655	741	662	726	809	715	721	741	725	760	824	771
Sulfate	mg/l		250		27	31	31.6	32.2	32.9	31.6	31.9	31.5	32.7	33.5	33.5	32.3	37.9	34.1	32.9	34.9	39.7
Sulfide	mg/l					<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Total Dissolved Solids	mg/l		500			457				418				399			424J		443		434
Dissolved Organic Carbon	mg/l				<1	8.3	3.3	<1	2.2	1.8	2.7	1.2	2.5	1.6	2.2	1.9					
Total Organic Carbon	mg/l				<1	<1	<1	<1	1	1.9	1.8	1.2	1.8	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l				<16	<4	<4	<4	<4,000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l				<15	<3	<3	<3	<3,000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l				<8.6	4.1	2.9	5.7	5.3	3.6	6.5	3.9	3.6	<2	<2	<2	<2	2.0	5.7	2.0	2.1

R: Concentration exceeded the calibration range of the instrument

D: Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW15C (cont'd)												
				Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			255	248	266	269	285	255	276	258	303	279	303	306	249
Ammonia (as N)	mg/l			0.30	0.18	0.17	0.23	0.23	0.27	0.32	0.326	0.271	0.236	0.201	0.42	0.22
Biological Oxygen Demand	mg/l															
Chemical Oxygen Demand	mg/l				<10		<10		<10		<10		<10		<10	
Chloride	mg/l		250	57.0	57.2	56.2	56.0	57.8	57.5	59.4	57.0	58.6	57.4	58.9	62.3	60.4
Cyanide	ug/l	200														
Dissolved Oxygen	mg/l			0.18	0.47	0.23	0.16	0.37	0.49	0.16	1.13		0.00	0.03	0.00	0.00
Nitrate	mg/l	10		<0.05		<0.05		<0.050		<0.050		<0.050		<0.050		<0.050UJ
Nitrate + Nitrite	mg/l	10			<0.050		<0.050		<0.050		<0.050		<0.050		<0.050	<0.050UJ
Oil and Grease	mg/l															
Ortho-Phosphate (Total)	mg/l															
Oxidation Reduction Potential	mV			-116.1	-91.5	-111.9	-116.4	-177.4	-97.6	-117.8	-132.0	-120.6	-125.7	-131.0	-127.0	-132
Phosphorus (Total)	mg/l				0.024		<0.010		<0.010		<0.010		<0.0100		<0.010	
pH	S.U.		6.5-8.5	7.93	7.56	7.39	7.21	7.34	7.69	7.54	7.36	7.33	7.38	7.15	7.46	7.32
Specific Conductance	um/cm			722	741	656	763	648	759	641	761	717	566	759	763	738
Sulfate	mg/l		250	35.3	32.7	34.4	33.5	34.5	34.5	33.6	34	32.8	33.9	33.6	35.6	33.3
Sulfide	mg/l															
Total Dissolved Solids	mg/l		500		443		502		406		475J+		407		431	
Dissolved Organic Carbon	mg/l															
Total Organic Carbon	mg/l			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	1.4	1.2	<1.0
Total Suspended Solids	mg/l															
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			<2	2.2	<2	3.4	2.1	<2	<2	<2	2.0	2.1	<2	<2	<2

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16A																	
				Feb-95	May-95	Aug-95	Dec-95	May-96	Aug-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01
Alkalinity	mg/l													444J	474	368	369	431	368	360	338
Ammonia (as N)	mg/l			4.6										7.16J	5.4	5.8	6.1	4.4	4.1	4	3.4
Biological Oxygen Demand	mg/l			<5																	
Chemical Oxygen Demand	mg/l			<20											<10		<10		<10		<10
Chloride	mg/l		250	67										80.4	92.2	72.4	71.8	76.4	77.4	77	80.5
Cyanide	ug/l	200		<1.8	<1.4	<1.4J									<0.02		<0.02		<0.02		<0.02
Dissolved Oxygen	mg/l													0.05		0.00	0.00	0.00	0.00	0.00	0.00
Nitrate	mg/l	10														<0.050		<0.050		<0.050	
Nitrate + Nitrite	mg/l	10		<0.05										<0.1R	<0.05		<0.05		<0.05		<0.05
Oil and Grease	mg/l			<5.3											<5		<5		<5		<5
Ortho-Phosphate (Total)	mg/l			<0.02																	
Oxidation Reduction Potential	mV													-120		-114	-145	-125	-135	-138	-158
Phosphorus (Total)	mg/l														0.05		0.08		0.033		<0.01
pH	S.U.		6.5-8.5	6.95	7	6.77	7.03	7.48	7.05	6.85	7.08	7.28	7	6.92	6.7	6.87	6.96	6.70	6.91	6.98	6.89
Specific Conductance	um/cm			910	1039	955	1073	1231	1003	949	995	1070	1034	923	1046	950	990	910	867	956	901
Sulfate	mg/l		250	9.9										5.99	14.7	24.5	37.0	48.4	48.9	46.6	55.7
Sulfide	mg/l														<2	<2	<2	<2.0	<2	<2.0	<2.0
Total Dissolved Solids	mg/l		500	520											503		497		552		537
Dissolved Organic Carbon	mg/l													4.7	5	5.9	2.6	4.3	4.5	5	5.3
Total Organic Carbon	mg/l			4										4.8	3.1	3.3	2.5	3.4	4	3.8	5.0
Total Suspended Solids	mg/l			46																	
Ethane	ug/l													<16	<4	<4	<4	<4.000	<4	<4	<4
Ethene	ug/l													<15	4.6	<3	<3	<3.000	<3	<3	<3
Methane	ug/l													1800	1400	39	360	250	80	270	940

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F Concentration exceeded the calibration range of the instrument

D Indicical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16A (cont'd)																	
				Feb-02	Feb-02dup	May-02	Aug-02	Nov-02	May-03	May-03 dup	Nov-03	Nov-03 dup	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08
Alkalinity	mg/l			371	375	390	376	330	300	302	379	381	382	401	359	266	325	361	531	425	462
Ammonia (as N)	mg/l			5.3	5.1	4.0	4.8	4.0	3.9	3.9	5.6	5.6	4.7	4.0	4.0	3.5	2.5	2.1	6.1	2.6	3.7
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l					17.0		<10	<10	<10	<10	<10	13.1	<10	13.4J	21.0J	17.2	33.5	<10	<10	12.4
Chloride	mg/l		250	89.1	89.4	93.7	75.8	67.7	79.2	79.4	89.7	91.3	77.7	64.8	76.4	76.0	71.6	65.8	96.2	63.8	78.9
Cyanide	mg/l	200				<0.02		<0.02	<0.02	<0.02	<0.02	<0.02UJ									
Dissolved Oxygen	mg/l			0.00		7.99R	0.05	0.2	0.1		0.0		0.02	0.11	0.19	0.15	0.44	0.21	0.20	0.44	0.25
Nitrite	mg/l	10		<0.05	<0.05		<0.050														
Nitrite + Nitrate	mg/l	10				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l					<5		<5	<5	<5UJ	<5	<5									
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			-101		-139	-328R	-69.5	-110.8		-112.2		-119.1	-129.7	-154.5	-106.6	-83.2	-103.1	-105.6	-49.3	-66.7
Phosphorus (Total)	mg/l					0.04		0.064	0.049	0.043	0.041	0.023	<0.01	<0.01	0.034	0.039	0.034	<0.010	0.053	<0.010	<0.010
pH	S.U.		6.5-8.5	6.88		6.87	7.00	6.96	6.87		6.94		6.69	6.91	6.79	7.14	7.07	7.46	6.94	6.97	6.84
Specific Conductance	um/cm			1170		1180	934	914	1040		1095		1227	818	1156	1055	1020	977	1194	808	1137
Sulfate	mg/l		250	54.3	54.5	51.4	46.0	51.0	98.2	98.6	45.6	46.4	51.8	39.4	60.6	56.2	35.6	46.7	23.2	39.8	34.2
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0									
Total Dissolved Solids	mg/l		500			538		520	613	608	627	638	675	568	630	533	558	567	666	537	571
Dissolved Organic Carbon	mg/l			3.8	4.3	4.3	4.6	6.1													
Total Organic Carbon	mg/l			4.0	4.5	4.8	4.2	3.1	2.6	2.7	4.9	4.9	3.6	3.3	3.6	3.8	2.4	2.5	4.2	4.2	2.6
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<12	<12	<47	<47	<47	<47	<47	<47	<4	<4	<7.2	<7.2	<7.2
Ethene	ug/l			<3	<3	<3	<3	<3	<9	<9	<25	<25	<25	<25	<25	<25	<3	<3	<6.0	<6.0	<6.0
Methane	ug/l			160	160	130	<2	63	510	460	450	550	1200	350	380	270	8	210	770	180	280

E = Concentration exceeded the calibration range of the instrument

D = Additional result after sample dilution

CONTINUED ON NEXT PAGE

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16A (cont'd)						
				Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			387	370	360	361	367	399	323
Ammonia (as N)	mg/l			3.4	0.095	1.41	3.07	4.02	2.60	3.10
Biological Oxygen Demand	mg/l									
Chemical Oxygen Demand	mg/l			<10 UJ	<10	<10	12.7	<10	<10	12.4
Chloride	mg/l		250	70.4	65.0	53.3	81.1	78.0	74.4	78.0
Cyanide	ug/l	200								
Dissolved Oxygen	mg/l			0.22			0.00	0.01	0.43	0.00
Nitrate	mg/l	10								
Nitrate + Nitrite	mg/l	10		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l									
Ortho-Phosphate (Total)	mg/l									
Oxidation Reduction Potential	mV			-177.8	-79.0	-114.6	-90.0	-116.0	30.7	-111
Phosphorus (Total)	mg/l			<0.010	<0.010	<0.0100	<0.0100	0.0252	<0.010	<0.010
pH	S.U.		6.5-8.5	7.07	6.94	6.89	6.45	6.60	7.00	6.89
Specific Conductance	um/cm			987	966	948	974	1067	960	1077
Sulfate	mg/l		250	37.5	65.0	82.2	35.5	55.8	17.2	65.0
Sulfide	mg/l									
Total Dissolved Solids	mg/l		500	547	567	572	555	514	574	583
Dissolved Organic Carbon	mg/l									
Total Organic Carbon	mg/l			1.9	3.0	2.9	2.3	3.4	3.5	2.6
Total Suspended Solids	mg/l									
Ethane	ug/l			<4	<7.5	<75	<60	<60	<40	<4
Ethene	ug/l			<3	<7.5	<75	<60	<60	<30	<3
Methane	ug/l			31	29	80	110	39	62	130

1) Concentration exceeded the calibration range of the instrument

2) Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16B																	
				Feb-95	May-95	Aug-95	8/95 dup.	Dec-95	May-96	Nov-96	May-97	Nov-97	Sep-98	May-99	May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01
Alkalinity	mg/l													311J	307	272	274	292	284	283	260
Ammonia (as N)	mg/l													0.527J	0.48	0.21	0.24	0.069	0.17	0.062	0.14
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l														11.3		<10		<10		<10
Chloride	mg/l		250											55.8	57.1	57.4	62.4	64.9	69	67.9	69.8
Cyanide	ug/l	200		<0.75	<1.4	<1.4J	<1.4J								<0.02		<0.02		<0.02		<0.02
Dissolved Oxygen	mg/l													0.06		0.00	0.00	0.00	0.00	0.00	0.00
Nitrite	mg/l	10														<0.050		<0.050		<0.050	
Nitrate + Nitrite	mg/l	10												<0.18	0.06		<0.05		<0.05		<0.05
Oil and Grease	mg/l														<5		<5		<5		<5
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV													50		-105	-141	-118	-129	-133	-152
Phosphorus (Total)	mg/l														0.19		0.057		<0.02		<0.01
pH	S.U.		6.5-8.5	7.81	7.9	7.21		7.05	7.9	6.98	7.47	7.59	7.6	6.97	7.08	7.16	7.24	6.95	7.29	7.25	7.13
Specific Conductance	um/cm			649	725	744		803	776	710	703	828	741	710	706	878	746	673	678	770	713
Sulfate	mg/l		250											32.7	35.6	45.5	45.8	44.3	38.9	41.6	44.4
Sulfide	mg/l														<2	<2	<2	<2.0	<2	<2.0	<2.0
Total Dissolved Solids	mg/l		500												423		400		484		435
Dissolved Organic Carbon	mg/l													1.5	1.4	4.2	1.5	1.9	2.2	2.2	3.9
Total Organic Carbon	mg/l													2.5	1.2	<1	<1	<1.0	1.4	1.9	2.0
Total Suspended Solids	mg/l																				
Ethane	ug/l													<16	<4	<4	<4	<4.000	<4	<4	<4
Ethene	ug/l													<15	<3	<3	<3	<3.000	<3	<3	<3
Methane	ug/l													160	92	<2	25	33	6.7	9	21

E Concentration exceeded the calibration range of the instrument

D Analytical result after sample dilution.

CONTINUED ON NEXT PAGE

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16B (cont'd)																	
				Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09
Alkalinity	mg/l			266	284	292	279	253	284	334	336	288	256	259	253	356	250	290	281	296	314
Ammonia (as N)	mg/l			0.086	0.11	0.06	<0.020	0.072	0.026	0.25	0.52	0.25	0.14	0.17	0.12	0.14	0.12	0.12	0.16	0.14	0.169
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l				<10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10
Chloride	mg/l		250	68.0	72.0	57.6	57.4	71.3	60.8	58.0	58.4	60.5	63.4	58.7	58.7	64.2	53.5	59.4	58.8	71.0	79.0
Cyanide	ug/l	200			<0.02		<0.02	<0.02	<0.02												
Dissolved Oxygen	mg/l			0.00	3.22R	0.07	0.10	0.30	0.10	0.02	0.12	0.15	0.11	0.34	0.14	0.06	0.39	0.14	0.07	0.43	
Nitrate	mg/l	10		<0.05		<0.050															
Nitrate + Nitrite	mg/l	10			<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l				<5		<5	<5UJ	<5												
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			-109	-137	-312R	-60.9	-108.7	-101.3	-110.5	-114.6	-125.6	-97.6	-75.4	-91.5	-95.2	-42.6	-77.2	-73.5	-114.9	-116.7
Phosphorus (Total)	mg/l				0.018		<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.13	<0.01	<0.010	<0.010	<0.010	<0.010	<0.0100
pH	S.U.		6.5-8.5	7.24	7.15	7.36	7.25	7.23	7.25	7.09	7.00	7.09	7.49	7.38	7.72	7.16	7.36	7.21	7.33	7.26	7.20
Specific Conductance	umo/cm			819	870	724	750	798	700	852	663	900	806	797	614	830	612	801	760	825	869
Sulfate	mg/l		250	35.6	44.2	45.5	40.2	48.2	61.3	44.0	36.7	69.7	49.8	44.4	39.5	44.0	40.2	45.6	41.7	35.0	38.2
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500		371		421	461	472	482	471	484	446	458	451	438	454	396	418	516J+	507
Dissolved Organic Carbon	mg/l			1.3	1.4	4.6	2.4														
Total Organic Carbon	mg/l			1.2	2.0	1.5	<1.0	<1.0	1.6	<1.0	1.1	1.1	1.5	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	1.6
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<4.7	<9.4	<9.4	<9.4	<4	<4	<4	<4	<4	<4	<4	<4	<7.5
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<4.9	<4.9	<4.9	<3	<3	<3	<3	<3	<3	<3	<3	<7.5
Methane	ug/l			14	2.7	4	8.4	23	55	240	41	48	<2	<2	3.9	200	10	14	<2	2.6	20

CONTINUED ON NEXT PAGE

J. Concentration exceeded the calibration range of the instrument

D. Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW16B (cont'd)			
				May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			317	282	302	277
Ammonia (as N)	mg/l			0.129	0.090	0.210	0.057
Biological Oxygen Demand	mg/l						
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10
Chloride	mg/l		250	76.0	71.1	79.9	67.4
Cyanide	ug/l	200					
Dissolved Oxygen	mg/l			0.00	0.07	0.69	0.00
Nitrate	mg/l	10					
Nitrate + Nitrite	mg/l	10		<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l						
Ortho-Phosphate (Total)	mg/l						
Oxidation Reduction Potential	mV			-87.5	-114	33.2	-105
Phosphorus (Total)	mg/l			<0.0100	0.0127	<0.010	<0.010
pH	S.U.		6.5-8.5	6.89	7.00	7.35	7.19
Specific Conductance	um/cm			860	816	790	846
Sulfate	mg/l		250	34.8	40.2	36.5	50.2
Sulfide	mg/l						
Total Dissolved Solids	mg/l		500	494	389	447	474
Dissolved Organic Carbon	mg/l						
Total Organic Carbon	mg/l			<1.0	1.4	1.1	<1.0
Total Suspended Solids	mg/l						
Ethane	ug/l			<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3
Methane	ug/l			17	12	7.9	13

E: Concentration exceeded the calibration range of the instrument

D: Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17A																	
				May-00	5/00 dup.	Aug-00	8/00 dup.	Nov-00	Feb-01	2/01 dup.	May-01	Aug-01	Nov-01	11/01 dup.	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04
Alkalinity	mg/l			594	599	559	517	660	791	654	582	534	500	517	415	454	421	362	379	401	431
Ammonia (as N)	mg/l			5.6	4.9	7.9	10	10	5.9	6.3	4.9	7	4.9	5.2	6.3	4.4	1.9	4.5	3.2	3.6	3.1
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			37.5	37.5			11.3			<10		12.1	12.7		17.0		13.6	15.6	<10	21.0
Chloride	mg/l		250	79.4	79.1	125	125	129	73.4	42.9	58.4	111	94.1	93.9	95.9	93.4	110	98.6	51.4	133	86.1
Cyanide	ug/l	200		<0.02	<0.02			<0.02			<0.02		<0.02	<0.02		<0.02		<0.02	<0.02	<0.02	
Dissolved Oxygen	mg/l						0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.28R	0.04	0.40	0.10	0.10	0.03
Nitrate	mg/l	10				<0.050	<0.050		<0.050	<0.050		<0.050			0.060		<0.050				
Nitrate + Nitrite	mg/l	10		0.08	0.08			<0.05			0.078		<0.05	<0.05		<0.05		<0.05	<0.05	<0.05	0.077
Oil and Grease	mg/l			<5	<5			<5			<5		<5	<5		<5		<5	<5UJ	<5	
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV					-74		-121	-85		-92	-98	-108		-64	-80	-363R	-47.5	-94.2	-88.3	-90.6
Phosphorus (Total)	mg/l			0.04	0.04			0.048			0.049		0.027	0.023		0.039		0.077	0.081	0.080	<0.01
pH	S.U.		6.5-8.5	6.47		6.65		6.76	6.52		6.69	6.82	6.76		6.81	6.54	6.90	6.75	6.60	7.45	6.65
Specific Conductance	um/cm			1197		1220		1380	1410		1180	1190	1300		1380	1360	1181	1152	1510	1205	1347
Sulfate	mg/l		250	30.2	29.9	<5	<5	8.3	118	117	162	36.2	50.8	51.6	36.1	105	55.6	79.0	207.0	50.4	163.0
Sulfide	mg/l			<2	<2	<2	<2	<2	<2.0	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Total Dissolved Solids	mg/l		500	708	716			660			828		746	656		724		721	1020J	693	846
Dissolved Organic Carbon	mg/l			4.6	4.7	10.4	10.1	5.4	6.1	5.0	6.9	7.5	7.6	7.9	6.1	6.3	5.6	10.7			
Total Organic Carbon	mg/l			4.6	4.7	8	8.0	5.6	5.5	5.6	5.3	6.9	8.0	8.5	4.8	6.1	5.0	5.2	1.9	4.2	2.8
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	4.4	<4.000	<4.000	<4	<4	6.8	7.3	<4	<4	<4	<4	<12	<4.7	<47
Ethene	ug/l			3.6	<3	<3	3	<3	<3.000	<3.000	<3	5.3	<3	<3	<3	<3	<3	<3	<9	<3	<25
Methane	ug/l			1100	810	1300	1400	530	160	150	120	590	970	940	120	160	29	34	760	93	330

J = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

CONTINUED ON NEXT PAGE

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17A (cont'd)																	
				4/04 Dup.	Nov-04	May-05	5/05 Dup.	Nov-05	May-06	Nov-06	May-07	5/07 Dup	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			467	372	377	362	333	372	428	373	355	402	495	448	401	488	483	564	472	426
Ammonia (as N)	mg/l			3.6	4.5	3.1	2.8	3.0	2.0	2.0	2.3	2.4	2.8	1.9	2.8	2.31	2.98	1.55	3.29	2.80	4.10
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			17.4	19.1	<10	<10	<10	22.2	<10	<10	12.4J+	10.9J+	<10	12.J-	<10	21.7	13.0	<10	<10	18.1J+
Chloride	mg/l		250	86.3	119	87.5	82.2	68.2	87.6	75.1	78.[illegible]	76.9	81.5	67.1	95.1	58	83.6	55.1	77.5	72.1	101
Cyanide	ug/l	200																			
Dissolved Oxygen	mg/l				0.17	0.16		0.15	0.41	0.24	0.1[illegible]		0.24	0.21	0.42	0.26		0.00	0.00	0.36	0.00
Nitrate	mg/l	10																			
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l																				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				9.9	-109.2		-85.9	-40.6	-58.4	-61.7		-105.8	-83.5	-105.0	-78.5	-107.2	-73.5	-99	-34.7	-88
Phosphorus (Total)	mg/l			<0.01	0.069	0.026	0.022	0.090	0.007	0.036	0.033	0.029	<0.010	0.034	<0.010	<0.010	0.0274	<0.010	0.0844	<0.010	0.044
pH	S.U		6.5-8.5		6.15	6.63		6.92	6.87	7.00	6.97		6.68	6.76	6.86	6.79	6.70	6.78	6.58	6.86	6.79
Specific Conductance	mm/cm				1054	1309		1061	1223	1194	1003		956	1237	1090	1011	1211	772	1206	1120	1182
Sulfate	mg/l		250	194.0	45.0	151	142	66.5	94.4	88.5	79.5	78	51.4	62.4	10.5	110	40.6	108	42.8	83.2	27.5
Sulfide	mg/l																				
Total Dissolved Solids	mg/l		500	837	711	735	752	575	748	710	708	756	640	667	627	687	631	641	729	727	636
Dissolved Organic Carbon	mg/l																				
Total Organic Carbon	mg/l			2.8	4.7	3.8	3.9	3.9	2.5	3.0	2.5	2.4	5.2	3.4	2.3	3.0	5.6	4.0	3.3	3.9	4.1
Total Suspended Solids	mg/l																				
Ethane	ug/l			<9.4	<4.7	<4.7	<4	<4.7	<4	<4	<4	<4	<4	<4	<4	<7.5	<15	<15	<15	<40	<4
Ethene	ug/l			<4.9	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<7.5	<15	<15	<15	<30	<3
Methane	ug/l			230	24	26	37	33	65E 88D	36	69	65	32	150	31	21	51	74	50	150	61

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17B																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			325	282	302	314	322	330	299	300	302	312	244	236	281	333	319	270	306	306
Ammonia (as N)	mg/l			<0.02	<0.02	<0.02	<0.020	<0.02	<0.020	<0.020	<0.020	<0.02	<0.020	0.054	<0.020	<0.020	<0.020	0.060	0.054	<0.020	0.14
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			29.1		<10		<10		<10		<10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	56.6	53.9	57.7	59.4	57.7	55.6	55.4	56.3	63.1	61.5	65.3	88.5	78.4	72.6	70.7	66.5	64.4	59.9
Cyanide	mg/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00		0.00	0.00	0.00	0.00	0.00R	0.05	0.1	1.1	0.1	0.04	1.1R	0.13	0.14	0.39
Nitrate	mg/l	10			<0.050		<0.050		<0.050		<0.05		<0.050								
Nitrate + Nitrite	mg/l	10		<0.05		<0.05		<0.05		<0.05		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-89	-126	-94	-109	-106	-114	-83	-88	-348R	-43.2	-87.5	-91.4	-92.9	-125.5	-116.1	-84.2	-56
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
pH	S.U.		6.5-8.5	7.00	7.07	7.04	6.79	7.30	7.26	7.16	7.12	6.90	7.29	7.10	7.17	7.80	6.98	7.07	7.01	7.17	7.28
Specific Conductance	um/cm			753	935	799	723	701	706	744	836	881	830	773	570	850	893	660	899	909	895
Sulfate	mg/l		250	56.3	52.4	54.2	54.6	52	53.1	53.4	55.6	57.0	53.8	56.4	68.4	59.8	56.4	55.8	59.8	65.7	63.9
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	563		413		499		406		501		487	505	506	533	510	460	500	549
Dissolved Organic Carbon	mg/l			<1	4.6	2.9	2	2.5	2.9	2.5	<1.0	1.6	2.2	4.1							
Total Organic Carbon	mg/l			<1	<1	<1	1.6	1.7	2.1	2.3	<1.0	1.9	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4,000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4J	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3,000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3J	<3	<3	<3
Methane	ug/l			11	9.3	6.6	7.1	3.9	6.2	4.2	<2	<2	<2	<2	<2	<2	2.4	<2J	<2	2.3	23E 22D

CONTINUED ON NEXT PAGE

E Concentration exceeded the calibration range of the instrument.
D Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW17B (cont'd)										
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			332	338	300	337	336	341	279	309	296	352	299
Ammonia (as N)	mg/l			<0.020	<0.020	<0.020	0.024	0.048	<0.020	0.200	<0.020	<0.020	<0.20	<0.020
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	58.3	57.1	56.0	53.3	59.3	56	49.5	52.1	66.2	58.4J-	58.5
Cyanide	ug/l	200												
Dissolved Oxygen	mg/l			0.17	0.08	0.23	0.20	0.17	0.29		0.00	0.00	0.27	0.00
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV			-58.3	-91.1	-95.1	-87.1	-81.1	-88.7	-104.9	-85.5	-100	-43.2	-86
Phosphorus (Total)	mg/l			0.095	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.010	<0.010	<0.010	0.37
pH	S.U.		6.5-8.5	7.28	7.10	7.17	7.15	7.27	7.14	7.09	7.30	7.00	7.18	7.15
Specific Conductance	um/cm			903	856	695	883	765	731	806	366	791	900	868
Sulfate	mg/l		250	60.3	52.8	55.1	50.8	48.4	44.0	40.4	42.4	52.0	69.2J-	65.9
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	509	533	335	485	504	447	422	418	483	547	482
Dissolved Organic Carbon	mg/l													
Total Organic Carbon	mg/l			<1.0	<1.0	1.8	<1.0	<1.0	<1.0	1.3	1.1	<1.0	1.4	<1.0
Total Suspended Solids	mg/l													
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			29	37	18	13	<2	2.5	<2	<2	<2	5.1	4.3

E = Concentration exceeded the calibration range of the instrument
D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18A																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	Nov 02 Dup	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05
Alkalinity	mg/l			556	731	576	667	529	466	433	407	390	466	341	337	326	479	486	488	402	377
Ammonia (as N)	mg/l			1.8	2.5	4.1	3	3.1	2.3	1.5	1.5	0.93	8.4	0.67	0.86	1.5	0.91	1.2	1.5	1.1	0.93
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			34.4		<10		<10		<10		11.2		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	36.1	62.8	68.6	51.4	44.6	37.3	40.4	41.0	33.6	53.9	47.5	47.4	51.2	58.3	45.7	64.6	58.4	68.9
Cyanide	ug/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02	<0.02				
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00R	0.06	0.2		0.10	0.10	0.04	1.4R	0.15	0.19
Nitrate	mg/l	10			0.091		0.44		<0.050		0.080		<0.050								
Nitrate + Nitrite	mg/l	10		0.86		<0.05		0.22		0.28		1.1		0.22	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5	<5				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-4	-68	-46	-148	-61	-64	-30	-39	-355R	-14.8		-62.9	-63.4	-66.7	-80.4	-122.3	-60.6
Phosphorus (Total)	mg/l			0.03		<0.02		<0.02		<0.01		<0.01		<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
pH	S.U.		6.5-8.5	6.48	6.73	6.60	6.65	6.70	6.82	6.74	6.70	6.56	6.83	6.71		6.72	7.09	6.59	6.58	6.52	6.83
Specific Conductance	um/cm			991	1190	1350	1320	1070	980	982	1220	1050	1166	966		1057	1312	1229	878	1249	1214
Sulfate	mg/l		250	25	21.8	49.7	131	137	179	160	147	124	124	108	108	136	169	138	81.0	135	124
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0				
Total Dissolved Solids	mg/l		500	651		689		823		609		623		637	669	658	922	795	728	742	757
Dissolved Organic Carbon	mg/l			3.4	5.6	3.6	5.2	5.5	5.7	5.5	4.3	3.8	7.1	19.5	4.4						
Total Organic Carbon	mg/l			3.1	4.5	3.3	5.1	5.5	5.1	6.2	3.3	4.0	5.9	3.9	3.7	1.5	4.7	2.2	4.8	3.7	5.1
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<19	<4J	<19	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<9.8	<3J	<9.8	<3
Methane	ug/l			210	360	<2	120	48	26	39	27	9.6	32	5.9	5.7	12	76	230	141	49	8.8

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E: *Concentration exceeded the calibration range of the instrument*

D: *Analytical result after sample dilution*

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18A (cont'd)											
				May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			399	468	453	446	446	449	483	447	446	558	443	473
Ammonia (as N)	mg/l			0.78	0.59	0.69	0.99	0.66	1.2	1.4	1.39	0.901	1.58	0.74	1.1
Biological Oxygen Demand	mg/l														
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10	<10 UJ	<10	<10	<10	12.7	<10	<10
Chloride	mg/l		250	41.0	60.8	39.0	66.2	32.7	65.9	60.0	78.1	62.9	74.9	42.7J-	99.2
Cyanide	mg/l	200													
Dissolved Oxygen	mg/l			0.73	0.24	0.30	0.29	0.32	0.57	0.21		0.00	0.00	0.49	0.00
Nitrate	mg/l	10													
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	0.162	<0.050	<0.050	1.1	<0.050
Oil and Grease	mg/l														
Ortho-Phosphate (Total)	mg/l														
Oxidation Reduction Potential	mV			-23.3	-20.2	-55	-52.2	-64.0	-66.7	-66.0	-87.8	-45.3	-80.0	24.9	-76
Phosphorus (Total)	mg/l			0.024	0.046	0.038	0.017	<0.010	<0.010	<0.010	<0.0100	<0.010	0.0235	<0.010	0.2
pH	S.U.		6.5-8.5	6.85	6.80	6.77	6.77	6.75	6.88	6.67	6.68	6.36	6.58	6.86	6.73
Specific Conductance	um/cm			1171	1196	1009	1130	1113	1089	1024	1131	976	1220	1070	1298
Sulfate	mg/l		250	191	101	120	43.8	144	65	73	35.7	79.5	61.6	129.1-	97.4
Sulfide	mg/l														
Total Dissolved Solids	mg/l		500	797	710	789	622	671	729	658	611	673	774	714	802
Dissolved Organic Carbon	mg/l														
Total Organic Carbon	mg/l			1.6	2.1	2.0	5.0	2.5	2.0	3.1	4.3	3.8	3.1	3.0	4.1
Total Suspended Solids	mg/l														
Ethane	ug/l			<4	<4.7	<9.0	<4	<4	<4	<7.5	<15	<15	<15	<40	<4
Ethene	ug/l			<3	<3	<7.5	<3	<3	<7	<7.5	<15	<15	<15	<30	<3
Methane	ug/l			<2	54	300	67	48	21	20	35	47	81	<20	54

J- Concentration exceeded the calibration range of the instrument

D - Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18B																	
				May-00	Aug-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	May-05	Nov-05	May-06
Alkalinity	mg/l			335	315	328	344	331	348	328	303	310	324	245	249	287	341	311	256	345	278
Ammonia (as N)	mg/l			0.04	<0.020	0.026	<0.020	0.05	<0.020	0.062	<0.020	0.033	0.061	<0.020	<0.020	0.038	0.048	0.13	0.064	0.063	0.052
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l			24.4		<10		<10		<10		<10		<10	<10	<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	50.6	47.6	51.1	51.2	50.5	49.9	51.4	50.2	52.6	48.7	50.0	59.2	49.7	50.4	54.0	54.2	52.9	55.8
Cyanide	mg/l	200		<0.02		<0.02		<0.02		<0.02		<0.02		<0.02	<0.02	<0.02					
Dissolved Oxygen	mg/l				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00R	0.05	0.10	0.10	0.00	0.06	1.4R	0.15	0.14	0.41
Nitrate	mg/l	10			<0.050		<0.050		<0.050		<0.05		<0.050	<0.05							
Nitrate + Nitrite	mg/l	10		<0.05		<0.05		<0.05		<0.05		<0.05			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Oil and Grease	mg/l			<5		<5		<5		<5		<5		<5	<5	<5					
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV				-121	-146	-153	-153	-136	-150	-107	-117	-305R	-48.6	-124.7	-112.7	-115.0	-128.3	-167.0	-106.6	-76.8
Phosphorus (Total)	mg/l			<0.02		<0.02		<0.02		<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	0.18	<0.01	0.026	<0.010
pH	S.U.		6.5-8.5	7.04	7.26	7.23	7.22	7.38	7.23	7.24	7.16	6.95	7.37	7.06	7.21	7.58	7.03	7.11	7.04	7.30	7.36
Specific Conductance	umhos/cm			765	936	829	709	688	709	727	835	872	809	735	812	758	827	643	850	832	821
Sulfate	mg/l		250	66.4	60.2	61.9	61.2	56.3	55.4	56.9	57.5	57.6	53.9	36.4	66.6	58.5	57.3	58.7	60.9	60.7	57.3
Sulfide	mg/l			<2	<2	<2	<2.0	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0					
Total Dissolved Solids	mg/l		500	608		383		463		470		566		459	477		501	468	430	459	528
Dissolved Organic Carbon	mg/l			1.3	2.4	<1	2.0	3.1	1.3	1.6	1.0	1.6	2.6	2.5							
Total Organic Carbon	mg/l			<1	<1	<1	1.6	1.7	2.2	1.7	<1.0	1.6	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<1.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4.000	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4J	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3.000	<3	<3	6.0	<3	<3	<3	<3	<3	<3	<3	<3J	<3	<3	<3
Methane	ug/l			28	14	34	32	15	25	30	6.3	4.6	6.9	<2	7.8	4.7	30	7.3J	13	15	14

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E: Concentration exceeded the calibration range of the instrument

D: Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW18B (cont'd)										
				Nov-06	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			190	282	314	316	355	353	315	341	331	316	286
Ammonia (as N)	mg/l			0.039	0.057	0.079	0.059	0.12	0.074	0.054	0.046	0.038	<0.20	0.066
Biological Oxygen Demand	mg/l													
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10 UJ	<10	11.4	<10	<10	<10	<10
Chloride	mg/l		250	55.9	57.9	57.8	54.1	60.0	59.0	56.0	59.9	59.1	60.6J-	60.1
Cyanide	ug/l	200												
Dissolved Oxygen	mg/l			0.15	0.05	0.19	0.19	0.24	0.39		0.00	0.00	0.31	0.00
Nitrate	mg/l	10												
Nitrate + Nitrite	mg/l	10		<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Oil and Grease	mg/l													
Ortho-Phosphate (Total)	mg/l													
Oxidation Reduction Potential	mV			-79.2	-107.4	-62.3	-106.5	-94.0	-103.4	-117.0	-80.8	-110.0	-37.5	-116
Phosphorus (Total)	mg/l			<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0100	<0.010	<0.010	<0.010	0.18
pH	S.U.		6.5-8.5	7.55	7.09	7.21	7.17	7.36	7.11	7.07	6.37	7.03	7.23	7.24
Specific Conductance	uu/cm			847	846	859	910	805	796	882	731	851	830	795
Sulfate	mg/l		250	58.6	57.8	60.4	58.1	55.5	54	51.3	49.9	82.9	50.3J-	48.5
Sulfide	mg/l													
Total Dissolved Solids	mg/l		500	491	547	492	492	514	491	433	450	514	478	457
Dissolved Organic Carbon	mg/l													
Total Organic Carbon	mg/l			<1.0	<1.0	1.8	<1.0	<1.0	<1.0	1.4	1.2	<1.0	1.2	<1.0
Total Suspended Solids	mg/l													
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			8.4	5.6	6.8	6.0	<2	3.5	3.1	3.4	2.7	<2	<2

E Concentration exceeded the calibration range of the instrument

D Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW19A																	
				Feb-02	May-02	Aug-02	Nov-02	May-03	Nov-03	May-04	Nov-04	Mar-05	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08	May-09
Alkalinity	mg/l			403	400	411	290	223	372	357	429		368	310	380	360	425	371	490	423	438
Ammonia (as N)	mg/l			5.0	4.9	4.3	5.0	<0.020	4.0	3.3	3.9		3.7	1.2	1.5	1.8	3.2	3.0	2.6	3.0	2.44
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l				17.2	14.0	<10	13.2	16.1	<10	10.5		<10	15.6J	29.7	<10	<10	<10	11.1	<10 UJ	<10
Chloride	mg/l		250	97.2	101	100	93.9	35.2	89.5	82.8	87.7		81.0	51.8	87.6	72.0	81.9	85.8	77.8	80.2	66.0
Cyanide	mg/l	200																			
Dissolved Oxygen	mg/l			0.00	2.31R	0.03	0.20	0.40	0.00	0.02	0.14	0.10	0.32	0.25	0.65	0.27	0.10	0.24	0.33	0.18	
Nitrate	mg/l	10		<0.05	<0.05	<0.050	<0.050	2.6	<0.05	<0.05	<0.05		<0.05	0.83	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050
Nitrate + Nitrite	mg/l	10																			
Oil and Grease	mg/l																				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			-65	-128	-317R	-67.2	59.9	-88.6	-98.1	-66.1	-81.4	-85.5	-64.2	-54.4	-73.6	-78.7	-53.9	-46.1	-102.2	-47.3
Phosphorus (Total)	mg/l																				
pH	S.U.		6.5-8.5	6.77	6.65	6.91	6.83	7.17	7.25	6.74	6.49	6.96	6.82	7.10	6.81	7.31	7.00	6.90	6.75	7.02	6.86
Specific Conductance	mm/cm			1220	1290	1100	1103	683	1143	1169	907		1260	876	1182	1000	930	1064	1183	895	1026
Sulfate	mg/l		250	41.0	82.7	47.2	65.5	63.4	73.8	85.5	58.4		117.0	56.5	85.3	49.5	49.3	43.9	54.3	27.0	77.0
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0												
Total Dissolved Solids	mg/l		500																		
Dissolved Organic Carbon	mg/l			4.1	5.0	5.7	5.9														
Total Organic Carbon	mg/l			4.4	4.1	5.2	3.4	1.3	4.5	3.1	4.3		4.1	3.6	2.8	2.9	2.8	4.2	3.7	2.3	3.3
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<4.7	<4.7	<4.7		<4.7	<4.7	<4	<4	<4	<4	<4	<4	<30
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<3	<3		<3	<3	<3	<3	<3	<3	<3	<3	<30
Methane	ug/l			51	19	49	23	14	73	99	29		74	41	75E 92D	38	52	28	220	22	23

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E: *Concentration exceeded the calibration range of the instrument*

D: *Individual result after sample dilution*

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW19A (cont'd)				
				Nov-09	May-10	Nov-10	May-11	Oct-11
Alkalinity	mg/l			456	496	572	476	469
Ammonia (as N)	mg/l			6.85	4.61	6.81	5.60	6.50
Biological Oxygen Demand	mg/l							
Chemical Oxygen Demand	mg/l			23.4	10.5	5.0	<10	13.0
Chloride	mg/l		250	64.7	57.0	84.6	68.8	95.6
Cyanide	ug/l	200						
Dissolved Oxygen	mg/l				0.24	0.03	0.56	0.00
Nitrite	mg/l	10		<0.050	<0.050	<0.050	<0.050	0.10
Nitrate + Nitrite	mg/l	10					<0.050	0.10
Oil and Grease	mg/l							
Ortho-Phosphate (Total)	mg/l							
Oxidation Reduction Potential	mV			-102.8	-29.5	-82	45.3	-66
Phosphorus (Total)	mg/l							
pH	S.U.		6.5-8.5	6.85	6.62	6.59	6.89	6.77
Specific Conductance	umo/cm			1006	865	217	1110	1192
Sulfate	mg/l		250	40.2	105.0	37.2	107.0	10.3
Sulfide	mg/l							
Total Dissolved Solids	mg/l		500					
Dissolved Organic Carbon	mg/l							
Total Organic Carbon	mg/l			4.6	3.1	5.4	4.1	3.4
Total Suspended Solids	mg/l							
Ethane	ug/l			<30	<30	<30	<80	<4
Ethene	ug/l			<30	<30	<30	<60	<3
Methane	ug/l			200	120	91	56	<200

E = Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW20A																	
				Feb-02	May-02	Aug-02	Aug-02 Dup	Nov-02	May-03	Nov-03	May-04	Nov-04	Mar-05	May-05	Nov-05	May-06	Nov-06	May-07	Nov-07	May-08	Nov-08
Alkalinity	mg/l			462	459	480	475	357	249	426	369	477		379	400	414	407	375	442	445	443
Ammonia (as N)	mg/l			3.1	3.5	5.7	4.0	3.7	2.3	2.7	2.5	3.0		2.8	3.1	1.3	1.5	2.4	2.1	2.1	2.5
Biological Oxygen Demand	mg/l																				
Chemical Oxygen Demand	mg/l				17.5	16.0		<10	11.8	10.3	<10	16.1		15.7J	21.6J	<10	<10	<10	<10	<10	<10 UJ
Chloride	mg/l		250	67.1	81.8	84.0	82.8	86.0	52.8	96.7	89.8	90.3		83.4	92.1	69.0	91.5	68.9	68.3	57.5	69.2
Cyanide	ug/l	200																			
Dissolved Oxygen	mg/l			0.00	4.24R	0.03		0.30	0.10	0.00	0.02	0.14	0.11	0.15	0.24	0.53	0.20	0.08	0.24	0.28	0.26
Nitrate	mg/l	10		<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050
Nitrate + Nitrite	mg/l	10																			
Oil and Grease	mg/l																				
Ortho-Phosphate (Total)	mg/l																				
Oxidation Reduction Potential	mV			-84	-120	-342R		-50.9	-94.0	-93.5	-98.5	-85.4	-79.5	-92.7	-95.2	-55.4	-76.8	-77.8	-50.4	-52.6	-73.9
Phosphorus (Total)	mg/l																				
pH	S.U.		6.5-8.5	6.59	6.61	6.76		6.61	6.96	7.10	6.62	6.53	6.93	6.72	6.95	6.77	7.23	6.95	6.79	6.68	6.92
Specific Conductance	umc/cm			1280	1380	1222		1236	821	1230	1300	1036		1290	1276	1245	1134	960	1142	1154	960
Sulfate	mg/l		250	74.7	90.0	78.7	78.4	73.8	83.0	83.1	81.2	88.6		91.9	76.6	145.0	49.0	77.2	59.3	93.6	46.3
Sulfide	mg/l			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0											
Total Dissolved Solids	mg/l		500																		
Dissolved Organic Carbon	mg/l			4.5	5.6	6.1	6.0	5.9													
Total Organic Carbon	mg/l			4.2	4.8	5.5	5.3	4.5	<1.0	4.2	3.5	4.9		3.9	4.5	2.9	3.2	2.4	4.6	3.2	2.0
Total Suspended Solids	mg/l																				
Ethane	ug/l			<4	<4	<4	<4	<4	<4	<9.4	<80	<9.4		<4	<4	<4	<4.7	<4	<4	<4	<4
Ethene	ug/l			<3	<3	<3	<3	<3	<3	<4.9	<60	<4.9		<3	<3	<3	<3	<3	<3	<3	<3
Methane	ug/l			68	47	74	48	54	20	98	130	26		37	89	44E 56D	62	100	36	75	22

E. Concentration exceeded the calibration range of the instrument

D = Analytical result after sample dilution

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TABLE O-3.
WET CHEMISTRY ANALYTICAL RESULTS
POWELL ROAD LANDFILL, HUBER HEIGHTS, OHIO

Parameter	Units	MCL	Secondary Standard	MW20A (cont'd) May-09	Nov-09	May-10	Nov-11	May-11	Oct-11
Alkalinity	mg/l			311	471	383	276	350	451
Ammonia (as N)	mg/l			1.97	2.27	1.33	1.82	1.60	1.3
Biological Oxygen Demand	mg/l								
Chemical Oxygen Demand	mg/l			<10	<10	<10	<10	<10	<10
Chloride	mg/l		250	53.0	61.7	49.9	57.1	61.2	89.4
Cyanide	ug/l	200							
Dissolved Oxygen	mg/l					0.00	0.01	0.44	0.00
Nitrate	mg/l	10		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Nitrate + Nitrite	mg/l	10						<0.050	<0.050
Oil and Grease	mg/l								
Ortho-Phosphate (Total)	mg/l								
Oxidation Reduction Potential	mV			-84	-97.7	-65.9	-102	45.3	-87
Phosphorus (Total)	mg/l								
pH	S.U.		6.5-8.5	6.97	6.81	6.72	6.74	7.00	6.75
Specific Conductance	um/cm			841	1037	665	831	870	1223
Sulfate	mg/l		250	50.0	63.5	58.0	63.0	74.9	58.6
Sulfide	mg/l								
Total Dissolved Solids	mg/l		500						
Dissolved Organic Carbon	mg/l								
Total Organic Carbon	mg/l			2.5	4.4	2.1	2.9	2.7	2.4
Total Suspended Solids	mg/l								
Ethane	ug/l			<15	<15	<15	<15	<4	<4
Ethene	ug/l			<15	<15	<15	<15	<3	5.1
Methane	ug/l			12	26	3[illegible]	9.5	8.8	48

E Concentration exceeded the calibration range of the instrument

D Analytical result after sample dilution