



Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision
Lehigh Valley Railroad Site
Buffalo, Erie County, New York
Site Number 9-15-071

March 2006

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* DENISE M. SHEEHAN, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Lehigh Valley Railroad Inactive Hazardous Waste Disposal Site Buffalo, Erie County, New York Site No. 9-15-071

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Lehigh Valley Railroad Site Name site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Lehigh Valley Railroad Site inactive hazardous waste disposal site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site have been addressed by implementing the interim remedial measure identified in this ROD. The removal of contaminated soil from the site has significantly reduced the threat to public health and the environment. This site does not present a current or potential threat to public health or the environment.

Description of Selected Remedy

Based on the results of the Remedial Investigation and Feasibility Study (RI/FS) for the Lehigh Valley Railroad site and the criteria identified for evaluation of alternatives, the NYSDEC has selected No Further Action.

The Interim Remedial Measure (IRM), which included the removal and disposal of all contaminated soils, has attained the remedial goals for the site. The goals for the remediation were to completely remove waste and associated contaminated soils from the site, in order to meet the cleanup goals based on NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil cleanup Objectives and Cleanup Levels."

New York State Department of Health Acceptance

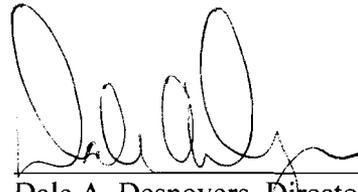
The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

MAR 27 2006

Date



Dale A. Desnoyers, Director
Division of Environmental Remediation

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RECORD OF DECISION

**Lehigh Valley Railroad Site
Buffalo, Erie County, New York
Site No.9-15-071
March 2006**

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the As more fully described in Sections 3 and 5 of this document, improper dumping of waste materials resulted in the disposal of hazardous wastes, including volatile organic compounds VOCs, semi-volatile organic compounds SVOCs and metals. These wastes contaminated the soils and localized groundwater at the site and resulted in:

- a significant environmental threat associated with the impacts of contaminants to regulated wetlands associated with the Tiftt Nature Preserve.

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the Lehigh Valley Railroad site in response to the threats identified above. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation/feasibility study (RI/FS). The IRM undertaken at this site included excavation and disposal of contaminated waste and impacted soils and post-remedial groundwater monitoring.

Based on the implementation of the above IRM, the findings of the investigation of this site indicate that the site no longer poses a significant threat to human health or the environment, therefore No Further Action was selected as the remedy for this site. The selected remedy, discussed in detail in Section 6, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Lehigh Valley Railroad Site, Site No. 915071 (LVRR) is an approximately 5 acre parcel of land located north of Tiftt Street in the City of Buffalo, New York (see Figure 1.) The site is situated in a remote, unpopulated portion of the city. The northwestern boundary of the site is adjacent to the Tiftt Nature Farm Preserve, a unique urban environmental education and wildlife preserve, and bounded to the east by a major, north-south rail corridor. The closest surface water

are ponds at the Tifft Nature Preserve about 1000 feet to the west, Lake Erie is about 4000 feet to the west and the Buffalo River is about 1000 feet to the north.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The former Lehigh Valley Railroad property, which includes the 5 acre parcel which is the subject of this PRAP, has had a long history of industrial operations. Several actions have occurred, over time, on the larger parcel of property. These operations occurred in various portions of the larger property as early as:

Early 1900's - The Lehigh Valley Rail Way Company acquired approximately 170 acres of property for railroad yard operations;

1972 to 1977 - The northeast parcel was leased to Riverside Service Corporation and INS Equipment of Buffalo, for the disposal of foundry sand;

1975 - A citizen's complaint indicated that acid sludge from the Chevrolet Plant was being spread on the northeast portion of the property. The NYSDEC responded to the complaint and the disposal was stopped;

April 1, 1976 - The Lehigh Valley Railroad ceased all operations with the formation of Conrail. Sixty-one acres of the original parcel were conveyed to Conrail and 109 acres were retained. Portions of the retained property were leased, or conveyed to others;

March 1, 1977 to October 31, 1982 - Two 100,000 gallon, 24 ft. diameter, aboveground storage tanks were leased to Booth Oil Company. (Booth Oil allegedly stored a mixture of waste oil and hazardous waste still bottoms containing chlorinated volatile organic compounds in these tanks);

June 16, 1981 - Representatives of the Erie County Department of Environment and Planning (ECDEP) and the New York State Department of Transportation (NYSDOT) inspected an estimated 1100 gallons of oil standing within a diked area on the north side of the north tank leased to Booth Oil. Oil spill clean-up measures were initiated and follow-up inspections made;

1982 - The ECDEP indicated that the spillage was satisfactorily cleaned-up;

December 01, 1983, NYSDEC places the entire Lehigh Valley Railroad Site on the Registry of Inactive Hazardous Waste Disposal Sites (Registry)

July 1991 - Results of subsequent investigations determine that spillage area contamination constituted a significant threat to public health and/or the environment. Based on this determination NYSDEC re-classified and redefined the site to a one-acre, Class 2 site;

October 1991 - Lehigh Valley Railroad removes remaining oil tanks;

April 1993 - Lehigh Valley Railroad performs a supplemental investigation, absent an Order on Consent, without Departmental oversight. Although the owner petitions the Department to delist the property, residual soils and groundwater contamination preclude the site from being removed from the Registry, and,

February 13, 1995 - NYSDEC reclassifies the site to a Class 5 to indicate a site where remediation has been undertaken and no further action is necessary.

The operational and disposal activities leading to the activities described in this PRAP were attributed to random dumping of waste materials from manufacturing operations first identified in May 1996. The discovery of a blue-green tinged material was made by the New York State Department of Transportation (NYSDOT), after the realignment of the adjacent Tift Street Bridge, during a wetlands mitigation effort. The material, sampled by NYSDOT, exhibited characteristics of dye waste material found at the nearby Alltiff Landfill Site #915054.

3.2: Remedial History

After the discovery of the blue-green tinged material NYSDOT gave the results of the sampling to NYSDEC and the newly excavated area was covered with a polyethylene barrier and topsoil. The area was seeded to prevent erosion. After the stabilization, supplemental investigation of the site was conducted in 1997-1998. Results of investigation confirms the presence of chemicals of concern related to former dye production operations.

February 23, 1999 - Due to the significant concentrations of waste material adjacent to the Tift Farm Nature Preserve and the potential threat to a regulated wetland, the NYSDEC reclassifies the site as a Class 2, from a Class 5 site, in the Registry. A Class 2 site is a site where hazardous waste presents a significant threat to the public health and/or the environment and action is required;

February 22, 2001 - Honeywell International Inc. enters into an Order on Consent with NYSDEC to implement an IRM to remove, characterize and properly dispose waste from the Lehigh Valley Railroad Site;

March 2003 - "Contaminant Removal Report" documents removal of approximately 500 cubic yards of impacted material, from an area of approximately 3319 square feet. The report also notes the discovery of additional material during installation of MW-05;

June 2003 - An additional investigation, utilizing soil borings, identifies area approximately 1,188 square feet to be excavated;

October 2003 - A second removal action excavates approximately 450 cubic yards of material. Post excavation sampling identifies additional material;

November 2003 - A third, and more comprehensive investigation including extensive test pitting, is completed. The investigation identified an additional, 4,400 square foot area, requiring excavation;

November 2004 - A final excavation removes approximately 2,450 cubic yards of material from the identified area. Post excavation, confirmatory soil samples determine IRM complete; and,

October 2005 - A fourth round of post remedial groundwater monitoring data is submitted which concludes there is no impact from chemicals of concern on groundwater.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The NYSDEC and Honeywell International, Inc. entered into a Consent Order on February 22, 2001. The Order obligated the responsible party to implement an Interim Remedial Measure to identify, remove, and properly dispose soil contamination.

SECTION 5: SITE CONTAMINATION

Site contamination at the Lehigh Valley Railroad site consisted mainly of soils, contaminated with 1,2-dichlorobenzene, 1,3-dichlorobenzene, 4-nitroaniline, 4-chloroaniline, nitrobenzene, 1,2,4-trichlorobenzene, and lead.

5.1: Summary of the Remedial Investigations

The purpose of the investigations were to define the nature and extent of any contamination resulting from previous activities at the site. The investigations were conducted between February 2001 and October 2005. The field activities and findings of the investigations are described in five separate reports, which are summarized below.

The following activities were conducted during the RI:

- Research of historical information;
- Excavation of 14 test pits to visually delineate impacted soils;
- Installation of 102 soil borings and five monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions; and,
- Sampling of five new and existing monitoring wells.

To determine whether the soil and groundwater, contains contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels".

Based on the results of the investigations, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site required remediation. These are summarized below.

5.1.1: Site Geology and Hydrogeology

The site lies within the Erie-Ontario Lowlands Province and the Erie-Niagara Basin (Mueller, 1997). The geology of the Erie-Niagara Basin has been described by LaScala (1968) as generally unconsolidated deposits, glacio-lacustrine in origin overlying Silurian and Devonian age sedimentary bedrock. Although not verified by borings at the Lehigh Valley Railroad Site, bedrock formations under nearby sites such as the Alltiff Landfill and the Tift and Hopkins Sites include the Marcellus shale, Onondaga limestone, Akron dolomite, Bertie limestone, Camillus shale and the Lockport dolomite. Bedrock formations in Erie County strike east-west and dip southward at 40 to 60 feet per mile and are exposed locally in east-west trending bands.

The Lehigh Valley Railroad Site is located directly south of the Tift Nature Preserve and is similar in surficial geology. Located in a previously industrial area of south Buffalo, the site was subjected to the dumping of various fill materials in low lying areas. Varying in depths the fill material overlies a silty clayey swamp deposit of undetermined depth. The native soils were marked by a definitive layer of black, decayed, swamp reeds and vegetation overlying a brownish, organic peat layer. This brown, organic layer overlies a non-organic and less pervious grey, silty clays that in turn overlie an intermittent fine, grey sand.

The presence of the relatively impervious grey silty clay overlying the fine sand tends to result in localized perched water tables as noted at the Lehigh Valley Railroad Site. Depth to groundwater at the site is three to five feet below ground surface. Water produced from site monitoring wells in this material is limited and not sufficient in quantity nor of quality for potable uses.

5.1.2: Nature of Contamination

Before the IRM, hazardous waste, consisting of VOCs, SVOCs and lead existed in soils and residual wastes at the Lehigh Valley Railroad site. A significant threat existed to the environment from contaminant migration to the surface or groundwater and the proximity of the waste to regulated wetlands and the Tift Nature Preserve as long as the wastes remained in place.

As described in the investigation reports, many soil, and groundwater samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs are volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and inorganics (metals).

The compounds identified before the IRM were similar in composition to the chemicals found in the dye wastes disposed of at the Alltift Landfill.

These compounds included VOCs of concern such as, chlorobenzene and SVOCs of concern include 4-chloroaniline, nitrobenzene, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene and 4-nitroaniline. Lead was the only waste related inorganic compound of concern. Confirmation sampling did not find any evidence that any waste in significant quantities existed after the IRM.

5.1.3: Extent of Contamination

The Lehigh Valley Railroad Site was a convenient place for random dumping of waste materials. The remote location, low-lying areas, and the accessibility were natural draws for disposal. Test pits and actual excavation of the material during the IRM verified this randomness, mostly by the variety of disposed material. Greenish, pasty, sludge, pails, hose, gloves, pipe, brick, glassware, plastics and other miscellaneous debris, mostly industrial in nature, were found, buried in a linear fashion parallel to the access road.

Table 1 summarizes the degree of contamination for the contaminants of concern existing before the IRM and the concentrations remaining in waste, soils, and, groundwater after the IRM. The results are compared with the SCGs for the site.

Waste Materials

Remedial investigation samples of the colored sludge, first discovered during a wetland mitigation project by the New York State Department of Transportation, identified contamination in waste consisting of VOCs totaling (200.6 parts per million (ppm)), total SVOCs (4,360.1 ppm), and lead (25,800 ppm). The extent of the green-colored waste was visually determined from test pits excavated during a focused site assessment (see Figure 2). This distinct waste was similar to dye wastes found at nearby hazardous waste sites such as the Alltift Landfill Site #915054 and Tift and Hopkins Street Site #915131.

Subsurface Soil

Chemicals of concern in the subsurface soils were identified with the wastes detailed in the previous paragraph.

Groundwater

Initially, groundwater samples were collected from four piezometers and were analyzed for VOC and SVOC contamination (Table 1). The following details the concentration of a compound detected compared to the SCG (in parentheses) for that particular compound. Compounds detected at concentrations greater than Class GA Groundwater Standards included, toluene at 10.3 parts per billion (ppb) (5 ppb), 1,2-dichlorobenzene at 38.7 ppb (3 ug/l), 1,4-chlorobenzene at 5.6 ppb (3 ppb), nitrobenzene at 860 ppb (0.4 ppb), 4-chloroaniline at 250 ppb (5 ppb), 2-nitroaniline at 6.7 ppb (5 ppb), 3-nitroaniline at 56.2 ppb (5 ppb), and 2,4-dinitrotoluene at 6.4 ppb (5 ppb).

A total of six permanent monitoring wells were installed to replace temporary piezometers.(Figure 3 and Figure 5). Four rounds of groundwater samples were collected to determine the effectiveness of the IRM.

Results of the post-IRM groundwater monitoring has shown no waste related chemicals, except for very low levels of lead, present in the groundwater. Lead exceeded Class GA groundwater standards in monitoring well (MW-2) with a total lead concentration as high as 330 ppb (25 ppb), and in monitoring well (MW-6), 150 ppb (25 ppb.)

Because it was believed that turbidity was influencing total lead concentrations, the last sampling conducted on October 21, 2005, was also analyzed for soluble lead. The result for MW-2 slightly exceeded Class GA standards with a concentration of 27 ug/l (25 ppb) and the result for MW-6 was not detected (ND).

Lead present in the groundwater is largely non-soluble. The shallow groundwater in the area is largely perched and not of sufficient quantity for potable purposes.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

At the Lehigh Valley Railroad Site it was determined that an IRM consisting of characterization and removal of the waste and impacted soil would quickly and effectively remove the threat posed by the waste to the environment.

The IRM was implemented during three separate actions, from June 2001 to November 2004, removing a total of 3,400 cubic yards of waste and contaminated soils. The separate excavation areas are depicted by Figures 3, 4 and 5. Figure 5 also shows the extent of all the excavations completed during the IRM.

The IRM consisted of excavation to a depth of approximately eight feet below ground surface where a native brown, easily identifiable, peat layer was encountered. After the soils were removed to the native peat layer, samples from the bottom and sides of the excavation were collected and compared to SCGs. Figures 3, 4 and 5 show where soil samples were collected to determine the effectiveness of the IRM. These confirmatory samples, collected at the end of each excavation, verified the success of the IRM in determining that the contamination in the soils has been removed from the excavation areas, mitigating any further detriment to the environment.

After the IRM was completed the site was restored to a small wetland.

5.3: Summary of Human Exposure Pathways:

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant

source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

Potential exposure pathways identified at the Lehigh Valley Railroad Site are direct contact, ingestion, and inhalation of the contaminated waste material. An IRM conducted at the site included the removal of all waste and contaminated soil. Upon completion of this action, the excavation was backfilled with clean soil, covered with topsoil and seeded. These remedial measures eliminated the potential for exposure.

5.4: Summary of Environmental Impacts

This section summarizes the existing and potential future environmental impacts presented by the site prior to the IRM. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

Due to the concentrations of contaminants in the waste material, and the proximity of these wastes to the Tifft Nature Preserve (a regulated wetland), the site posed a significant threat to the environment. The IRM removed the wastes and eliminated the threat to the environment.

The site's future use is expected to be a wetland. Restoration of the site included leaving the site grades low. The depressed area, in turn, allows for water to be retained as a wetland. In addition, the site was seeded with broad leaf cattail seed (*Typha latifolia*) to promote habitat growth.

SECTION 6: SUMMARY OF THE REMEDIAL GOALS AND SELECTED REMEDY

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. The remedy must, at a minimum, eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

Prior to the completion of the IRM described in Section 5.2, the remediation goals for this site were to completely remove the waste and associated contaminated soils from the site, in order to meet the SCGs for the site.

The NYSDEC believes that the IRM has accomplished these remediation goals. Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation discussed below, the NYSDEC has selected No Further Action as the preferred alternative for the site.

The basis for this selection is the NYSDEC's conclusion that no further action will be protective of human health and the environment and will meet all SCGs. Overall protectiveness is achieved through meeting the remediation goals listed above.

Therefore, the NYSDEC concludes that the following elements of the IRM already completed have achieved the remediation goals for the site and that no further action is needed.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.
- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.
- Fact sheets were sent to the contact announcing the start of the IRM and the availability of the PRAP.
- A public meeting was held on February 28, 2006 to present and receive comment on the PRAP.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

In general, the public comments received were supportive of the selected remedy.

TABLE 1
Nature and Extent of Contamination

PRE-EXCAVATION WASTE	Contaminants of Concern	Concentration (ppm)^a
Volatile Organic Compounds (VOCs)	acetone	ND ^c
	benzene	0.440 E ^d
	chlorobenzene	100 D ^e
	ethylbenzene	3.2 D
	methylene chloride	.006
	toluene	97 D
	trichloroethene	.003 J ^f
	total xylenes	.045
Semi-volatile Organic Compounds (SVOCs)	acenaphthene	71
	acenaphthylene	1.6 J
	anthracene	130
	benzo(a)anthracene	5.6
	benzo(b)fluoranthene	4.7
	benzo(k)fluoranthene	2.4 J
	benzo(g,h,i)perylene	0.9 J
	benzo(a)pyrene	4.0 J
	bis(2-ethylhexyl)phthalate	2.7 J
	4-chloroanaline	440
	2-chloronaphthalene	220
	chrysene	5.1
	dibenz(a,h)anthracene	ND
	dibenzofuran	14
	1,2-dichlorobenzene	590
	1,3-dichlorobenzene	2.3 J
	1,4-dichlorobenzene	46
	3,3'-dichlorobenzidine	17
2,4-dinitrotoluene	8.2	

PRE-EXCAVATION WASTE	Contaminants of Concern	Concentration (ppm)^a
Semi-volatile Organic Compounds (SVOCs)	2,6-dinitrotoluene	7.7
	fluoranthene	11
	fluorene	8.5
	hexachlorobenzene	72
	indeno(1,2,3-cd)pyrene	1 J
	2-methylnaphthalene	9.2
	4-methylphenol	1.6 J
	naphthalene	1400 B ^h
	2-nitroanaline	1.9 J
	3-nitroanaline	1.6 J
	4-nitroanaline	14
	nitrobenzene	800
	N-nitrosodiphenylamine	3.7
	Phenantrene	320
	Pyrene	1
1,2,4-trichlorobenzene	130	
2,4,5-trichlorophenol	2.4 J	
PCB/Pesticides	dieldrin	4.4
	endrin	3.8
Inorganic Compounds	aluminum	2980
	antimony	9700
	arsenic	43
	barium	102
	calcium	43200
	chromium	1410
	cobalt	6.7
	copper	8080
	iron	38600

PRE-EXCAVATION WASTE	Contaminants of Concern		Concentration (ppm)^a	
Inorganic Compounds	lead		25,800	
	magnesium		5780	
	manganese		302	
	mercury		3.2	
	nickel		60.8	
	potassium		550	
	selenium		ND	
	sodium		333	
	thallium		5.6	
	vanadium		16.5	
zinc		451		
POST-EXCAVATION SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	acetone	0.130 B - 0.240	0.2	1 - 2
	benzene	ND - 0.010	0.06	0 - 6
	chlorobenzene	ND - 0.036	1.7	0 - 8
	ethylbenzene	ND	5.5	0 - 8
	methylene chloride	0.015 - 0.067 B	0.1	0 - 2
	2- butanone	0.037	0.3	0 - 1
	toluene	ND	1.5	0 - 8
	trichloroethene	ND - 0.050 B	0.7	0 - 2
	total xylenes	ND	1.2	0 - 2
Semi-volatile Organic Compounds (SVOCs)	acenaphthene	ND - 0.18 J	50	0 - 2
	acenaphthylene	ND	41	0 - 2
	anthracene	ND - 0.61 J	50	0 - 2
	benzo(a)anthracene	0.034 J - 1.6	0.224	1 - 2
	benzo(b)fluoranthene	0.032 - 1.8	1.1	1 - 2
	benzo(k)fluoranthene	0.030 BJ - 0.8 J	1.1	0 - 2
	benzo(g,h,i)perylene	0.023 BJ - 0.82 J	50	0 - 2

POST-EXCAVATION SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Semi-volatile Organic Compounds (SVOCs)	benzo(a)pyrene	0.032 BJ - 1.4	0.061	1 - 2
	bis(2-ethylhexyl)phthalate	0.044 BJ - 0.26 J	50	0 - 2
	4-chloroaniline	ND - 0.490 J	0.220	1 - 23
	2-chloronaphthalene	ND - 0.16 J	NA	NA
	chrysene	0.039J - 1.6	0.4	0 - 2
	dibenz(a,h)anthracene	ND - 0.18 J	0.014	1 - 2
	dibenzofuran	ND	6.2	0 - 2
	1,2-dichlorobenzene	ND	7.9	0 - 17
	1,3-dichlorobenzene	ND	1.6	0 - 11
	1,4-dichlorobenzene	ND	8.5	0 - 8
	3,3'-dichlorobenzidine	ND	NA	NA
	2,4-dinitrotoluene	ND	NA	NA
	2,6-dinitrotoluene	ND	NA	NA
	fluoranthene	0.085BJ - 2.6	50	0 - 2
	fluorene	ND - 0.22 J	50	0 - 2
	hexachlorobenzene	ND	0.41	0 - 2
	indeno(1,2,3-cd)pyrene	ND - 0.83 J	3.2	0 - 2
	2-methylnaphthalene	ND	36.4	0 - 2
	4-methylphenol	ND	0.9	0 - 2
	naphthalene	ND - 0.51 BJ	0.9	0 - 8
	2-nitroaniline	ND	0.43	0 - 8
	3-nitroaniline	ND	0.5	0 - 8
	4-nitroaniline	ND	NA	0 - 11
	nitrobenzene	ND - 0.190J	0.2	17
	N-nitrosodiphenylamine	ND	NA	NA
	Phenanthrene	ND - 2.0	50	0 - 8
	Pyrene	0.070 BJ - 2.4	50	0 - 2

POST-EXCAVATION SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
	1,2,4-trichlorobenzene	ND	3.4	0 - 17
	2,4,5-trichlorophenol	ND	0.1	0 - 2
PCB/Pesticides	dieldrin	ND	0.044	0 - 1
	endrin	ND	0.1	0 - 1
Inorganic Compounds	aluminum	5590	33,000*	0 - 1
	antimony	ND	SB	0 - 1
	arsenic	28.1 - 33	7.5 or SB	2 - 2
	barium	67.5 - 94.3	300 or SB	0 - 2
	cadmium	2.2	1 or SB	1 - 1
	calcium	7460	130 - 35,000*	0 - 1
	chromium	15.6 - 66.6	10 or SB	1 - 2
Inorganic Compounds	cobalt	ND	30 or SB	0 - 1
	copper	47.8	25 or SB	1 - 1
	iron	62,300	2,000 or SB	1 - 1
	lead	5.4 - 209	SB**	7 - 11
	magnesium	25.6	100 - 5000*	0 - 1
	manganese	208	50 - 5000*	0 - 1
	mercury	ND - 0.126	0.1	1 - 2
	nickel	13.2	13 or SB	1 - 1
	potassium	620	8,500 - 43,000*	0 - 1
	selenium	5.8 - 8.4	2 or SB	2 - 2
	sodium	288	6,000 to 8,000*	0 - 1
	thallium	10.1	SB	0 - 1
	vanadium	28.9	150 or SB	0 - 1
	zinc	260	20 or SB	1 - 1

PRE-EXCAVATION GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)^a	SCG^b (ppb)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	benzene	0.13	1	0
	toluene	10.3	5	1
Semivolatile Organic Compounds (SVOCs)	1,2-dichlorobenzene	38.7	3	1
	1,4-chlorobenzene	5.6	3	1
	nitrobenzene	860	0.4	1
	4-chloroaniline	250	5	1
	2-nitroaniline	6.7	5	1
	3-nitroaniline	56.2	5	1
	2,4-dinitrotoluene	6.4	5	1
POST-EXCAVATION GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)^a	SCG^b (ppb)^a	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	1,2- dichlorobenzene	ND	3	0 - 20
	1,3- chlorobenzene*	ND	3	0 - 20
	4- nitroaniline	ND	5	0 - 20
	4-chloroaniline	ND	5	0 - 20
	nitrobenzene	ND	0.4	0 - 20
	1,2,4-trichlorobenzene	ND	5	0 - 20
Inorganic Compounds	total lead	ND - 330	25	3 - 20
	soluble lead	ND - 27	25	1 - 5

^a ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

^b SCG = standards, criteria, and guidance values;

^c ND = Not detected;

^d E = Estimated;

^e D = Diluted;

^f J = compound detected but, below quantitation limits;

^g NA = Not Applicable;

^h B = Compound also found in laboratory blanks;

ⁱ SB = Site Background;

* Cleanup objective equals site background equal to the Eastern USA Background;

** 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.

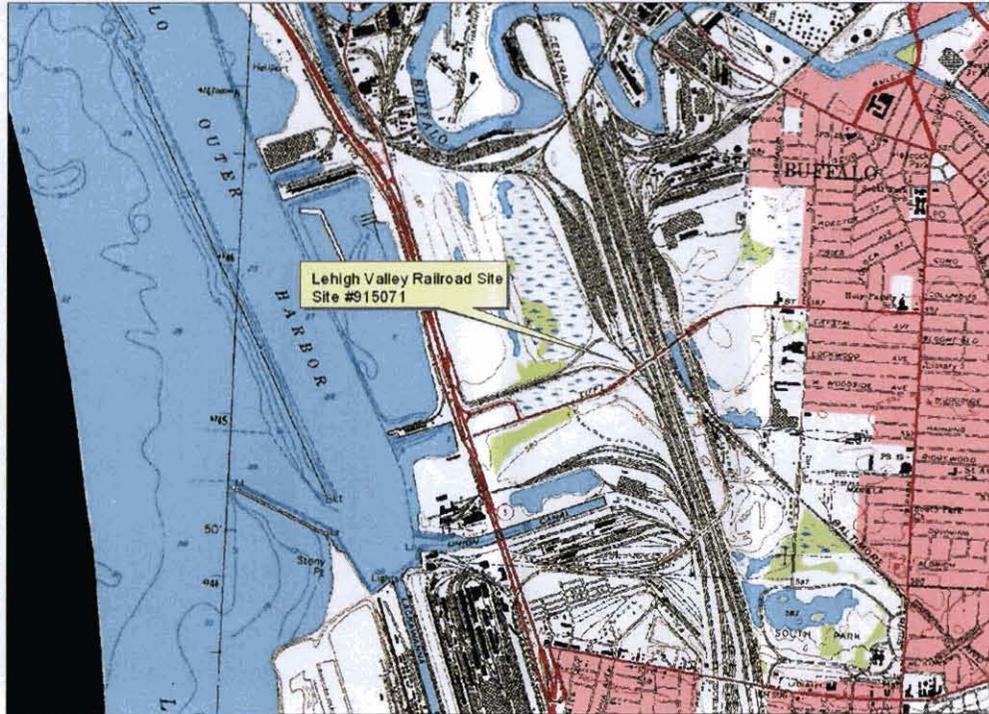


Figure 1
Site Location
Lehigh Valley Railroad Site
Site #915071

Figure 3
Sample Locations, Initial Removal

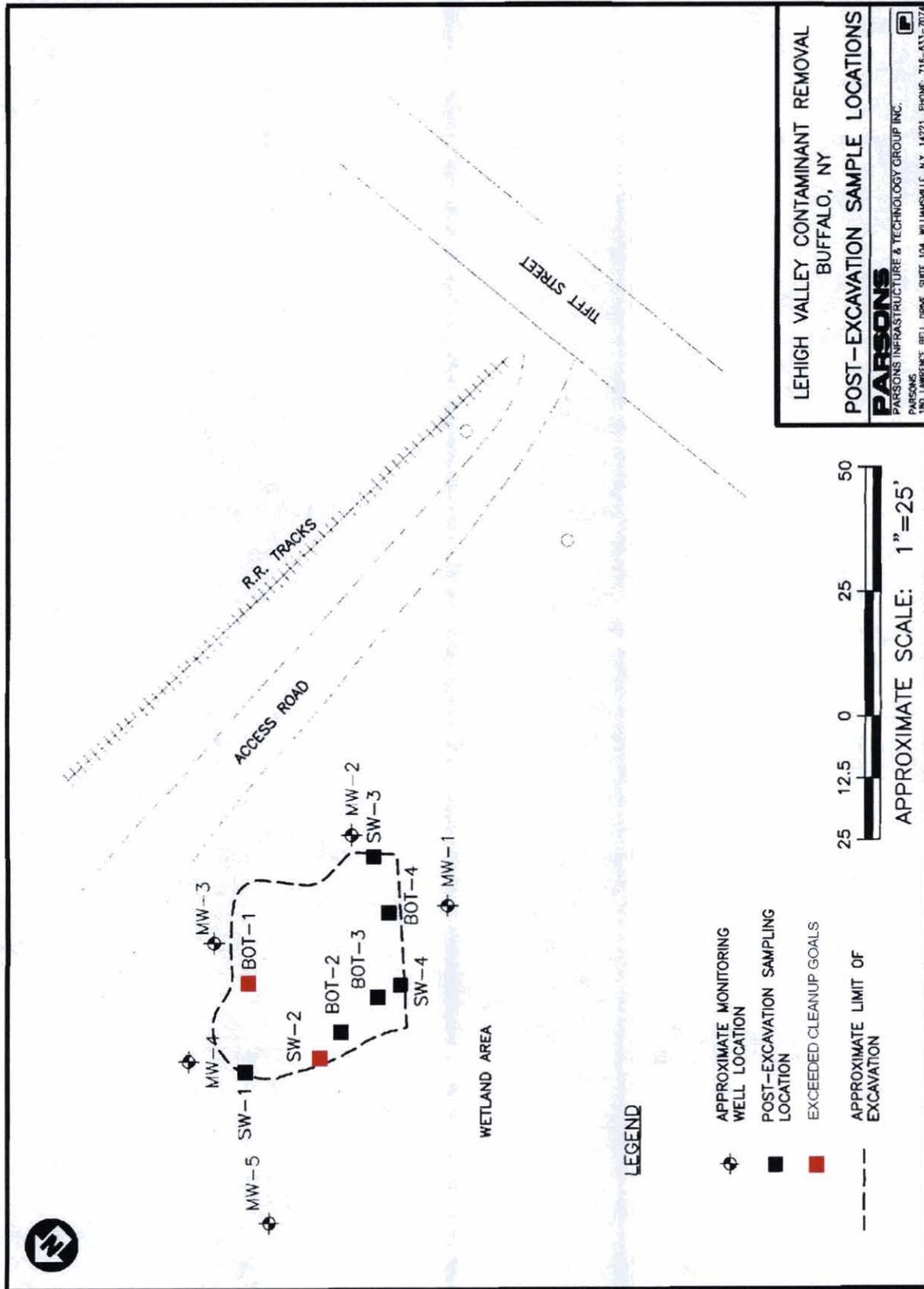


Figure 4
Sample Locations, Second Removal

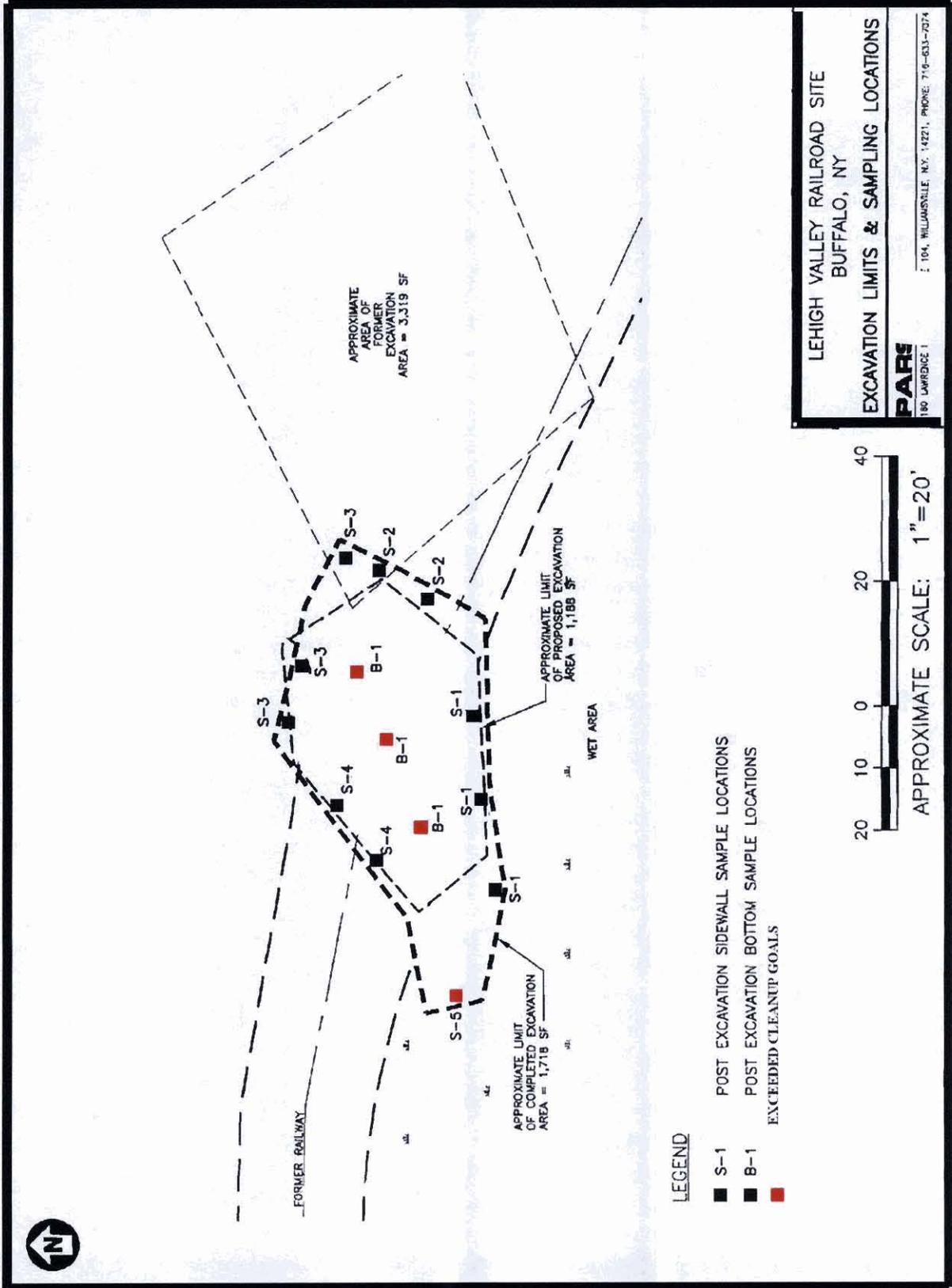
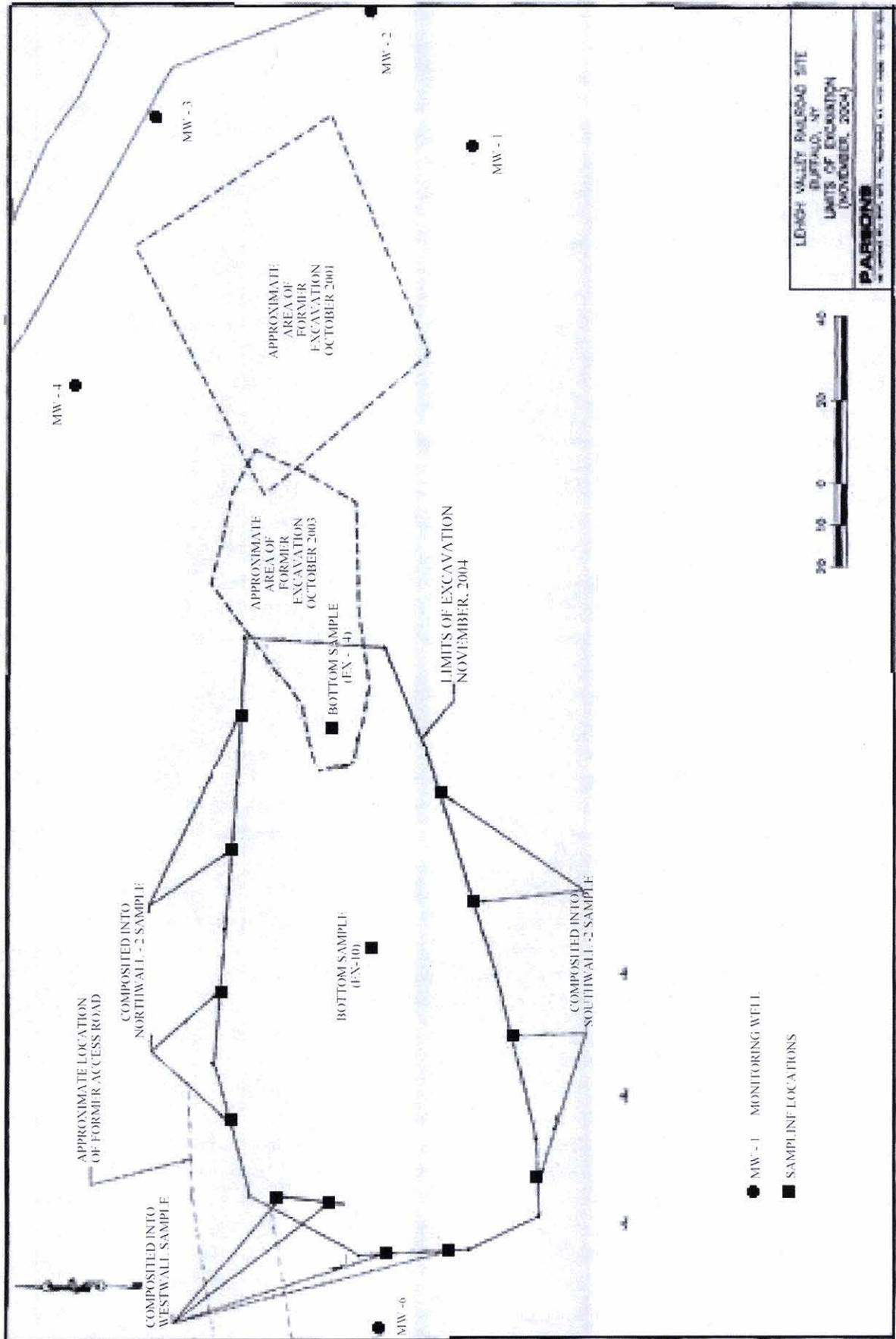


Figure 5
Sample Locations, Third (final) Removal



APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**Lehigh Valley Railroad
Buffalo, Erie County, New York
Site No. 9-15-071**

The Proposed Remedial Action Plan (PRAP) for the Lehigh Valley Railroad site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 15, 2006. The PRAP outlined the remedial measure proposed for the contaminated soil at the Lehigh Valley Railroad Site site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on February 28, 2006, which included a presentation of the Remedial Investigation (RI) and the Feasibility Study (FS) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 17, 2006.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the NYSDEC's responses:

COMMENT 1: What kinds of metals were found at the site?

RESPONSE 1: Metals found, are included in Table 1, and common to industrial areas. However, high levels of lead were found to be associated with the dye wastes at the site.

COMMENT 2: What materials, if any, found at the site were considered hazardous?

RESPONSE 2: Lead and nitrobenzene were found at the site.

COMMENT 3: How far down was the site excavated? To the peat level? To the base level?

RESPONSE 3: The soils were excavated to about seven to eight feet below the ground surface, approximately 6 inches below the peat layer. The excavation was continued until the silty clay layer was evident.

COMMENT 4: To clarify, would the possible reclassification of this site come after the DEC issues the ROD?

RESPONSE 4: It is anticipated that the site will be reclassified after issuing the ROD.

COMMENT 5: If the site were to be reclassified what number would it be reclassified as?

RESPONSE 5: Area(s) that no longer contain hazardous constituents are eligible to be removed from the Registry.

COMMENT 6: Is the site visible from the roadway?

RESPONSE 6: Yes, just past the west end of the Tiftt Street bridge looking, north into the wetland area is the site.

APPENDIX B

Administrative Record

Administrative Record

Lehigh Valley Railroad Site Site No. 9-15-071

1. Proposed Remedial Action Plan for the Lehigh Valley Railroad site, dated February 2006, prepared by the NYSDEC.
2. Order on Consent, Index No. B9-0383-91-09, between NYSDEC and Honeywell International, Inc., executed on February 22, 2001.
3. Fact Sheet, February 2001, NYSDEC, announcement of removal action.
4. "Contaminant Removal Report, Lehigh Valley Railroad Site, NYSDEC Site No. 915071", March 2002, Parsons.
5. "Waste Removal Report, Lehigh Valley Railroad Site, NYSDEC Site No. 915071", April 2004, Parsons.
6. "Waste Removal Report, Lehigh Valley Railroad Site, NYSDEC Site No. 915071", January 2005, Parsons.
7. "Groundwater Monitoring Report, Lehigh Valley Railroad Site, NYSDEC Site No. 915071", February 25, 2005.
8. "Groundwater Monitoring Report, Lehigh Valley Railroad Site, NYSDEC Site No. 915071", June 1, 2005.
9. "Groundwater Monitoring Report, Lehigh Valley Railroad Site, NYSDEC Site No. 915071", October 17, 2005.
10. Fact Sheet, February 2006, NYSDEC, Public meeting announcement, Proposed Remedial Action Plan.

Relevant Correspondence

11. Letter dated February 13, 1995, Robert Marino (NYSDEC), reclassification of Lehigh Valley Railroad Site to a Class 5.
12. Spill Report dated May 8, 1996, Wayne McCreedy (NYSDOT), unknown substance exceeding hazardous waste guidelines.
13. Letter dated January 9, 1997, Martin Doster (NYSDEC) to James Periconi (Donovan, et al), potential liability notification.
14. Letter dated October 17, 1997, David Paley (Allied Signal, Inc.), proposed work plan.
15. Letter dated June 2, 1998, David Paley (Allied Signal, Inc) to Jaspal Walia (NYSDEC), results of focused site assessment.

16. Letter dated February 23, 1999, Robert Marino (NYSDEC), reclassification of Lehigh Valley Railroad Site from a class 5 site to a class 2 site.
17. Letter dated November 28, 2000, Theresa Benson (Parsons, Inc) to Martin Doster (NYSDEC), work plan for removal action.