WASTE REMOVAL REPORT

Lehigh Valley Railroad Site
Buffalo, New York
NYSDEC Site No. 9-15-071

SUBMITTED TO:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF HAZARDOUS WASTE REMEDIATION

PREPARED FOR:

Honeywell

Morristown, New Jersey

PREPARED BY:

PARSONS
180 Lawrence Bell Drive, Suite 104
Williamsville, New York 14221

January 2005

REVIEWED AND APPROVED BY:

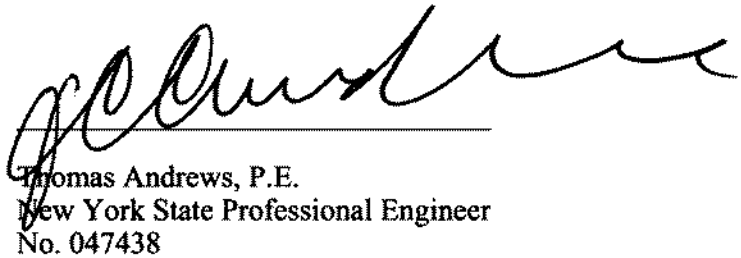
Project Manager: Mark S. Raybuck — 1/24/05 (Date)

Technical Manager: Robert Kybuck — 1/24/05 (Date)

Waste Removal Report
Lehigh Valley Railroad Site
NYS Site No: 9-15-071

ENGINEERING CERTIFICATION STATEMENT

I hereby certify[1], under penalty of law and as a Professional Engineer licensed in the State of New York, that this document and all attachments were prepared by Parsons under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Thomas Andrews, P.E.
New York State Professional Engineer
No. 047438

PARSONS
180 Lawrence Bell Drive, Suite 104
Williamsville, New York 14221

---

[1] Certification/Certify means to state or declare a professional opinion of conditions whose true properties cannot be known at the time such certification is made, despite appropriate professional evaluation. The professional opinion made is based on limited observations and widely spaced tests. This certification of conditions in no way relieves any other party from meeting requirements imposed by the contract or other means, nor does it warranty/guarantee the conditions of the constructed product.

Table of Contents

Page

SECTION 1 INTRODUCTION..... 1-1

1.1 Project Background 1-1

1.2 Project Objectives..... 1-2

SECTION 2 WASTE MATERIAL REMOVAL NARRATIVE..... 2-1

2.1 Introduction..... 2-1

2.2 2004 Impacted Material Excavation Effort 2-1

2.3 Disposition of Impacted Materials..... 2-2

2.4 Site Restoration..... 2-2

2.5 Groundwater Monitoring..... 2-3

2.6 Construction Survey 2-3

2.7 Conclusions..... 2-**Error! Bookmark not defined.**

REFERENCES

LIST OF FIGURES

Figure 1 Site Location Map

Figure 2 Limits of Excavation

LIST OF TABLES

Table 1 Post Excavation Soil Sample Results

Table 2 Post Excavation Groundwater Sample Results

Table 3 Groundwater Elevation Summary

LIST OF APPENDICES

APPENDIX A JULY 23, 2004 REMEDIAL ACTION WORK PLAN

APPENDIX B TUG HILL BACKFILL SOIL SUBMITTAL

APPENDIX C TUG HILL TOPSOIL SUBMITTAL

APPENDIX D LABORATORY ANALYTICAL DATA REPORTS

APPENDIX E MONITORING WELL CONSTRUCTION RECORDS

APPENDIX F PHOTOGRAPHIC LOG

SECTION 1
INTRODUCTION

1.1 PROJECT BACKGROUND

The Lehigh Valley Railroad Site (New York State Department of Environmental Conservation [NYSDEC] Site No.915071) is comprised of three parcels of land located in South Buffalo, Erie County, New York (Figure 1). The Lehigh Valley Railroad Company is the current owner of the property. Parcel 1 of the Lehigh Valley Railroad (LVRR) Site is classified as a Class 2 Hazardous Waste Site (Registry of Inactive Hazardous Waste Sites in New York State, April 2003) due to the presence of waste material. This material was found by the New York State Department of Transportation (NYSDOT) in 1996 during the realignment of the Tifft Street Bridge and the construction of a wetland.

In October 2001, Honeywell completed the first phase of the Interim Remedial Measure (IRM) described in the January 2001 Order-On-Consent (index # B9-0383-91-09). In this phase, Honeywell excavated and provided offsite disposal for a total of approximately 500 cubic yards of impacted solid materials. In addition, 36,485 gallons of impacted construction water was disposed of offsite. The details of this phase of the IRM are found in the Contaminant Removal Report, March 2002.

In October 2003, Honeywell completed the second phase of the IRM, and removed and disposed of approximately 450 cubic yards of impacted materials under NYSDEC oversight (Waste Removal Report, April 2004). Subsequent sidewall samples and visual observations indicated that there was an additional quantity of potentially impacted material extending west from the limits of the second excavation.

In order to further define the extent of impacted material, a series of exploratory test pits were excavated in November 2003. Based on these test pit excavations, an area of approximately 4,400 square feet was delineated as potentially being impacted with Honeywell site-specific constituents of concern (HON-COCs) and lead (LVRR Site November 2003 Delineation Report, December 2003). The HON-COCs are 4-chloroanaline, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 4-nitroanaline, nitrobenzene and 1,2,4-trichlorobenzene.

After establishing the maximum extent of the potentially impacted area, an investigation was completed to characterize the concentrations of the HON-COCs. In July 2004, composite samples were collected and analyzed for the presence of the HON-COCs and lead. The results of this testing confirmed that the material within the impacted area was suitable for excavation and consolidation in the Alltift Site (Investigation Report, July 2004).

In November 2004, Honeywell completed the excavation of the potentially impacted material from the Site under NYSDEC oversight. Materials were consolidated at the Alltift Landfill Site in accordance with the July 2004 work plan.

This report describes the excavation, discusses changes to the work plan, and provides the analytical results and record drawings.

1.2 PROJECT OBJECTIVES

In accordance with the NYSDEC-approved July 23, 2004 Remedial Action Work Plan, the stated objectives of this project were to:

- Provide a positive impact on the quality of localized impacted groundwater by removing the identified impacted material; and
- Facilitate the reclassification of the Site to Class 5-indicating that no further action is required.

1.3 ORGANIZATION OF REPORT

The following information is included in this report:

- Section 1 provides the background of the project, objectives and overview of the work that was conducted.
- Section 2 describes the field activities that took place to remove the impacted material and restore the area.
- Appendices to the report include the Work Plan, the contractor submittal information for the backfill and topsoil materials. A complete copy of the laboratory analytical data reports and photographic log are also included.

SECTION 2
WASTE MATERIAL REMOVAL NARRATIVE

2.1 INTRODUCTION

Based on the results presented in the LVRR Site November 2003 Delineation report (December 18, 2003), an area of the Site was identified which delineated the extent of materials potentially impacted with the HON-COCs.

In November 2004, Honeywell completed the remedial activities to excavate the potentially impacted material, consolidate it at the Alltift Landfill Site, and restore the LVRR Site as a wetland.

This section provides a description of that effort and presents the results of the post-excavation sampling.

2.2 2004 IMPACTED MATERIAL EXCAVATION

As established in the July 2004 work plan, prior to the start of work, the excavation limits were marked with off-set stakes to direct the excavation effort. Excavation of the delineated area began in September 2004.

Material was excavated within the defined limits to a depth where native materials were encountered and there was no visual evidence of impacted materials. The depth of the excavation ranged from seven to eight feet below ground surface (bgs). The horizontal limits of excavation were in accordance with those in the work plan with the exception of the southwest corner. At the direction of the NYSDEC, the excavation limits were expanded in the southwest corner, to remove materials that visually appeared to be similar to those potentially impacted with the HON-COCs.

Upon the removal of materials, soil samples were collected from the sidewalls and bottom of the excavation in accordance with the work plan. Each of the sidewall samples were composited from four points within the sampling area. The locations from which the samples were collected are shown on Figure 2. During the September 2004 excavation, three sidewall samples were collected. The samples were analyzed for the HON-COCs by EPA Method 8270 and lead by EPA Method 6010.

Two of the sidewall samples were found to contain HON-COCs (southwall: 4-chloroanaline, northwall: nitrobenzene and 1,2,4-trichlorobenzene), exceeding the NYSDEC Recommended Soil Cleanup Objectives (Table 1).

The HON-COCs were not detected with concentrations above the reporting limits in the samples collected from the bottom of the excavation (EX-10, 14) or from the west sidewall. The lead concentrations in all samples were found to be less than 500 mg/kg.

In November 2004, additional excavation was completed to remove material from the northern and southern walls of the excavation area where chemical concentrations were found exceeding the cleanup guidelines. Soil samples were collected from the north and south walls of the excavation and analyzed for the HON-COCs and lead. Each sample was composited from four sub-samples collected from the respective sidewall. The analytical results of this additional sampling showed that the materials potentially impacted with the HON-COCs above concentrations of regulatory concern had been removed. See Figure 2 for the limits of excavation.

It was initially estimated that approximately 1,400 cubic yards of material would be removed. Based on the surveyed limits of excavation, there was a total of approximately 2,450 cubic yards of material removed in September and November 2004.

2.3 DISPOSITION OF IMPACTED MATERIALS

Solid Materials

Based on the analytical results provided in the July 21, 2004 Investigation Report, the material within the delineated area was considered suitable for consolidation within the Alltift Site. The Alltift Site is currently in the remedial construction phase, and had the capacity for the excavated materials under the planned landfill cover.

All solid materials excavated from the LVRR Site during this phase were transported to the Alltift Site by a licensed Part 364 (solid waste) transporter. At the Alltift Site, the material was managed in accordance with the May 2003 Alltift Remedial Design and in accordance with the June 2003 Alltift Landfill/Ramco Steel Contract Documents.

Water Management

During the completion of the September excavation water from the excavation was contained in a vacuum truck and transported to the Alltift Landfill construction water treatment system for treatment and disposal. During the November 2004 effort, no water was generated during the excavation and restoration of the affected area.

2.4 SITE RESTORATION

Following the completion of the excavation and collection of representative sidewall and bottom samples, the excavation was backfilled and restored in accordance with the approved work plan.

The Site was restored by backfilling with unclassified fill to a depth approximately three feet below existing grade. An additional foot of topsoil was placed and graded in a manner to create a depressed area suitable for the creation of wetland habitat. This method of restoration limited steep changes in grade but left a depression to naturally collect precipitation. Following grade restoration, the Site was seeded with broad leaf cattail seed (Typha latifolia). The backfill and topsoil testing contractor submittals have been included as Appendices B and C.

2.5 GROUNDWATER MONITORING

In October 2004, Honeywell completed the installation of one additional groundwater monitoring well and completed the first round of groundwater monitoring outlined in the April 27, 2004 Work Plan for Interim Remedial Measure.

Monitoring well MW-6 was installed in accordance with the protocol outlined in the November 2000 Work Plan. The monitoring well installation records for the new well, as well as the existing monitoring wells, have been included in this report as Appendix D.

There are five groundwater monitoring wells remaining onsite (MW-5 was removed during the October 2003 excavation). As part of the groundwater impact evaluation described in the April 2004 Work Plan, these wells were developed and sampled in October 2004. Groundwater samples were analyzed for the presence of the HON-COCs by EPA Method 8270 and Lead by EPA Method 6010. The groundwater sampling results have been included in Table 2. A summary of the groundwater elevation data has been included as Table 3.

HON-COCs were not detected in any of the groundwater samples. Lead was detected in one groundwater sample. The lead concentration in the sample from MW-2 was below the NYSDEC Ambient Water Quality Standards and Guidance Values for Groundwater.

In accordance with the April 2004 Work Plan, Honeywell will collect three more quarterly rounds of groundwater samples. The next sampling event is scheduled for January 2005.

2.6 CONSTRUCTION SURVEY

In November 2004, Honeywell completed a survey which included locating the newly installed groundwater monitoring well (MW-6) and the as-completed horizontal limits of excavation. This survey was completed by a New York State licensed surveyor.

2.7 CONCLUSIONS

Based on observations made during the September and November 2004 field efforts and the analytical results from the bottom and sidewall samples, any HON-COC and lead concentrations remaining at the LVRR Site are below the levels of regulatory concern.

The results of the first quarterly round of groundwater sampling, completed as part of the groundwater impact evaluation, have been received. These results indicate that groundwater has not been impacted with HON-COCs or lead. Three additional quarterly sampling rounds are planned, in conformance with the April 27, 2004 work plan.

Impacted materials have been successfully removed from the defined areas, and remedial actions at the Site are now complete, with the exception of routine groundwater monitoring. The excavated areas have been restored and enhanced, with the addition of wetland and open water habitats (see photographic log, Appendix F).

REFERENCES

Alltift Landfill and Ramco Steel Contract Documents, Parsons, June 2003.

Alltift Remedial Design, Parsons May 2003.

Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), New York State Department of Environmental Conservation, June 1998.

Contaminant Removal Report-Lehigh Valley Railroad Site, Parsons, March 2002.

Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM #4046), New York State Department of Environmental Conservation.

Investigation Report LVRR Site, Parsons, July 21, 2004.

Lehigh Valley Railroad Site November 2003 Delineation, Parsons, December 18, 2003.

Order On Consent, New York State Department of Environmental Conservation (Index #B9-0383-91-09), January 2001.

Registry of Inactive Hazardous Waste Sites in New York State, NYSDEC, April 2003.

Remedial Action Work Plan-LVRR Site, Parsons, July 23, 2004.

Waste Removal Report-Lehigh Valley Railroad Site, Parsons, April 2004.

Work Plan for Interim Remedial Measure-LVRR Site, Parsons, April 27,2004.

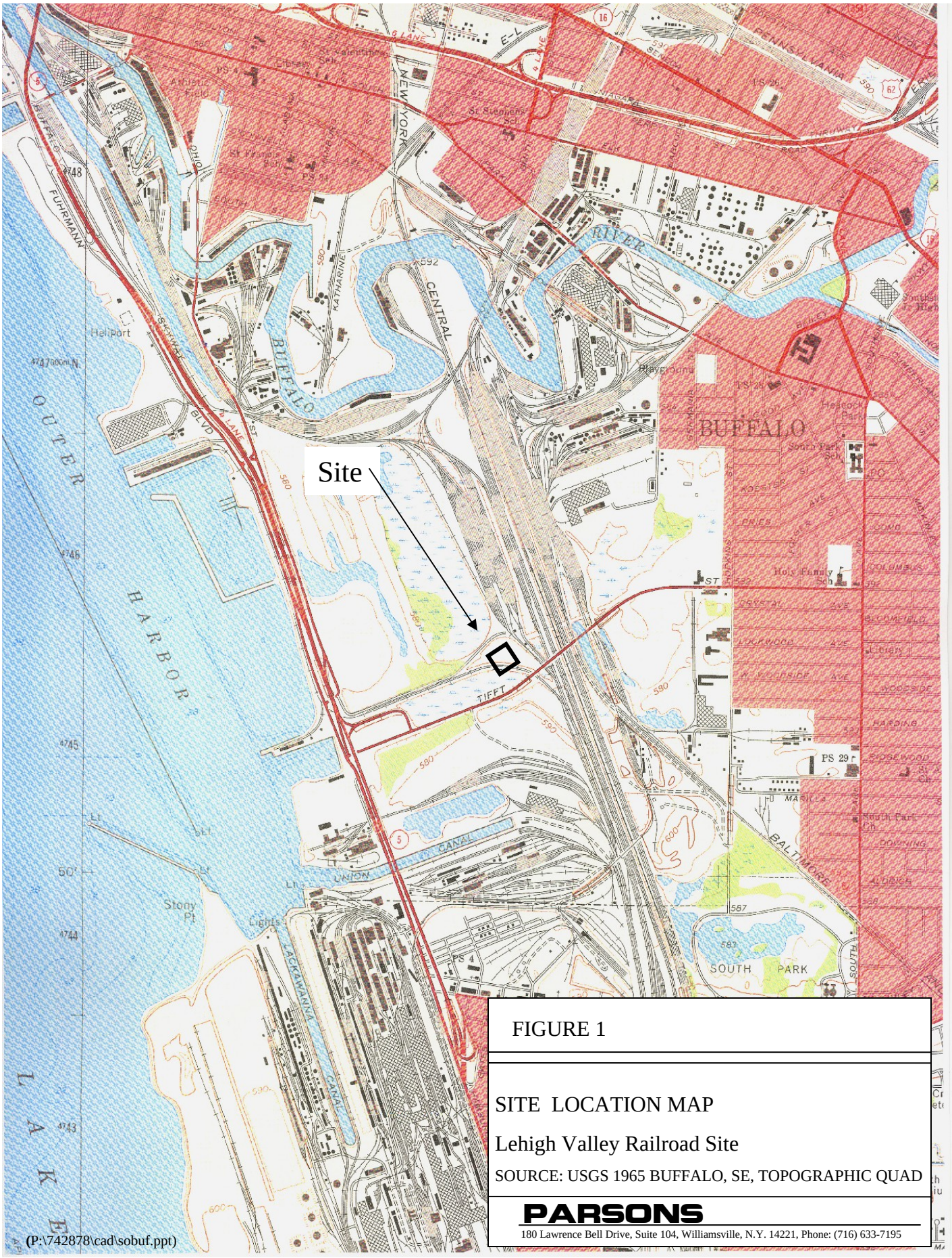


FIGURE 1

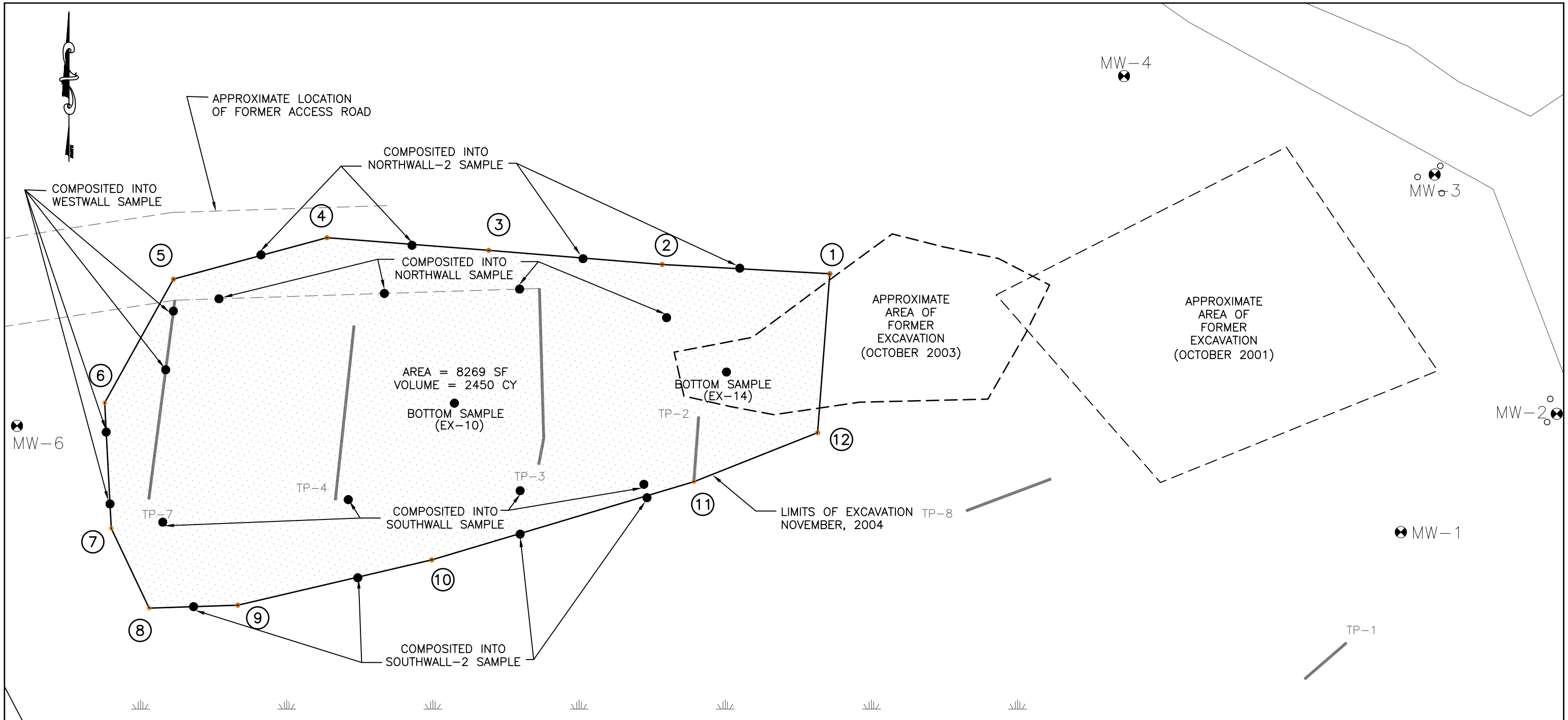
SITE LOCATION MAP

Lehigh Valley Railroad Site

SOURCE: USGS 1965 BUFFALO, SE, TOPOGRAPHIC QUAD

PARSONS
180 Lawrence Bell Drive, Suite 104, Williamsville, N.Y. 14221, Phone: (716) 633-7195

(P:\742878\cad\sobuf.ppt)



MARSHY AREA

LEGEND

MW–1	MONITORING WELL
—OHU—	OVERHEAD UTILITY LINE
TP–1	TEST PIT (NOVEMBER 2003)
EX–1	SAMPLE LOCATIONS

NOTE: APPROXIMATE GROUND EL. 579.5'

POINT	NORTHING	EASTING
1	1036255.992	1077833.088
2	1036257.891	1077798.688
3	1036260.791	1077763.088
5	1036263.391	1077729.887
4	1036254.891	1077698.387
6	1036229.520	1077684.280
7	1036203.760	1077685.630
8	1036187.390	1077693.388
9	1036187.990	1077711.588
10	1036197.291	1077751.388
11	1036213.330	1077805.200
12	1036223.392	1077830.588

COORDINATES BASED ON NAD 1983, STATE PLANE NEW YORK WEST, (FEET).

20 10 0 20 40

SCALE: 1"=20'

FIGURE 2

LEHIGH VALLEY RAILROAD SITE
BUFFALO, NY
LIMITS OF EXCAVATION
(NOVEMBER, 2004)

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104, WILLIAMSVILLE, N.Y. 14221, PHONE: 716–633–7074

P:\742878–LVRR\cad\42878F16a.dwg, 10/26/04 at 08:41, mab, 1=1
No XREFs

TABLE 1

Post-Excavation Soil Sample Results

Lehigh Valley Railroad Site

				Bottom	Bottom					
	SAMPLE ID: LAB ID: MATRIX: SAMPLED:	NYSDEC Recommended Cleanup Objective*	EX-10 A4877903 soil 9/14/2004	EX-14 A4877904 soil 9/14/2004	North Wall A4877901 soil 9/14/2004	North Wall-2 A4877901 soil 11/9/2004	South Wall A4877902 soil 9/14/2004	South Wall-2 A04-B095 soil 11/9/2004	West Wall A4856901 soil 9/8/2004
COMPOUND	UNITS:								
TCL SEMIVOLATILES (8270)									
1,2-Dichlorobenzene	ug/kg	7900	ND	ND	ND	ND	6200	ND	ND
1,3-Dichlorobenzene	ug/kg	1600	ND	ND	ND	ND	ND	ND	ND
4-Nitroanaline	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND
4-Chloroanaline	ug/kg	220	ND	ND	630 J	ND	ND	350 J	ND
Nitrobenzene	ug/kg	200	ND	ND	ND	ND	2100	ND	ND
1,2,4-Trichlorobenzene	ug/kg	3400	ND	ND	ND	ND	6700	ND	ND
Total METALS (6010)									
Lead	mg/kg	Background	5.4	6.5	155	9.0	468	103	21.5

ND - Compound not detected above the reporting limit
NS -No regulatory standard applied
* - New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum #4046
- Result exceeding Cleanup Objective
J - Indicates an estimated value
mg/kg - milligrams per kilogram (parts per million)
ug/kg - micrograms per killogram (parts per billion)

TABLE 2

Post-Excavation
Groundwater Sample Results
First Quarterly Monitoring Event

Lehigh Valley Railroad Site

	SAMPLE ID: LAB ID: MATRIX: SAMPLED:	NYSDEC Class GA Groundwater Standards	MW-1 A4A0301 Groundwater 10/21/2004	MW-2 A4A0302 Groundwater 10/21/2004	MW-3 A4A0303 Groundwater 10/21/2004	MW-4 A4A0304 Groundwater 10/21/2004	MW-6 A4A0305 Groundwater 10/21/2004
COMPOUND	UNITS:						
TCL SEMIVOLATILES (8270)							
1,2-Dichlorobenzene	ug/L	3	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ug/L	3	ND	ND	ND	ND	ND
4-Nitroanaline	ug/L	5	ND	ND	ND	ND	ND
4-Chloroanaline	ug/L	5	ND	ND	ND	ND	ND
Nitrobenzene	ug/L	0.4	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	5	ND	ND	ND	ND	ND
Total METALS							
Lead	mg/L	0.05	ND	0.0059	ND	ND	ND

ND - Compound not detected above the reporting limit
NS -No regulatory standard applied
* - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA
J - Indicates an estimated value
mg/L - milligrams per litre (part per million)
ug/L - micrograms per litre (parts per billion)

Table 3

Lehigh Valley Railroad Site
Groundwater Elevation Summary

Location	Top of PVC casing elevation (TOC)	Ground Surface Elevation	Depth to Water (TOC) 10/21/2004	Groundwater Elevation 10/21/2004
MW-1	581.54	579.2	2.72	578.82
MW-2	582.93	580.5	3.82	579.11
MW-3	582.68	580.1	3.83	578.85
MW-4	583.37	581.8	3.89	579.48
MW-6	582.82	581.1	3.2	579.62

elevation based on NGVD 1929

APPENDIX A

JULY 23, 2004 WORK PLAN

PARSONS
180 Lawrence Bell Drive, Suite 104 • Williamsville, New York 14221 • (716) 633-7074 • Fax (716) 633-7195

July 23, 2004

Mr. Maurice Moore
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

RE: Lehigh Valley Railroad Site
NYSDEC Site No.9-15-071
Remedial Action Work Plan

Dear Mr. Moore:

This letter presents the Remedial Action Work Plan (Work Plan) for the final phase of the Interim Remedial Measure (IRM) for the Lehigh Valley Railroad (LVRR) Site (NYSDEC Site No. 9-15-071) in Buffalo, New York, and consolidating the excavated material at the Alltift Landfill (Alltift) Site (NYSDEC Site No. 9-15-054). This Work Plan contains a description of the proposed work, including excavation, transport, consolidation, restoration, and surveying. Detailed specifications for excavation, backfill, and restoration are found in the August 2003 Contract Documents for the October 2003 excavation Work Plan.

SITE LOCATION

The LVRR Site is comprised of three parcels of land located in South Buffalo, Erie County, New York (Figure 1). Northwest of the Alltift Site, the LVRR Site is located across Tifft Street from the Alltift Site, between the railroad corridor and the Tifft Farm Nature Preserve. The Lehigh Valley Railroad Company is the reported current owner of the property. The LVRR Site is a satellite site of the Alltift Site.

PROJECT OBJECTIVES

The objective of the final phase of the IRM is to remove from the LVRR site, the materials that were delineated during the November 2003 test pit excavations as being potentially impacted with Honeywell site-specific constituents of concern (HON-COCs) and lead (Test Pit Report, December 2003). The HON-COCs consist of 4-chloroanaline, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 4-nitroanaline, nitrobenzene, and 1,2,4-trichlorobenzene. Lead was added as a COC based on comments included in a letter from the NYSDEC dated January 22, 2003. Additional sampling performed in July 2004, using the COC list above, confirmed the limits of excavation presented in the December 2003 Report, and also demonstrated that the materials to be removed from the LVRR Site are suitable for consolidation within the Alltift Landfill Site. Results of the July 2004 Investigation were presented to the New York State Department of Environmental Conservation (NYSDEC) in the July 21, 2004 Investigation Report.

Materials will be excavated from the LVRR Site in order to:

- provide a positive impact on the quality of localized impacted groundwater by removing the identified impacted material; and
- facilitate the reclassification of the LVRR Site from a Class 2 to a Class 5 hazardous waste site.

BACKGROUND

In October 2001, Honeywell completed the first phase of the Interim Remedial Measure (IRM) described in the January 2001 Order-On-Consent (index # B9-0383-91-09). In this phase, Honeywell excavated and provided offsite disposal for a total of approximately 500 cubic yards of impacted solid materials. In addition, 36,485 gallons of impacted construction water were disposed of offsite. The details of this phase of the IRM are found in the Contaminant Removal Report (March 2002).

During the subsequent installation of groundwater monitoring wells, additional impacted material was discovered to the west of the original excavation. In 2003, efforts were made to delineate and characterize this additional material. In October 2003, Honeywell implemented a second phase of the IRM, and removed and disposed of approximately 450 cubic yards of impacted materials (Waste Removal Report, April 2004). Subsequently, sidewall samples and visual observations indicated that there was an additional quantity of potentially impacted material extending from the west of the limits of the second excavation.

In order to further define the extent of impacted material, a series of exploratory test pits were excavated in November 2003. Based on these test pit excavations, an area of approximately 4,400 square feet was delineated as potentially being impacted with the site specific COCs (Figure 2).

After establishing this maximum extent of the potentially impacted area, an investigation was completed to characterize the concentrations of the site specific COCs. In July 2004, composite samples were collected and analyzed for the presence of the HON-COCs and lead. The results of this testing confirmed that the material within the impacted area is suitable for excavation and consolidation into the Alltift Site[1] (Investigation Report, July 2004) as the final phase of the LVRR Site IRM.

[1] The LVRR Site is included as a "satellite site" in the NYSDEC-approved remedial design for the Alltift Site (May 2003) ("Alltift RD"). The October 2001 and October 2003 phases of the IRM did not involve consolidation of excavated materials at the Alltift Site, as the closure of the Alltift Site could not be coordinated with those IRM activities. As the closure of the Alltift Landfill is now ongoing, excavated materials from this final phase of the IRM will be consolidated at the Alltift Site per the Alltift RD.

SCOPE OF WORK

Health and Safety Requirements

The impacted material removal will be conducted in accordance with the Health and Safety Plan that has been previously prepared for the Site and included in the August 2003 Contract Documents. Air monitoring will be conducted during the excavation effort for the presence of organic compounds and particulates.

Limits of Excavation

The maximum extent of the remaining material that has potentially been impacted by the HON-COCs and lead was established by the completion of the test pit excavations in November 2003. Based on observations made during the July 2004 investigation, the depth of fill material at the site ranges from six to seven feet. The vertical extent of the fill is marked at depth by the presence of a compacted reed layer and a peat zone.

The site will be excavated to a depth of eight feet below existing ground surface within the limits shown on Figure 2. These limits were based primarily on data from the November 2003 test pits. They also include additional excavation to the east, into the area of the October 2003 excavation. This area will be over-excavated to ensure that all potentially impacted material is recovered, and to address the impacted material that remained after the second phase of the IRM, as indicated by the confirmatory sampling results.

Material Disposition

Based on the analytical results from the July 2004 site investigation, the materials within the delineated area are suitable for consolidation within the Alltift Site. The Alltift Site is currently in the remedial construction phase, and has the capacity to manage the excavated materials under the planned landfill cover.

All solid materials excavated from the LVRR Site will be properly managed and transported to the Alltift Site by a licensed Part 364 (solid waste) transporter. At the Alltift Site, the material will be managed in accordance with the Alltift RD and in accordance with the June 2003 Alltift Landfill/Ramco Steel Contract Documents.

Confirmatory Sampling

A total of five solids samples will be collected and analyzed to confirm that all of the impacted material above levels of regulatory concern has been removed from the periphery of the excavated area. One confirmatory composite sample will be collected from each of the three undisturbed sidewalls of the excavation. Each sample will be composited from four grab sub-samples to be collected during excavation.

One solid grab sample will be collected from the bottom of the new excavation. An additional grab sample will be collected from the bottom of the excavation within the limits of the October 2003 excavation area.

Samples will be analyzed for the presence of the HON-COCs by EPA Method 8270 and for lead by EPA Method 6010. The results from the confirmatory sampling will be included in the IRM Final Report.

Restoration

Per the Alltift RD, restoration of the area will be limited to backfilling the excavation to approximately three feet below original grade with clean fill. The area will then be graded to minimize abrupt grade changes, creating a depression for the establishment of a wetland. One foot of organic rich topsoil/substrate soil, or imported wetland soil, will be placed, and seeded with broadleaf cattail seed (*Typha latifolia*).

Construction Survey

The limits of excavation as shown on Figure 2 have been located and staked by a New York State licensed surveyor. The final depths of excavation will be recorded in the field during the excavation effort. Following site restoration, an additional survey will be completed to confirm limits and grades.

Water Management

Prior to the start of excavation, standing water in the October 2003 excavation area will be removed and discharged to the LVRR site.

Water that requires removal from the excavation area after the start of the excavation work (Construction Water), will be contained and transported to the Alltift Landfill Site and treated in the Construction Water Treatment System (CWTS) located at the Alltift Site. The CWTS is designed to remove suspended solids and dissolved organic compounds from water collected during dewatering and remediation. The system includes sand filtration, 10 micron bag filters for particulate removal and carbon filtration units for removal of organic compounds. The CWTS has been designed to meet a discharge standard of less than 100 NTU with a nominal flow rate of 500 gpm. Based on data from prior phases of this IRM, the CWTS can treat the Construction Water and achieve the relevant discharge parameters. After treatment via the CWTS, the water will be discharged to the storm sewer.

Detailed specifications for the CWTS are included as Attachment A.

SCHEDULE

After receiving approval from the NYSDEC, Honeywell will contract with Tug Hill Construction to complete the proposed remedial activities outlined in this Work Plan. In order to meet existing construction schedules, all material to be consolidated at the Alltift Site must be received by August 27, 2004.

Following completion of the final phase of the IRM, remedial construction, the NYSDEC will be provided with an IRM Final Report. The report will include a summary of the remedial effort, the results of the confirmatory sampling, and a survey of the excavated area.

Following NYSDEC acceptance of the IRM Final Report, Honeywell will implement the Groundwater Impact Evaluation described in the April 27, 2004 Work Plan for Interim Remedial Measure.

If you have any questions or comments regarding this Work Plan, please feel free to contact me at (216) 486-9005.

Very truly yours,

Keith Rankin, P.E.
Project Manager

Attachments – CWTS specification

cc: John Morris (Honeywell)
Christopher Burns (Clough Harbour)
Jeffrey Poulsen (Parsons)
Bob Jackson (Parsons)
David Flynn (Phillips, Lytle)
Kerry Hanlon (Unicorn)
File (742878 No. 13b)

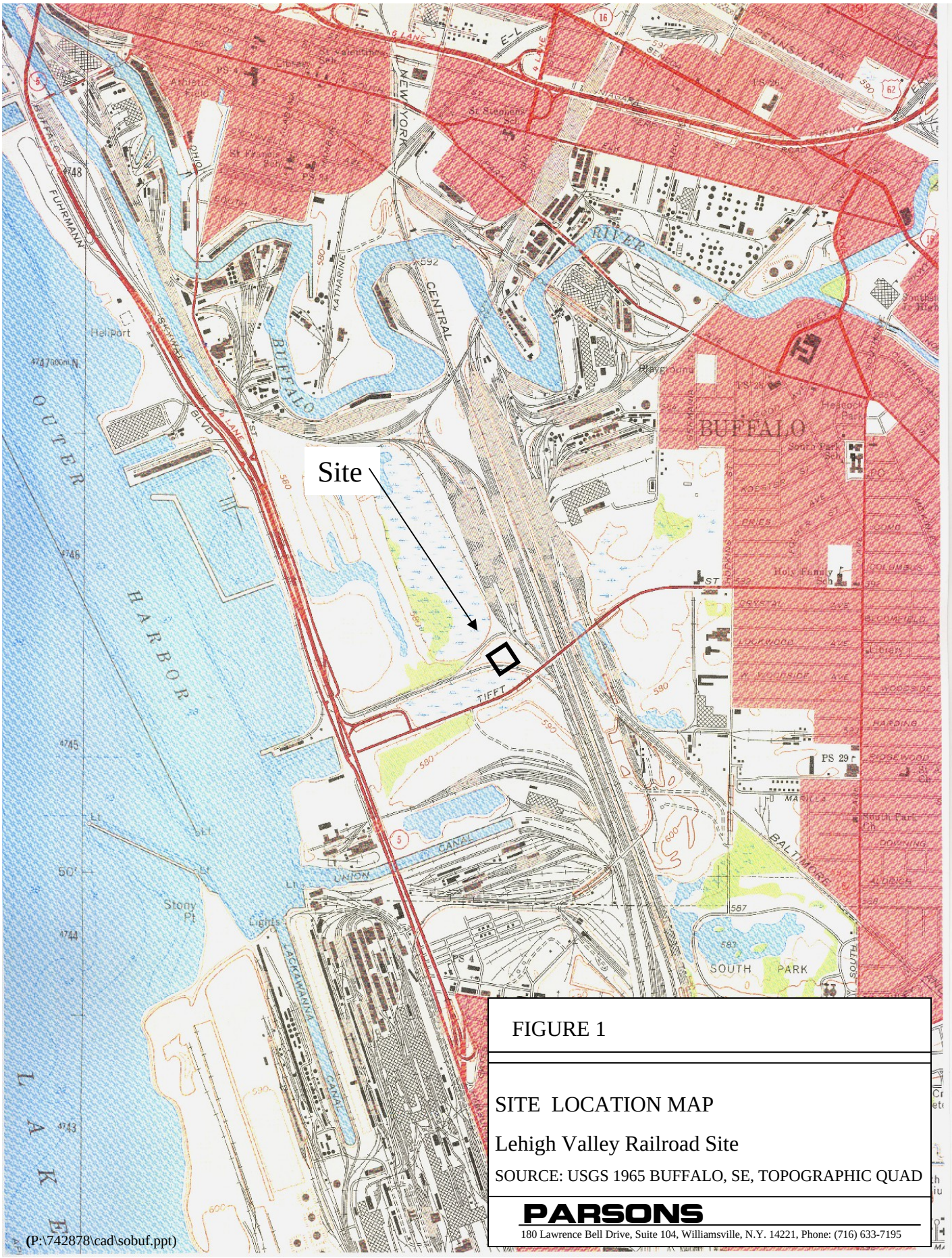


FIGURE 1

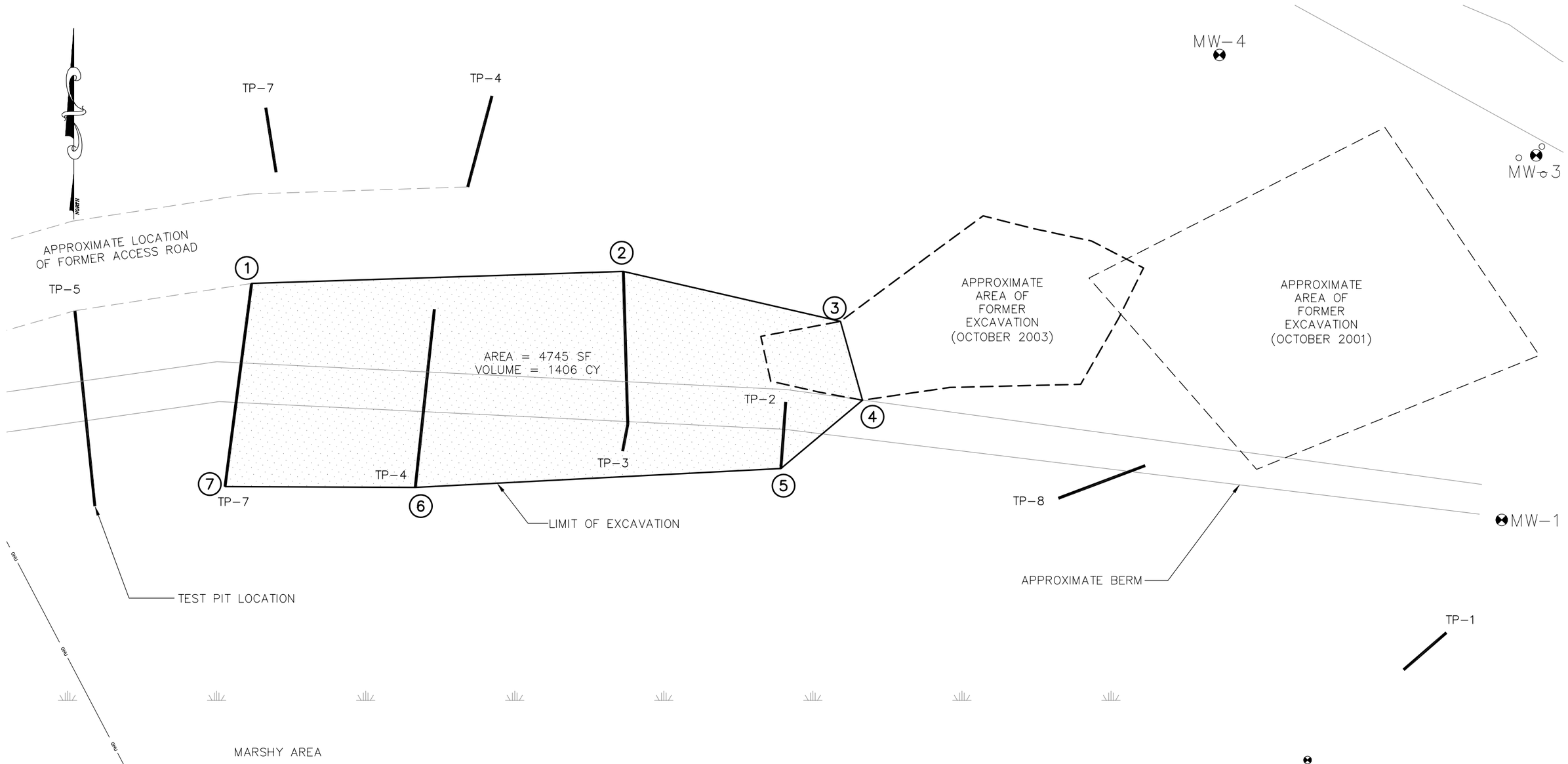
SITE LOCATION MAP

Lehigh Valley Railroad Site

SOURCE: USGS 1965 BUFFALO, SE, TOPOGRAPHIC QUAD

PARSONS
180 Lawrence Bell Drive, Suite 104, Williamsville, N.Y. 14221, Phone: (716) 633-7195

(P:\742878\cad\sobuf.ppt)



POINT	NORTHING	EASTING
1	1036250.56	1077698.67
2	1036252.98	1077773.48
3	1036242.94	1077817.19
4	1036227.07	1077821.62
5	1036213.33	1077805.20
6	1036209.52	1077731.61
7	1036209.69	1077693.33

LEGEND

MW-1 — EXISTING MONITORING WELL

—OHU— OVERHEAD UTILITY LINE

TP-1 — TEST PIT (NOVEMBER 2003)

NOTE: APPROXIMATE GROUND EL. 579.5'

20 10 0 20 40

SCALE: 1"=20'

FIGURE 2

LEHIGH VALLEY RAILROAD SITE
BUFFALO, NY

LIMITS OF EXCAVATION

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104, WILLIAMSVILLE, N.Y. 14221, PHONE: 716-633-7074

P:\742878-LVRR\cad\42878F14.dwg, 07/20/04 at 13:59, MAB, 1=1
No XREFs

APPENDIX B

TUG HILL BACKFILL SOIL SUBMITTAL

LETTER OF TRANSMITTAL

39

TUG HILL Construction, Inc.
ENVIRONMENTAL EARTHWORK CONTRACTORS

40 Pine Street
Lockport, New York 14094
Tel: (716) 433-6606
Fax: (716) 433-6607

DATE:	March 10, 2004
PROJECT:	HONEYWELL - ALLTIFT PROJECT
ATTENTION:	Roy Wagner

TO:

de maximis

3988 Fieldcrest Drive

Cortland, NY 13045

RE: Submittal No - 02223-4 (2.02 A)

We are sending you:

- [X] Attached
- [X] Delivered by Hand
- [ ] via Overnight
- [ ] Prints
- [ ] Copy of Letter
- [ ] Plans
- [ ] Specifications
- [ ] Shop Drawings
- [ ] Samples
- [X] Submittals
- [ ] Other _____

COPIES	DATE	NO	DESCRIPTION
7			Gradation & Chemical Testing Results For Offsite Soil (Lafarge Sorce)

- [X] For your use
- [X] For approval
- [X] As requested
- [ ] For review/distribution
- [ ] Other _____
- [ ] Approval as noted
- [ ] Approved for construction
- [ ] Returned for corrections
- [ ] Returned after loan to us
- [ ] Return ___ corrected prints
- [ ] For bids due _____
- [ ] Submit ___ copies for
- [ ] Re-submit ___ copies for

Remarks

This material is to be used for unclassified backfill, cover soil, subbase soil & temporary diversion berms.

If enclosures are not as indicated,

please notify us at once.

Signed: _____

Jeff Dunn, Project Controls Engineer

GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

PROJECT NAME: Alltift Landfill
LOCATION: Buffalo, New York
PROJECT NO. 55814.00

CLIENT: Tug Hill Construction, Inc.

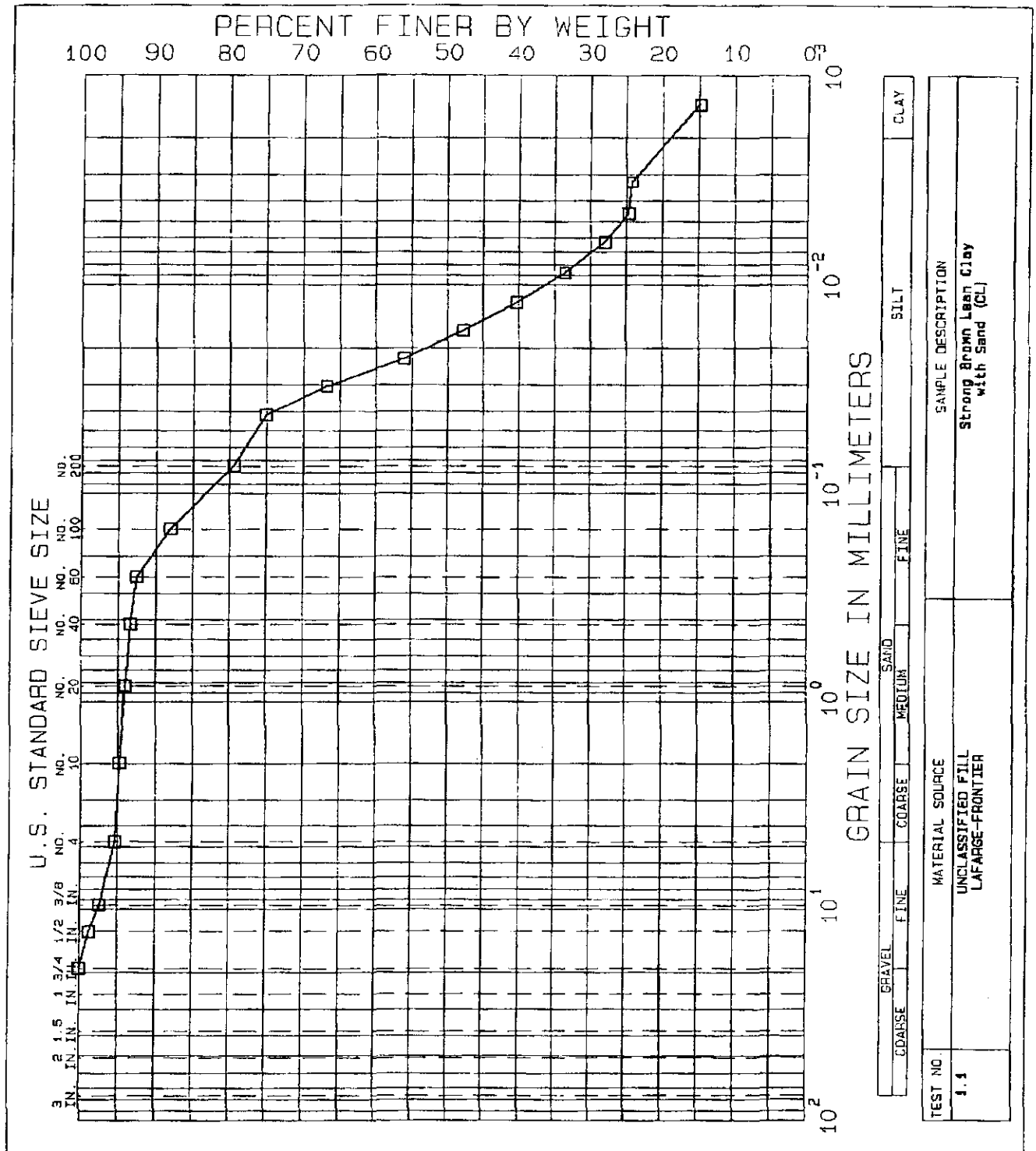
MATERIAL SOURCE: UNCLASSIFIED FILL (LAFARGE-FRONTIER)

DATE REPORTED: MARCH 8, 2004

WORK ORDER NO. 4386

IDENTIFICATION			WATER CONTENT	ATTERBERG LIMITS			ASH and ORGANIC CONTENT		GRAIN SIZE ANALYSIS		pH OF SOIL		PERMEABILITY TEST					LABORATORY LOG AND SOIL DESCRIPTION
SAMPLE TYPE	SAMPLE NUMBER	DEPTH ft.	%	LL %	PL %	PI	ORGANIC %	ASH %	SIEVE -200 %	HYD. -2μ %	pH in H_2O	pH in 0.01M $CaCl_2$	PERME-ABILITY cm/sec.	TYPE OF TEST	$\bar{\sigma}_c$ psf	DRY UNIT WT pcf	WATER CONTENT %	
BULK BAG	LAFARG E-1		16.4	23	13	10	1.2	98.8	79	19	7.8	7.8						Strong Brown Lean Clay with Sand (CL)

GZA GeoEnvironmental of New York
Engineers and Scientists



Test Procedure Information:

Sample separated on a No. 4 sieve. Sample dispersed with a mechanical stirring device, Type A, for 1 minute.

ALLTIFT LANDFILL
BUFFALO, NEW YORK
PARTICLE-SIZE ANALYSIS

EXPLOR. NO.	BULK BAG	WORK ORDER NO.	4386
SAMPLE NO.	LAFARGE-1	DATE	3/05/04
DEPTH			
TECH.	DEW		
REVIEWER	DEW	FILE	55814.00

GZA GeoEnvironmental of New York
Engineers and Scientists

Analytical Testing Results Summary for Unclassified Fill Sample
Taken From LaFarge Frontier Source

Alltift Landfill Site/Ramco Steel Site
Buffalo, New York

Parameter	Recommended Soil Cleanup Objective ppm	Eastern USA Background ppm	LAFARGE-1 ppm
VOC - EPA Method 8260 (ppm)			
No Compounds Detected		N/A	N/D
SVOC - EPA Method 8270 (ppm)			
No Compounds Detected		N/A	N/D
TAL Metals including Cyanide and Mercury - EPA Methods 6010 and 7174 A)			
Aluminum	SB	33,000	9,310
Arsenic	7.5 or SB	3-12	3.2
Barium	300 or SB	15-600	67.6
Calcium	SB	130-35,000	52,100
Chromium	10 or SB	1.5-40	13.9
Cobalt	30 or SB	2.5-60	6.61
Copper	25 or SB	1-50	17.7
Iron	2000 or SB	2000-550,000	16,700
Lead	SB	See Note 5	5.4
Magnesium	SB	100-5000	**12,000**
Manganese	SB	50-5000	579
Nickel	13 or SB	0.5-25	13.4
Potassium	SB	8500-43,000	1200
Sodium	SB	6000-8,000	170
Vanadium	150 or SB	1-300	18.9
Zinc	20 or SB	9-50	**70.7**

Notes:

1. Only compounds detected in one or more samples are presented on this table. Refer to original data sheets for list of all compounds included in analysis.
2. Analytical testing completed by GZA GeoEnvironmental Laboratories, Inc.
3. Recommended soil cleanup objectives are based on the Division Technical and Administrative Guidance Memorandum (TAGM) 4046 on Determination of Soil Cleanup Objectives and Cleanup Levels in its final form.
4. ND = not detected, NA = not available
5. Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.
6. mg/kg = ppm

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA: MA092 NH: 2028 RI: 236
CT: PH0579 OK: 9928 NC: 615
NY (NELAC): 11063

ANALYTICAL DATA REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225
(716)685-2300
Bart Klettke

Project No.: 21.0055814.00
Work Order No.: 0403-00013
Date Received: 3/03/04
Date Reported: 3/08/04

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
3/02/2004	Solid	0403-00013 001	LAFARGE - 1

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225

Bart Klettke

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Date Received: 3/03/04
Date Reported: 3/08/04
Work Order No.: 0403-00013

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 03/03/04 via __GZA courier, _X_UPS, __FEDEX, or ___hand delivered. The temperature of the __temperature blank/_X_cooler air, was 4.0 degrees C. The samples were received intact for all requested analyses. Analyses for Cyanide, Sodium and Potassium were subcontracted to RIAL.

The VOC sample was preserved in methanol upon receipt at the laboratory.

2. EPA Method 6010/7471 - Metals

Attach QC 6010 03/03/04 - Solid
Attach QC Mercury 03/04/04 - Solid

3. EPA Method 8260 - VOCs

The reporting limits have been decreased to reflect the actual dilution factor created when extracting the sample in methanol prior to analysis. The laboratory generally employs a default limit setting of 100uk/kg for soil samples but is calibrated to meet lower limits for the analysis of drinking water (EPA Method 524.2). Any results reported between the amended limit (60ug/Kg) and the default limit (100ug/kg) would be flagged as estimated values (J).

Attach QC 8260 03/04/04 - Solid

4. EPA Method 8270 - SVOCs

Attach QC 8270 03/03/04 - Solid

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225

Bart Klettke

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Date Received: 3/03/04
Date Reported: 3/08/04
Work Order No.: 0403-00013

Data Authorized By: _____

% R = % Recovery
DF = Dilution Factor
DO = Diluted Out

Method 8260: The current version of the method is 8260B.
Method 8021: The current version of the method is 8021B.
Method 8270: The current version of the method is 8270C.
Method 6010: The current version of the method is 6010B.

Laboratory Identification Numbers:

MA: MA092 NH: 2028
CT: PH0579 RI: 236
NC: 615 NY (NELAC): 11063

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

The laboratory report shall not be reproduced except in full without the written consent of the laboratory.

Soil data is reported on a dry weight basis unless otherwise specified.

Matrix Spike / Matrix Spike Duplicate sets are performed as per each method and are reported at the end of the analytical report if assigned on the chain of custody.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225

Bart Klettke

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Date Received: 3/03/04
Date Reported: 3/08/04
Work Order No.: 0403-00013

Sample ID: LAFARGE - 1
Sample Date: 3/02/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	3/04/04
Dichlorodifluoromethane	EPA 8260	<200	ug/kg	MQS	3/04/04
Chloromethane	EPA 8260	<200	ug/kg	MQS	3/04/04
Vinyl Chloride	EPA 8260	<100	ug/kg	MQS	3/04/04
Bromomethane	EPA 8260	<200	ug/kg	MQS	3/04/04
Chloroethane	EPA 8260	<100	ug/kg	MQS	3/04/04
Trichlorofluoromethane	EPA 8260	<200	ug/kg	MQS	3/04/04
Diethylether	EPA 8260	<100	ug/kg	MQS	3/04/04
Acetone	EPA 8260	<1000	ug/kg	MQS	3/04/04
1,1-Dichloroethene	EPA 8260	<100	ug/kg	MQS	3/04/04
Dichloromethane	EPA 8260	<100	ug/kg	MQS	3/04/04
Methyl-Tert-Butyl-Ether	EPA 8260	<100	ug/kg	MQS	3/04/04
trans-1,2-Dichloroethene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,1-Dichloroethane	EPA 8260	<100	ug/kg	MQS	3/04/04
2-Butanone	EPA 8260	<1000	ug/kg	MQS	3/04/04
2,2-Dichloropropane	EPA 8260	<100	ug/kg	MQS	3/04/04
cis-1,2-Dichloroethene	EPA 8260	<100	ug/kg	MQS	3/04/04
Chloroform	EPA 8260	<100	ug/kg	MQS	3/04/04
Bromochloromethane	EPA 8260	<100	ug/kg	MQS	3/04/04
Tetrahydrofuran	EPA 8260	<200	ug/kg	MQS	3/04/04
1,1,1-Trichloroethane	EPA 8260	<100	ug/kg	MQS	3/04/04
1,1-Dichloropropene	EPA 8260	<100	ug/kg	MQS	3/04/04
Carbon Tetrachloride	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2-Dichloroethane	EPA 8260	<100	ug/kg	MQS	3/04/04
Benzene	EPA 8260	<100	ug/kg	MQS	3/04/04
Trichloroethene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2-Dichloropropane	EPA 8260	<100	ug/kg	MQS	3/04/04
Bromodichloromethane	EPA 8260	<100	ug/kg	MQS	3/04/04
Dibromomethane	EPA 8260	<100	ug/kg	MQS	3/04/04
4-Methyl-2-Pentanone	EPA 8260	<200	ug/kg	MQS	3/04/04
cis-1,3-Dichloropropene	EPA 8260	<100	ug/kg	MQS	3/04/04
Toluene	EPA 8260	<100	ug/kg	MQS	3/04/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0403-00013

Sample ID: LAFARGE - 1
Sample Date: 3/02/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
trans-1,3-Dichloropropene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,1,2-Trichloroethane	EPA 8260	<100	ug/kg	MQS	3/04/04
2-Hexanone	EPA 8260	<200	ug/kg	MQS	3/04/04
1,3-Dichloropropane	EPA 8260	<100	ug/kg	MQS	3/04/04
Tetrachloroethene	EPA 8260	<100	ug/kg	MQS	3/04/04
Dibromochloromethane	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2-Dibromoethane (EDB)	EPA 8260	<200	ug/kg	MQS	3/04/04
Chlorobenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,1,1,2-Tetrachloroethane	EPA 8260	<100	ug/kg	MQS	3/04/04
Ethylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
m&p-Xylene	EPA 8260	<100	ug/kg	MQS	3/04/04
o-Xylene	EPA 8260	<100	ug/kg	MQS	3/04/04
Styrene	EPA 8260	<100	ug/kg	MQS	3/04/04
Bromoform	EPA 8260	<200	ug/kg	MQS	3/04/04
Isopropylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,1,2,2-Tetrachloroethane	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2,3-Trichloropropane	EPA 8260	<100	ug/kg	MQS	3/04/04
Bromobenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
n-Propylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
2-Chlorotoluene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,3,5-Trimethylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
4-Chlorotoluene	EPA 8260	<100	ug/kg	MQS	3/04/04
tert-Butylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2,4-Trimethylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
sec-Butylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
p-Isopropyltoluene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,3-Dichlorobenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,4-Dichlorobenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
n-Butylbenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2-Dichlorobenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2-Dibromo-3-Chloropropane	EPA 8260	<500	ug/kg	MQS	3/04/04
1,2,4-Trichlorobenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
Hexachlorobutadiene	EPA 8260	<100	ug/kg	MQS	3/04/04
Naphthalene	EPA 8260	<100	ug/kg	MQS	3/04/04
1,2,3-Trichlorobenzene	EPA 8260	<100	ug/kg	MQS	3/04/04
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	97.3	% R	MQS	3/04/04
***Toluene-D8	EPA 8260	97.2	% R	MQS	3/04/04
***4-Bromofluorobenzene	EPA 8260	83.9	% R	MQS	3/04/04
Preparation		20	DF	MQS	3/04/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0403-00013

Sample ID: LAFARGE - 1
Sample Date: 3/02/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	3/05/04
Phenol	EPA 8270	<330	ug/kg	CMG	3/05/04
2-Chlorophenol	EPA 8270	<330	ug/kg	CMG	3/05/04
2-Methylphenol	EPA 8270	<330	ug/kg	CMG	3/05/04
3&4-Methylphenol	EPA 8270	<330	ug/kg	CMG	3/05/04
2-Nitrophenol	EPA 8270	<330	ug/kg	CMG	3/05/04
2,4-Dimethylphenol	EPA 8270	<330	ug/kg	CMG	3/05/04
Benzoic Acid	EPA 8270	<3300	ug/kg	CMG	3/05/04
2,4-Dichlorophenol	EPA 8270	<330	ug/kg	CMG	3/05/04
4-Chloro-3-Methylphenol	EPA 8270	<660	ug/kg	CMG	3/05/04
2,4,6-Trichlorophenol	EPA 8270	<330	ug/kg	CMG	3/05/04
2,4,5-Trichlorophenol	EPA 8270	<330	ug/kg	CMG	3/05/04
2,4-Dinitrophenol	EPA 8270	<3300	ug/kg	CMG	3/05/04
4-Nitrophenol	EPA 8270	<1700	ug/kg	CMG	3/05/04
4,6-Dinitro-2-Methylphenol	EPA 8270	<1700	ug/kg	CMG	3/05/04
Pentachlorophenol	EPA 8270	<1700	ug/kg	CMG	3/05/04
n-Nitrosodimethylamine	EPA 8270	<330	ug/kg	CMG	3/05/04
bis(2-Chloroethyl)Ether	EPA 8270	<330	ug/kg	CMG	3/05/04
1,3-Dichlorobenzene	EPA 8270	<330	ug/kg	CMG	3/05/04
1,4-Dichlorobenzene	EPA 8270	<330	ug/kg	CMG	3/05/04
Benzyl Alcohol	EPA 8270	<660	ug/kg	CMG	3/05/04
1,2-Dichlorobenzene	EPA 8270	<330	ug/kg	CMG	3/05/04
bis(2-Chloroisopropyl)Ether	EPA 8270	<330	ug/kg	CMG	3/05/04
n-Nitrosodi-n-Propylamine	EPA 8270	<330	ug/kg	CMG	3/05/04
Hexachloroethane	EPA 8270	<330	ug/kg	CMG	3/05/04
Nitrobenzene	EPA 8270	<330	ug/kg	CMG	3/05/04
Isophorone	EPA 8270	<330	ug/kg	CMG	3/05/04
bis(2-Chloroethoxy)Methane	EPA 8270	<330	ug/kg	CMG	3/05/04
1,2,4-Trichlorobenzene	EPA 8270	<330	ug/kg	CMG	3/05/04
Naphthalene	EPA 8270	<330	ug/kg	CMG	3/05/04
4-Chloroaniline	EPA 8270	<660	ug/kg	CMG	3/05/04
Hexachlorobutadiene	EPA 8270	<330	ug/kg	CMG	3/05/04
2-Methylnaphthalene	EPA 8270	<330	ug/kg	CMG	3/05/04
Hexachlorocyclopentadiene	EPA 8270	<1700	ug/kg	CMG	3/05/04
2-Chloronaphthalene	EPA 8270	<330	ug/kg	CMG	3/05/04
2-Nitroaniline	EPA 8270	<660	ug/kg	CMG	3/05/04
Dimethylphthalate	EPA 8270	<330	ug/kg	CMG	3/05/04
Acenaphthylene	EPA 8270	<330	ug/kg	CMG	3/05/04
2,6-Dinitrotoluene	EPA 8270	<330	ug/kg	CMG	3/05/04
3-Nitroaniline	EPA 8270	<660	ug/kg	CMG	3/05/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0403-00013

Sample ID: LAFARGE - 1
Sample Date: 3/02/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
Acenaphthene	EPA 8270	<330	ug/kg	CMG	3/05/04
Dibenzofuran	EPA 8270	<330	ug/kg	CMG	3/05/04
2,4-Dinitrotoluene	EPA 8270	<330	ug/kg	CMG	3/05/04
Diethylphthalate	EPA 8270	<330	ug/kg	CMG	3/05/04
Fluorene	EPA 8270	<330	ug/kg	CMG	3/05/04
4-Chlorophenyl Phenyl Ether	EPA 8270	<330	ug/kg	CMG	3/05/04
4-Nitroaniline	EPA 8270	<660	ug/kg	CMG	3/05/04
n-Nitrosodiphenylamine	EPA 8270	<330	ug/kg	CMG	3/05/04
4-Bromophenyl Phenyl Ether	EPA 8270	<330	ug/kg	CMG	3/05/04
Hexachlorobenzene	EPA 8270	<330	ug/kg	CMG	3/05/04
Phenanthrene	EPA 8270	<330	ug/kg	CMG	3/05/04
Anthracene	EPA 8270	<330	ug/kg	CMG	3/05/04
Carbazole	EPA 8270	<330	ug/kg	CMG	3/05/04
di-n-Butylphthalate	EPA 8270	<500	ug/kg	CMG	3/05/04
Fluoranthene	EPA 8270	<330	ug/kg	CMG	3/05/04
Pyrene	EPA 8270	<330	ug/kg	CMG	3/05/04
Butylbenzylphthalate	EPA 8270	<330	ug/kg	CMG	3/05/04
Benzo [a] Anthracene	EPA 8270	<330	ug/kg	CMG	3/05/04
3,3'-Dichlorobenzidine	EPA 8270	<660	ug/kg	CMG	3/05/04
Chrysene	EPA 8270	<330	ug/kg	CMG	3/05/04
bis(2-Ethylhexyl)Phthalate	EPA 8270	<330	ug/kg	CMG	3/05/04
di-n-Octylphthalate	EPA 8270	<330	ug/kg	CMG	3/05/04
Benzo [b] Fluoranthene	EPA 8270	<330	ug/kg	CMG	3/05/04
Benzo [k] Fluoranthene	EPA 8270	<330	ug/kg	CMG	3/05/04
Benzo [a] Pyrene	EPA 8270	<330	ug/kg	CMG	3/05/04
Indeno [1,2,3-cd] Pyrene	EPA 8270	<330	ug/kg	CMG	3/05/04
Dibenzo [a,h] Anthracene	EPA 8270	<330	ug/kg	CMG	3/05/04
Benzo [g,h,i] Perylene	EPA 8270	<330	ug/kg	CMG	3/05/04
Surrogates:					
***2-Fluorophenol	EPA 8270	62.5	% R	CMG	3/05/04
***Phenol-D6	EPA 8270	65.2	% R	CMG	3/05/04
***Nitrobenzene-D5	EPA 8270	55.0	% R	CMG	3/05/04
***2-Fluorobiphenyl	EPA 8270	61.8	% R	CMG	3/05/04
***2,4,6-Tribromophenol	EPA 8270	77.1	% R	CMG	3/05/04
***P-Terphenyl-D14	EPA 8270	80.5	% R	CMG	3/05/04
Extraction		1.0	DF	ARL	3/03/04
METALS-TARGET ANALYTE LIST				AJY	3/03/04
Silver	EPA 6010	<0.486	mg/Kg	AJY	3/03/04
Aluminum	EPA 6010	9310	mg/Kg	AJY	3/03/04
Arsenic	EPA 6010	3.21	mg/Kg	AJY	3/03/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0403-00013

Sample ID: LAFARGE - 1
Sample Date: 3/02/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
Barium	EPA 6010	67.6	mg/Kg	AJY	3/03/04
Beryllium	EPA 6010	<0.486	mg/Kg	AJY	3/03/04
Calcium	EPA 6010	52100	mg/Kg	AJY	3/03/04
Cadmium	EPA 6010	<0.486	mg/Kg	AJY	3/03/04
Cobalt	EPA 6010	6.61	mg/Kg	AJY	3/03/04
Chromium	EPA 6010	13.9	mg/Kg	AJY	3/03/04
Copper	EPA 6010	17.7	mg/Kg	AJY	3/03/04
Iron	EPA 6010	16700	mg/Kg	AJY	3/03/04
Mercury	EPA 7471A	<0.0301	mg/Kg	NH	3/04/04
Magnesium	EPA 6010	12000	mg/Kg	AJY	3/03/04
Manganese	EPA 6010	579	mg/Kg	AJY	3/03/04
Nickel	EPA 6010	13.4	mg/Kg	AJY	3/03/04
Lead	EPA 6010	5.42	mg/Kg	AJY	3/03/04
Antimony	EPA 6010	<2.43	mg/Kg	AJY	3/03/04
Selenium	EPA 6010	<2.43	mg/Kg	AJY	3/03/04
Vanadium	EPA 6010	18.9	mg/Kg	AJY	3/03/04
Thallium	EPA 6010	<2.43	mg/Kg	AJY	3/03/04
Zinc	EPA 6010	70.7	mg/Kg	AJY	3/03/04
PERCENT SOLID		84.7	%	MJD	3/05/04

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 6010B ANALYSIS
Metals by ICP

QUALITY CONTROL - SOLID

DATE PREPARED: 03/03/2004

QC Sample	Method Blank	Lab Control Sample
Units	mg/kg	% Recovery
Acceptance Limits	Results	80-120 %
Analyte		
Silver (Ag)	<0.500	88.3
Aluminum (Al)	<2.500	103
Arsenic (As)	<1.000	93.4
Boron (B)	NA	NA
Barium (Ba)	<0.500	96.7
Beryllium (Be)	<0.500	95.5
Calcium (Ca)	<2.500	107
Cadmium (Cd)	<0.500	95.1
Cobalt (Co)	<1.000	97.0
Chromium (Cr)	<0.500	98.2
Copper (Cu)	<1.500	109
Iron (Fe)	<2.500	101
Magnesium (Mg)	<2.500	96.7
Manganese (Mn)	<0.500	101
Molybdenum (Mo)	NA	NA
Nickel (Ni)	<1.000	96.1
Lead (Pb)	<1.000	94.9
Antimony (Sb)	<2.500	96.1
Selenium (Se)	<2.500	89.9
Strontium (Sr)	NA	NA
Titanium (Ti)	NA	NA
Thallium (Tl)	<2.500	91.7
Vanadium (V)	<0.500	98.1
Zinc (Zn)	<1.000	100
Zirconium (Zr)	NA	NA

Matrix Spike / Duplicate Spike performed as per method and reported if assigned on Chain of Custody.

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 7470/7471 ANALYSIS
Mercury by Cold Vapor Atomic Absorption

QUALITY CONTROL - SOLID

Date Analyzed: 03/04/2004

QC Sample	Method Blank	Lab Control Sample
Units	mg/L	% Recovery
Acceptance Limits	Results	85-115 %
Analyte		
Mercury (Hg)	<0.040 (solid)	89.1

Matrix Spike / Duplicate Spike performed as per method and reported if assigned on Chain of Custody.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8260 Solid Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Analyzed:	3/4/04	
Volatile Organics	Conc. ug/L	Acceptance Limit
dichlorodifluoromethane	< 250	< 250
chloromethane	< 250	< 250
vinyl chloride	< 250	< 250
bromomethane	< 250	< 250
chloroethane	< 250	< 250
trichlorofluoromethane	< 250	< 250
diethyl ether	< 500	< 500
acetone	< 1300	< 1300
1,1-dichloroethene	< 130	< 130
FREON-113	< 250	< 250
carbon disulfide	< 250	< 250
dichloromethane	< 250	< 250
tert-butyl alcohol (TBA)	< 1300	< 1300
methyl-tert-butyl-ether	< 250	< 250
trans-1,2-dichloroethene	< 130	< 130
1,1-dichloroethane	< 130	< 130
di-isopropyl ether (DIPE)	< 250	< 250
ethyl tert-butyl ether (EtBE)	< 250	< 250
2-butanone	< 1300	< 1300
2,2-dichloropropane	< 130	< 130
cis-1,2-dichloroethene	< 130	< 130
chloroform	< 130	< 130
bromochloromethane	< 130	< 130
tetrahydrafuran	< 750	< 750
1,1,1-trichloroethane	< 130	< 130
1,1-dichloropropene	< 130	< 130
carbon tetrachloride	< 130	< 130
1,2-dichloroethane	< 130	< 130
benzene	< 130	< 130
tert-amyl methyl ether (TAME)	< 250	< 250
trichloroethene	< 130	< 130
1,2-dichloropropane	< 130	< 130
bromodichloromethane	< 130	< 130
1,4-Dioxane	< 2500	< 2500
dibromomethane	< 130	< 130
4-methyl-2-pentanone	< 250	< 250
cis-1,3-dichloropropene	< 130	< 130
toluene	< 130	< 130
trans-1,3-dichloropropene	< 130	< 130
1,1,2-trichloroethane	< 250	< 250
2-hexanone	< 250	< 250
1,3-dichloropropane	< 130	< 130
tetrachloroethene	< 130	< 130
dibromochloromethane	< 130	< 130
1,2-dibromoethane (EDB)	< 130	< 130
chlorobenzene	< 130	< 130
1,1,1,2-tetrachloroethane	< 130	< 130
ethylbenzene	< 130	< 130
1,1,2,2-tetrachloroethane	< 130	< 130
m&p-xylene	< 130	< 130
o-xylene	< 130	< 130
styrene	< 130	< 130
bromoform	< 130	< 130
isopropylbenzene	< 130	< 130
1,2,3-trichloropropane	< 130	< 130
bromobenzene	< 130	< 130
n-propylbenzene	< 130	< 130
2-chlorotoluene	< 130	< 130
1,3,5-trimethylbenzene	< 130	< 130
4-chlorotoluene	< 130	< 130
tert-butyl-benzene	< 130	< 130
1,2,4-trimethylbenzene	< 130	< 130
sec-butyl-benzene	< 130	< 130
p-isopropyltoluene	< 750	< 750
1,3-dichlorobenzene	< 130	< 130
1,4-dichlorobenzene	< 130	< 130
n-butylbenzene	< 130	< 130
1,2-dichlorobenzene	< 130	< 130
1,2-dibromo-3-chloropropane	< 130	< 130
1,2,4-trichlorobenzene	< 130	< 130
hexachlorobutadiene	< 130	< 130
naphthalene	< 130	< 130
1,2,3-trichlorobenzene	< 130	< 130

Laboratory Control Sample

Date Analyzed:	3/4/04		
Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict
dichlorodifluoromethane	97.4	70-130	ok
chloromethane	96.0	70-130	ok
vinyl chloride	93.3	70-130	ok
bromomethane	93.6	70-130	ok
chloroethane	91.3	70-130	ok
trichlorofluoromethane	97.5	70-130	ok
diethyl ether	101	70-130	ok
acetone	107	70-130	ok
1,1-dichloroethene	95.9	70-130	ok
FREON-113	85.9	70-130	ok
carbon disulfide	92.1	70-130	ok
dichloromethane	97.6	70-130	ok
tert-butyl alcohol (TBA)	111	70-130	ok
methyl-tert-butyl-ether	111	70-130	ok
trans-1,2-dichloroethene	99.2	70-130	ok
1,1-dichloroethane	101	70-130	ok
di-isopropyl ether (DIPE)	111	70-130	ok
ethyl tert-butyl ether (EtBE)	113	70-130	ok
2-butanone	105	70-130	ok
2,2-dichloropropane	98.9	70-130	ok
cis-1,2-dichloroethene	97.1	70-130	ok
chloroform	99.1	70-130	ok
bromochloromethane	94.8	70-130	ok
tetrahydrafuran	113	70-130	ok
1,1,1-trichloroethane	96.1	70-130	ok
1,1-dichloropropene	99.8	70-130	ok
carbon tetrachloride	95.0	70-130	ok
1,2-dichloroethane	99.8	70-130	ok
benzene	101	70-130	ok
tert-amyl methyl ether (TAME)	114	70-130	ok
trichloroethene	98.3	70-130	ok
1,2-dichloropropane	100	70-130	ok
bromodichloromethane	102	70-130	ok
1,4-Dioxane	114	70-130	ok
dibromomethane	99.4	70-130	ok
4-methyl-2-pentanone	109	70-130	ok
cis-1,3-dichloropropene	107	70-130	ok
toluene	104	70-130	ok
trans-1,3-dichloropropene	101	70-130	ok
1,1,2-trichloroethane	102	70-130	ok
2-hexanone	112	70-130	ok
1,3-dichloropropane	103	70-130	ok
tetrachloroethene	95.5	70-130	ok
dibromochloromethane	95.0	70-130	ok
1,2-dibromoethane (EDB)	95.8	70-130	ok
chlorobenzene	102	70-130	ok
1,1,1,2-tetrachloroethane	95.9	70-130	ok
ethylbenzene	103	70-130	ok
1,1,2,2-tetrachloroethane	101	70-130	ok
m&p-xylene	101	70-130	ok
o-xylene	107	70-130	ok
styrene	105	70-130	ok
bromoform	94.2	70-130	ok
isopropylbenzene	107	70-130	ok
1,2,3-trichloropropane	99.6	70-130	ok
bromobenzene	96.2	70-130	ok
n-propylbenzene	107	70-130	ok
2-chlorotoluene	104	70-130	ok
1,3,5-trimethylbenzene	106	70-130	ok
4-chlorotoluene	103	70-130	ok
tert-butyl-benzene	105	70-130	ok
1,2,4-trimethylbenzene	105	70-130	ok
sec-butyl-benzene	106	70-130	ok
p-isopropyltoluene	106	70-130	ok
1,3-dichlorobenzene	99.4	70-130	ok
1,4-dichlorobenzene	98.9	70-130	ok
n-butylbenzene	107	70-130	ok
1,2-dichlorobenzene	97.2	70-130	ok
1,2-dibromo-3-chloropropane	100	70-130	ok
1,2,4-trichlorobenzene	98.2	70-130	ok
hexachlorobutadiene	92.7	70-130	ok
naphthalene	104	70-130	ok
1,2,3-trichlorobenzene	98.9	70-130	ok

SMF criteria allows 5 compounds to be outside acceptance limits

Surrogates:	Recovery (%)	Acceptance Limits
DIBROMOFLUOROMETHANE	83.8	70-130
1,2-DICHLOROETHANE-D4	92.4	70-130
TOLUENE-D8	97.2	70-130
4-BROMOFLUOROBENZENE	86.4	70-130
1,2-DICHLOROBENZENE-D4	88.6	70-130

Surrogates:	Recovery (%)	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	87.2	70-130	ok
1,2-DICHLOROETHANE-D4	93.5	70-130	ok
TOLUENE-D8	96.7	70-130	ok
4-BROMOFLUOROBENZENE	91.2	70-130	ok
1,2-DICHLOROBENZENE-D4	94.4	70-130	ok

Instrument: HP GC/MS "S"

EPA Method 8270
Quality Control Report: Method Blank / Laboratory Control Sample
Solid

GZA GeoEnvironmental, Inc.

Spike Value = 20000 ppb

Extraction Date: 03/01/04 MB File Name: V5520
Analysis Date: 03/05/04 LCS File Name: V5521

	Method Blank		Laboratory Control Sample		
Target Compounds:	Result	Reporting Limit	% Recovery	Limits	Pass/Fail
n-nitrosodimethylamine	ND	330	67.3	39 - 92	ok
pyridine	ND	3300	109	16 - 78	out
phenol	ND	330	75.3	46 - 95	ok
bis(2-chloroethyl)ether	ND	330	74.3	49 - 93	ok
2-chlorophenol	ND	330	77.0	47 - 93	ok
1,3-dichlorobenzene	ND	330	77.2	48 - 89	ok
1,4-dichlorobenzene	ND	330	77.2	48 - 89	ok
benzyl alcohol	ND	660	78.8	48 - 93	ok
1,2-dichlorobenzene	ND	330	76.4	49 - 90	ok
2-methylphenol	ND	330	79.4	47 - 96	ok
bis(2-chloroisopropyl)ether	ND	330	88.2	44 - 112	ok
3&4-methylphenol	ND	330	144	31 - 171	ok
n-nitrosodi-n-propylamine	ND	330	77.5	49 - 99	ok
hexachloroethane	ND	330	78.0	42 - 88	ok
nitrobenzene	ND	330	78.8	47 - 96	ok
isophrone	ND	330	80.9	48 - 98	ok
2-nitrophenol	ND	330	78.9	49 - 98	ok
2,4-dimethylphenol	ND	330	70.3	48 - 99	ok
benzoic acid	ND	330	38.3	D - 56	ok
bis(2-chloroethoxy)methane	ND	330	79.4	51 - 96	ok
2,4-dichlorophenol	ND	330	82.8	50 - 98	ok
1,2,4-trichlorobenzene	ND	330	80.8	49 - 92	ok
napthalene	ND	330	82.9	53 - 97	ok
4-chloroaniline	ND	660	86.2	36 - 97	ok
hexachlorobutadiene	ND	330	84.6	47 - 92	ok
4-chloro-3-methylphenol	ND	660	82.4	51 - 103	ok
2-methylnapthalene	ND	330	84.5	53 - 93	ok
aniline	ND	330	85.7	40 - 140	ok
hexachlorocyclopentadiene	ND	1700	84.0	D - 102	ok
2,4,6-trichlorophenol	ND	330	87.5	47 - 100	ok
2,4,5-trichlorophenol	ND	330	90.8	49 - 101	ok
2-chloronapthalene	ND	330	85.9	53 - 95	ok
2-nitroaniline	ND	1700	75.5	52 - 106	ok
dimethylphthalate	ND	330	84.8	60 - 106	ok
acenaphylene	ND	330	86.2	58 - 102	ok
2,6-dinitrotoluene	ND	330	92.2	56 - 113	ok
3-nitroaniline	ND	1700	88.8	53 - 105	ok
acenaphthene	ND	330	85.8	59 - 103	ok
2,4-dinitrophenol	ND	3300	55.8	D - 75	ok
dibenzofuran	ND	330	85.8	54 - 102	ok
4-nitrophenol	ND	1700	72.9	42 - 103	ok
2,4-dinitrotoluene	ND	330	90.4	53 - 113	ok
diethylphthalate	ND	330	88.6	58 - 113	ok
fluorene	ND	330	88.9	58 - 105	ok
4-chlorophenyl phenyl ether	ND	330	89.5	56 - 102	ok
4-nitroaniline	ND	660	106	57 - 124	ok
4,6-dinitro-2-methylphenol	ND	1700	83.4	10 - 98	ok
n-nitrosodiphenylamine	ND	330	92.1	66 - 111	ok
4-bromophenyl phenyl ether	ND	330	92.8	55 - 106	ok
hexachlorobenzene	ND	330	96.9	51 - 108	ok
pentachlorophenol	ND	1700	87.0	26 - 88	ok
phenanthrene	ND	330	94.1	63 - 112	ok
anthracene	ND	330	94.9	65 - 113	ok
carbazole	ND	330	108	47 - 168	ok
di-n-butylphthalate	ND	500	97.1	67 - 123	ok
fluoranthene	ND	330	105	64 - 116	ok
pyrene	ND	330	94.3	63 - 115	ok
butylbenzylphthalate	ND	330	97.9	61 - 118	ok
benz [a] anthracene	ND	330	108	44 - 120	ok
3,3'-dichlorobenzidine	ND	660	128	32 - 187	ok
chrysene	ND	330	99.1	59 - 118	ok
bis(2-ethylhexyl)phthalate	ND	330	92.5	36 - 170	ok
di-n-octylphthalate	ND	330	96.1	72 - 127	ok
benzo [b] fluoranthene	ND	330	94.0	60 - 114	ok
benzo [k] fluoranthene	ND	330	96.3	59 - 115	ok
benzo [a] pyrene	ND	330	97.4	63 - 117	ok
indeno [1,2,3-cd] pyrene	ND	330	93.3	57 - 123	ok
dibenz [a,h] anthracene	ND	330	95.4	55 - 125	ok
benzo [ghi] perylene	ND	330	83.7	56 - 122	ok

ACOE specifications allows up to five (5) compounds to fail criteria.

Surrogates:	% Recovery	Limits	% Recovery	Limits	Pass/Fail
2-Fluorophenol	76.7	34-135	88.2	34-135	ok
Phenol-D6	76.6	34-135	88.2	34-135	ok
Nitrobenzene-D5	85.8	42-120	78.0	42-120	ok
2-Fluorobiphenyl	75.5	42-120	85.5	42-120	ok
2,4,6-Tribromophenol	100	46-135	119	46-135	ok
P-Terphenyl-D14	95.3	53-120	102	53-120	ok

Report generated: 3/8/04 9:30 AM

WHITE COPY - Original YELLOW COPY - Lab Files PINK COPY - Project Manager

W.O. # 0403-00013
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled (Very Important)	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. Other (specify)	pH / Cond.	GC Screen (VOA)	524.2 / 502.2	624 (WW ONLY)	601 / 602 (WW ONLY)	625 (WW ONLY)	Formaldehyde (WW ONLY)	8260 TCL	8021	8021 - "8010" List	8021 "8020" List	8270 Full / PAH / BN TCL	8082-PCBs Only *	8081 - Pest Only	TPH-GC (Mod. 8100)	TPH-GC w/FING	EPH (MA DEP)	VPH (MA DEP)	TCLP (Spec. Below)	Filtering (✓ if requested)	Metals PPM-13 / RCRA 8	Metals (List Below) TAL					Total # of Cont.	Note #
LAFARGE-1	3/2/04 1500	S								X				X										X					4	
PRESERVATIVE (Cl - HCl, M=MeOH, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*																														
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, O-Other)*																														

(G-Glass circled)

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	3/2/04 - 1600	UPS
UPS		[signature] 3/2/04 1030

NOTES: Preservatives, special reporting limits, known contamination, additional testing parameters, etc.:
① TCL VOLATILES, TCL-SEMI-VOLATILES + TAL METALS + CYANIDE.
* PLEASE REPORT TO LOWEST LIMITS POSSIBLE FOR NYS GUIDELINES.

* PLEASE RETURN COOLER

PROJECT MANAGER: BART KLETTKE EXT: ______

DATA REPORT ☑ PDF (Adobe) ☐ ASCII ☐ EXCEL Specify State ______

TURNAROUND TIME: Standard Rush 2 Days, Approved by: ______

LAB USE: TEMP. OF COOLER 4.0 °C Air (0401) 3/3/04 1030 LG

GZA GEOENVIRONMENTAL, INC.
ENGINEERS AND SCIENTISTS
106 South Street
Hopkinton, MA 01748
(508) 435-9244
FAX (508) 435-9912

GZA FILE NO: 21.0055814 TASK 4 SUBTASK 1 P.O. NO. ______

PROJECT ALLTIFT LANDFILL / RAMCO STEEL SITE

LOCATION BUFFALO, N.Y.

COLLECTOR(S) TUGHILL CONSTRUCTION SHEET 1 OF 1

G 3

R.I. Analytical

Specialists in Environmental Services

CERTIFICATE OF ANALYSIS

GZA GeoEnvironmental Labs
Attn: Ms. Michelle Mirenda
Engineers and Scientists
106 South Street
Hopkinton, MA 01748

Date Received: 03/03/2004
Date Reported: 03/05/2004
Date Revised: 03/09/2004
P.O. #: 8-26530
Work Order #: 0403-03104

DESCRIPTION GZA FILE# 21.0055814.00 ALLTIFT LANDFILL / RAMCO STEEL

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies and all NELAC requirements were met. The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844, NY-11726

If you have any questions regarding this work, or if we may be of further assistance, please contact us.

Approved by:

Paul Perrotti
Data Reporting Manager

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA GeoEnvironmental Labs
Date Received: 03/03/2004
Work Order #: 0403-03104

Approved by: _____
R.I. Analytical

Sample #: 001
SAMPLE LAFARGE-1
SAMPLE TYPE: GRAB **SAMPLE DATE/TIME:** 03/02/2004 @ 15:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
TOTAL CYANIDE	<11	11	mg/kg dry	SW-846 9010A	03/09/2004	EC
TOTAL METALS						
POTASSIUM	1200	57	mg/kg dry	SW-846 6010	03/05/2004	JNB
SODIUM	170	170	mg/kg dry	SW-846 6010	03/05/2004	JNB

WHITE COPY - Original YELLOW COPY - Lab Files PINK COPY - Project Manager

Rial

W.O. # 0403-00013 (for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled (Very Important)	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. Other (specify)	☐pH ☐Cond.	GC Screen (VOA)	☐524.2 ☐502.2	WW ONLY: 624	WW ONLY: ☐601 ☐602	WW ONLY: 625	WW ONLY: Formaldehyde	ANALYSIS REQUIRED: 8260	8021	8021 - "3D10" List	8021 "8020" List	8270 ☐Full ☐PAH ☐BN	8082-PCBs Only	8081 - Pest Only	TPH-GC (Mod. 8100)	TPH-GC w/FING	EPH (MA DEP)	VPH (MA DEP)	TCLP (Spec. Below)	Filtering (✓ if requested)	Metals ☐PPM-13 ☐RCRA	Metals (List Below)	Total [illegible]				Total # of Cont.	Note #
LAFARGE-1	3/2/04 1500	S																						✓	✓				1	①
PRESERVATIVE (Cl - HCl, M=MeOH, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*																														
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, O-Other)*																														

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	3/3/04 1045 1510	[signature]
[signature]	3-3 1645	EASTERN CONNECTION
EASTERN CONNECTION	3/3/04 1830	LR Roy

NOTES: Preservatives, special reporting limits, known contamination, additional testing parameters, etc.:

① Sodium, Potassium

0403-03104

Jc 3/8/04

PROJECT MANAGER: Michelle Mirenda EXT. 4710

DATA REPORT ☑ PDF (Adobe) ☐ ASCII ☐ EXCEL Specify State____

TURNAROUND TIME: Standard [illegible] Days, Approved by:____ LAB USE: TEMP. OF COOLER____°C

GZA GEOENVIRONMENTAL, INC.
ENGINEERS AND SCIENTISTS
106 South Street
Hopkinton, MA 01748
(508) 435-9244
FAX (508) 435-9912

GZA FILE NO: 21.0055814.00 P.O. NO. 8-26530

PROJECT All Art Landfill / Ramco Steel Site

LOCATION Buffalo, NY

COLLECTOR(S) Tughill Construction SHEET 1 OF 1

GZAP003

R.I. Analytical

Specialists in Environmental Services

March 9, 2004

GZA GeoEnvironmental Laboratories
Engineers and Scientists
Attn: Ms. Kate Walsh
106 South Street
Hopkinton, MA 01748

Corrective Action #4014

Dear Ms. Walsh:

As per your inquiry through our customer service department, a corrective action request was initiated for Work Order 0403-03104. The Work Order consisted of one soil sample. A data check was requested for the sample labeled Lafarge (0403-03104-001). The review was requested to verify the reported total Cyanide result.

In regards to the Cyanide result, the data was reviewed. The review revealed that the sample was labeled correctly and all data was transcribed correctly. Further investigation by the analyst yielded that the sample was reported as positive right at the reported detection limit. In order to verify the positive result at the reported detection limit, a larger aliquot of the sample was digested, distilled and analyzed. The larger volume allowed the analyst to report the sample as non-detected at a lower detection limit. A revised report is attached indicating the results.

If you have any further questions, please contact me.

Sincerely,

Michael J. Hobin

QA/QC Manager

Cc: James E. Mich; Vice President of Operations
Cc: Leslie Coon; Customer service

41 Illinois Avenue, Warwick, RI 02888
Tel: (401) 737-8500 Fax: (401) 738-1970

131 Coolidge Street, Bldg 2, Hudson, MA 01749
Tel: (978) 568-0041 Fax: (978) 568-0078

APPENDIX C

TUG HILL TOPSOIL SUBMITTAL

LETTER OF TRANSMITTAL

TUG HILL Construction, Inc.
ENVIRONMENTAL EARTHWORK CONTRACTORS

40 Pine Street
Lockport, New York 14094
Tel: (716) 433-6606
Fax: (716) 433-6607

73

DATE:	September 23, 2004
PROJECT:	HONEYWELL - ALLTIFT PROJECT
ATTENTION:	Andy Janik

TO:

Parsons
579 Tifft Street
Buffalo, NY 14220

RE: ~~**Submittal No - 02990-2 (1.02 A.1 & 2.01 A)**~~

We are sending you:

- [X] Attached
- [X] Delivered by Hand
- [ ] via Overnight
- [ ] Prints
- [ ] Copy of Letter
- [ ] Plans
- [ ] Specifications
- [ ] Shop Drawings
- [ ] Samples
- [X] Submittals
- [ ] Other _____

COPIES	DATE	NO.	DESCRIPTION
7	09/22/04		Topsoil Gradation, Analytical, PH and Soluable Salt Testing Results

- [X] For your use
- [ ] Approval as noted
- [ ] Return ___ corrected prints
- [X] For approval
- [ ] Approved for construction
- [ ] For bids due _____
- [X] As requested
- [ ] Returned for corrections
- [ ] Submit ___ copies for
- [ ] For review/distribution
- [ ] Returned after loan to us
- [ ] Re-submit ___ copies for
- [ ] Other _____

Remarks
The Topsoil Source Tested is Located on North America Drive in West Seneca. Please contact me with any questions at the above number. Thanks

If enclosures are not as indicated, please notify us at once.

Signed: _____

Jeff Dunn, Project Controls Engineer

Analytical Testing Results Summary for Topsoil
Taken From North America Drive Source

Alltift Landfill Site/Ramco Steel Site
Buffalo, New York

Parameter	Recommended Soil Cleanup Objective ppm	Eastern USA Background ppm	NAD-1 ppm
VOC - EPA Method 8260 (ppm)			
No Compounds Detected		N/A	N/D
SVOC - EPA Method 8270 (ppm)			
No Compounds Detected		N/A	N/D
TAL Metals including Cyanide and Mercury - EPA Methods 6010 and 7174 A (ppm)			
Aluminum	SB	33,000	17,300
Arsenic	7.5 or SB	3-12	7.52
Barium	300 or SB	15-600	95.4
Beryllium	0.16 or SB	0-1.75	0.697
Cadmium	1 or SB	0.1-1	0.983
Calcium	SB	130-35,000	3,940
Chromium	10 or SB	1.5-40	21.8
Cobalt	30 or SB	2.5-60	9.45
Copper	25 or SB	1-50	23.0
Iron	2000 or SB	2000-550,000	21,800
Lead	SB	See Note 5	36.30
Magnesium	SB	100-5000	3,240
Manganese	SB	50-5000	654
Mercury	0.1	0.001-0.2	0.0679
Nickel	13 or SB	0.5-25	23.8
Potassium	SB	8500-43,000	1,200
Vanadium	150 or SB	1-300	28.1
Zinc	20 or SB	9-50	115
Conductivity (Relating to Soluble Salt Content)			
Conductivity (See note 7)	(500 ppm per project specifications)		110 uS/cm = 73.7 ppm

Notes:

1. Only compounds detected in one or more samples are presented on this table. Refer to original data sheets for list of all compounds included in analysis.
2. Analytical testing completed by GZA GeoEnvironmental Laboratories, Inc.
3. Recommended soil cleanup objectives are based on the Division Technical and Administrative Guidance Memorandum (TAGM) 4046 on Determination of Soil Cleanup Objectives and Cleanup Levels in its final form.
4. ND = not detected, NA = not available
5. Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.
6. mg/kg = ppm
7. uS/cm = microSiemens per centimeter.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA: MA092 NH: 2028 RI: 236
CT: PH0579 OK: 9928 NC: 615
NY (NELAC): 11063

ANALYTICAL DATA REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225
(716)685-2300
Bart Klettke

Project No.:	21.0055814.00
Work Order No.:	0409-00064
Date Received:	9/14/04
Date Reported:	9/22/04

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
9/10/2004	Solid	0409-00064 001	NAD-1

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225

Bart Klettke

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Date Received: 9/14/04
Date Reported: 9/22/04
Work Order No.: 0409-00064

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 09/14/04 via __GZA courier, _x_UPS, __FEDEX, or ___hand delivered. The temperature of the __temperature blank/_x_cooler air, was 9.0 degrees C. The samples were received intact for all requested analyses. Analyses for Potassium, Sodium and Cyanide were subcontracted to RIAL.

The samples were appropriately preserved in accordance with the method they reference. The VOC samples were preserved in methanol upon receipt at the laboratory.

The chain of custody has been modified to reflect the new project numbers.

2. EPA Method 6010/7471 - Metals

Attach QC 6010 09/15/04 - Solid
Attach QC Mercury 09/16/04 - Solid

3. EPA Method 8260 - VOCs

Attach QC 09/14/04 - Solid

4. EPA Method 8270 - SVOCs

Attach QC 8270 09/13/04 - Solid

5. Electrical Conductivity

Conversion 0.11mS/cm = 73.7mg/kg(ppm)

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225

Bart Klettke

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Date Received: 9/14/04
Date Reported: 9/22/04
Work Order No.: 0409-00064

Data Authorized By: _____

% R = **% Recovery**
DF = **Dilution Factor**
DO = **Diluted Out**

Method 8260: The current version of the method is 8260B.
Method 8021: The current version of the method is 8021B.
Method 8270: The current version of the method is 8270C.
Method 6010: The current version of the method is 6010B.

Laboratory Identification Numbers:

MA: MA092 NH: 2028
CT: PH0579 RI: 236
NC: 615 NY (NELAC): 11063

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

Soil data is reported on a dry weight basis unless otherwise specified.

Matrix Spike / Matrix Spike Duplicate sets are performed as per each method and are reported at the end of the analytical report if assigned on the chain of custody.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental of NY
364 Nagel Drive
Buffalo, NY 14225

Bart Klettke

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Date Received: 9/14/04
Date Reported: 9/22/04
Work Order No.: 0409-00064

Sample ID: NAD-1
Sample Date: 9/10/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	9/14/04
Dichlorodifluoromethane	EPA 8260	<200	ug/kg	MQS	9/14/04
Chloromethane	EPA 8260	<200	ug/kg	MQS	9/14/04
Vinyl Chloride	EPA 8260	<100	ug/kg	MQS	9/14/04
Bromomethane	EPA 8260	<200	ug/kg	MQS	9/14/04
Chloroethane	EPA 8260	<100	ug/kg	MQS	9/14/04
Trichlorofluoromethane	EPA 8260	<200	ug/kg	MQS	9/14/04
Diethylether	EPA 8260	<100	ug/kg	MQS	9/14/04
Acetone	EPA 8260	<1000	ug/kg	MQS	9/14/04
1,1-Dichloroethene	EPA 8260	<100	ug/kg	MQS	9/14/04
Dichloromethane	EPA 8260	<100	ug/kg	MQS	9/14/04
Methyl-Tert-Butyl-Ether	EPA 8260	<100	ug/kg	MQS	9/14/04
trans-1,2-Dichloroethene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,1-Dichloroethane	EPA 8260	<100	ug/kg	MQS	9/14/04
2-Butanone	EPA 8260	<1000	ug/kg	MQS	9/14/04
2,2-Dichloropropane	EPA 8260	<100	ug/kg	MQS	9/14/04
cis-1,2-Dichloroethene	EPA 8260	<100	ug/kg	MQS	9/14/04
Chloroform	EPA 8260	<100	ug/kg	MQS	9/14/04
Bromochloromethane	EPA 8260	<100	ug/kg	MQS	9/14/04
Tetrahydrofuran	EPA 8260	<200	ug/kg	MQS	9/14/04
1,1,1-Trichloroethane	EPA 8260	<100	ug/kg	MQS	9/14/04
1,1-Dichloropropene	EPA 8260	<100	ug/kg	MQS	9/14/04
Carbon Tetrachloride	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2-Dichloroethane	EPA 8260	<100	ug/kg	MQS	9/14/04
Benzene	EPA 8260	<100	ug/kg	MQS	9/14/04
Trichloroethene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2-Dichloropropane	EPA 8260	<100	ug/kg	MQS	9/14/04
Bromodichloromethane	EPA 8260	<100	ug/kg	MQS	9/14/04
Dibromomethane	EPA 8260	<100	ug/kg	MQS	9/14/04
4-Methyl-2-Pentanone	EPA 8260	<200	ug/kg	MQS	9/14/04
cis-1,3-Dichloropropene	EPA 8260	<100	ug/kg	MQS	9/14/04
Toluene	EPA 8260	<250	ug/kg	MQS	9/14/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0409-00064

Sample ID: NAD-1
Sample Date: 9/10/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
trans-1,3-Dichloropropene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,1,2-Trichloroethane	EPA 8260	<100	ug/kg	MQS	9/14/04
2-Hexanone	EPA 8260	<200	ug/kg	MQS	9/14/04
1,3-Dichloropropane	EPA 8260	<100	ug/kg	MQS	9/14/04
Tetrachloroethene	EPA 8260	<100	ug/kg	MQS	9/14/04
Dibromochloromethane	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2-Dibromoethane (EDB)	EPA 8260	<200	ug/kg	MQS	9/14/04
Chlorobenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,1,1,2-Tetrachloroethane	EPA 8260	<100	ug/kg	MQS	9/14/04
Ethylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
m&p-Xylene	EPA 8260	<100	ug/kg	MQS	9/14/04
o-Xylene	EPA 8260	<100	ug/kg	MQS	9/14/04
Styrene	EPA 8260	<100	ug/kg	MQS	9/14/04
Bromoform	EPA 8260	<200	ug/kg	MQS	9/14/04
Isopropylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,1,2,2-Tetrachloroethane	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2,3-Trichloropropane	EPA 8260	<100	ug/kg	MQS	9/14/04
Bromobenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
n-Propylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
2-Chlorotoluene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,3,5-Trimethylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
4-Chlorotoluene	EPA 8260	<100	ug/kg	MQS	9/14/04
tert-Butylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2,4-Trimethylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
sec-Butylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
p-Isopropyltoluene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,3-Dichlorobenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,4-Dichlorobenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
n-Butylbenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2-Dichlorobenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2-Dibromo-3-Chloropropane	EPA 8260	<500	ug/kg	MQS	9/14/04
1,2,4-Trichlorobenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
Hexachlorobutadiene	EPA 8260	<100	ug/kg	MQS	9/14/04
Naphthalene	EPA 8260	<100	ug/kg	MQS	9/14/04
1,2,3-Trichlorobenzene	EPA 8260	<100	ug/kg	MQS	9/14/04
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	100	% R	MQS	9/14/04
***Toluene-D8	EPA 8260	98.2	% R	MQS	9/14/04
***4-Bromofluorobenzene	EPA 8260	94.4	% R	MQS	9/14/04
Preparation	EPA 5035	20	DF	MQS	9/14/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0409-00064

Sample ID: NAD-1
Sample Date: 9/10/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	9/22/04
Phenol	EPA 8270	<330	ug/kg	CMG	9/22/04
2-Chlorophenol	EPA 8270	<330	ug/kg	CMG	9/22/04
2-Methylphenol	EPA 8270	<330	ug/kg	CMG	9/22/04
3&4-Methylphenol	EPA 8270	<330	ug/kg	CMG	9/22/04
2-Nitrophenol	EPA 8270	<330	ug/kg	CMG	9/22/04
2,4-Dimethylphenol	EPA 8270	<330	ug/kg	CMG	9/22/04
Benzoic Acid	EPA 8270	<3300	ug/kg	CMG	9/22/04
2,4-Dichlorophenol	EPA 8270	<330	ug/kg	CMG	9/22/04
4-Chloro-3-Methylphenol	EPA 8270	<660	ug/kg	CMG	9/22/04
2,4,6-Trichlorophenol	EPA 8270	<330	ug/kg	CMG	9/22/04
2,4,5-Trichlorophenol	EPA 8270	<330	ug/kg	CMG	9/22/04
2,4-Dinitrophenol	EPA 8270	<3300	ug/kg	CMG	9/22/04
4-Nitrophenol	EPA 8270	<1700	ug/kg	CMG	9/22/04
4,6-Dinitro-2-Methylphenol	EPA 8270	<1700	ug/kg	CMG	9/22/04
Pentachlorophenol	EPA 8270	<1700	ug/kg	CMG	9/22/04
n-Nitrosodimethylamine	EPA 8270	<330	ug/kg	CMG	9/22/04
bis(2-Chloroethyl)Ether	EPA 8270	<330	ug/kg	CMG	9/22/04
1,3-Dichlorobenzene	EPA 8270	<330	ug/kg	CMG	9/22/04
1,4-Dichlorobenzene	EPA 8270	<330	ug/kg	CMG	9/22/04
Benzyl Alcohol	EPA 8270	<660	ug/kg	CMG	9/22/04
1,2-Dichlorobenzene	EPA 8270	<330	ug/kg	CMG	9/22/04
bis(2-Chloroisopropyl)Ether	EPA 8270	<330	ug/kg	CMG	9/22/04
n-Nitrosodi-n-Propylamine	EPA 8270	<330	ug/kg	CMG	9/22/04
Hexachloroethane	EPA 8270	<330	ug/kg	CMG	9/22/04
Nitrobenzene	EPA 8270	<330	ug/kg	CMG	9/22/04
Isophorone	EPA 8270	<330	ug/kg	CMG	9/22/04
bis(2-Chloroethoxy)Methane	EPA 8270	<330	ug/kg	CMG	9/22/04
1,2,4-Trichlorobenzene	EPA 8270	<330	ug/kg	CMG	9/22/04
Naphthalene	EPA 8270	<330	ug/kg	CMG	9/22/04
4-Chloroaniline	EPA 8270	<660	ug/kg	CMG	9/22/04
Hexachlorobutadiene	EPA 8270	<330	ug/kg	CMG	9/22/04
2-Methylnaphthalene	EPA 8270	<330	ug/kg	CMG	9/22/04
Hexachlorocyclopentadiene	EPA 8270	<1700	ug/kg	CMG	9/22/04
2-Chloronaphthalene	EPA 8270	<330	ug/kg	CMG	9/22/04
2-Nitroaniline	EPA 8270	<660	ug/kg	CMG	9/22/04
Dimethylphthalate	EPA 8270	<330	ug/kg	CMG	9/22/04
Acenaphthylene	EPA 8270	<330	ug/kg	CMG	9/22/04
2,6-Dinitrotoluene	EPA 8270	<330	ug/kg	CMG	9/22/04
3-Nitroaniline	EPA 8270	<660	ug/kg	CMG	9/22/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0409-00064

Sample ID: NAD-1
Sample Date: 9/10/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
Acenaphthene	EPA 8270	<330	ug/kg	CMG	9/22/04
Dibenzofuran	EPA 8270	<330	ug/kg	CMG	9/22/04
2,4-Dinitrotoluene	EPA 8270	<330	ug/kg	CMG	9/22/04
Diethylphthalate	EPA 8270	<330	ug/kg	CMG	9/22/04
Fluorene	EPA 8270	<330	ug/kg	CMG	9/22/04
4-Chlorophenyl Phenyl Ether	EPA 8270	<330	ug/kg	CMG	9/22/04
4-Nitroaniline	EPA 8270	<660	ug/kg	CMG	9/22/04
n-Nitrosodiphenylamine	EPA 8270	<330	ug/kg	CMG	9/22/04
4-Bromophenyl Phenyl Ether	EPA 8270	<330	ug/kg	CMG	9/22/04
Hexachlorobenzene	EPA 8270	<330	ug/kg	CMG	9/22/04
Phenanthrene	EPA 8270	<330	ug/kg	CMG	9/22/04
Anthracene	EPA 8270	<330	ug/kg	CMG	9/22/04
Carbazole	EPA 8270	<330	ug/kg	CMG	9/22/04
di-n-Butylphthalate	EPA 8270	<500	ug/kg	CMG	9/22/04
Fluoranthene	EPA 8270	<330	ug/kg	CMG	9/22/04
Pyrene	EPA 8270	<330	ug/kg	CMG	9/22/04
Butylbenzylphthalate	EPA 8270	<330	ug/kg	CMG	9/22/04
Benzo [a] Anthracene	EPA 8270	<330	ug/kg	CMG	9/22/04
3,3'-Dichlorobenzidine	EPA 8270	<660	ug/kg	CMG	9/22/04
Chrysene	EPA 8270	<330	ug/kg	CMG	9/22/04
bis(2-Ethylhexyl)Phthalate	EPA 8270	<330	ug/kg	CMG	9/22/04
di-n-Octylphthalate	EPA 8270	<330	ug/kg	CMG	9/22/04
Benzo [b] Fluoranthene	EPA 8270	<330	ug/kg	CMG	9/22/04
Benzo [k] Fluoranthene	EPA 8270	<330	ug/kg	CMG	9/22/04
Benzo [a] Pyrene	EPA 8270	<330	ug/kg	CMG	9/22/04
Indeno [1,2,3-cd] Pyrene	EPA 8270	<330	ug/kg	CMG	9/22/04
Dibenzo [a,h] Anthracene	EPA 8270	<330	ug/kg	CMG	9/22/04
Benzo [g,h,i] Perylene	EPA 8270	<330	ug/kg	CMG	9/22/04
Surrogates:					
***2-Fluorophenol	EPA 8270	42.4	% R	CMG	9/22/04
***Phenol-D6	EPA 8270	54.6	% R	CMG	9/22/04
***Nitrobenzene-D5	EPA 8270	44.5	% R	CMG	9/22/04
***2-Fluorobiphenyl	EPA 8270	42.7	% R	CMG	9/22/04
***2,4,6-Tribromophenol	EPA 8270	47.4	% R	CMG	9/22/04
***P-Terphenyl-D14	EPA 8270	55.8	% R	CMG	9/22/04
Extraction	EPA 3545	1.0		ARL	9/13/04
METALS-TARGET ANALYTE LIST				AJY	9/15/04
Silver	EPA 6010	<0.622	mg/kg	AJY	9/15/04
Aluminum	EPA 6010	17300	mg/kg	AJY	9/15/04
Arsenic	EPA 6010	7.52	mg/kg	AJY	9/15/04

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Alltift Landfill
Project No.: 21.0055814.00

Work Order No.: 0409-00064

Sample ID: NAD-1
Sample Date: 9/10/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
Barium	EPA 6010	95.4	mg/kg	AJY	9/15/04
Beryllium	EPA 6010	0.697	mg/kg	AJY	9/15/04
Calcium	EPA 6010	3940	mg/kg	AJY	9/15/04
Cadmium	EPA 6010	0.983	mg/kg	AJY	9/15/04
Cobalt	EPA 6010	9.45	mg/kg	AJY	9/15/04
Chromium	EPA 6010	21.8	mg/kg	AJY	9/15/04
Copper	EPA 6010	23.0	mg/kg	AJY	9/15/04
Iron	EPA 6010	21800	mg/kg	AJY	9/15/04
Mercury	EPA 7471A	0.0679	mg/kg	NH	9/17/04
Magnesium	EPA 6010	3240	mg/kg	AJY	9/15/04
Manganese	EPA 6010	654	mg/kg	AJY	9/15/04
Nickel	EPA 6010	23.8	mg/kg	AJY	9/15/04
Lead	EPA 6010	36.3	mg/kg	AJY	9/15/04
Antimony	EPA 6010	<3.11	mg/kg	AJY	9/15/04
Selenium	EPA 6010	<3.11	mg/kg	AJY	9/15/04
Vanadium	EPA 6010	28.1	mg/kg	AJY	9/15/04
Thallium	EPA 6010	<3.11	mg/kg	AJY	9/15/04
Zinc	EPA 6010	115	mg/kg	AJY	9/15/04
PERCENT SOLID		76.5	%	TAJ	9/15/04
Conductivity		0.11*	mS/cm	NH	9/22/04

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 6010B ANALYSIS
Metals by ICP

QUALITY CONTROL - SOLID

DATE PREPARED: 09/15/2004

QC Sample	Method Blank	Lab Control Sample
Units	mg/kg	% Recovery
Acceptance Limits	Results	80-120 %
Analyte		
Silver (Ag)	<0.500	87.1
Aluminum (Al)	<2.500	104
Arsenic (As)	<1.000	92.9
Boron (B)	NA	NA
Barium (Ba)	<0.500	96.0
Beryllium (Be)	<0.500	94.6
Calcium (Ca)	<2.500	95.7
Cadmium (Cd)	<0.500	96.3
Cobalt (Co)	<1.000	94.5
Chromium (Cr)	<0.500	95.4
Copper (Cu)	<1.500	104
Iron (Fe)	<2.500	97.2
Magnesium (Mg)	<2.500	96.9
Manganese (Mn)	<0.500	98.8
Molybdenum (Mo)	NA	NA
Nickel (Ni)	<1.000	94.5
Lead (Pb)	<1.000	92.5
Antimony (Sb)	<2.500	94.2
Selenium (Se)	<2.500	91.0
Strontium (Sr)	NA	NA
Titanium (Ti)	NA	NA
Thallium (Tl)	<2.500	94.0
Vanadium (V)	<0.500	93.9
Zinc (Zn)	<1.000	97.5
Zirconium (Zr)	NA	NA

Matrix Spike / Duplicate Spike performed as per method and reported if assigned on Chain of Custody.

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 7470/7471 ANALYSIS
Mercury by Cold Vapor Atomic Absorption

QUALITY CONTROL - SOLID

Date Analyzed: 09/16/2004

QC Sample	Method Blank	Lab Control Sample
Units	mg/L	% Recovery
Acceptance Limits	Results	85-115 %
Analyte		
Mercury (Hg)	<0.040 (solid)	100

Matrix Spike / Duplicate Spike performed as per method and reported if assigned on Chain of Custody.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8260 Solid Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Analyzed:	8/14/2004	
Volatile Organics	Conc. ug/L	Acceptance Limit
dichlorodifluoromethane	< 250	< 250
chloromethane	< 250	< 250
vinyl chloride	< 250	< 250
bromomethane	< 250	< 250
chloroethane	< 250	< 250
trichlorofluoromethane	< 250	< 250
diethyl ether	< 500	< 500
acetone	< 1300	< 1300
1,1-dichloroethene	< 130	< 130
FREON-113	< 250	< 250
carbon disulfide	< 250	< 250
dichloromethane	< 250	< 250
tert-butyl alcohol (TBA)	< 1300	< 1300
methyl-tert-butyl-ether	< 250	< 250
trans-1,2-dichloroethene	< 130	< 130
1,1-dichloroethane	< 130	< 130
di-isopropyl ether (DIPE)	< 250	< 250
ethyl tert-butyl ether (EtBE)	< 250	< 250
2-butanone	< 1300	< 1300
2,2-dichloropropane	< 130	< 130
cis-1,2-dichloroethene	< 130	< 130
chloroform	< 130	< 130
bromochloromethane	< 130	< 130
tetrahydrofuran	< 750	< 750
1,1,1-trichloroethane	< 130	< 130
1,1-dichloropropene	< 130	< 130
carbon tetrachloride	< 130	< 130
1,2-dichloroethane	< 130	< 130
benzene	< 130	< 130
tert-amyl methyl ether (TAME)	< 250	< 250
trichloroethene	< 130	< 130
1,2-dichloropropane	< 130	< 130
bromodichloromethane	< 130	< 130
1,4-Dioxane	< 2500	< 2500
dibromomethane	< 130	< 130
4-methyl-2-pentanone	< 250	< 250
cis-1,3-dichloropropene	< 130	< 130
toluene	< 130	< 130
trans-1,3-dichloropropene	< 130	< 130
1,1,2-trichloroethane	< 250	< 250
2-hexanone	< 250	< 250
1,3-dichloropropane	< 130	< 130
tetrachloroethene	< 130	< 130
dibromochloromethane	< 130	< 130
1,2-dibromoethane (EDB)	< 130	< 130
chlorobenzene	< 130	< 130
1,1,1,2-tetrachloroethane	< 130	< 130
ethylbenzene	< 130	< 130
1,1,2,2-tetrachloroethane	< 130	< 130
m&p-xylene	< 130	< 130
o-xylene	< 130	< 130
styrene	< 130	< 130
bromoform	< 130	< 130
isopropylbenzene	< 130	< 130
1,2,3-trichloropropane	< 130	< 130
bromobenzene	< 130	< 130
n-propylbenzene	< 130	< 130
2-chlorotoluene	< 130	< 130
1,3,5-trimethylbenzene	< 130	< 130
4-chlorotoluene	< 130	< 130
tert-butyl-benzene	< 130	< 130
1,2,4-trimethylbenzene	< 130	< 130
sec-butyl-benzene	< 130	< 130
p-isopropyltoluene	< 750	< 750
1,3-dichlorobenzene	< 130	< 130
1,4-dichlorobenzene	< 130	< 130
n-butylbenzene	< 130	< 130
1,2-dichlorobenzene	< 130	< 130
1,2-dibromo-3-chloropropane	< 130	< 130
1,2,4-trichlorobenzene	< 130	< 130
hexachlorobutadiene	< 130	< 130
naphthalene	< 130	< 130
1,2,3-trichlorobenzene	< 130	< 130

Laboratory Control Sample

Date Analyzed:	8/14/2004		
Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict
dichlorodifluoromethane	86.6	70-130	ok
chloromethane	85.2	70-130	ok
vinyl chloride	90.3	70-130	ok
bromomethane	81.1	70-130	ok
chloroethane	88.4	70-130	ok
trichlorofluoromethane	103	70-130	ok
diethyl ether	90.9	70-130	ok
acetone	109	70-130	ok
1,1-dichloroethene	97.2	70-130	ok
FREON-113	104	70-130	ok
carbon disulfide	95.7	70-130	ok
dichloromethane	89.2	70-130	ok
tert-butyl alcohol (TBA)	87.4	70-130	ok
methyl-tert-butyl-ether	97.8	70-130	ok
trans-1,2-dichloroethene	92.7	70-130	ok
1,1-dichloroethane	103	70-130	ok
di-isopropyl ether (DIPE)	94.8	70-130	ok
ethyl tert-butyl ether (EtBE)	101	70-130	ok
2-butanone	98.4	70-130	ok
2,2-dichloropropane	124	70-130	ok
cis-1,2-dichloroethene	100	70-130	ok
chloroform	101	70-130	ok
bromochloromethane	98.9	70-130	ok
tetrahydrofuran	87.0	70-130	ok
1,1,1-trichloroethane	114	70-130	ok
1,1-dichloropropene	106	70-130	ok
carbon tetrachloride	117	70-130	ok
1,2-dichloroethane	109	70-130	ok
benzene	99.5	70-130	ok
tert-amyl methyl ether (TAME)	99.4	70-130	ok
trichloroethene	102	70-130	ok
1,2-dichloropropane	97.5	70-130	ok
bromodichloromethane	101	70-130	ok
1,4-Dioxane	79.8	70-130	ok
dibromomethane	93.7	70-130	ok
4-methyl-2-pentanone	85.4	70-130	ok
cis-1,3-dichloropropene	97.9	70-130	ok
toluene	99.7	70-130	ok
trans-1,3-dichloropropene	94.8	70-130	ok
1,1,2-trichloroethane	94.0	70-130	ok
2-hexanone	82.9	70-130	ok
1,3-dichloropropane	90.2	70-130	ok
tetrachloroethene	96.8	70-130	ok
dibromochloromethane	88.4	70-130	ok
1,2-dibromoethane (EDB)	93.4	70-130	ok
chlorobenzene	95.2	70-130	ok
1,1,1,2-tetrachloroethane	97.0	70-130	ok
ethylbenzene	94.2	70-130	ok
1,1,2,2-tetrachloroethane	89.0	70-130	ok
m&p-xylene	101	70-130	ok
o-xylene	98.4	70-130	ok
styrene	97.1	70-130	ok
bromoform	98.1	70-130	ok
isopropylbenzene	102	70-130	ok
1,2,3-trichloropropane	93.9	70-130	ok
bromobenzene	92.7	70-130	ok
n-propylbenzene	102	70-130	ok
2-chlorotoluene	98.6	70-130	ok
1,3,5-trimethylbenzene	101	70-130	ok
4-chlorotoluene	99.4	70-130	ok
tert-butyl-benzene	103	70-130	ok
1,2,4-trimethylbenzene	99.1	70-130	ok
sec-butyl-benzene	103	70-130	ok
p-isopropyltoluene	100	70-130	ok
1,3-dichlorobenzene	93.4	70-130	ok
1,4-dichlorobenzene	92.3	70-130	ok
n-butylbenzene	101	70-130	ok
1,2-dichlorobenzene	89.4	70-130	ok
1,2-dibromo-3-chloropropane	91.6	70-130	ok
1,2,4-trichlorobenzene	88.0	70-130	ok
hexachlorobutadiene	98.3	70-130	ok
naphthalene	81.3	70-130	ok
1,2,3-trichlorobenzene	83.0	70-130	ok

SMF criteria allows 5 compounds to be outside acceptance limits

Surrogates:	Recovery (%)	Acceptance Limits
DIBROMOFLUOROMETHANE	103	70-130
1,2-DICHLOROETHANE-D4	97.2	70-130
TOLUENE-D8	90.1	70-130
4-BROMOFLUOROBENZENE	93.6	70-130
1,2-DICHLOROBENZENE-D4	91.2	70-130

Surrogates:	Recovery (%)	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	104	70-130	ok
1,2-DICHLOROETHANE-D4	94.9	70-130	ok
TOLUENE-D8	100	70-130	ok
4-BROMOFLUOROBENZENE	94.7	70-130	ok
1,2-DICHLOROBENZENE-D4	92.2	70-130	ok

Instrument: HP GC/MS "A"

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8270 Solid Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Extracted:	09/13/04
Date Analyzed:	09/20/04
File Name:	V6855

Volatile Organics	Result	Reporting Limit
n-nitrosodimethylamine	ND	330
pyridine	ND	3300
phenol	ND	330
bis(2-chloroethyl)ether	ND	330
2-chlorophenol	ND	330
1,3-dichlorobenzene	ND	330
1,4-dichlorobenzene	ND	330
benzyl alchonol	ND	660
1,2-dichlorobenzene	ND	330
2-methylphenol	ND	330
bis(2-chloroisopropyl)ether	ND	330
3&4-methylphenol	ND	330
n-nitrosodi-n-propylamine	ND	330
hexachloroethane	ND	330
nitrobenzene	ND	330
isophrone	ND	330
2-nitrophenol	ND	330
2,4-dimethylphenol	ND	330
benzoic acid	ND	330
bis(2-chloroethoxy)methane	ND	330
2,4-dichlorophenol	ND	330
1,2,4-trichlorobenzene	ND	330
napthalene	ND	330
4-chloraniline	ND	660
hexachlorobutadiene	ND	330
4-chloro-3-methylphenol	ND	660
2-methylnapthalene	ND	330
aniline	ND	330
hexachlorocyclopentadiene	ND	1700
2,4,6-trichlorophenol	ND	330
2,4,5-trichlorophenol	ND	330
2-chloronapthalene	ND	330
2-nitroaniline	ND	1700
dimethylphthalate	ND	330
acenapthylene	ND	330
2,6-dinitrotoluene	ND	330
3-nitroaniline	ND	1700
acenaphthene	ND	330
2,4-dinitrophenol	ND	3300
dibenzofuran	ND	330
4-nitrophenol	ND	1700
2,4-dinitrotoluene	ND	330
diethylphthalate	ND	330
fluorene	ND	330
4-chlorophenyl phenyl ether	ND	330
4-nitroaniline	ND	660
4,6-dinitro-2-methylphenol	ND	1700
n-nitrosodiphenylamine	ND	330
4-bromophenyl phenyl ether	ND	330
hexachlorobenzene	ND	330
pentachlorophenol	ND	1700
phenanthrene	ND	330
anthracene	ND	330
carbazole	ND	330
di-n-butylphthalate	ND	500
fluoranthene	ND	330
benzidine	ND	330
pyrene	ND	330
butylbenzylphthalate	ND	330
benz [a] anthracene	ND	330
3,3'-dichlorobenzidine	ND	660
chrysene	ND	330
bis(2-ethylhexyl)phthalate	ND	330
di-n-octylphthalate	ND	330
benzo [b] fluoranthene	ND	330
benzo [k] fluoranthene	ND	330
benzo [a] pyrene	ND	330
indeno [1,2,3-cd] pyrene	ND	330
dibenz [a,h] anthracene	ND	330
benzo [ghi] perylene	ND	330

Surrogates:	Recovery (%)	Acceptance Limits
2-FLUOROPHENOL	74.2	30-130
PHENOL-D6	77.9	30-130
NITROBENZENE-D5	58.1	30-130
2-FLUOROBIPHENYL	54.3	30-130
2,4,6-TRIBROMOPHENOL	51.3	30-130
p-TERPHENYL-D14	81.4	30-130

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8270 Solid Method Blank (MB) and Laboratory Control Sample (LCS) Data

Laboratory Control Sample

Date Extracted:	09/13/04
Date Analyzed:	09/20/04
File Name:	V6836

Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict
n-nitrosodimethylamine	43.2	40-140	ok
pyridine	75.0	40-140	ok
phenol	88.0	30-130	ok
bis(2-chloroethyl)ether	77.3	40-140	ok
2-chlorophenol	77.7	30-130	ok
1,3-dichlorobenzene	74.6	40-140	ok
1,4-dichlorobenzene	72.2	40-140	ok
benzyl alchohol	77.7	40-140	ok
1,2-dichlorobenzene	68.9	40-140	ok
2-methylphenol	191	30-130	out
bis(2-chloroisopropyl)ether	67.0	40-140	ok
3&4-methylphenol	128	30-130	ok
n-nitrosodi-n-propylamine	56.2	40-140	ok
hexachloroethane	67.6	40-140	ok
nitrobenzene	64.5	40-140	ok
isophrone	78.2	40-140	ok
2-nitrophenol	78.5	30-130	ok
2,4-dimethylphenol	69.8	30-130	ok
benzoic acid	39.0	30-130	ok
bis(2-chloroethoxy)methane	76.5	40-140	ok
2,4-dichlorophenol	78.6	30-130	ok
1,2,4-trichlorobenzene	64.3	40-140	ok
napthalene	67.0	40-140	ok
4-chloroaniline	70.0	40-140	ok
hexachlorobutadiene	48.9	40-140	ok
4-chloro-3-methylphenol	70.7	30-130	ok
2-methylnapthalene	75.0	40-140	ok
anilins	53.8	40-140	ok
hexachlorocyclopentadiene	36.4	40-140	out
2,4,6-trichlorophenol	58.7	30-130	ok
2,4,5-trichlorophenol	61.9	30-130	ok
2-chloronaphalene	61.0	40-140	ok
2-nitroanilins	56.8	40-140	ok
dimethylphthalate	58.9	40-140	ok
acenaphylene	66.8	40-140	ok
2,6-dinitrotoluene	71.2	40-140	ok
3-nitroanilins	78.7	40-140	ok
acenaphthene	66.8	40-140	ok
2,4-dinitrophenol	32.9	30-130	ok
dibenzofuran	67.9	40-140	ok
4-nitrophenol	53.0	30-130	ok
2,4-dinitrotoluene	68.1	40-140	ok
diethylphthalate	91.4	40-140	ok
fluorene	82.5	40-140	ok
4-chlorophenyl phenyl ether	65.1	40-140	ok
4-nitroaniline	124	40-140	ok
4,6-dinitro-2-methylphenol	71.3	30-130	ok
n-nitrosodiphenylamine	83.2	40-140	ok
4-bromophenyl phenyl ether	60.7	40-140	ok
hexachlorobenzene	62.6	40-140	ok
pentachlorophenol	54.4	30-130	ok
phenanthrene	93.4	40-140	ok
anthracene	95.1	40-140	ok
carbazole	131	40-140	ok
di-n-butylphthalate	99.7	40-140	ok
fluoranthene	85.4	40-140	ok
benzidine	0.00	40-140	out
pyrene	85.6	40-140	ok
butylbenzylphthalate	100	40-140	ok
benz [a] anthracene	84.8	40-140	ok
3,3'-dichlorobenzidine	199	40-140	out
chrysene	95.4	40-140	ok
bis(2-ethylhexyl)phthalate	112	40-140	ok
di-n-octylphthalate	122	40-140	ok
benzo [b] fluoranthene	92.5	40-140	ok
benzo [k] fluoranthene	96.2	40-140	ok
benzo [a] pyrene	96.2	40-140	ok
indeno [1,2,3-cd] pyrene	125	40-140	ok
dibenz [a,h] anthracene	123	40-140	ok
benzo [ghi] perylene	127	40-140	ok

CAM criteria allows 15% of analytes to exceed criteria.

Surrogates:	Recovery (%)	Acceptance Limits	Verdict
2-FLUOROPHENOL	90.7	30-130	ok
PHENOL-D6	95.0	30-130	ok
NITROBENZENE-D5	65.5	30-130	ok
2-FLUOROBIPHENYL	63.2	30-130	ok
2,4,6-TRIBROMOPHENOL	81.6	30-130	ok
p-TERPHENYL-D14	78.8	30-130	ok

WHITE COPY - [illegible]inal YELLOW COPY - Lab Files PINK COPY - Project Manager

W.O. # 0409-00064
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled (Very Important)	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., Other (specify))	pH Cond.	GC Screen (VOA)	524.2 502.2	624 (WW ONLY)	601 602 (WW ONLY)	625 (WW ONLY)	Formaldehyde (WW ONLY)	8260 TCL	8021	8021 - "8010" List	8021 "8020" List	8270 Full PAH BN TCL	8082-PCBs Only	8081 - Pest Only	TPH-GC (Mod. 8100)	TPH-GC w/FING	EPH (MA DEP)	VPH (MA DEP)	TCLP (Spec. Below)	Filtering (✓ if requested)	Metals PPM-13 R-8 TAL	Metals (List Below)	Total # of Cont.	Note #
NAD-1	9/10/04 1300	S								X				X									X		2	1+2

PRESERVATIVE (Cl - HCl, M=MeOH, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*

CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, O-Other)*

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	9/10/04	UPS
UPS	9/14/04 1000	[signature]

NOTES: Preservatives, special reporting limits, known contamination, additional testing parameters, etc.:

① TCL VOLATILES, TCL SEMI-VOLATILES, TAL METALS
& PLEASE REPORT TO LOWEST DETECTION LIMITS FOR NYS GUIDELINES.

② PLEASE RETURN COOLER.

③ - GEOTECHNICAL BULK SAMPLE ENCLOSED - (SEE WORK ORDER PROVIDED)

716-855-2300

PROJECT MANAGER: BART KLETTKE EXT: 330

DATA REPORT ☑ PDF (Adobe) ☐ ASCII ☐ EXCEL Specify State____

TURNAROUND TIME: Standard (circled) Rush___ Days, Approved by:____

LAB USE: TEMP. OF COOLER 9.0 °C AIR 0108 9/14/04 1000 KG

GZA FILE NO: 21.0055814 TASK 4 SUBTASK 1 P.O. NO.____

PROJECT ALLTIFT LANDFILL / RAMCO STEEL SITE

LOCATION BUFFALO, N.Y.

COLLECTOR(S) TODD SCHAPA SHEET 1 OF 1

GZA GEOENVIRONMENTAL, INC.
ENGINEERS AND SCIENTISTS
106 South Street
Hopkinton, MA 01748
(508) 435-9244
FAX (508) 435-9912

GZAP003

R.I. Analytical

Specialists in Environmental Services

CERTIFICATE OF ANALYSIS

GZA GeoEnvironmental Labs
Attn: Ms. Michelle Mirenda
Engineers and Scientists
106 South Street
Hopkinton, MA 01748

Date Received: 09/14/2004
Date Reported: 09/21/2004
P.O. #: TO FOLLOW
Work Order # 0409-13744

DESCRIPTION: PROJECT# 21.0055814 TASK 4 SUBTASK 1 - ALLTIFT LANDFILL

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies and all NELAC requirements were met. The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844, NY-11726

If you have any questions regarding this work, or if we may be of further assistance, please contact us.

Approved by:

Data Reporting

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA GeoEnvironmental Labs
Date Received: 09/14/2004
Work Order #: 0409-13744

Approved by: _____
Data Reporting

Sample # 001
SAMPLE DESCRIPTION: NAD-1
SAMPLE TYPE: GRAB **SAMPLE DATE/TIME:** 09/10/2004 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
TOTAL CYANIDE	<12	12	mg/kg dry	SW-846 9010A	09/17/2004	EC
TOTAL METALS						
POTASSIUM	1200	67	mg/kg dry	SW-846 6010	09/20/2004	JNB
SODIUM	<200	200	mg/kg dry	SW-846 6010	09/20/2004	JNB

WHITE COPY - Original YELLOW COPY - Lab Files PINK COPY - Project Manager

W.O. #________ *(for lab use only)*

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled (Very Important)	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. Other (specify)	DpH DCond.	GC Screen (VOA)	D524.2 D502.2	WW ONLY: 624	D601 D602	608	Pesticides/Herbs	ANALYSIS REQUIRED: 8260	8021	8021 - "8010" List	8021 "8020" List	8270 DFull DPAH DBN	8082-PCBs Only	8081-Pest Only	TPH-GC (Mod. 8100)	TPH-GC w/FING	EPH (MA DEP)	VPH (MA DEP)	TCLP (Spec. Below)	Flashing (✓ if requested)	Metals DPPM-13 D RCRA 8	Metals (List Below)					Total # of Cont.	Note #
NAO-1	9/10/04 1300	S																						X					1	1&2

PRESERVATIVE (Cl - HCl, M=MeOH, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*

CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, O-Other)* (G-Glass circled)

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	9/10/04 1500	
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	09/11/04 0935	Kileen [signature]
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:

NOTES: Preservatives, special reporting limits, known contamination, additional testing parameters, etc.:

① CN, Na, K ONLY

② PLEASE RETURN COOLER

716-685-2300

PROJECT MANAGER: BART KLETTKE EXT: 3310

DATA REPORT ☑ PDF (Adobe) ☐ ASCII ☐ EXCEL Specify State________

TURNAROUND TIME: Standard (circled) Rush___ Days, Approved by:________ LAB USE: TEMP. OF COOLER________°C

GZA FILE NO: 21.0055814 TASK 4 SUBTASK 1 P.O. NO.________

PROJECT ALLTIFT LANDFILL / RAMCO STEEL SITE

LOCATION BUFFALO, N.Y.

COLLECTOR(S) TODD SCHAA SHEET 1 OF 1

GZA GEOENVIRONMENTAL, INC.
ENGINEERS AND SCIENTISTS
106 South Street
Hopkinton, MA 01748
(508) 435-9244
FAX (508) 435-9912

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA: MA092 NH: 2028 RI: 236
CT: PH0579 OK: 9928 NC: 615
NY (NELAC): 11063

ANALYTICAL DATA REPORT

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
781-278-3700
Matt Polsky

Project No.:	08.0099999.20
Work Order No.:	0409-00066
Date Received:	9/14/04
Date Reported:	9/17/04

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
9/10/2004	Solid	0409-00066 001	SOIL LAB#2 NAD-1

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

Matt Polsky

Project Name: Geotechnical Laboratory
Project No.: 08.0099999.20

Date Received: 9/14/04
Date Reported: 9/17/04
Work Order No.: 0409-00066

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 09/14/04 via __GZA courier, __EC, __FEDEX, or _x_hand delivered. The temperature of the __temperature blank/_x_cooler air, was 25.4 degrees C. The samples were received intact for all requested analyses.

The samples were appropriately preserved in accordance with the method they reference.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

Matt Polsky

Project Name: Geotechnical Laboratory
Project No.: 08.0099999.20

Date Received: 9/14/04
Date Reported: 9/17/04
Work Order No.: 0409-00066

Data Authorized By: _____

% R = % Recovery
DF = Dilution Factor
DO = Diluted Out

Method 8260: The current version of the method is 8260B.
Method 8021: The current version of the method is 8021B.
Method 8270: The current version of the method is 8270C.
Method 6010: The current version of the method is 6010B.

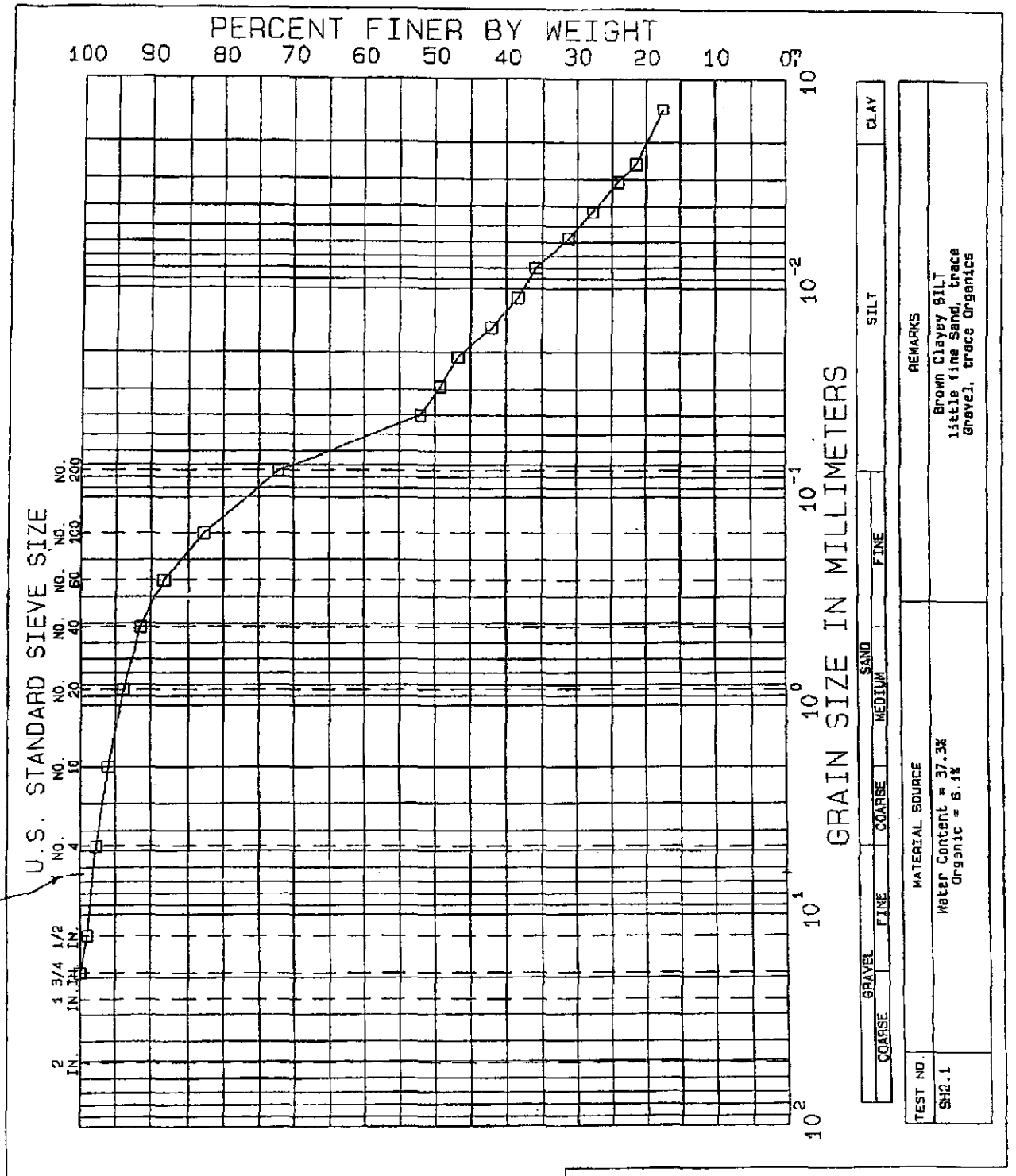
Laboratory Identification Numbers:

MA: MA092 NH: 2028
CT: PH0579 RI: 236
NC: 615 NY (NELAC): 11063

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

Soil data is reported on a dry weight basis unless otherwise specified.

Matrix Spike / Matrix Spike Duplicate sets are performed as per each method and are reported at the end of the analytical report if assigned on the chain of custody.



1/4 - INCH

ALLTIFT LANDFILL
BUFFALO, NY
GRADATION TESTS

BORING NO.
SAMPLE NAD-1
DEPTH
TECH. PEC
REVIEWER MBP

TEST SERIES
NO. 2
DATE Sep.04

FILE 55814

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

Matt Polsky

Project Name: Geotechnical Laboratory
Project No.: 08.0099999.20

Date Received: 9/14/04
Date Reported: 9/17/04
Work Order No.: 0409-00066

Sample ID: SOIL LAB#2 NAD-1
Sample Date: 9/10/2004

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
pH	EPA 9045	6.78	std. units	NH	9/14/04

WHITE COPY - Original YELLOW COPY - Lab Files PINK COPY - Project Manager

W.O. # 0409- 00066
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled (Very important)	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. Other (specify)	pH Cond.	GC Screen (VOA)	D524.2 D502.2	WW ONLY 624	D601 D602	625	Formaldehyde	ANALYSIS REQUIRED 8260	8021	8021 - "8010" List	8021 "8020" List	8270 CPUs DPAH DBN	8082-PCBs Only	8081 - Pest Only	TPH-GC (Mod. 8100)	TPH-GC w/FING	EPH (MA DEP)	VPH (MA DEP)	TCLP (Spec. Below)	Flashing	Metals CFPM-13 O RL	Metals (List Below)					Total # of Cont.	Note #
Soils Lab # 2	9/10/04 9/14 KB	S	X																										1	
NAD -1																														
PRESERVATIVE (Cl - HCl, M=MeOH, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*																														
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, O-Other)*																														

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
P Cusack	9-14-04 1110	[signature] 9/14/04 1115
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:

NOTES: Preservatives, special reporting limits, known contamination, additional testing parameters, etc.:

PROJECT MANAGER: Matt P. EXT: 4707

DATA REPORT ☑ PDF (Adobe) ☐ ASCII ☐ EXCEL Specify State

LAB USE: Air (5403)

TURNAROUND TIME: (Standard) Rush___ Days, Approved by:________ TEMP. OF COOLER 25.4 °C 9/14/04 1115 KB

GZA FILE NO: 08.0099999.26 P.O. NO.

PROJECT [redacted] ' AllTift Landfill (C65814)

LOCATION Buffalo NY

COLLECTOR(S)

SHEET 1 OF 1

GZA GEOENVIRONMENTAL, INC.
ENGINEERS AND SCIENTISTS
106 South Street
Hopkinton, MA 01748
(508) 435-9244
FAX (508) 435-9912

GZAP003

APPENDIX D

LABORATORY ANALYTICAL DATA REPORTS

ANALYTICAL REPORT

Job#: A04-8569,A04-8779

STL Project#: NY0A8578
SDG#: 8569
Site Name: PARSON'S ENGINEERING SCIENCE INC.
Task: Parsons - Lehigh Valley/Satellite Wells

Mark Raybuck
Parsons
180 Lawrence Bell Dr., Ste 104
Williamsville, NY 14221

STL Buffalo

Brian J. Fischer
Project Manager

09/22/2004

STL Buffalo
Current Certifications

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP SDWA, CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington	CWA	C254
West Virginia	CWA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A4877903	EX-10	09/14/2004	12:20	09/14/2004	16:23
A4877904	EX-14	09/14/2004	12:25	09/14/2004	16:23
A4877901	NORTH WALL	09/14/2004	12:10	09/14/2004	16:23
A4877902	SOUTH WALL	09/14/2004	12:15	09/14/2004	16:23
A4856901	WEST WALL	09/08/2004	16:05	09/09/2004	08:35

METHODS SUMMARY

Job#: A04-8569,A04-8779

STL Project#: NY0A8578
SDG#: 8569
Site Name: PARSON'S ENGINEERING SCIENCE INC.

PARAMETER	ANALYTICAL METHOD
METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS	SW8463 8270
Lead - Total	SW8463 6010

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A04-8569,A04-8779

STL Project#: NY0A8578
SDG#: 8569
Site Name: PARSON'S ENGINEERING SCIENCE INC.

General Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A04-8569
Sample Cooler(s) were received at the following temperature(s); 20.0 °C
Sample was received at a temperature of >10° C. This samples was analyzed as per instructions from the client.
A04-8779
Sample Cooler(s) were received at the following temperature(s); 20.0 °C
All samples were received at a temperature of >10°C. However, ice was present in the cooler and as the samples were collected the same day, it was not possible for the samples to cool to 4°C prior to receipt. There is no impact on the data.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

Metals Data

No deviations from protocol were encountered during the analytical procedures.

****

Client Sample ID	Lab Sample ID	Parameter (Inorganic)/Method (Organic)	Dilution	Code
NORTH WALL	A4877901	8270	5.00	012
NORTH WALL	A4877901MS	8270	5.00	012
NORTH WALL	A4877901SD	8270	5.00	012
SOUTH WALL	A4877902	8270	5.00	008

Dilution Code Definition:

002 - sample matrix effects
003 - excessive foaming
004 - high levels of non-target compounds
005 - sample matrix resulted in method non-compliance for an Internal Standard
006 - sample matrix resulted in method non-compliance for Surrogate
007 - nature of the TCLP matrix
008 - high concentration of target analyte(s)
009 - sample turbidity
010 - sample color
011 - insufficient volume for lower dilution
012 - sample viscosity
013 - other

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
[1]	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
K	Indicates the post digestion spike recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
M	Indicates duplicate injection results exceeded quality control limits.
W	Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Client ID		EX-10		EX-14		NORTH WALL		SOUTH WALL	
Job No	Lab ID	A04-8779	A4877903	A04-8779	A4877904	A04-8779	A4877901	A04-8779	A4877902
Sample Date		09/14/2004		09/14/2004		09/14/2004		09/14/2004	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,2-Dichlorobenzene	UG/KG	ND	370	ND	370	ND	2200	6200	2000
1,3-Dichlorobenzene	UG/KG	ND	370	ND	370	ND	2200	ND	2000
4-Nitroaniline	UG/KG	ND	1800	ND	1800	ND	11000	ND	9600
4-Chloroaniline	UG/KG	ND	370	ND	370	630 J	2200	ND	2000
Nitrobenzene	UG/KG	ND	370	ND	370	ND	2200	2100	2000
1,2,4-Trichlorobenzene	UG/KG	ND	370	ND	370	ND	2200	6700	2000
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	95	50-200	101	50-200	94	50-200	89	50-200
Naphthalene-D8	%	97	50-200	103	50-200	95	50-200	94	50-200
Acenaphthene-D10	%	91	50-200	99	50-200	89	50-200	90	50-200
Phenanthrene-D10	%	95	50-200	102	50-200	92	50-200	90	50-200
Chrysene-D12	%	93	50-200	104	50-200	83	50-200	75	50-200
Perylene-D12	%	102	50-200	119	50-200	90	50-200	87	50-200
Nitrobenzene-D5	%	86	30-127	68	30-127	77	30-127	85	30-127
2-Fluorobiphenyl	%	92	36-138	76	36-138	94	36-138	94	36-138
p-Terphenyl-d14	%	104	41-167	86	41-167	105	41-167	117	41-167
Phenol-D5	%	84	34-120	68	34-120	78	34-120	82	34-120
2-Fluorophenol	%	79	26-120	63	26-120	69	26-120	72	26-120
2,4,6-Tribromophenol	%	98	42-140	83	42-140	89	42-140	104	42-140

9/30

Client ID		WEST WALL							
Job No	Lab ID	A04-8569	A4856901						
Sample Date		09/08/2004							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,2-Dichlorobenzene	UG/KG	ND	700	NA		NA		NA	
1,3-Dichlorobenzene	UG/KG	ND	700	NA		NA		NA	
4-Nitroaniline	UG/KG	ND	3400	NA		NA		NA	
4-Chloroaniline	UG/KG	ND	700	NA		NA		NA	
Nitrobenzene	UG/KG	ND	700	NA		NA		NA	
1,2,4-Trichlorobenzene	UG/KG	ND	700	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	89	50-200	NA		NA		NA	
Naphthalene-D8	%	90	50-200	NA		NA		NA	
Acenaphthene-D10	%	82	50-200	NA		NA		NA	
Phenanthrene-D10	%	81	50-200	NA		NA		NA	
Chrysene-D12	%	64	50-200	NA		NA		NA	
Perylene-D12	%	94	50-200	NA		NA		NA	
Nitrobenzene-D5	%	73	30-127	NA		NA		NA	
2-Fluorobiphenyl	%	83	36-138	NA		NA		NA	
p-Terphenyl-d14	%	106	41-167	NA		NA		NA	
Phenol-D5	%	70	34-120	NA		NA		NA	
2-Fluorophenol	%	64	26-120	NA		NA		NA	
2,4,6-Tribromophenol	%	92	42-140	NA		NA		NA	

10/30

NA = Not Applicable ND = Not Detected

HONEYWELL PROJECTS
Parsons - Lehigh Valley/Satellite Wells
TOTAL METALS

Client ID		EX-10		EX-14		NORTH WALL		SOUTH WALL	
Job No	Lab ID	A04-8779	A4877903	A04-8779	A4877904	A04-8779	A4877901	A04-8779	A4877902
Sample Date		09/14/2004		09/14/2004		09/14/2004		09/14/2004	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	5.4	1.1	6.5	1.0	155	1.4	468	1.2

Client ID		WEST WALL							
Job No	Lab ID	A04-8569	A4856901						
Sample Date		09/08/2004							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	21.5	2.2	NA		NA		NA	

11/30

NA = Not Applicable ND = Not Detected

Chronology and QC Summary Package

Client ID		S Blank		SBLANK					
Job No	Lab ID	A04-8569	A4B1577202	A04-8779	A4B1600302				
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,2-Dichlorobenzene	UG/KG	ND	320	ND	320	NA		NA	
1,3-Dichlorobenzene	UG/KG	ND	320	ND	320	NA		NA	
4-Nitroaniline	UG/KG	ND	1600	ND	1600	NA		NA	
4-Chloroaniline	UG/KG	ND	320	ND	320	NA		NA	
Nitrobenzene	UG/KG	ND	320	ND	320	NA		NA	
1,2,4-Trichlorobenzene	UG/KG	ND	320	ND	320	NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	83	50-200	78	50-200	NA		NA	
Naphthalene-D8	%	87	50-200	78	50-200	NA		NA	
Acenaphthene-D10	%	80	50-200	78	50-200	NA		NA	
Phenanthrene-D10	%	82	50-200	74	50-200	NA		NA	
Chrysene-D12	%	79	50-200	76	50-200	NA		NA	
Perylene-D12	%	96	50-200	104	50-200	NA		NA	
Nitrobenzene-D5	%	73	30-127	76	30-127	NA		NA	
2-Fluorobiphenyl	%	85	36-138	86	36-138	NA		NA	
p-Terphenyl-d14	%	102	41-167	102	41-167	NA		NA	
Phenol-D5	%	73	34-120	78	34-120	NA		NA	
2-Fluorophenol	%	68	26-120	74	26-120	NA		NA	
2,4,6-Tribromophenol	%	94	42-140	101	42-140	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		Matrix Spike Blank		Matrix Spike Blank		NORTH WALL		NORTH WALL	
Job No	Lab ID	A04-8569	A4B1577201	A04-8779	A4B1600301	A04-8779	A4877901MS	A04-8779	A4877901SD
Sample Date						09/14/2004		09/14/2004	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,2-Dichlorobenzene	UG/KG	ND	320	ND	320	ND	2200	ND	2200
1,3-Dichlorobenzene	UG/KG	ND	320	ND	320	ND	2200	ND	2200
4-Nitroaniline	UG/KG	ND	1600	ND	1600	ND	11000	ND	10000
4-Chloroaniline	UG/KG	ND	320	ND	320	ND	2200	ND	2200
Nitrobenzene	UG/KG	ND	320	ND	320	ND	2200	ND	2200
1,2,4-Trichlorobenzene	UG/KG	2300	320	2100	320	3600	2200	3500	2200
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	77	50-200	78	50-200	75	50-200	93	50-200
Naphthalene-D8	%	82	50-200	83	50-200	78	50-200	93	50-200
Acenaphthene-D10	%	78	50-200	81	50-200	76	50-200	88	50-200
Phenanthrene-D10	%	77	50-200	79	50-200	74	50-200	89	50-200
Chrysene-D12	%	74	50-200	63	50-200	71	50-200	89	50-200
Perylene-D12	%	90	50-200	102	50-200	99	50-200	94	50-200
Nitrobenzene-D5	%	73	30-127	65	30-127	71	30-127	78	30-127
2-Fluorobiphenyl	%	82	36-138	76	36-138	87	36-138	93	36-138
p-Terphenyl-d14	%	101	41-167	100	41-167	98	41-167	95	41-167
Phenol-D5	%	72	34-120	67	34-120	72	34-120	76	34-120
2-Fluorophenol	%	68	26-120	64	26-120	68	26-120	70	26-120
2,4,6-Tribromophenol	%	95	42-140	95	42-140	99	42-140	94	42-140

NA = Not Applicable ND = Not Detected

Client ID Job No Lab ID Sample Date		Method Blank A04-8569 A4B1587602		Method Blank A04-8779 A4B1606202					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	ND	1.0	ND	1.0	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		EX-14		EX-14		LCS CLP Soils		LCS CLP Soils	
Job No	Lab ID	A04-8779	A4877904MS	A04-8779	A4877904SD	A04-8569	A4B1587601	A04-8779	A4B1606201
Sample Date		09/14/2004		09/14/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	28.2	1.1	27.4	1.1	97.5	1.0	108	1.0

NA = Not Applicable ND = Not Detected

SAMPLE DATE 09/14/2004

SDG: 8569

Client Sample ID:	NORTH WALL	NORTH WALL
Lab Sample ID:	A4877901	A4877901MS	A4877901SD

Analyte	Units of Measure	Concentration			Spike Amount		% Recovery			% RPD	QC LIMITS	
		Sample	Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	Avg		RPD	REC.
METHOD 8270 - SELECT SEMI-VOLATILE ORGAN												
1,2,4-Trichlorobenzene	UG/KG	289	3575	3479	4442	4401	74	72	73	3	24.0	32-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

SDG: 8569
Client Sample ID: S Blank Matrix Spike Blank
Lab Sample ID: A4B1577202 A4B1577201

Analyte	Units of Measure	Concentration Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
METHOD 8270 - SELECT SEMI-VOLATILE ORGAN					
1,2,4-Trichlorobenzene	UG/KG	2295	3243	71	32-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

SDG: 8569
Client Sample ID: SBLANK Matrix Spike Blank
Lab Sample ID: A4B1600302 A4B1600301

Analyte	Units of Measure	Concentration Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
METHOD 8270 - SELECT SEMI-VOLATILE ORGAN					
1,2,4-Trichlorobenzene	UG/KG	2068	3257	63	32-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

SAMPLE DATE 09/14/2004

SDG: 8569

Client Sample ID:	EX-14	EX-14	EX-14
Lab Sample ID:	A4877904	A4877904MS	A4877904SD

Analyte	Units of Measure	Concentration			Spike Amount		% Recovery			% RPD	QC LIMITS	
		Sample	Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	Avg		RPD	REC.
TOTAL METALS ANALYSIS												
PARSONS - TOTAL LEAD - S	MG/KG	6.48	28.16	27.44	21.91	21.30	99	98	99	1	20.0	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

SDG: 8569
Client Sample ID: Method Blank LCS CLP Soils
Lab Sample ID: A4B1587602 A4B1587601

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL METALS ANALYSIS					
PARSONS - TOTAL LEAD - S	MG/KG	97.46	102.0	96	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

SDG: 8569
Client Sample ID: Method Blank LCS CLP Soils
Lab Sample ID: A4B1606202 A4B1606201

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL METALS ANALYSIS					
PARSONS - TOTAL LEAD - S	MG/KG	107.6	102.0	105	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	EX-10 A04-8779 A4877903	EX-14 A04-8779 A4877904	NORTH WALL A04-8779 A4877901	SOUTH WALL A04-8779 A4877902	WEST WALL A04-8569 A4856901
Sample Date	09/14/2004 12:20	09/14/2004 12:25	09/14/2004 12:10	09/14/2004 12:15	09/08/2004 16:05
Received Date	09/14/2004 16:23	09/14/2004 16:23	09/14/2004 16:23	09/14/2004 16:23	09/09/2004 08:35
Extraction Date	09/15/2004 07:00	09/15/2004 07:00	09/15/2004 07:00	09/15/2004 07:00	09/10/2004 07:00
Analysis Date	09/20/2004 09:35	09/20/2004 10:00	09/20/2004 08:45	09/20/2004 09:10	09/14/2004 17:34
Extraction HT Met?	YES	YES	YES	YES	YES
Analytical HT Met?	YES	YES	YES	YES	YES
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW	SOIL LOW	SOIL LOW
Dilution Factor	1.0	1.0	5.0	5.0	1.0
Sample wt/vol	30.12 GRAMS	30.49 GRAMS	30.38 GRAMS	30.54 GRAMS	30.96 GRAMS
% Dry	88.45	87.91	73.81	81.39	45.65

NA = Not Applicable

METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-8569 A4B1577201	Matrix Spike Blank A04-8779 A4B1600301	NORTH WALL A04-8779 A4877901MS	NORTH WALL A04-8779 A4877901SD	
Sample Date			09/14/2004 12:10	09/14/2004 12:10	
Received Date			09/14/2004 16:23	09/14/2004 16:23	
Extraction Date	09/10/2004 07:00	09/15/2004 07:00	09/15/2004 07:00	09/15/2004 07:00	
Analysis Date	09/14/2004 16:44	09/16/2004 19:32	09/16/2004 20:22	09/20/2004 08:20	
Extraction HT Met?	-	-	YES	YES	
Analytical HT Met?	-	-	YES	YES	
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW	SOIL LOW	
Dilution Factor	1.0	1.0	5.0	5.0	
Sample wt/vol	30.83 GRAMS	30.7 GRAMS	30.5 GRAMS	30.78 GRAMS	
% Dry	100.00	100.00	73.81	73.81	

NA = Not Applicable

METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	S Blank A04-8569 A4B1577202	SBLANK A04-8779 A4B1600302			
Sample Date					
Received Date					
Extraction Date	09/10/2004 07:00	09/15/2004 07:00			
Analysis Date	09/14/2004 17:09	09/16/2004 19:57			
Extraction HT Met?	-	-			
Analytical HT Met?	-	-			
Sample Matrix	SOIL LOW	SOIL LOW			
Dilution Factor	1.0	1.0			
Sample wt/vol	30.39 GRAMS	30.48 GRAMS			
% Dry	100.00	100.00			

NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4877903	EX-10	MG/KG	Lead - Total	6010	1.00	09/14/2004 12:20	09/14 16:23	NA	NA	09/17 00:17	Yes	SOIL
A4877904	EX-14	MG/KG	Lead - Total	6010	1.00	09/14/2004 12:25	09/14 16:23	NA	NA	09/17 00:21	Yes	SOIL
A4877901	NORTH WALL	MG/KG	Lead - Total	6010	1.00	09/14/2004 12:10	09/14 16:23	NA	NA	09/17 23:58	Yes	SOIL
A4877902	SOUTH WALL	MG/KG	Lead - Total	6010	1.00	09/14/2004 12:15	09/14 16:23	NA	NA	09/17 00:12	Yes	SOIL
A4856901	WEST WALL	MG/KG	Lead - Total	6010	1.00	09/08/2004 16:05	09/09 08:35	NA	NA	09/14 04:02	Yes	SOIL

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4877904MS	EX-14	MG/KG	Lead - Total	6010	1.00	09/14/2004 12:25	09/14 16:23	NA	NA	09/17 00:30	Yes	SOIL
A4877904SD	EX-14	MG/KG	Lead - Total	6010	1.00	09/14/2004 12:25	09/14 16:23	NA	NA	09/17 00:34	Yes	SOIL
A4B1587602	Method Blank	MG/KG	Lead - Total	6010	1.00	-	- 08:35	NA	NA	09/14 02:34	Yes	SOIL
A4B1606202	Method Blank	MG/KG	Lead - Total	6010	1.00	-	- 16:23	NA	NA	09/16 23:44	Yes	SOIL
A4B1587601	LCS CLP Soils	MG/KG	Lead - Total	6010	1.00	-	- 08:35	NA	NA	09/14 02:39	Yes	SOIL
A4B1606201	LCS CLP Soils	MG/KG	Lead - Total	6010	1.00	-	- 16:23	NA	NA	09/16 23:49	Yes	SOIL

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Chain of Custody

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
HONEYWELL	MARK RAYBUCK - PARSONS	9/8/04	167332
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
	716 633 7074		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
	J Poulsen	B. Fischer	
Project Name and Location (State)	**Carrier/Waybill Number**		
LVRR - Buffalo			
Contract/Purchase Order/Quote No.			
NYO ABS 78			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: How COCs	Analysis: Total Lead	Special Instructions/ Conditions of Receipt
WEST WALL	9/8/04	1605				X	X								

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	9/10/04	835	1. Received By	9/10/04	9:35
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

20.0 No Fee

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

SEVERN TRENT SERVICES — **Severn Trent Laboratories, Inc.**

STL-4124 (0901)

Client: Honeywell	Project Manager: MARK RAYBUCK	Date: 9/14/04	Chain of Custody Number: 134688
Address	Telephone Number (Area Code)/Fax Number: (716)432 7685 / 716633 7195	Lab Number	Page 1 of 1
City / State / Zip Code	Site Contact: J. Poulsen	Lab Contact: B Fischer	
Project Name and Location (State): LVRR Buffalo	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: NY0AB578			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Hex Cocs	Lead	Special Instructions/ Conditions of Receipt
NORTH WALL	9/14/04	1210				✓	✓						✓	✓	
SOUTH WALL	9/14/04	1215				✓	✓						✓	✓	
EX-10	9/14/04	1220				✓	✓						✓	✓	
EX-14	9/14/04	1225				✓	✓						✓	✓	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By	9/14/04	1603	1. Received By	09/15/04	16:23
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: 20.0°C

SAME DAY

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

30/30

ANALYTICAL REPORT

Job#: A04-B095

STL Project#: NY0A8578
Site Name: PARSON'S ENGINEERING SCIENCE INC.
Task: Parsons - Lehigh Valley/Satellite Wells

Mark Raybuck
Parsons
180 Lawrence Bell Dr., Ste 104
Williamsville, NY 14221

STL Buffalo

Brian J. Fischer
Project Manager

11/15/2004

STL Buffalo
Current Certifications

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP SDWA, CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington	CWA	C254
West Virginia	CWA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A4B09502	NORTH WALL 2	11/09/2004	14:30	11/09/2004	15:40
A4B09501	SOUTH WALL 2	11/09/2004	14:00	11/09/2004	15:40

METHODS SUMMARY

Job#: A04-B095

STL Project#: NY0A8578
Site Name: PARSON'S ENGINEERING SCIENCE INC.

PARAMETER	ANALYTICAL METHOD
METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS	SW8463 8270
Lead - Total	SW8463 6010

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A04-B095

STL Project#: NY0A8578
Site Name: PARSON'S ENGINEERING SCIENCE INC.

General Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A04-B095
Sample Cooler(s) were received at the following temperature(s); 16.6 °C
All samples were received in good condition.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

Metals Data

No deviations from protocol were encountered during the analytical procedures.

****

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
[1]	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
K	Indicates the post digestion spike recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
M	Indicates duplicate injection results exceeded quality control limits.
W	Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Client ID		NORTH WALL 2		SOUTH WALL 2					
Job No	Lab ID	A04-B095	A4B09502	A04-B095	A4B09501				
Sample Date		11/09/2004		11/09/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,2-Dichlorobenzene	UG/KG	ND	430	ND	400	NA		NA	
1,3-Dichlorobenzene	UG/KG	ND	430	ND	400	NA		NA	
4-Nitroaniline	UG/KG	ND	2100	ND	1900	NA		NA	
4-Chloroaniline	UG/KG	ND	430	350 J	400	NA		NA	
Nitrobenzene	UG/KG	ND	430	ND	400	NA		NA	
1,2,4-Trichlorobenzene	UG/KG	ND	430	ND	400	NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	76	50-200	64	50-200	NA		NA	
Naphthalene-D8	%	81	50-200	67	50-200	NA		NA	
Acenaphthene-D10	%	77	50-200	62	50-200	NA		NA	
Phenanthrene-D10	%	78	50-200	63	50-200	NA		NA	
Chrysene-D12	%	71	50-200	61	50-200	NA		NA	
Perylene-D12	%	89	50-200	82	50-200	NA		NA	
Nitrobenzene-D5	%	70	30-127	70	30-127	NA		NA	
2-Fluorobiphenyl	%	91	36-138	93	36-138	NA		NA	
p-Terphenyl-d14	%	142	41-167	136	41-167	NA		NA	
Phenol-D5	%	78	34-120	78	34-120	NA		NA	
2-Fluorophenol	%	62	26-120	63	26-120	NA		NA	
2,4,6-Tribromophenol	%	116	42-140	116	42-140	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID Job No Lab ID Sample Date		NORTH WALL 2 A04-B095 A4B09502 11/09/2004		SOUTH WALL 2 A04-B095 A4B09501 11/09/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	9.0	1.3	103	1.5	NA		NA	

NA = Not Applicable ND = Not Detected

Batch Quality Control Data

Lab Sample ID: A4B10104 A4B10104MS A4B10104SD

Analyte	Units of Measure	Concentration			Spike Amount		% Recovery			%	QC LIMITS	
		Sample	Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	Avg	RPD	RPD	REC.
TOTAL METALS												
TOTAL ARSENIC	MG/KG	3.49	27.11	25.91	29.33	26.75	80	84	82	5	20.0	80-120
TOTAL BARIUM	MG/KG	117.7	182.7	167.9	29.33	26.75	221 *	187 *	204	17	20.0	80-120
TOTAL CADMIUM	MG/KG	0	22.64	21.48	29.33	26.75	77 *	80	79	4	20.0	80-120
TOTAL CHROMIUM	MG/KG	14.02	39.83	39.18	29.33	26.75	88	94	91	6	20.0	80-120
TOTAL LEAD	MG/KG	8.56	34.67	32.43	29.33	26.75	89	89	89	0	20.0	80-120
TOTAL SELENIUM	MG/KG	0	22.23	20.76	29.33	26.75	76 *	78 *	77	2	20.0	80-120
TOTAL SILVER	MG/KG	0	5.99	5.53	5.86	5.35	102	104	103	2	20.0	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Chronology and QC Summary Package

Client ID		Method Blank							
Job No	Lab ID	A04-B095	A4B1909203						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,2-Dichlorobenzene	UG/KG	ND	330	NA		NA		NA	
1,3-Dichlorobenzene	UG/KG	ND	330	NA		NA		NA	
4-Nitroaniline	UG/KG	ND	1600	NA		NA		NA	
4-Chloroaniline	UG/KG	ND	330	NA		NA		NA	
Nitrobenzene	UG/KG	ND	330	NA		NA		NA	
1,2,4-Trichlorobenzene	UG/KG	ND	330	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	65	50-200	NA		NA		NA	
Naphthalene-D8	%	68	50-200	NA		NA		NA	
Acenaphthene-D10	%	64	50-200	NA		NA		NA	
Phenanthrene-D10	%	68	50-200	NA		NA		NA	
Chrysene-D12	%	66	50-200	NA		NA		NA	
Perylene-D12	%	78	50-200	NA		NA		NA	
Nitrobenzene-D5	%	79	30-127	NA		NA		NA	
2-Fluorobiphenyl	%	99	36-138	NA		NA		NA	
p-Terphenyl-d14	%	155	41-167	NA		NA		NA	
Phenol-D5	%	85	34-120	NA		NA		NA	
2-Fluorophenol	%	73	26-120	NA		NA		NA	
2,4,6-Tribromophenol	%	115	42-140	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		Matrix Spike Blank		Matrix Spike Blk Dup					
Job No	Lab ID	A04-B095	A4B1909201	A04-B095	A4B1909202				
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,2-Dichlorobenzene	UG/KG	ND	330	ND	320	NA		NA	
1,3-Dichlorobenzene	UG/KG	ND	330	ND	320	NA		NA	
4-Nitroaniline	UG/KG	ND	1600	ND	1600	NA		NA	
4-Chloroaniline	UG/KG	ND	330	ND	320	NA		NA	
Nitrobenzene	UG/KG	ND	330	ND	320	NA		NA	
1,2,4-Trichlorobenzene	UG/KG	2500	330	2500	320	NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	76	50-200	72	50-200	NA		NA	
Naphthalene-D8	%	79	50-200	76	50-200	NA		NA	
Acenaphthene-D10	%	75	50-200	72	50-200	NA		NA	
Phenanthrene-D10	%	79	50-200	77	50-200	NA		NA	
Chrysene-D12	%	74	50-200	74	50-200	NA		NA	
Perylene-D12	%	93	50-200	92	50-200	NA		NA	
Nitrobenzene-D5	%	74	30-127	72	30-127	NA		NA	
2-Fluorobiphenyl	%	95	36-138	93	36-138	NA		NA	
p-Terphenyl-d14	%	160	41-167	152	41-167	NA		NA	
Phenol-D5	%	81	34-120	80	34-120	NA		NA	
2-Fluorophenol	%	66	26-120	65	26-120	NA		NA	
2,4,6-Tribromophenol	%	116	42-140	114	42-140	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		Method Blank							
Job No	Lab ID	A04-B095	A4B1909402						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	ND	1.0	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		LCS CLP Soils							
Job No	Lab ID	A04-B095	A4B1909401						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/KG	73.1	1.0	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client Sample ID: Method Blank | Matrix Spike Blank | Matrix Spike Blk Dup
Lab Sample ID: A4B1909203 | A4B1909201 | A4B1909202

Analyte	Units of Measure	Concentration		Spike Amount		% Recovery			% RPD	QC LIMITS	
		Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg		RPD	REC.
METHOD 8270 - SELECT SEMI-VOLATILE ORGAN											
1,2,4-Trichlorobenzene	UG/KG	2542	2485	3305	3234	77	77	77	0	24.0	32-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Client Sample ID: Method Blank LCS CLP Soils
Lab Sample ID: A4B1909402 A4B1909401

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL METALS ANALYSIS					
PARSONS - TOTAL LEAD - S	MG/KG	73.10	74.20	98	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	NORTH WALL 2 A04-B095 A4B09502	SOUTH WALL 2 A04-B095 A4B09501			
Sample Date	11/09/2004 14:30	11/09/2004 14:00			
Received Date	11/09/2004 15:40	11/09/2004 15:40			
Extraction Date	11/10/2004 07:00	11/10/2004 07:00			
Analysis Date	11/10/2004 20:38	11/10/2004 20:12			
Extraction HT Met?	YES	YES			
Analytical HT Met?	YES	YES			
Sample Matrix	SOIL LOW	SOIL LOW			
Dilution Factor	1.0	1.0			
Sample wt/vol	30.57 GRAMS	30.75 GRAMS			
% Dry	75.25	81.14			

NA = Not Applicable

METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-B095 A4B1909201	Matrix Spike Blk Dup A04-B095 A4B1909202			
Sample Date					
Received Date					
Extraction Date	11/10/2004 07:00	11/10/2004 07:00			
Analysis Date	11/10/2004 18:56	11/10/2004 19:21			
Extraction HT Met?	-	-			
Analytical HT Met?	-	-			
Sample Matrix	SOIL LOW	SOIL LOW			
Dilution Factor	1.0	1.0			
Sample wt/vol	30.25 GRAMS	30.92 GRAMS			
% Dry	100.00	100.00			

NA = Not Applicable

METHOD 8270 - SELECT SEMI-VOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	Method Blank A04-B095 A4B1909203				
Sample Date					
Received Date					
Extraction Date	11/10/2004 07:00				
Analysis Date	11/10/2004 19:47				
Extraction HT Met?	-				
Analytical HT Met?	-				
Sample Matrix	SOIL LOW				
Dilution Factor	1.0				
Sample wt/vol	30.11 GRAMS				
% Dry	100.00				

NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4B09502	NORTH WALL 2	MG/KG	Lead - Total	6010	1.00	11/09/2004 14:30	11/09 15:40	NA	NA	11/10 21:22	Yes	SOIL
A4B09501	SOUTH WALL 2	MG/KG	Lead - Total	6010	1.00	11/09/2004 14:00	11/09 15:40	NA	NA	11/10 21:18	Yes	SOIL

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4B1909402	Method Blank	MG/KG	Lead - Total	6010	1.00	-	- 15:40	NA	NA	11/10 21:08	Yes	SOIL
A4B1909401	LCS CLP Soils	MG/KG	Lead - Total	6010	1.00	-	- 15:40	NA	NA	11/10 21:13	Yes	SOIL

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Chain of Custody

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
HONEYWELL C/O PARSONS	Mark Raybuck	11/9/04	193712
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
180 Lawrence Bell Dr.	716 6337074 // 716 633 7195		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Williamsville / NY / 14221	J. Poulsen	B Fisher	
Project Name and Location (State)	**Carrier/Waybill Number**		
LVRR - NY			
Contract/Purchase Order/Quote No.			
~~AC 45295~~ NYOA8578			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: SVOC-How Cats	LEAD	Special Instructions/ Conditions of Receipt
South Wall 2	11/9/04	1400				X	X						X	X	
North Wall 2	11/9/04	1430				X	X						X	X	
PLEASE CALL 716 432 7685 with Results As Available															

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☒ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: JPoul (WITH COURIER)	11/9/04	1340	1. Received By: STL	11-09-04	15:40
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: LVRR — 16.6°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

25/25

ANALYTICAL REPORT

Job#: A04-A403

STL Project#: NY0A8578
Site Name: PARSON'S ENGINEERING SCIENCE INC.
Task: Parsons - Lehigh Valley/Satellite Wells

Mark Raybuck
Parsons
180 Lawrence Bell Dr., Ste 104
Williamsville, NY 14221

STL Buffalo

Brian J. Fischer
Project Manager

11/05/2004

STL Buffalo
Current Certifications

STATE	Program	Cert # / Lab ID
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP SDWA, CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Pennsylvania	Env. Lab Reg.	68-281
South Carolina	RCRA	91013
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington	CWA	C254
West Virginia	CWA	252
Wisconsin	CWA	998310390

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A4A40301	MW-1	10/21/2004	14:30	10/21/2004	18:03
A4A40302	MW-2	10/21/2004	15:15	10/21/2004	18:03
A4A40303	MW-3	10/21/2004	17:30	10/21/2004	18:03
A4A40304	MW-4	10/21/2004	16:45	10/21/2004	18:03
A4A40305	MW-6	10/21/2004	15:45	10/21/2004	18:03

METHODS SUMMARY

Job#: A04-A403

STL Project#: NY0A8578
Site Name: PARSON'S ENGINEERING SCIENCE INC.

PARAMETER	ANALYTICAL METHOD
PARSONS - 8270 - SELECT SEMIVOLATILE ORGANICS	SW8463 8270
Lead - Total	SW8463 6010

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A04-A403

STL Project#: NY0A8578
Site Name: PARSON'S ENGINEERING SCIENCE INC.

General Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A04-A403
Sample Cooler(s) were received at the following temperature(s); 4.8 °C
All samples were received in good condition.

GC/MS Semivolatile Data

The client requested detection limit was less than the laboratory's quantitation limit.

Metals Data

No deviations from protocol were encountered during the analytical procedures.

****

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

ND or U	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	This flag is used when the analyte is found in the associated blank, as well as in the sample.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at the secondary dilution factor.
N	Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
P	This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
A	This flag indicates that a TIC is a suspected aldol-condensation product.
[1]	Indicates coelution.
*	Indicates analysis is not within the quality control limits.

INORGANIC DATA QUALIFIERS

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J or B	Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
N	Indicates spike sample recovery is not within the quality control limits.
K	Indicates the post digestion spike recovery is not within the quality control limits.
S	Indicates value determined by the Method of Standard Addition.
M	Indicates duplicate injection results exceeded quality control limits.
W	Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
E	Indicates a value estimated or not reported due to the presence of interferences.
H	Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
*	Indicates analysis is not within the quality control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Client ID		MW-1		MW-2		MW-3		MW-4	
Job No	Lab ID	A04-A403	A4A40301	A04-A403	A4A40302	A04-A403	A4A40303	A04-A403	A4A40304
Sample Date		10/21/2004		10/21/2004		10/21/2004		10/21/2004	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Chloroaniline	UG/L	ND	6	ND	6	ND	5	ND	6
Nitrobenzene	UG/L	ND	6	ND	6	ND	5	ND	6
1,2,4-Trichlorobenzene	UG/L	ND	6	ND	6	ND	5	ND	6
1,2-Dichlorobenzene	UG/L	ND	5	ND	5	ND	4	ND	5
1,3-Dichlorobenzene	UG/L	ND	6	ND	6	ND	5	ND	6
4-Nitroaniline	UG/L	ND	6	ND	6	ND	5	ND	6
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	105	50-200	102	50-200	102	50-200	93	50-200
Naphthalene-D8	%	105	50-200	102	50-200	102	50-200	94	50-200
Acenaphthene-D10	%	108	50-200	107	50-200	107	50-200	98	50-200
Phenanthrene-D10	%	106	50-200	107	50-200	107	50-200	97	50-200
Chrysene-D12	%	110	50-200	109	50-200	110	50-200	101	50-200
Perylene-D12	%	110	50-200	111	50-200	109	50-200	99	50-200
Nitrobenzene-D5	%	68	34-121	67	34-121	65	34-121	64	34-121
2-Fluorobiphenyl	%	66	42-126	66	42-126	64	42-126	64	42-126
p-Terphenyl-d14	%	83	36-145	82	36-145	81	36-145	81	36-145
Phenol-D5	%	33	10-110	34	10-110	29	10-110	31	10-110
2-Fluorophenol	%	42	14-120	42	14-120	38	14-120	38	14-120
2,4,6-Tribromophenol	%	85	42-158	86	42-158	85	42-158	81	42-158

8/27

Client ID		MW-6							
Job No	Lab ID	A04-A403	A4A40305						
Sample Date		10/21/2004							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Chloroaniline	UG/L	ND	5	NA		NA		NA	
Nitrobenzene	UG/L	ND	5	NA		NA		NA	
1,2,4-Trichlorobenzene	UG/L	ND	5	NA		NA		NA	
1,2-Dichlorobenzene	UG/L	ND	4	NA		NA		NA	
1,3-Dichlorobenzene	UG/L	ND	5	NA		NA		NA	
4-Nitroaniline	UG/L	ND	5	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	88	50-200	NA		NA		NA	
Naphthalene-D8	%	89	50-200	NA		NA		NA	
Acenaphthene-D10	%	89	50-200	NA		NA		NA	
Phenanthrene-D10	%	87	50-200	NA		NA		NA	
Chrysene-D12	%	91	50-200	NA		NA		NA	
Perylene-D12	%	91	50-200	NA		NA		NA	
Nitrobenzene-D5	%	64	34-121	NA		NA		NA	
2-Fluorobiphenyl	%	64	42-126	NA		NA		NA	
p-Terphenyl-d14	%	79	36-145	NA		NA		NA	
Phenol-D5	%	28	10-110	NA		NA		NA	
2-Fluorophenol	%	37	14-120	NA		NA		NA	
2,4,6-Tribromophenol	%	81	42-158	NA		NA		NA	

9/27

Client ID		MW-1		MW-2		MW-3		MW-4	
Job No / Lab ID		A04-A403	A4A40301	A04-A403	A4A40302	A04-A403	A4A40303	A04-A403	A4A40304
Sample Date		10/21/2004		10/21/2004		10/21/2004		10/21/2004	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/L	ND	0.0050	0.0059	0.0050	ND	0.0050	ND	0.0050

Client ID		MW-6							
Job No / Lab ID		A04-A403	A4A40305						
Sample Date		10/21/2004							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/L	ND	0.0050	NA		NA		NA	

10/27

NA = Not Applicable ND = Not Detected

Batch Quality Control Data

Lab Sample ID: A4A35702 A4A35702MS A4A35702SD

Analyte	Units of Measure	Concentration			Spike Amount		% Recovery			%	QC LIMITS	
		Sample	Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	Avg	RPD	RPD	REC.
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS												
Phenol	UG/L	0	41.3	43.4	99.0	99.0	42	44	43	5	39.0	9-120
2-Chlorophenol	UG/L	0	93.0	98.9	99.0	99.0	94	100	97	6	33.0	33-120
1,4-Dichlorobenzene	UG/L	0	47.4	52.2	99.0	99.0	48	53	51	10	35.0	11-120
N-Nitroso-Di-n-propylamine	UG/L	0	83.8	88.2	99.0	99.0	85	89	87	4	38.0	36-124
1,2,4-Trichlorobenzene	UG/L	0	53.1	58.8	99.0	99.0	54	59	57	9	35.0	27-120
4-Chloro-3-methylphenol	UG/L	0	105	118	99.0	99.0	106	119	113	12	25.0	48-135
Acenaphthene	UG/L	4.9	73.0	74.4	99.0	99.0	69	70	70	1	23.0	46-121
4-Nitrophenol	UG/L	0	76.3	62.2	99.0	99.0	77	63	70	20	30.0	4-120
2,4-Dinitrotoluene	UG/L	0	72.0	75.3	99.0	99.0	73	76	75	4	20.0	49-135
Pentachlorophenol	UG/L	0	135	134	99.0	99.0	137	136	137	0.	27.0	29-156
Pyrene	UG/L	0	97.4	101	99.0	99.0	98	102	100	4	25.0	53-142

12/27

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Lab Sample ID: A4A35803 A4A35803MS A4A35803SD

Analyte	Units of Measure	Concentration			Spike Amount		% Recovery			%	QC LIMITS	
		Sample	Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	Avg	RPD	RPD	REC.
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS												
Phenol	UG/L	0	36.4	43.5	100	100	36	44	40	20	39.0	9-120
2-Chlorophenol	UG/L	0	76.2	90.8	100	100	76	91	84	18	33.0	33-120
1,4-Dichlorobenzene	UG/L	0	38.8	46.4	100	100	39	46	43	16	35.0	11-120
N-Nitroso-Di-n-propylamine	UG/L	0	69.2	80.1	100	100	69	80	75	15	38.0	36-124
1,2,4-Trichlorobenzene	UG/L	0	45.1	52.7	100	100	45	53	49	16	35.0	27-120
4-Chloro-3-methylphenol	UG/L	0	108	113	100	100	108	114	111	5	25.0	48-135
Acenaphthene	UG/L	0	70.8	76.2	100	100	71	76	74	7	23.0	46-121
4-Nitrophenol	UG/L	0	49.3	47.7	100	100	49	48	49	2	30.0	4-120
2,4-Dinitrotoluene	UG/L	0	82.1	82.9	100	100	82	83	83	1	20.0	49-135
Pentachlorophenol	UG/L	0	127	121	100	100	127	121	124	5	27.0	29-156
Pyrene	UG/L	0	97.2	95.5	100	100	97	96	97	1	25.0	53-142

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Chronology and QC Summary Package

Client ID		S Blank							
Job No	Lab ID	A04-A403	A4B1813702						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Chloroaniline	UG/L	ND	5	NA		NA		NA	
Nitrobenzene	UG/L	ND	5	NA		NA		NA	
1,2,4-Trichlorobenzene	UG/L	ND	5	NA		NA		NA	
1,2-Dichlorobenzene	UG/L	ND	5	NA		NA		NA	
1,3-Dichlorobenzene	UG/L	ND	5	NA		NA		NA	
4-Nitroaniline	UG/L	ND	5	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	165	50-200	NA		NA		NA	
Naphthalene-D8	%	164	50-200	NA		NA		NA	
Acenaphthene-D10	%	170	50-200	NA		NA		NA	
Phenanthrene-D10	%	154	50-200	NA		NA		NA	
Chrysene-D12	%	155	50-200	NA		NA		NA	
Perylene-D12	%	169	50-200	NA		NA		NA	
Nitrobenzene-D5	%	71	34-121	NA		NA		NA	
2-Fluorobiphenyl	%	60	42-126	NA		NA		NA	
p-Terphenyl-d14	%	89	36-145	NA		NA		NA	
Phenol-D5	%	34	10-110	NA		NA		NA	
2-Fluorophenol	%	41	14-120	NA		NA		NA	
2,4,6-Tribromophenol	%	90	42-158	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		Matrix Spike Blank							
Job No	Lab ID	A04-A403	A4B1813701						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Chloroaniline	UG/L	ND	5	NA		NA		NA	
Nitrobenzene	UG/L	ND	5	NA		NA		NA	
1,2,4-Trichlorobenzene	UG/L	48	5	NA		NA		NA	
1,2-Dichlorobenzene	UG/L	ND	5	NA		NA		NA	
1,3-Dichlorobenzene	UG/L	ND	5	NA		NA		NA	
4-Nitroaniline	UG/L	ND	5	NA		NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	86	50-200	NA		NA		NA	
Naphthalene-D8	%	86	50-200	NA		NA		NA	
Acenaphthene-D10	%	91	50-200	NA		NA		NA	
Phenanthrene-D10	%	86	50-200	NA		NA		NA	
Chrysene-D12	%	91	50-200	NA		NA		NA	
Perylene-D12	%	90	50-200	NA		NA		NA	
Nitrobenzene-D5	%	69	34-121	NA		NA		NA	
2-Fluorobiphenyl	%	66	42-126	NA		NA		NA	
p-Terphenyl-d14	%	92	36-145	NA		NA		NA	
Phenol-D5	%	32	10-110	NA		NA		NA	
2-Fluorophenol	%	41	14-120	NA		NA		NA	
2,4,6-Tribromophenol	%	88	42-158	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		Method Blank							
Job No	Lab ID	A04-A403	A4B1815902						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/L	ND	0.0050	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		LFB							
Job No	Lab ID	A04-A403	A4B1815901						
Sample Date									
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Lead - Total	MG/L	0.21	0.0050	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client Sample ID: S Blank — Matrix Spike Blank
Lab Sample ID: A4B1813702 — A4B1813701

Analyte	Units of Measure	Concentration Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
PARSONS - 8270 - SELECT SEMIVOLATILE ORG					
1,2,4-Trichlorobenzene	UG/L	48.5	100	48	27-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

Client Sample ID: Method Blank LFB
Lab Sample ID: A4B1815902 A4B1815901

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL METALS ANALYSIS					
PARSONS - TOTAL LEAD - W	MG/L	0.206	0.200	103	80-120

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Detected

PARSONS - 8270 - SELECT SEMIVOLATILE ORGANICS

Client Sample ID / Job No & Lab Sample ID	MW-1 A04-A403 A4A40301	MW-2 A04-A403 A4A40302	MW-3 A04-A403 A4A40303	MW-4 A04-A403 A4A40304	MW-6 A04-A403 A4A40305
Sample Date	10/21/2004 14:30	10/21/2004 15:15	10/21/2004 17:30	10/21/2004 16:45	10/21/2004 15:45
Received Date	10/21/2004 18:03	10/21/2004 18:03	10/21/2004 18:03	10/21/2004 18:03	10/21/2004 18:03
Extraction Date	10/22/2004 14:00	10/22/2004 14:00	10/22/2004 14:00	10/22/2004 14:00	10/22/2004 14:00
Analysis Date	10/26/2004 18:31	10/26/2004 19:00	10/26/2004 19:28	11/01/2004 09:43	11/01/2004 10:11
Extraction HT Met?	YES	YES	YES	YES	YES
Analytical HT Met?	YES	YES	YES	YES	YES
Sample Matrix	WATER	WATER	WATER	WATER	WATER
Dilution Factor	1.0	1.0	1.0	1.0	1.0
Sample wt/vol	0.9 LITERS	0.9 LITERS	1.04 LITERS	0.9 LITERS	1.03 LITERS
% Dry					

NA = Not Applicable

PARSONS - 8270 - SELECT SEMIVOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-A403 A4B1813701				
Sample Date					
Received Date					
Extraction Date	10/22/2004 14:00				
Analysis Date	10/25/2004 17:10				
Extraction HT Met?	-				
Analytical HT Met?	-				
Sample Matrix	WATER				
Dilution Factor	1.0				
Sample wt/vol	1.0 LITERS				
% Dry					

22/27

PARSONS - 8270 - SELECT SEMIVOLATILE ORGANICS

Client Sample ID Job No & Lab Sample ID	S Blank A04-A403 A4B1813702				
Sample Date					
Received Date					
Extraction Date	10/22/2004 14:00				
Analysis Date	10/26/2004 12:53				
Extraction HT Met?	-				
Analytical HT Met?	-				
Sample Matrix	WATER				
Dilution Factor	1.0				
Sample wt/vol	1.0 LITERS				
% Dry					

23/27

NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4A40301	MW-1	MG/L	Lead - Total	6010	1.00	10/21/2004 14:30	10/21 18:03	NA	NA	10/23 16:22	Yes	WATER
A4A40302	MW-2	MG/L	Lead - Total	6010	1.00	10/21/2004 15:15	10/21 18:03	NA	NA	10/23 16:27	Yes	WATER
A4A40303	MW-3	MG/L	Lead - Total	6010	1.00	10/21/2004 17:30	10/21 18:03	NA	NA	10/23 16:31	Yes	WATER
A4A40304	MW-4	MG/L	Lead - Total	6010	1.00	10/21/2004 16:45	10/21 18:03	NA	NA	10/23 16:35	Yes	WATER
A4A40305	MW-6	MG/L	Lead - Total	6010	1.00	10/21/2004 15:45	10/21 18:03	NA	NA	10/23 16:40	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4B1815902	Method Blank	MG/L	Lead - Total	6010	1.00	-	- 18:03	NA	NA	10/23 15:59	Yes	WATER
A4B1815901	LFB	MG/L	Lead - Total	6010	1.00	-	- 18:03	NA	NA	10/23 16:03	Yes	WATER

AHT = Analysis Holding Time Met
THT = TCLP Holding Time Met
NA = Not Applicable

Chain of Custody

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client: Parsons	Project Manager: Mark Raybuck	Date: 10/21/04	Chain of Custody Number: 167439
Address: 180 Lawrence Bell Dr. Ste. #104	Telephone Number (Area Code)/Fax Number: (716)633-7074/(716)633-7195	Lab Number:	Page 1 of 1
City: Williamsville / State: NY / Zip Code: 14221	Site Contact: S. Chmura	Lab Contact: —	Analysis (Attach list if more space is needed)
Project Name and Location (State): Lehigh Valley R.R.	Carrier/Waybill Number: —		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.: 742878			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Non-cocs (SVOCs)	Lead
MW-1	10-21-04	1430		X			2		1				X	X
MW-2	10-21-04	1515		X			2		1				X	X
MW-6	10-21-04	1545		X			2		1				X	X
MW-4	10-21-04	1645		X			2		1				X	X
MW-3	10-21-04	1730		X			2		1				X	X

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [ ] Disposal By Lab [ ] Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [ ] Other_____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Sara M. Chmura	10-21-04	1803	1. Received By: Jann L. Rukin	10/21/04	1803
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: 4.8°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

APPENDIX E

MONITORING WELL CONSTRUCTION RECORDS

PARSONS
DRILLING RECORD

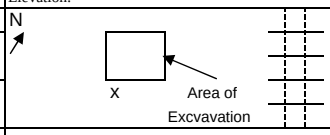
BORING NO. MW-1

Contractor: SJB Services, Inc.
Driller: Mike Kukoleca, Andy Morris
Inspector: Andy Janik
Rig Type: Track mounted drill rig
Method: 4.25-inch HSA/SS

PROJECT NAME: Lehigh Valley Railroad
PROJECT NUMBER: 736645

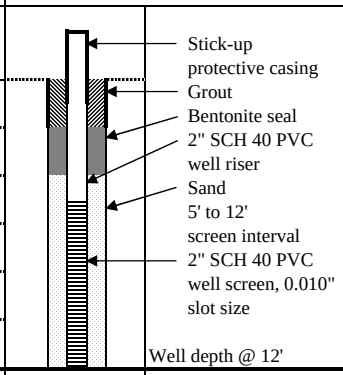
Sheet 1 of 1
Location: Southwest of Excavation Area
Elevation:

Observations	
Depth of Water	
TOC elevation	579.2
Weather	Sunny 30 F
Date/Time Start	1/16/02 1040
Date/Time Finish	1/16/02 1140



PID Reading	Sample Code	Sample Depth	Rec. (ft)	SPT	FIELD IDENTIFICATION OF MATERIAL
		0			
1.1		1		3-3	Black, Silty Clay, some organics and f-Gravel
	SS-1	2	0.5	3-3	
1.2		3		7-6	Black/brown, Silty, Sandy, Clay, brick fragments, m-Gravel
	SS-2	4	1.5	5-3	Thin, wet, f-Sand layer at 2.5' bgs
1.3		5		1-1	Brown, Sandy Clay, brick fragments, moist
	SS-3	6	0.7	2-1	Black/brown, peat layer at 5.7' bgs
1.4		7		1-2	Black/brown, peat layer, some wet, gray, Silty Clay and f-Sand until
	SS-4	8	1.5	2-2	7.5' bgs, then gray, Silty Clay with wood chips
1.5		9		6-9	Wet, gray, f-Sand, some brown, Silty Clay, trace of organics
	SS-5	10	0.3	18-10	
2.1		11		3-3	Wet, gray, f-Sand to 11' bgs, then moist, gray, Silty Clay
	SS-6	12	1.5	3-4	

WELL CONSTRUCTION DIAGRAM



STANDARD PENETRATION
WOR= WEIGHT OF RODS
SS = SPLIT SPOON
ST = SHELBY TUBE

SUMMARY:

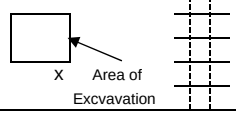
PARSONS
DRILLING RECORD

BORING NO. MW-2

Contractor:	SJB Services, Inc.
Driller:	Mike Kukoleca, Andy Morris
Inspector:	Andy Janik
Rig Type:	Track mounted drill rig
Method:	4.25-inch HSA/SS
PROJECT NAME	Lehigh Valley Railroad
PROJECT NUMBER	736645
Sheet	1 of 1
Location:	Southeast of Excavation Area
Elevation:	
Weather	Sunny 30 F
Date/Time Start	1/16/02 1355
Date/Time Finish	1/16/02 1445

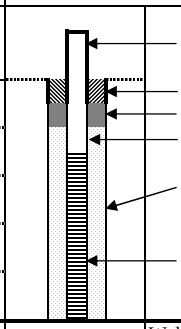
Observations				
Depth of Water				
TOC elevation	582.92			

N



PID Reading	Sample Code	Sample Depth	Rec. (ft)	SPT	FIELD IDENTIFICATION OF MATERIAL
		0			
1.9		1		8-23	Brown, Silty Clay, some pieces of concrete
	SS-1	2	0.7	7-6	
3.8		3		5-6	Black/brown, Silty Sand, brick fragments, wood chips, bits of
	SS-2	4	1.2	6-3	concrete, pieces of coke/coal
2.3		5		1-1	Brown, Sandy, m-Gravel, wet
	SS-3	6	1.2	2-2	Black/brown, peat layer at 5.0' bgs
2.9		7		WOR-WOR	Silty, black water to 7.7' bgs, then gray, Silty Clay
	SS-4	8	0.5	1-3	
2.2		9		1-1	Wet, brown, Silty Clay, trace of organics, some gray Silty clay, to
	SS-5	10	1.8	1-1	gray, f-Sand

WELL CONSTRUCTION DIAGRAM



STANDARD PENETRATION

WOR= WEIGHT OF RODS
SS = SPLIT SPOON
ST = SHELBY TUBE

SUMMARY:

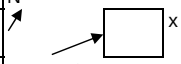
PARSONS
DRILLING RECORD

BORING NO. MW-3

Contractor:	SJB Services, Inc.
Driller:	Mike Kukoleca, Andy Morris
Inspector:	Andy Janik
Rig Type:	Track mounted drill rig
Method:	4.25-inch HSA/SS
PROJECT NAME	Lehigh Valley Railroad
PROJECT NUMBER	736645
Sheet	1 of 1
Location:	Southeast of Excavation Area
Elevation:	
Weather	Snow 30 F
Date/Time Start	1/17/02 1535
Date/Time Finish	1/17/02 1555

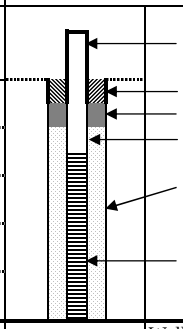
Observations				
Depth of Water				
TOC elevation	582.68			

N



PID Reading	Sample Code	Sample Depth	Rec. (ft)	SPT	FIELD IDENTIFICATION OF MATERIAL
		0			
2.0		1		4-4	Moist, red/brown, Silty Clay, m-Gravel, brick fragments, some organics
	SS-1	2	1.0	6-8	
2.2		3		14-9	Moist/wet, black/brown, m-Sand, some c-Gravel
	SS-2	4	0.3	6-3	
2.9		5		WOR-WOR	Moist, black/brown, Silty Clay, into wet, black reed layer
	SS-3	6	1.5	WOR-1	
2.7		7		WOR-2	Wet, black, reed layer, then moist, brown peat
	SS-4	8	1.7	2-1	
2.5		9		WOR-7	Wet, black/gray, Silty Clay, some brown peat, to gray, f-Sand
	SS-5	10	1.6	7-3	

WELL CONSTRUCTION DIAGRAM



Well depth @ 10'

STANDARD PENETRATION

WOR= WEIGHT OF RODS
SS = SPLIT SPOON
ST = SHELBY TUBE

SUMMARY:

PARSONS
DRILLING RECORD

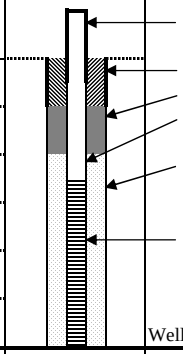
BORING NO. MW-4

Contractor:	SJB Services, Inc.
Driller:	Mike Kukoleca, Andy Morris
Inspector:	Andy Janik
Rig Type:	Track mounted drill rig
Method:	4.25-inch HSA/SS
PROJECT NAME	Lehigh Valley Railroad
PROJECT NUMBER	736645
Sheet	1 of 1
Location:	Southwest of Excavation Area
Elevation:	
Observations	
Depth of Water	
TOC Elevation	583.37
Weather	Snow 20 F
Date/Time Start	1/17/02 1325
Date/Time Finish	1/17/02 1445

N x — Area of Excvavation

PID Reading	Sample Code	Sample Depth	Rec. (ft)	SPT	FIELD IDENTIFICATION OF MATERIAL
		0			
1.70		1		1-3	Moist, brown/black, Silty Sand, some organics and brick
	SS-1	2	1.5	6-10	fragments
NR		3		11-5	Brick fragment in cap- push
	SS-2	4	NR	6-50/.1	
1.8		5		WOR-WOR	Brown, Silty Clay, into wet, black reed layer at 5.5'
	SS-3	6	1.0	12-4	
1.9		7		1-2	Wet, black, reed layer to 7.0', then brown peat
	SS-4	8	1.7	2-2	
2.3		9		WOR-WOR	Brown, peat layer to 9.0', then moist, gray Silty Clay
	SS-5	10	2.0	WOR-3	
2.1		11		WOR-WOR	Wet, gray, f-Sand to 11.5' bgs, then moist, gray, Silty Clay
	SS-6	12	1.7	WOR-2	

WELL CONSTRUCTION DIAGRAM



- Stick-up protective casing
- Grout
- Bentonite seal
- 2" SCH 40 PVC well riser
- Sand 5' to 12' screen interval
- 2" SCH 40 PVC well screen, 0.010" slot size

Well depth @ 12'

STANDARD PENETRATION

WOR= WEIGHT OF RODS
SS = SPLIT SPOON
ST = SHELBY TUBE

SUMMARY:

PARSONS

DRILLING RECORD

BORING NO. MW-6

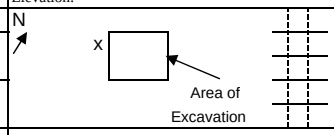
Contractor: SJB Services, Inc.
Driller: Tony Jakubczak, Carl Oennies
Inspector: Jeffrey Poulsen
Rig Type: Track mounted drill rig
Method: 4.25-inch HSA/SS

PROJECT NAME: Lehigh Valley Railroad
PROJECT NUMBER: 742878

Sheet 1 of 1
Location: Northwest of Excavation Area
Elevation:

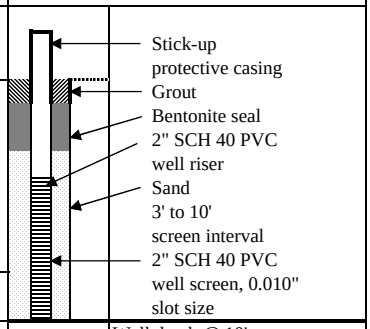
Observations
Depth of Water
TOC Elev. 582.82

Weather: Clear, calm, 45 def F.
Date/Time Start: 9/29/2004 0930
Date/Time Finish: 9/29/2004 1140



PID Reading	Sample Code	Sample Depth	Rec. (ft)	SPT	FIELD IDENTIFICATION OF MATERIAL
0		0			
		1			
		2			mixed fill
0		3			
		4			
		5			
0		6			
		7			
		8			reed layer at 7.5 ft.
0		9			medium grey silty clay
		10			
					Boring terminated at 10 feet.

WELL CONSTRUCTION DIAGRAM



Well depth @ 10'

STANDARD PENETRATION
WOR= WEIGHT OF RODS
SS = SPLIT SPOON
ST = SHELBY TUBE

SUMMARY:

APPENDIX F

PHOTOGRAPHIC LOG

Photo Log of the Fall 2004 IRM
Lehigh Valley Railroad Site
Buffalo, New York

Date: 9/8/2004 Project Number: 742878
Description: Initial removal of materials from the west end of the excavation area

Date: 9/8/2004 Project Number: 742878
Description: Removal to the native material along the south side fo the excavation area.

Photo Log of the Fall 2004 IRM
Lehigh Valley Railroad Site
Buffalo, New York

Date: 9/8/2004 Project Number: 742878

Description: Extent of excavation in the southwest corner of the site, including overexcavation to recover additional, visually impacted, material.

Date: 9/8/2004 Project Number: 742878

Description: Excavating in the west end of the work area. Yellow hose for removal of construction water.

Photo Log of the Fall 2004 IRM
Lehigh Valley Railroad Site
Buffalo, New York

Date: 9/9/2004 Project Number: 742878

Description: Using a vacuum truck to remove impacted groundwater to the Alltift CWTS.

Date: 9/9/2004 Project Number: 742878

Description: Backfilling excavation with clean fill

Photo Log of the Fall 2004 IRM
Lehigh Valley Railroad Site
Buffalo, New York

Date: 9/14/2004 Project Number: 742878
Description: Work area after restoration, note the location of well MW-6 in right corner. View looking to the southwest.

Date: 11/16/2004 Project Number: 742878
Description: Restored area following the removal of additional material in November. View looking to the southwest.

Photo Log of the Fall 2004 IRM
Lehigh Valley Railroad Site
Buffalo, New York

Date: 11/16/2004 Project Number: 742878

Description: Restored area following November excavation, view looking to the east. The tree was placed as habitat at the request of the NYSDEC.

Date: 11/16/04 Project Number: 742878

Description: View to the east showing area restored following the November excavation of additional material.