PROPOSED REMEDIAL ACTION PLAN

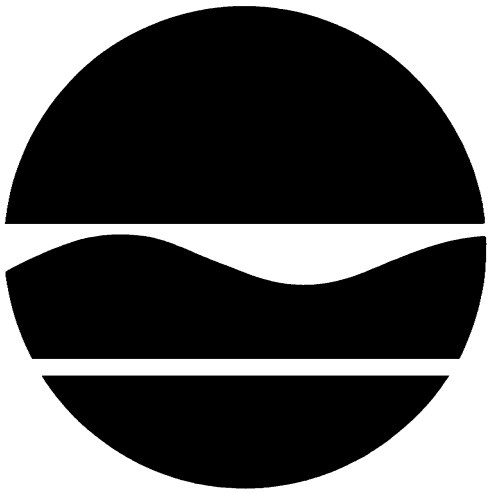
SIX VACANT LOTS SITE

Environmental Restoration Project

City of Lackawanna Erie County, New York

Site No. E-9-15-188

December 2006



Prepared by:

Division of Environmental Remediation
New York State Department of Environmental Conservation

A 1996 Clean Water/Clean Air Bond Act
Environmental Restoration Project

PROPOSED REMEDIAL ACTION PLAN

SIX VACANT LOTS SITE
City of Lackawanna, Erie, New York
Site No. E915188
December 2006

SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the Six Vacant Lots site. The Six Vacant Lots site includes the addresses 113, 117, 121, 125, 129 and 135 Ridge Road in the City of Lackawanna, Erie County, New York. The total area of the site is approximately 0.77 acres. The site is located in a mixed industrial, commercial, and residential area of Lackawanna. Historically, commercial buildings were present on the Site but have been subsequently demolished. Currently, the site is a vacant lot covered with dirt and gravel with no aboveground structures. Foundations of previous structures still remain on the site. The presence of hazardous substances has created threats to human health and/or the environment that are addressed by this proposed remedy.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration (Brownfields) Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated the property can then be reused.

As more fully described in Sections 3 and 5 of this document, contaminated fill material was placed on portions of the site following the demolition of the site buildings. The placement of this fill material resulted in the disposal of hazardous substances, including elevated concentrations of chromium. These hazardous substances contaminated the fill material and surface soil at the site, resulting in:

- A threat to human health associated with current and potential exposure to chromium contaminated fill material; and
- An environmental threat associated with the impacts of contaminants to wildlife utilizing the project site (e.g., rodents, birds, etc.), which have the potential to be exposed to the surface and subsurface soil and fill material.

During the course of the investigation certain actions, known as interim remedial measures(IRMs), were undertaken at the Six Vacant Lots site in response to the threats identified above. An IRM is conducted at a site when a source of contamination or an exposure

pathway. The IRM undertaken at the site included excavation and disposal of contaminated fill material.

To eliminate or mitigate these threats, and to allow for commercial/industrial development of the site the following IRM activities were performed:

- Impacted areas of the site identified to contain elevated chromium contaminated fill material were excavated and disposed off-site as a solid waste;
- Placement of clean soil in the excavations;
- A vegetative cover was established on all disturbed areas;
- Development of a site management plan to address residual contamination and any use restrictions;

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 the environment. Therefore, No Further Action is proposed as the remedy for this site.

The proposed 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. Standards, criteria and guidance are hereafter called SCGs.

This Proposed Remedial Action Plan (PRAP) identifies the preferred remedy, summarizes the other alternatives considered, and discusses the reasons for this preference. The NYSDEC will select a final remedy for the site only after careful consideration of all comments received during the public comment period.

The NYSDEC has issued this PRAP as a component of the Citizen Participation Plan developed pursuant to the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. This document is a summary of the information that can be found in greater detail in the report entitled"Site Investigation / Remedial Alternatives Report (SI / RAR)" dated May 2006, and other relevant documents. The public is encouraged to review the project documents, which are available at the following repositories:

Lackawanna Public Library
560 Ridge Road
Lackawanna, N.Y. 14218
(716) 823-0630

or;

NYSDEC's Buffalo Office
270 Michigan Avenue
Buffalo, N.Y. 14203
For an appointment, please contact
Mr. Thomas Biel at (716) 851-7220

The NYSDEC seeks input from the community on all PRAPs. A public comment period has been set from December 22, 2006 through February 5, 2007 to provide an opportunity for public participation in the remedy selection process. A public meeting is scheduled for January 11, 2007 at the Lackawanna City Hall 2nd Floor Chambers 714 Ridge Road Lackawanna, NY 14218 beginning at 7:00 PM.

At the meeting, the results of the SI/RAR and IRM will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP. Written comments may also be sent to Mr. Biel at the above address through February 5, 2007.

The NYSDEC may modify the proposed remedy or select another of the alternatives presented in this PRAP, based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the alternatives identified here.

Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the NYSDEC's final selection of the remedy for this site.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Six Vacant Lots site includes the addresses 113, 117, 121, 125, 129 and 135 Ridge Road in the City of Lackawanna, Erie County, New York. The total area of the site is approximately 0.77 acres. The site is located in a mixed industrial, commercial, and residential area of Lackawanna, near the intersection of Ridge Road and Wasson Avenue. Historically, commercial buildings were present on the site but have been subsequently demolished. Currently, the site is a vacant dirt/gravel covered lot with no aboveground structures. Foundations of previous structures still remain on the site. The site location is depicted in Figure 1, an excerpt from a USGS topographic map.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

Based on interviews with city officials and review of Sanborn Maps® from the years 1915, 1927, and 1927 - 1950, it is known that a variety of commercial activities including a bakery, jeweler, men's clothing store, restaurants and a tin shop operated on the site. The Sanborn Maps® indicate that the structures were constructed on the site primarily between 1915 and 1927. Those structures were likely constructed in the manner and of materials typical of that period. The Sanborn Maps® indicate the buildings were mainly two story brick framed structures along Ridge Road and Wasson Avenue, and several single story wood-framed and stone structures at the rear of the main structures or along the southern property boundary. Based on the review of City Directories and the Sanborn Maps®, it is believed that many of the buildings existed until the late 1960s, however this could not be verified. It is not known when the former buildings were demolished.

The primary environmental concerns include the storage and/or use of petroleum based heating fuels at the site and the potential for the presence of fill material, such as slag, from industrial sources.

3.2: Remedial History

It is not known if any previous environmental investigations or remedial actions have taken place at any of the six lots. The City of Lackawanna acquired the properties in the late 1970s.

SECTION 4: ENFORCEMENT STATUS

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

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. The City of Lackawanna will assist the state in its efforts by providing all information to the state which identifies PRPs. The City of Lackawanna will also not enter into any agreement regarding response costs without the approval of the NYSDEC.

SECTION 5: SITE CONTAMINATION

The The City of Lackawanna has recently completed a site investigation/remedial alternatives report (SI/RAR) to determine the nature and extent of any contamination by hazardous substances at this environmental restoration site.

5.1: Summary of the Site Investigation

The purpose of the SI was to define the nature and extent of any contamination resulting from previous activities at the site. The SI was conducted between May and September, 2005. The field activities and findings of the investigation are described in the SI report.

The following activities were conducted during the SI:

- Research of historical information;
- Excavation of twenty test pits to determine the nature and extent of fill material;
- Installation of three soil borings and three monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions;
- Sampling of three monitoring wells;
- Collection of six subsurface soil/fill samples from the test pits. One soil/fill sample was collected on each sublot;
- A survey of public and private water supply wells in the area around the site.

To determine whether the surface soil, subsurface soil/fill, and groundwater contain 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".
- Background surface soil samples were taken from five off-site locations. These locations were north, northwest, west, east and south of the site, and were unaffected by current site operations. The samples were analyzed for Target Compound List (TCL) SVOCs, PCBs, Pesticides, Target Analyte List (TAL) metals, and total cyanide analyses.
- A value of 1,000 parts per million (ppm) total chromium was selected as the Site Specific Action Level (SSAL) at this site. This SSAL was determined based upon an evaluation of existing site-wide data and a human health evaluation.

Based on the SI results, 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. More complete information can be found in the SI report.

5.1.1: Site Geology and Hydrogeology

The subsurface conditions at the site consist of fill material underlain by glaciolacustrine deposits of silt and fine sand. Foundations of the former on-site structures are visible at the surface and were also encountered during excavation of several of the test trenches.

Fill Materials - Fill materials were encountered throughout the site, and are likely a result of the previous development and razing of the former structures at the site. Fill thicknesses were primarily from one to three feet. Two former basements were encountered near the northern property boundary during the test pit excavations. Their depths extended to 6.7 and 7.5 feet below ground surface. The floor slabs could not be penetrated, and therefore conditions beneath these locations could not be verified. Further investigation was not pursued because the floor slabs were installed within the native soil unit that

is present at approximately three feet below ground surface throughout the site.

The fill materials encountered varied from location to location as well as vertically. Fill units consisted primarily of a sandy silt, slag and gravel, foundry sands, and at one location (VL7-TP2), a former basement filled with bricks and timbers.

Fine-Grained Soils - Native lacustrine deposits exist beneath the fill materials at the site at approximately three feet below the ground surface. These deposits consisted primarily of a sandy silt with trace amounts of gravel and clay.

Two glacial till units exist beneath the lacustrine silts. The upper unit consists of a sandy silt till that extends to depths between 13 and 15 feet below ground surface. The lower unit is a silty, sandy, clay till that extended the full depth drilled at each boring location.

Bedrock - Bedrock was not encountered in any of the soil borings drilled during the site investigation. Bedrock beneath the site is reportedly the Levanna Shale member of the Skaneateles Formation. The depth to bedrock is not known but is probably within 50 feet below ground surface.

Depths to groundwater were measured at depths ranging from approximately four to seven feet below the ground surface in the three monitoring wells installed at the site. The groundwater flow across the site was determined to be to the northeast.

5.1.2: Nature of Contamination

Before the IRM, fill material containing elevated concentrations of chromium (greater than 1,000 ppm) existed at two locations on the Six Vacant Lots site. Exposure could occur via incidental ingestion of and dermal contact with soil and/or inhalation of particles released from the soil to the neighborhood from wind erosion as long as the wastes remain in place.

Confirmation samples collected following the IRM yielded results for chromium within the range of background values (5.3 - 101 ppm) collected in the area. The surface soil samples (outside the IRM area) collected on site during the RI ranged between 15.4 - 866 ppm.

As described in the SI report, many soil/fill, 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 semivolatile organic compounds (SVOCs) and inorganics (metals).

5.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

Chemical concentrations are reported in parts per billion (ppb) for water, parts per million (ppm) and for soil / fill. For comparison purposes, where applicable, SCGs are provided for each medium.

Table 1 summarizes the degree of contamination for the contaminants of concern in and compares the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Surface Soil & Subsurface Soil

Fill materials were encountered throughout the site but varied in composition from location to location, as well as vertically. Fill units consisted primarily of sandy silt, slag and gravel, foundry sands and, at one location, a s former basement filled with bricks and timbers.

Off - site

Surface soil sampling was performed at five off-site locations adjacent to the site to establish background soil concentrations. The background surface soil samples were analyzed for Polynuclear Aromatic Hydrocarbons and metals. The PAH compounds; benzo(a)anthracene, benzo(a)pyrene, dibenzo(a,h)anthracene and chrysene were detected at concentrations that

exceed TAGM values. The metals chromium, zinc, iron and beryllium were detected in concentrations exceeding the TAGM value.

On - site

Six on-site surface soil samples (depth; 0-2 inches) were collected from each of the vacant lots and analyzed for TCL SVOCs, pesticides, PCBs, TAL Metals, cyanide, and pH. One sample (VL6-SS) was analyzed for Volatile Organic Compounds due to the presence of staining observed at the surface.

Twenty test pits were excavated on the site to determine the nature and extent of the fill material. Six subsurface soil samples were collected for laboratory analysis (one sample on each lot).

Analytical results found six SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, chrysene, and phenol) were present in the surface soils at the site at concentrations in excess of TAGM. Five of the six SVOCs are identified as carcinogenic polycyclic aromatic hydrocarbons (PAHs) and therefore have reduced lower cleanup objectives as compared to other SVOCs. Phenol is not categorized as a carcinogenic PAH. Of the compounds detected at concentrations greater than the TAGM, only two (benzo(a)pyrene and chrysene) were present above the typical range found in urban soils at one or more sample locations. Benzo(a)anthracene, benzo(a)pyrene, dibenzo(a,h)anthracene, and chrysene were also detected in the off-site background samples at concentrations greater than the TAGM. This indicates that the concentrations of these PAHs are indicative of the soil/fill materials present at the surface throughout the area and are likely the result of past industrial and commercial use of the site and neighboring properties. PAHs are a byproduct of anthropogenic combustion processes the burning of fossil fuels and are ubiquitous common in urban soils. PAHs are particularly present near roads, factories, power plants, railroads and parking lots where petroleum fuels are burned and asphalt paving is present. The phenol detections occurred at only two on-site sample locations, and are only slightly above the TAGM.

Metals were also relatively consistent across the site with the exception of one area which exhibited elevated levels of chromium. The data indicate that metals are characteristic of fill material on the site. Concentrations of these metals in the off-site/background samples are at concentrations greater than the expected background range. This observation indicates that on-site values (with the exception of the elevated "hotspot" areas) represent typical background concentrations for this area. During the initial sampling on the site, the sample designated VL8-SS showed an elevated level of chromium of 1360 ppm. Supplemental sampling found levels as high as 1750 ppm in soil. Chromium was found to be associated with slag found on the site. Figure 2 defines the extent of the contaminated hotspot areas. These areas were addressed by the IRM described earlier. Post excavation samples shown in Figure 2 indicate the IRM removed contaminated soils down to levels consistent with other parts of the site i.e. below 1000 ppm.

Groundwater

No VOCs, SVOCs or PCBs were detected at levels above the laboratory reporting limits for groundwater samples collected from the three monitoring wells installed on the site. The pesticide endrin was detected in monitoring well MW-2 at an estimated concentration of 0.048 ppb. Several metals were detected in the groundwater samples at the site. All but sodium were at concentrations below the NYSDEC Class GA Groundwater Standards. Sodium concentrations exceeding the 20,000 ppb standard were detected in monitoring wells MW-1 and MW-2. These two wells are located adjacent to Ridge Road and it is possible that these elevated concentrations are the result of road salt application.

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 SI/RAR.

Fill material present at two portions of the site with elevated total chromium levels were remediated. Beginning on February 21, 2006, fill material was excavated down to the zone of undisturbed native soil. The excavated material was properly disposed of as off-site as solid waste. The IRM was completed on March 22, 2006. Post excavation sampling of the IRM areas verified that the levels of chromium remaining were consistent with remaining values on the site. The average concentration of chromium before the IRM was 1440 ppm. The average post-excavation value in the area of the excavation was 34.3ppm.

5.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 6.3 of the SI report.

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.

Current and potential exposure pathways identified at the Six Vacant Lots site are direct contact, ingestion and inhalation of surface and subsurface soil. An IRM conducted at the site included the removal of all fill material and soil identified as containing levels of chromium above the SSAL (1000 ppm). Upon completion of this action, the excavation was backfilled with clean soil and seeded.

The qualitative human health evaluation concluded that future exposure to remaining PAHs and metals is likely for trespassers.

It is anticipated that redevelopment of the site will result in much of the site being covered with either pavement and building structure. In order to address the remaining site contamination (low level PAHs and metals), exposed site soils should be covered with a minimum of 12 inches of clean soil a vegetated cover (i.e., grass) established.

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.

The site is located in an urban residential, commercial and industrial area in the City of Lackawanna. No potential fish and wildlife impacts were identified.

Site contamination has not impacted the groundwater resource. The City of Lackawanna is served by a municipal water and sewer systems.

SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy must be protective of human health and the environment, be cost-effective, comply with other statutory

requirements. Potential remedial alternatives for the Six Vacant Lots site were identified, screened and evaluated in the RA report which is available at the document repositories established for the site.

A summary of the remedial alternatives that were considered for this site is discussed below. The present worth represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved.

6.1: Description of Remedial Alternatives

The following potential remedies were considered to address the contaminated media of concern i.e., soils at the site. Additional information on other possible remedial alternatives can be found in the SI/RAR.

Alternative 1: No Further Action

Capital Cost: $0
Annual Costs: $0

The No Further Action alternative recognizes remediation of the site conducted under previously completed IRM. This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Alternative 2: Soil/Fill Management Plus a Cover System

Capital Cost: $3,750
Annual Costs: $2,000

The fill material containing elevated concentrations of chromium was excavated and removed from the site during the IRM.

Alternative 2 assumes that 1/10 of the site area will require soil cover with the rest of the site covered with pavement or building foundations. A 6" topsoil layer will make up the uppermost portion of the 12" soil barrier layer. Soil/fill material excavated during site redevelopment and maintenance would be managed following the soil/fill management plan.

SECTION 7: SUMMARY OF THE REMEDIATION GOALS AND THE PROPOSED USE OF THE SITE

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

The proposed remedy is based on the results of the SI and the evaluation of alternatives presented in the RAR.

The proposed future use for the Six Vacant Lots site will be commercial or industrial use.

The remediation goals for this site are to eliminate or reduce to the extent practicable:

- exposures of persons at or around the site to elevated metals and PAHs in soil.
- the release of contaminants from surface soil and subsurface soil into ambient air through wind borne dust.

Based on the results of the IRM that has been performed, and the evaluation presented here, the NYSDEC is proposing that Alternative 2 be selected as the remedy with the following elements:

1. A soil cover would be constructed over all areas not covered by pavement or building foundations to prevent exposure to contaminated soils. The one

foot thick cover would consist of clean soil underlain by an indicator such as orange plastic snow fence to demarcate the cover soil from the subsurface soil. The top six inches of soil would be of sufficient quality to support vegetation. Clean soil would constitute soil with no analytes in exceedance of NYSDEC TAGM 4046 soil cleanup objectives or local site background.Other areas such as (buildings, roadways, parking lots, etc) would be covered by a paving system or concrete at least 6 inches in thickness.

2. Implementation of a site management plan (SMP) to address residual contaminated soils that may be excavated from the site during future redevelopment. The plan would require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations. The SMP would also identify any use restrictions.

3. Imposition of an institutional control in the form of an environmental easement that would: (a) require compliance with the approved site management plan; (b) limit the use and development of the property to restricted commercial or industrial uses only; (c) restrict the use of groundwater as a source of potable water, without necessary water quality treatment as determined by NYSDOH; and (d) require the property owner to complete and submit to the NYSDEC a periodic certification.

4. The property owner would provide an periodic certification, prepared and submitted by a professional engineer or such other expert acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal would contain certification that the institutional controls and engineering controls are still in place, allow the NYSDEC access to the site, and that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan.

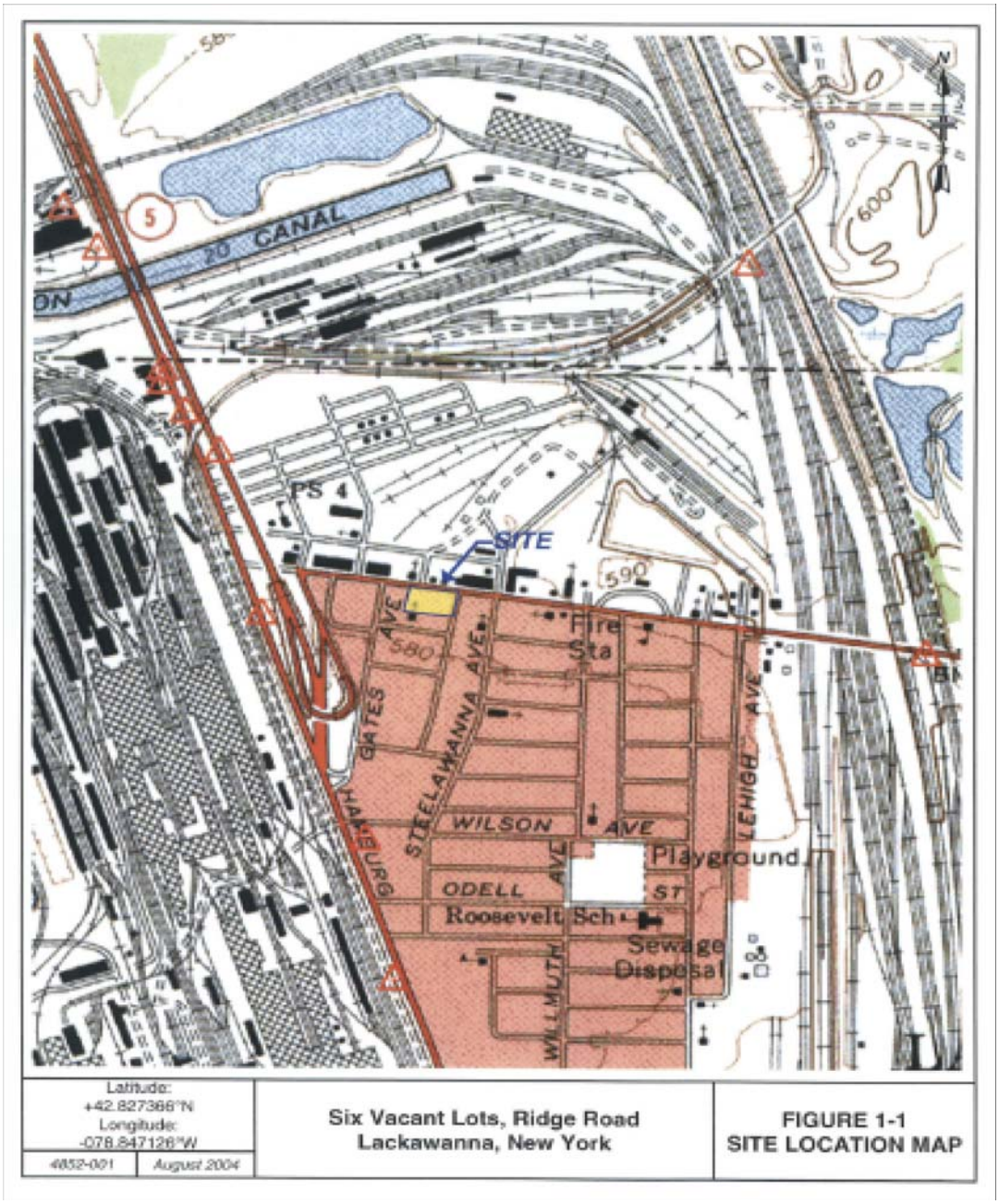
TABLE 1
Nature and Extent of Contamination Prior to IRM

SURFACE & SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic				
	Benzo(a)anthracene	0.067 - 9.3	0.224 or MDL	8 / 12
	Benzo(a)pyrene	0.075 - 7.6	0.061 or MDL	12 / 12
	Benzo(b)fluoranthene	0.12 - 9.3	1.1	8 / 12
	Benzo(k)fluoranthene	0.043 - 3.1	1.1	4 / 12
	Chrysene	0.94 - 8.8	0.4	8 / 12
	Dibenzo(a,h)Anthracene	0.019 - 1.0	0.014 or MDL	12 / 12
	Phenol	0.20 - 0.038	0.03 or MDL	3 / 12
Inorganic Compounds				
	Chromium	12 - 1,750	1,000[c]	14 / 20
	Iron	16,200 - 120,000	2,000 or SB(372)	12 / 12
	Magnesium	1,960 - 19,400	SB(1,080)	12 / 12
	Manganese	485 - 25,200	SB(0.48)	12 / 12
	Mercury	0.019 - 0.32	0.1	8 / 12
	Potassium	416 - 1,340	SB(0.7)	4 /12
	Sodium	78 - 264	SB(ND)	1 / 12
	Vanadium	14 - 335	150 or SB(21)	1 / 12
	Zinc	99 - 1,420	20 or SB(1,170)	4 / 12

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a]	Frequency of Exceeding SCG
Pesticides	Endrin	ND - 0.048	ND	1 / 3
	Antimony	4.7	3	1 / 3

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a]	Frequency of Exceeding SCG
Inorganic Compounds	Iron	116 -4,760	300	1/ 3
	Lead	3.2	25	0 / 3
	Magnesium	23,400 - 84,500	35,000	1 / 3
	Nickel	1.4 - 7.5	100	3 / 3
	Potassium	7,840 - 10,200	NA	3 / 3
	Sodium	14,400 - 227,000	20,000	2 / 3

[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]Site Specific Action Level
ND = Not Detected


CANAL
SITE
PS
Fire Sta
GATES AVE
STEELAWANNA AVE
LEHIGH AVE
WILSON AVE
ODELL ST
Playground
Roosevelt Sch
Sewage Disposal
WILLMUTH AVE
580
590
600
Latitude:
+42.827366°N
Longitude:
-078.847126°W
4852-001
August 2004
Six Vacant Lots, Ridge Road
Lackawanna, New York
FIGURE 1-1
SITE LOCATION MAP

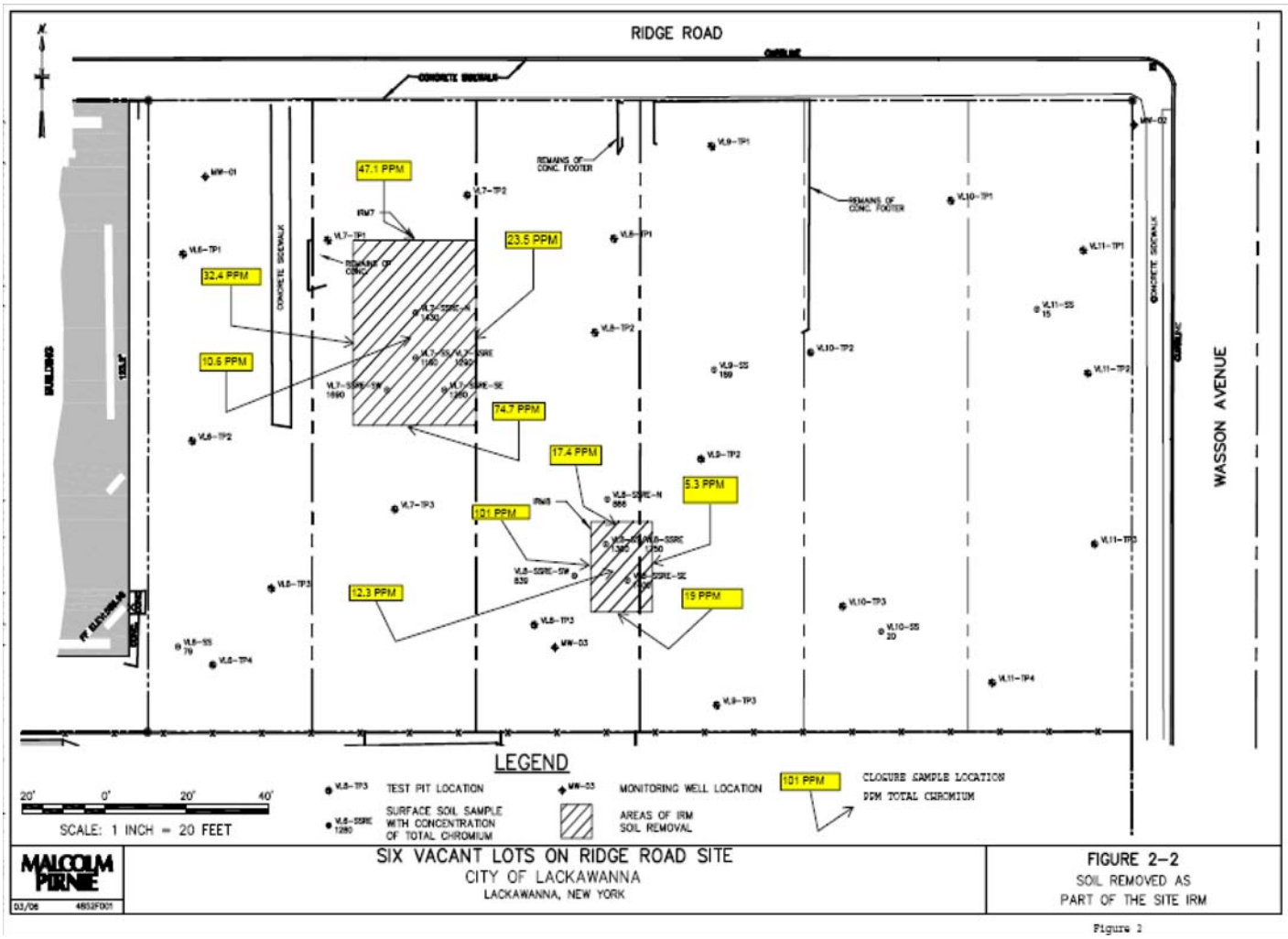

RIDGE ROAD
WASSON AVENUE
BUILDING
CONCRETE SIDEWALK
47.1 PPM
23.5 PPM
32.4 PPM
10.6 PPM
74.7 PPM
17.4 PPM
5.3 PPM
121 PPM
12.3 PPM
15 PPM
REMAINS OF CONC. FOOTER
LEGEND
TEST PIT LOCATION
SURFACE SOIL SAMPLE WITH CONCENTRATION OF TOTAL CHROMIUM
MONITORING WELL LOCATION
AREAS OF IRM SOIL REMOVAL
101 PPM
CLOSURE SAMPLE LOCATION PPM TOTAL CHROMIUM
20' 0' 20' 40'
SCALE: 1 INCH = 20 FEET
MALCOLM PIRNIE
SIX VACANT LOTS ON RIDGE ROAD SITE
CITY OF LACKAWANNA
LACKAWANNA, NEW YORK
FIGURE 2-2
SOIL REMOVED AS PART OF THE SITE IRM

Figure 2