ROCHESTER COMMUNITY SPORTS COMPLEX (RCSC)

FORMER ERIE CANAL INDUSTRIAL PARK (ECIP)

MONROE COUNTY

ROCHESTER, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: V00099

Prepared for:

City of Rochester

30 Church Street

Room 300-B

Rochester, New York 14614

Prepared by:

LaBella Associates, DPC

300 State Street

Rochester, New York 14614

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

JULY 2024

CERTIFICATION STATEMENT

I Michael F. Polychatty certify that I am currently a Qualified Environmental Professional as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and DER Green Remediation (DER-31).

Michael F. Polychatty QEP

July 19, 2024 DATE

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List of Acronyms

CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulation
DER	Division of Environmental Remediation
EC	Engineering Control
ECIP	Erie Canal Industrial Park
EWP	Excavation Work Plan
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	Operation and Maintenance
PCB	Polychlorinated Biphenyl
P.E. or PE	Professional Engineer
PID	Photoionization Detector
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RCSC	Rochester Community Sports Complex
ROW	Right of way
RP	Remedial Party
RSO	Remedial System Optimization
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SVOC	Semi-Volatile Organic Compound
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program
VOC	Volatile organic compound

ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification: V00099 Rochester Community Sports Complex (RCSC), Former Erie Canal Industrial Park (ECIP) - 900 West Broad Street, City of Rochester, Monroe County, New York.

Institutional Controls:	1. The property may be used for restricted residential, commercial, or industrial use;
	2. All ECs must be operated and maintained as specified in this SMP;
	3. All ECs must be inspected at a frequency and in a manner defined in the SMP;
	4. The use of groundwater underlying the property is prohibited per City Code § 59-27 A for use as drinking water or per City Code §59-27 B for industrial purposes;
	5. Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
	6. Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
	7. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
	8. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
	9. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;

Site Identification:	V00099 Rochester Community Sports Complex (RCSC), Former Erie Canal Industrial Park (ECIP) - 900 West Broad Street, City of Rochester, Monroe County, New York.

	10. Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;	
	11. The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 6, and any potential impacts that are identified must be monitored or mitigated;	
	12. Vegetable gardens and farming on the site are prohibited;	
	13. An evaluation shall be performed to determine the need for further investigation and remediation should large scale redevelopment occur, or if the subsurface is otherwise made accessible;	
	14. The site will be flagged in the City's building permit system. Permits for work with the potential to disturb the subsurface will not be issued without prior review and approval of the NYSDEC. Refer to Section 1.3 for notification requirements.	
Engineering Controls:	1. Cover system	
	2. Soil Vapor Suppression System	
Inspections:	Frequency	
Cover inspection		Annually
Soil vapor suppression system inspection		Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Rochester Community Sports Complex (RCSC), also known as the Former Erie Canal Industrial Park (ECIP) located in Rochester, New York (hereinafter referred to as the "Site"). See Figure 1. The Site is currently in the New York State (NYS) Voluntary Cleanup Program (VCP), Site No. V00099, which is administered by New York State Department of Environmental Conservation (NYSDEC or Department). The Site has Classification Code "C" ("Completed").

The City of Rochester entered into a Voluntary Cleanup Agreement (VCA) on June 17 1997, with the NYSDEC to remediate the site. A figure showing the site location and boundaries of this site is provided in Figure 2. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix D.

After completion of the remedial work, some contamination was left at this site, which is hereafter referred to as "remaining contamination". Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Monroe County Clerk, on June 10, 2024, Liber and Page #D 12968 0551 requires compliance with this SMP and all ECs and ICs placed on the site.

This SMP was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC); and

- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375 and the VCA (Site #V00099) for the site, and thereby subject to applicable penalties.

VCP Site #V00099 has a "C" classification ("Completed"). The Rochester Rhinos Stadium, LLC signed a separate VCA (#V00676) in November 2003 to develop the Site for a sports stadium which included 524 Oak St, 480 Smith St, and 900 W Broad St. Site #V00676 has a "N" classification ("No Further Action at this Time"). Previous management plans have been developed for both Site #s V00676 and V00099 during prior redevelopment (refer to Section 2.3 for a summary of previous reports related to the Site). This SMP had been developed to bring the management plan up to current regulatory standards and supersedes prior management plans for the Site.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the site is provided in Appendix A of this SMP.

This SMP was prepared by LaBella Associates DPC, on behalf of the City of Rochester, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the site.

1.2 Revisions and Alterations

Revisions and alterations to this plan will be proposed in writing to the NYSDEC's project manager. The NYSDEC can also make changes to the SMP or request revisions from the remedial party. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or shutdown of a remedial system, post-remedial removal of contaminated

sediment or soil, or other significant change to the site conditions. All approved alterations must conform with Article 145 Section 7209 of the Education Law regarding the application of professional seals and alterations. For example, any changes to as-built drawings must be stamped by a New York State Professional Engineer. In accordance with the Environmental Easement for the site, the NYSDEC project manager will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

1. 60-day advance notice of any proposed changes in site use that are required under the terms of the VCA, 6 NYCRR Part 375 and/or Environmental Conservation Law.
2. 7-day advance notice of any field activity associated with the remedial program.
3. 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan. If the ground-intrusive activity qualifies as a change of use as defined in 6 NYCRR Part 375, the above mentioned 60-day advance notice is also required.
4. Notice within 48 hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
5. Notice within 48 hours of any non-routine maintenance activities.
6. Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
7. Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

8. At least 60 days prior to the change, the NYSDEC will be notified, via submission of the *NYSDEC 60 Day Change of use Notification* form, of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the VCA, and all approved work plans and reports, including this SMP.

9. Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table A on the following page includes contact information for the above notifications. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix A.

Table A: Notifications*

Name	Contact Information	Required Notification**
NYSDEC Project Manager; Joshuah Klier	585-226-5357 Joshuah.klier@dec.ny.gov	All Notifications
NYSDEC Regional HW Engineer; David Pratt	585-226-5315 david.pratt@dec.ny.gov	All Notifications
NYSDEC Site Control; Kelly Lewandowski	518-402-9547 kelly.lewandowski@dec.ny.gov	Notifications 1 and 8
NYSDOH Project Manager; Julia Kenney	518-402-7873 Julia.kenney@health.ny.gov	Notifications 4, 6, and 7

* Note: Notifications are subject to change and will be updated as necessary.

** Note: Numbers in this column reference the numbered bullets in the notification list in this section.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The site is located in Rochester, Monroe County, New York and is identified as Section 105.75, Block 2, Lots 6.003, on the Monroe County Tax Map (see Figure 1 for Site location). The site is an approximately 18-acre area and is bounded by industrial properties to the northwest, Smith Street with an industrial property to the southeast, residential properties to the northeast, and W Broad Street with residential properties beyond to the west and southwest (see Figure 2 – Site Layout Map). The combined sewer beneath Oak Street was relocated as part of the redevelopment in 2004-2006 and Oak Street was abandoned on August 24, 2023. The boundaries of the site are more fully described in Appendix D –Environmental Easement. The owner(s) of the site parcel(s) at the time of issuance of this SMP is/are:

City of Rochester
30 Church Street
Room 125B
Rochester, NY 14614

2.2 Physical Setting

2.2.1 Land Use

The Site consists of the following: a sports stadium with associated structures and parking lots. The Site is zoned commercial and is currently utilized as a sports stadium. There are no current Site occupants, though the City of Rochester remains the owner and operator.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include industrial, commercial and residential properties. The properties immediately southwest of the Site include residential properties; the properties immediately northwest of the Site include industrial properties; the properties immediately northeast of the Site include industrial and residential properties; and the properties to the southeast of the Site include industrial and residential properties.

2.2.2 Geology

Subsurface materials consist primarily of reworked historical fill material. A portion of the Erie Canal and former Rochester Subway was previously located at the Site and is filled in with various fill materials up to approximately 12-ft bgs. Prior to redevelopment for the sports stadium, subsurface materials consisted of fill materials primarily including brick, concrete, timber, ash and cinders to depths up to 8-ft bgs. Solid waste including refuse, metal scrap, railroad ties, etc. was also present. Refer to Figures 5, 5A, 5B and 5C for geologic cross sections by H&A from 2000. Note that soil has been relocated during grading associated with site redevelopment.

Two (2) Restricted Use Zones were established under the VCA (refer to Figure 7). The levels of the chemicals of concern within the Restricted Use Zones were generally found to be above applicable NYSDEC SCOs at levels believed to represent an environmental exposure risk. These locations were later covered with a cover system/ cap during redevelopment (refer to Figure 8A).

Redevelopment of the Site for the sports stadium occurred from 2004-2006 and included removal of solid waste used to fill in the former canal and subway. Construction of the sports stadium required excavation of soils to approximately 2-4-ft below original surface grade, and 12-ft below original surface grade for utilities. Materials excavated were classified per the 2004 SWMP (refer to Section 2.2.2) for reuse. Cinders, ash, and slag were reused on Site. Soils and fill material with no evidence of impairment (no discernable odors, staining, or PID readings) were reused as cover material. Crushed stone and topsoil were imported during redevelopment. Refer to Figure 4 and Figure 5D for a cross section of the subsurface following

redevelopment. Note that cover materials and subsurface materials shown on Figure 5D are approximate and based on previous reports and surveys completed.

Material classifications identified at the Site prior to redevelopment as defined in the *Soil and Water Management Plan* (SWMP) by LaBella dated August 2004 are detailed below. These materials were relocated on-Site or disposed of as detailed below. The material classifications were utilized during redevelopment of the sports stadium and do not represent current reuse requirements; refer to Appendix B for current criteria for reuse of materials.

Class 1 Material:

Class 1 Material exhibiting no evidence of impairment encountered during redevelopment included topsoil, shot rock mined from the former Erie Canal bed, and Site soil excavated during various construction activities. Imported stone that was re-excavated after failing compactions tests was also treated as Class 1 material. Class 1 material was utilized as non-structural fill material beneath parking lots, sidewalks and the playing field within the stadium. Class 1 material was also used as cover for Class 2 and Class 3 material encountered during the course of the project. Topsoil classified as Class 1 material was also used for the surface cover for soil berms and landscaped areas at the Site. Approximately 13,150 cubic yards (CY) of Class 1 soil was handled and used as cover soil during redevelopment. Refer to Section 3.3.1 for a description of the cover system.

Class 2 Material:

Class 2 material exhibiting evidence of impairment including staining, slag/cinder content and emitting levels of VOCs less than 50-ppm was encountered during redevelopment. This material was generated primarily during the excavation of utility trenches and also by grading cuts within Block 2. Cuttings generated during the drilling of the caissons for the scoreboard and field lighting poles was also treated as Class 2 material. Approximately 3,450 CY of Class 2 Material was generated during redevelopment. In accordance with the SWMP, Class 2 material was managed on-Site within the

mined former Erie Canal bed and along the subsurface management area established along the elevated railroad bed located along the northern portion of Block 2. This material was covered by at least 3-feet of Class 1 soil and 6-inches of either topsoil, asphalt pavement and or concrete sidewalks.

Class 3 Material:

Class 3 material exhibiting levels of VOCs greater than 50-ppm but less 1,000 ppm than was encountered during grading cuts made for the northwestern portion of the playing field. Approximately 100 CY of Class 3 Material was generated during redevelopment. In accordance with the SWMP, Class 3 material was managed on-Site along the initial toe of the slope of the subsurface management area established along the elevated railroad bed in the northern portion of Block 2. This material was covered by approximately 2 to 3-feet of Class 6 Material and 6 to 8-feet of mixed Class 1 and Class 2 Material which were in turn, covered by at least 3-feet of Class 1 Material and 6-inches of topsoil.

Class 4 Material:

Class 4 material was classified based on the inclusion of solid waste physically unsuitable for re-use on Site. Class 4 Material encountered during redevelopment included railroad ties and other lumber as well as construction and demolition debris, scrap metal, particularly steel I-beams and railroad rails, and waste concrete from former building foundations and floor slabs. In accordance with the SWMP, an estimated 300-tons of Class 4 Material was transported off-Site for proper disposal or recycling, as appropriate.

Class 5 Material:

Class 5 Material was defined within the SWMP as soil and/or solid waste that was significantly impacted by petroleum or other chemicals. Class 5 material encountered during redevelopment included oil stained tires, automotive battery casings and construction and demolition debris. In accordance with

the SWMP, a total of 486.78 tons of Class 5 Material was transported off-site for proper disposal.

Class 6 Material:

Class 6 material included all soil excavated or disturbed within either the Southern or Northern Exclusion Zones at the Site (See Figure 7). Approximately 575 CY of Class 6 material was encountered during redevelopment. Soils from these restricted use areas were buried along the initial toe of the slope of the eastern portion of the elevated railroad subsurface management area within the Northern Restricted Zone above approximately 90 CY of Class 3 material. The Class 6 material was in turn covered by approximately 6 to 8-feet of mixed Class 1 and Class 2 soil which were in turn, covered by at least 3-feet of Class 1 soil and 6-inches of topsoil.

Materials were reused/ disposed of in accordance with the SWMP as follows (*note: the table is an excerpt from Soil and Groundwater Management Report (SGMR) by LaBella, draft dated November 2006*). Refer to the geologic cross section included as Figure 5D for placement of materials during redevelopment.

Table B – Materials Management Summary

Class of Materials	Source Areas	Estimated Quantities	Subsurface Management/ Reuse Areas
Class 1 Material	Topsoil	Est. 4,000 CY	Managed on-Site as cover
	Mined shot rock	Est. 5,500 CY	Managed on-Site as non—structural fill beneath parking lots and playing field
	Imported stone*	Est. 250 CY	Managed on-Site within mined Erie Canal bed and along railroad embankment subsurface management area buried beneath topsoil and above Class 2 soil
	Utility Trenches	Est. 2,500 CY	
	Playing field grading	Est. 900 CY	
Class 2 Material	Utility trenches	Est. 2,500 CY	Managed on-Site as deep fill in the mined Erie canal bed at least 4-feet below final grade and along railroad embankment at least 3-feet below final grade.
	Pile caps	Est. 100 CY	
	Playing field grading	Est. 500 CY	
	Caisson cuttings **	Est. 600 CY	
Class 3 Material	Playing field grading	100 CY	Managed on-Site as deep fill along original toe of railroad embankment slope at least 10-feet below final grade.

Class 4 Material	Concrete foundations and floor slabs	Est. 75 CY (Approx. 150 tons)	Recycled off-Site at the Dolomite Products Co. Gates, New York plant.
	Railroad ties & lumber	74.61 Tons	Characterized and disposed of off-Site at the Mill Seat Landfill, Bergen, New York (New York State Part 360 Permit No. 8-2648-00014/00001-0
	Scrap metal	74.61 Tons	Recycled off-Site at the Genesee Scrap & Tin Baling Corp. plant, Rochester, New York
Class 5 Material	Tires, battery casings and C&D debris encountered in orphaned basements	486.78 Tons	Characterized and disposed of off-Site at the Michigan Waste Disposal Treatment Plant in Belleville Michigan (USEPA ID# MID000724831)
Class 6 Material	Northern Restricted Zone	Est. 500 CY	Managed on-Site as deep fill along the original toe of railroad embankment subsurface management area above Class 3 soil at least 8-feet below final grade
	Southern Restricted Zone	Est. 75 CY	

*Imported stone that failed compaction testing and was re-excavated and not reused on Site and was managed as Class 1 material.
**The drilling cuttings generated from the advancement of the caissons were managed as Class 2 material.

Four (4) subsurface management/reuse areas (SSMRAs) were established under the 2004 SWMP for reuse of materials during redevelopment of the Site for the sports stadium. The placement of subsurface materials in the SSMRAs as detailed in the 2006 O&M Plan is summarized below (refer to Figure 7). Class 1 material is considered clean cover and was placed in each of the areas listed below from 0-3-ft bgs. The top 0.5-ft consisted of Class 1 topsoil. Refer to Figure 8A and 8B and Section 3.3.1 for cover system details.

- SSMRA #1 is located along the railroad embankment within the Northern Restricted Zone in the northern portion of Block #3. Class 3 material, identified as containing moderate petroleum impacts, was buried here along the original toe of railroad embankment at least 10-feet below final grade. The Class 3 material was then covered by approximately 2-feet of Class 6 material encountered during stadium development within the Northern and Southern Restricted Zones at the

Site. The Class 6 material was in turn covered by approximately 5-feet of mixed Class 1 and 2 material to a depth of 3-feet below final grade. The mixed Class 1 and 2 material was covered with 2.5-feet of Class 1 material and 0.5-feet of Class 1 topsoil. This subsurface management area was then seeded to prevent erosion of the slope.

- SSMRA #2 is located along the railroad embankment to the west of the Northern Restricted Zone in the northern portion of Block #3. Mixed Class 1 and 2 material were buried here along the original toe of railroad embankment to a depth of 3-feet below final grade. The mixed Class 1 and 2 material was covered with 2.5-feet of Class 1 material and 0.5-feet of Class 1 top soil. This subsurface management area was then seeded to prevent erosion of the slope.
- SSMRA #3 is located within the bed of the former Erie Canal outside of the Southern Restricted Zone. Mixed Class 1 and Class 2 material was placed into the former Erie Canal bed to depths of three feet below final grade. This mixed Class 1 and 2 material was covered with 3-feet of Class 1 material and developed for parking lots, sidewalks and landscaped areas.
- SSMRA #4 includes a majority of the remainder of the Site and includes Class 1 material used as fill beneath the cover system/ cap.

A geologic cross section representing conditions after redevelopment is shown in Figure 5D. Site specific boring logs are provided in Appendix E.

2.2.3 Hydrogeology

Groundwater is present at depths ranging from approximately 11-18-ft bgs or 494-500 feet above mean sea level. Groundwater flow direction is largely influenced by subsurface utilities.

A groundwater contour map is shown in Figure 3 and was developed from elevation data provided in the Phase II ESA by DAY dated October, 1991. Groundwater

elevation data from the Phase II ESA by DAY dated October, 1991 is provided in Table 3. Groundwater monitoring well construction logs are provided in Appendix E.

2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 8.0 - References.

The Site is designated as Blocks 2 and 3 of the former Erie Canal Industrial Park (ECIP) (approximately 18 acres) owned by the City of Rochester, located in the northwest quadrant of the City. Blocks 2 and 3 of the ECIP have a long history of commercial and industrial use dating from the late 1800s until the mid-1980s when the property was foreclosed on by the City of Rochester. Since the mid-1980s the remaining existing buildings were demolished, and the Site remained vacant until redevelopment began in 2004.

The City of Rochester began conducting environmental investigations on the property in the late 1980s. A list of known documents related to environmental investigations is as follows:

- Phase I Audit, Smith & Oak Streets, Day Engineering, May 1988
- Phase I Environmental Site Assessment, Erie Canal Industrial Park, Block No. 2 Smith & Oak Streets, ECCO, December 18, 1989
- Phase II Environmental Site Assessment, Erie Canal Industrial Park, Block No. 2 Smith & Oak Streets, ECCO, June 15, 1990
- Phase II Investigation, Smith & Oak Streets, Day Engineering, October 1991
- Phase II Supplemental Investigation, Erie Canal Industrial Park, Day Hampton Associates, July 1994
- Summary of Environmental Sampling Results, Park Enterprises, Erie Canal Industrial Park Block No. 2, by Sear-Brown Group, August 12, 1997
- Brownfield Re-Development Remedial Work Plan, Erie Canal Industrial Park, Haley & Aldrich of New York, November 1997

- Post Remediation Operation and Maintenance Plan, Erie Canal Industrial Park, Haley & Aldrich, August 1999
- Final Engineering Report Remediation Blocks 2 and 3, Haley & Aldrich, September 1999
- Environmental Site Assessment Reports, Erdman Anthony, October 1999
- Soil and Water Management Plan (SWMP), LaBella, September 2003
- Orphan Underground Storage Tank Removal & Closure Report, LaBella, January 2006
- Phase II Environmental Site Assessment Preliminary Site Characterization, LaBella, June 2006
- Soil and Groundwater Management Report (SGMR), LaBella, draft dated November 2006 (Note: *This document was not approved by the NYSDEC and is superseded by this SMP).*
- Rochester Rhinos' Paetec Park Brownfield Redevelopment Site Operations and Maintenance Plan, LaBella, November 2006

Based on data obtained from previous investigations, the identified Site-specific Chemicals of Concern were generally limited to low levels of petroleum-related volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals across the Site. A small area of polychlorinated biphenyl (PCB) impacted soil was also encountered in the south-central portion of the Site. A limited area of hazardous waste was identified on Block 2 and areas of petroleum impacts were identified on Blocks 2 and 3. These areas were the subject of the remediation conducted by the City of Rochester in 1998 which included removal of the following:

- Polychlorinated Biphenyl (PCB) Impacted Soil Removal from the South-Central Portion of Block 2 (7.76 tons);
- Lead Impacted Soil Removal from Two Areas Within the Northern Portion of Block 2 (1,121 tons); and
- Petroleum Impacted Soil Removal from Two Areas in the Southern and Northern Portions of Block 3 (5,096 tons)

Two (2) Restricted Use Zones were also established in the southeast corner of Block 2 and along the central and eastern portion of Block 2. Exceedances of applicable SCOs outside of the Restricted Use Zones were generally limited in extent and at lower levels that were not believed to comprise a safety or exposure risk. Note that references to TAGM in this section have been updated to current 6 NYCRR Part 375 SCOs in Section 2.5 Remaining Contamination as well as Figure 4 and Tables 1 and 2. Refer to Figure 4 for previous testing locations discussed in this section.

The Rochester Rhinos Stadium, LLC signed a separate VCA (# V00676) with the NYSDEC in November 2003 to develop the Site for construction of the Paetec Park soccer stadium (currently known as Rochester Community Sports Complex). The design for the stadium included an at grade playing field and above grade seating arrangement. The construction of the playing field and concourse area required the excavation of Site native soils to depths of approximately 2-feet below original surface grade. Excavations for building foundations and pile cap stadium supports reached depths to approximately 4-feet below surface grade. Lastly, the installation of temporary and permanent storm drainage lines, sanitary sewer discharge conduits and the relocation of a water main beneath Oak Street required excavation of Site native soils to depths of approximately 12-feet below grade. Development of the soccer stadium complex began in October 2004 and was completed in the spring of 2006.

A summary of previous investigations is provided below.

<u>Phase I Environmental Site Assessment, Erie Canal Industrial Park Block No. 2, Smith and Oak Streets, City of Rochester, New York dated December 18, 1989, by ECCO, Inc.</u>

The Phase I ESA included a literature review of available, applicable environmental related information related to the subject property, the excavation of eighteen (18) shallow test pits to examine subsurface soils for visual evidence of potential contamination and laboratory analysis of three (3) composite and two (2) discrete soil samples.

The results of the Phase I ESA identified potential environmental concerns related to:

- Historical land use of the Site for industrial purposes,
- Historic filling of the former canal bed,
- Elevated PID readings ranging from 1 to 5 ppm were observed in the test pits,
- Analytical results of composite samples identified the presence of several VOCs at concentrations varying from the low parts per billion to 690 ppb. Also, a PCB was detected in test pit TP-89-1 at 66.9 ppb,
- The primary VOCs detected in the composite samples were benzene, toluene, and ethylbenzene with the exception of two (2) test pits along the northern property line that detected chlorinated VOCs, and
- The presence of elevated PID and detected chemicals of concern in the composite soil samples were identified in the fill materials at the Site.

Based on the above results ECCO recommended further investigative activities.

Phase II Environmental Site Assessment, Erie Canal Industrial Park, Block No. 2, Smith and Oak Streets, City of Rochester, New York dated June 15, 1990 by ECCO, Inc.

The Phase II ESA was designed to supplement a Phase I ESA conducted at the Site in 1989 which identified two areas of contamination adjacent to the corner of Oak and Smith Streets and along the northern property line east of the former Erie Canal.

The Phase II ESA consisted of test pits, sampling and analysis of subsurface soils, installation of monitoring wells, and sampling and analysis of groundwater. The findings of ECCO, Inc.'s Phase II ESA are:

- Groundwater flow across the Site is in the northerly direction,
- The primary chemical constituent identified near the corner of Smith and Oak Streets is toluene which may have been a result of past accidental releases of gasoline,
- The primary chemical constituent identified at the northern portion of the Site east of the canal were solvent related compounds (i.e. Trichloroethene, 1,1,1- Trichloroethene, 1,1-Dichloroethene) in addition to gasoline related constituents.

- The central portion of the Site and the area west of and inclusive of the former canal did not appear to be an environmental concern. Low level gasoline related compounds were detected in fill samples in this area.
- Fill materials encountered during both the Phase I and II investigations consisted of silty sand and cinder/slag with varying amounts of gravel, brick and metal fragments. Within the former Eire Canal fill material consisted of crushed stone and shot rock.
- Limited locations of oil, grease, and sludge were observed in test pits TP-90-1, TP-90-8, and TP-90-15.
- Results of samples collected from the fill material tested throughout the Site contained low level gasoline related and number two fuel oil related hydrocarbons, in addition to low level solvent related compounds detected in test pits TP-89-15, TP-89-17, TP-90-15A, and TP-90-17.
- One soil sample detected PCBs from test pit TP-90-8 at a concentration at 11.7 ppm.
- Groundwater quality underlying the Site was characterized from six groundwater monitoring wells that detected VOCs exceeding NYS groundwater standards in wells TB-90-1 and TB-90-5. Exceedances for SVOCs, PCBs, and metals were not detected in the groundwater samples.

Based on the results of the cumulative data collected, ECCO, Inc. identified the area located at the corner of Smith and Oak Streets and northern portion of the Site east of the Erie Canal that will require further investigation and remedial measures.

Phase I Audit for City of Rochester, Smith & Oak Street, Rochester, New York dated May 1988 by Day Engineering, P.C. (DAY)

The subject property consisted of 6.23 acres of vacant land located between Smith, Oak, and Lind Streets (i.e. Block No. 3 that is east of Oak Street). Findings of this investigation indicated that the northern portion of the subject property was used as a truck repair garage, called Villa Transportation Enterprise. The owner of Villa

Transportation indicated that three (3) USTs containing fuel and waste oil were once located on the property and removed. DAY performed a cursory test pit investigation on the property and identified petroleum odors in the soil near the northern section of the property. In addition, the property to the south (Block No. 2 of the former ECIP) is a known waste site and there is the potential of migration of contaminated groundwater onto the subject property.

Phase II Investigation for City of Rochester, Smith & Oak Street, Rochester, New York dated October 1991 by Day Engineering, P.C.

As part of the Phase II investigation, DAY reviewed Sanborn maps and government records. Information obtained from reviewing the City of Rochester permits indicated a 2,000-gallon diesel tank and pump was installed at 566 Oak Street (Villa Enterprises) in 1973. A permit to remove a 1,000-gallon gasoline tank at 566 Oak Street was issued to Frederico in 1986. A City of Rochester permit was issued in 1933 for the property located at 241 Kent Street for the construction of a cement block building to be used as a gasoline station and installation of four 24,000 gallons gasoline tanks. A Sanborn map indicated the property to the south (Block No. 2 of the former ECIP) is a former junk yard.

Based on the above information, DAY conducted a test pit and groundwater sampling investigation for the subject property. The work and findings of Phase II investigation included:

- The completion of 19 test pits (i.e. TP-1 to TP-19). The first 13 test pits were excavated to define the vertical and aerial extent of petroleum contaminated soils on the northern section for the property. The six (6) remaining test pits were excavated based on DAY's Phase I audit dated May 1988, and supplemental review of historical information.
- Installation of two (2) groundwater monitoring wells (MW-1 and MW-2).
- Analysis of three (3) soil and two (2) groundwater samples.

The results of the DAY's Phase II investigation include:

- Fill materials were encountered in the majority of the test pits included construction and demolition debris, such as bricks, clay tiles, railroad ties, concrete, asphalt, scrap metal, reinforcing bar, gravel, cobbles, boulders, and wood related materials. Some municipal refuse/debris such as tin cans, glass, plastic, and similar materials were also encountered. Railroad ballast fill materials consisting of poorly sorted, heterogenous mixture of black cinders, slag, coal fragments with seams of ask were encountered in several of the test pits.
- Bedrock was encountered at a depth of 9-11 feet in the test pits and no evidence of the groundwater table was observed during the investigation. However, groundwater was encountered in several test pits on the northern section of the property. Groundwater was observed immediately above the and at the interface if the overburden and bedrock and a petroleum sheen was observed in test pits in TP-1, TP-9, and TP-13.
- Discolored, petroleum-stained soil were primarily observed in test pits along the north property line. PID readings of the petroleum-stained soil typically ranged from 300 to 600 ppb.
- Soil samples collected from the test pits were analyzed for VOCs and SVOCs. VOCs and SVOCs were not detected in the laboratory analysis.
- Groundwater samples were analyzed for halogenated VOCs and select metals. VOCs were not detected in the groundwater samples and lead was detected in well MW-1 above the groundwater standard.

Based on the above work, DAY concluded that there is approximately 2,700 cubic yards of petroleum-stained soils at the northern area of the property. DAY recommended that the Monroe County Department of Health and the NYSDEC review the report prior to development to provide their input.

<u>Phase II Supplemental Investigation, Erie Canal Industrial Park by Day Hampton Associates dated July 1994</u>

Day Hampton completed a supplemental Phase II study at the northern portion of Block No. 2 of the ECIP. The Phase II work included:

- A soil gas study consisting of 89 soil gas probes throughout the site.
- Excavation of 24 test pits (i.e. TP-1 to TP-24) to evaluate subsurface conditions and collect samples for testing of chemicals of concern.
- Evaluate groundwater levels and flow direction.
- Collect and analyze groundwater samples from wells at the site.

Based on the work completed, Day Hampton developed the following conclusions:

- The soil gas survey indicated several areas where elevated PID readings and petroleum like odors were encountered. Generally, PID readings ranged from 1 to 74 ppm. However, no definitive pattern indicating a plume of contamination could be determined.
- The test pit investigation encountered heterogenous mixture of fill materials consisting primarily of construction and demolition debris, railroad ballast, cinders, slag, coal fragments, ash, railroad ties, wood debris, scrap metal, metal shavings, and reworked soil.
- Oily stained soil and floating petroleum products was observed in test pits TP-2 and TP-13 and a petroleum like sheen was observed in several other test pits. Free petroleum was observed in well TP-90-5. The soil and or fill material yielded PID readings greater than 50 ppm in five (5) test pits. Strong chemical and petroleum like odors were noted in several test pits including TP-1, TP-2, TP-4, TP-6, TP-11, TP-14, and TP-15.
- The laboratory results of the samples analyzed for VOCs indicated that the soil and fill materials are contaminated with petroleum-related hydrocarbons. The VOCs ranged in concentrations from 32 ppb to 29,000 ppb.
- PCBs were detected in two (2) of the four (4) samples analyzed for PCBs. Test Pit TP-1 detected PCBs at a concentration of 320 ppb and TP-11 at 2,900 ppb,

- Groundwater samples collected from well TB-90-5 and TB-90-4 contained concentrations of chlorinated VOCs that slightly exceeded NYSDEC groundwater standards. Well TB-90-5 contained14 ppb of 1,1-DCA and 10 ppb of cis-1.2-DCE and the sample from well TP-90-4 contained 7.9 ppb of vinyl chloride and 19 ppb of cis-1,2-DCE. Well TB-90-6 located on the western portion of the subject property did not contain any detectable VOCs.

Summary of Environmental Sampling Results, Park Enterprises, Erie Canal Industrial Park Block No. 2, by Sear-Brown Group dated August 12, 1997

The Sear-Brown Group (Sear-Brown) conducted an environmental investigation in conjunction with a geotechnical investigation by Foundation Design, P.C. Sear-Brown observed the excavation of 21 test pits and 3 soil borings to assess the subsurface for environmental contamination. PID screening of the subsurface soil and fill materials as well as the sampling and analysis of 22 soil samples was conducted as part of the investigation.

Soil samples were analyzed for reactivity, TCLP Metals, PCBs, TPH, and/or VOCs. The results of the analyses were compared to the NYSEC TAGM 4046 SCOs. The results of the analysis are summarized below:

- Six (6) samples were submitted for reactivity analysis were all non-reactive.
- A total of 21 soil samples were submitted for TCLP metals analysis. No metals were detected that exceeded the hazardous waste thresholds.
- Nine (9) soil samples were submitted for analysis of PCBs. Only two (2) of the soil samples detected PCBs that were below 10 ppm.
- Each of the ten (10) soil samples that were submitted for TPH analysis revealed detectable concentrations of TPH. Lube oil was identified in nine (9) samples, diesel fuel in two (2) samples, and #6 fuel oil in one (1) sample.
- Detectable concentrations of VOCs were detected in each of the seven (7) soil samples. The VOCs detected are commonly found in petroleum products or used as solvents. The concentration VOCs detected were below the NYSDEC TAGM 4046 SCOs.

Brownfield Re-Development Remedial Work Plan, Erie Canal Industrial Park, Rochester, New York by Haley & Aldrich of New York dated November 1997

This Work Plan detailed proposed corrective actions to remediate PCB-containing, lead containing, and petroleum-contaminated soil. Five (5) areas were proposed for remediation:

- An area of elevated PCB concentrations in shallow soil at the south end of Block No. 2.
- An area of characteristically hazardous soil (primarily TCLP-Lead).
- Two areas of petroleum-stained soil on Block No. 3 (one each at the north and south ends respectively).
- An apparent free-petroleum product on groundwater in a monitoring well at the north end Block No. 3 (i.e. well TB-90-5).

Refer to Figure 4 for excavation areas (i.e. labeled Remedial Excavation 1998). Results of the cleanup are summarized below.

Final Engineering Report on Remediation Performance, Erie Canal Industrial Park – Blocks 2 & 3, Rochester, New York by Haley & Aldrich of New York dated September 1999

This report summarizes the performance of remediation activities at the ECIP Blocks 2 and 3. The four (4) areas targeted for soil removal as described above and shown on Figure 4 were remediated to NYSDEC TAGM 4046 for non-petroleum contaminants and NYSDEC STARS Memo #1 for petroleum contaminants. These areas were excavated, removed from the site and properly disposed at permitted off-site facilities. A petroleum product skimmer was installed in well TP-90-5 to collect free product.

Environmental Site Assessment Reports, Erie Canal Industrial Park (Proposed High Falls Business Park), City of Rochester, Monroe County, NY dated October 1999 by Erdman Anthony Associates, Inc.

This environmental assessment was prepared to identify environmental concerns associated with redevelopment planning for this area. This report included the assessment of eight (8) parcels, including two (2) which are part of the Site. This summary only includes the two (2) Site parcels referred to as Parcels No. 5 (also known as Block No. 2) and No. 6 (also known as Block No. 3) in the report. The report recommended the following:

- Deed restrictions that provide a mechanism for the City of Rochester to require that development confirm to the intended use requirements and restrictions as recommended in the VCP.
- Implementation of a procedure to determine waste presence for specific development design to allow for screening of potential for unknown areas of solid or hazardous waste.
- Use of preferred utility corridors to limit the disturbance of potential contaminated soil.
- Integration of vapor barriers or passive vapor ventilation systems within building foundations and slabs if the overly previously unknown locations of VOC residues.

Post-Remediation O&M Plan, H&A, 1999

An O&M Plan was developed in 1999 following remediation which provided guidance for management of remaining impacted subsurface soil/ fill material. This plan also provided conceptual vapor/ ventilation systems to be installed during redevelopment. This SMP supersedes the 1999 O&M Plan.

Soil and Water Management Plan (SWMP), LaBella, August 2004

A SWMP was developed and implemented by LaBella to manage residual impacts in Site soils and groundwater during construction activities. The SWMP included procedures for screening, classifying and handling of excavated Site native soils, procedures for handling and disposal of excavation derived groundwater, a Community Air Monitoring Plan (CAMP) and a Health and Safety Plan (HASP). Refer to Section 2.2.2 for classifications of materials.

The SWMP was approved by the NYSDEC on November, 2003. The SWMP was modified in February 2005 to include the addition of a 1.3-acre parcel of contiguous land along the northern edge of Block #2. This land is comprised of a long, narrow parcel (approximately 750-feet long by 70-feet wide) that was formerly a raised railroad bed (approximately 15-feet above the existing grade).

Geotechnical Engineering Report, H&A, August 5, 2004

This report provided recommendations related to construction of the sports stadium. A total of 21 soil borings and 13 test pits were advanced. The report recommended a deep foundation system, such as driven end-bearing piles and/or drilled-in caissons. The free standing buildings may be supported on reinforced concrete spread or strip footings bearing on Lacustrine soils or compacted granular fill.

Orphan Underground Storage Tank Removal & Closure Report, LaBella, June 2006

This report detailed removal of two (2) orphaned underground storage tanks (USTs) encountered during redevelopment. One (1) UST was approximately 12,000 gallons and one (1) UST was approximately 300-400-gallons.

The 300-400-gallon UST was inadvertently removed on October 22, 2004 prior to observation by LaBella or the excavator operator. The UST was placed on plastic. Based on PID readings, a spill was reported to NYSDEC (No. 0485054). The UST and associated impacted soil were properly disposed of off-Site in accordance with the SWMP and the spill was closed.

The 12,000-gallon UST was identified on September 25, 2005 that was filled with water and had a petroleum sheen. The 12,000-gallon UST was closed in place in October 2005 with NYSDEC and City of Rochester Fire Marshall's approval due to its proximity to the pile caps that support the stadium stands (refer to Figure 7).

Phase II Environmental Site Assessment Preliminary Site Characterization, LaBella, June 2006

This investigation was completed at 559 and 565 Oak Street (previously known as 424 Oak Street). Eight (8) soil borings were advanced to native soils which

ranged from 13.1-20.0 ft bgs. Ten (10) soil samples were collected and analyzed for VOCs, SVOCs, and metals. The report concluded that railroad ballast contained elevated levels of SVOCs and metals in shallow soils.

Soil and Groundwater Management Report (SGMR), LaBella, draft dated November 2006 (Note: *This document was not approved by the NYSDEC and is superseded by this SMP)*

This report detailed the earthwork completed during construction of the sports stadium in accordance with the 2003 SWMP. Refer to Section 2.2.2 for placement of materials.

This report also detailed the vapor barrier and vapor suppression system installed during redevelopment. A 15-mil vapor barrier was installed beneath all permanent buildings constructed as part of the sports stadium construction. In addition, a vapor suppression system was installed beneath the north concession stand

which is in the restricted use area due to historical levels of petroleum products and chlorinated solvents. Refer to Section 3.3 for details of the vapor barrier and vapor suppression system.

Spill incidents were detailed in this report and included NYSDEC Spill No. 0485054 associated with the 300-400-gallon UST (see above UST report summary) as well as NYSDEC Spill No. 0550038 associated with 2 gallons of hydraulic oil from a truck. Spill No. 0550038 was closed on April 7, 2005 following cleanup of the hydraulic oil and removal of surrounding soils.

Rochester Rhinos' Paetec Park Brownfield Redevelopment Site Operations and Maintenance Plan, LaBella, November 2006

This report provided an update to the 1999 O&M Plan following redevelopment. This report provided guidance on identification and management of remaining contaminated subsurface material. This report also provided inspection requirements for the vapor suppression system.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site are as follows:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

2.5 Remaining Contamination

2.5.1 Soil

Four (4) previous excavations were completed to remove impacted material (refer to Section 2.3). Remaining contamination in soil following remedial excavations consists of VOCs, PCBs, metals and SVOCs. Previous testing locations have been relocated during redevelopment and are shown for reference on Figure 4. Materials beneath the cover system as shown on Figure 8A are considered to be remaining contamination. The following soil sample locations (pre-development) exceed Unrestricted Use SCOs, Restricted Residential Use SCOs, and/or Protection of Groundwater (POGW) SCOs.

- TP-89-1 (VOCs- Unrestricted and POGW)
- TP-90-1 (VOCs- Unrestricted and POGW)
- TP-90-7 (VOCs- Unrestricted and POGW)
- TP-90-7A (VOCs- Unrestricted and POGW)
- TP-90-8 (VOCs- Unrestricted and POGW)
- TP-90-8A (VOCs- Unrestricted and POGW)
- TP-90-11 (VOCs- Unrestricted and POGW)
- TP-90-13 (VOCs- Unrestricted and POGW)
- TP-90-13B (VOCs- Unrestricted and POGW)
- TP-90-13C (VOCs- Unrestricted and POGW)
- TP-01 (1994) (VOCs- Unrestricted)
- TP-06 (1994) (VOCs- Unrestricted and POGW)
- TP-11 (1994) (PCBs- Unrestricted, Restricted Residential)
- TP-4 (1996) (Metals- Unrestricted, Restricted Residential and POGW)
- TP-8 (1996) (Metals- Unrestricted)
- TP-97-10 (VOCs- Unrestricted, Restricted Residential and POGW)

- TP-97-12 (VOCs- Unrestricted)
- TP-97-16 (PCBs- Unrestricted, Restricted Residential)
- TP-98-5 (SVOCs- Unrestricted, Restricted Residential and POGW)
- TB-1 (RR) (2005) (SVOCs- Unrestricted, Restricted Residential and POGW)
- TB-3 (RR) (2005) (SVOCs- Unrestricted, Restricted Residential and POGW)
- TB-6 (RR) (2005) (SVOCs- Unrestricted, Restricted Residential and POGW)
- TB-8 (RR) (2005) (SVOCs- Unrestricted, Restricted Residential and POGW)

Table 1 and Figure 4 summarize the results of all soil samples collected that exceed the Unrestricted Use, Restricted Residential Use, and Protection of Groundwater SCOs at the site after completion of remedial action.

2.5.2 Groundwater

Remaining contamination groundwater includes VOCs, and metals (lead). The following groundwater samples exceed NYSDEC Groundwater Quality Standards/ Guidance Values.

- MW-1 (metals)
- TB-90-1 (VOCs)
- TB-90-3 (VOCs)
- TB-90-4 (VOCs)
- TB-90-5 (VOCs)

Table 2 and Figure 4 summarize the results of all samples of groundwater that exceed the SCGs after completion of the remedial action.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the site, Institutional Controls (ICs) and Engineering Controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC project manager.

This plan provides:

- A description of all IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix B) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC project manager.

3.2 Institutional Controls

A series of ICs is required by the NYSDEC to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to restricted residential, commercial or industrial uses only. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs

identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on Figure 6. These ICs are:

- The property may be used for restricted residential, commercial or industrial use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited per City Code § 59-27 A for use as drinking water or per City Code §59-27 B for industrial purposes;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 6, and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the site are prohibited;
- An evaluation shall be performed to determine the need for further investigation and remediation should large scale redevelopment occur, or if the subsurface is otherwise made accessible; and

- The site will be flagged in the City's building permit system. Permits for work with the potential to disturb the subsurface will not be issued without prior review and approval of the NYSDEC. The City will submit a NYSDEC Building Site Plan and Permit Review Form for review via the State's web page at: derweb@gw.dec.state.ny.us

3.3 Engineering Controls

3.3.1 Cover System/ Cap

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. This cover system/ cap is comprised of 3-ft clean cover (Class 1 material; refer to Section 2.2.2), turf field (2.5 inches of synthetic turf and infill material over 8 inches of gravel over geotextile), gravel cover beneath stadium seating (6 inches granular subbase over geotextile), asphalt pavement (1.5 inches top course over 1.5 inches binder course over 6 inches granular fill), concrete sidewalks (5 inches concrete over 6 inches granular fill), and concrete building slabs (5 inches concrete slab over 6 inches sand over 15 mil vapor barrier over 6 inches sand over 15 inches granular fill). Class 1 material was used as non-structural fill beneath asphalt, concrete, and turf field to varying depths generally up to 3-ft bgs. Refer to Figure 8A for an as-built of the cover system and Figure 8B for cover system details. The cover system is present across the entire Site except the elevated railroad bed along the northern Site boundary.

Figure 8A presents the location of the cover system. The Excavation Work Plan (EWP) provided in Appendix B outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendix G and Appendix H, respectively. Any breach of the site's cover system must be overseen by a Professional Engineer (PE) who is licensed

and registered in New York State or a qualified person who directly reports to a PE who is licensed and registered in New York State.

3.3.2 Vapor Barrier/ Vapor Suppression System

In accordance with Section 10.0 of the SWMP, a vapor barrier was installed beneath all permanent buildings constructed at the Site (refer to Figure 6). The vapor barriers were installed beneath the two concession stands/restroom buildings located to the east of the stadium and to the five concession stands/restroom buildings beneath the western stadium seating structure. A vapor barrier was also installed beneath the electrical switchgear rooms of the generator building (Note: The generator room itself within the generator building is open to the atmosphere with a gate in its east wall. Finally, a vapor barrier with an underlying vapor suppression system was installed beneath the north concession stand/restroom building located to the north of the stadium.

The base layer for the vapor barrier consisted of a 15-inch layer of compacted granular fill installed above the prepared subgrade. A 6-inch layer to sand was then placed above the compacted granular fill and hand graded to a smooth surface. The vapor barrier itself, consisting of a 15-mil reinforced polyethylene sheeting was then installed above the initial sand layer. Clear polyethylene tape was then used to seal all seams in the vapor barrier and to seal the vapor barrier to all penetrations in the floor slab (water lines, drain lines, electrical conduits, etc.). The tape was also used to seal the vapor barrier to the inner walls of each building. Once the vapor barrier was installed, a second 6-inch layer of sand was then placed over the vapor barrier sheeting and hand graded to prevent puncturing of the reinforced plastic vapor barrier. A 5-inch thick concrete reinforced floor slab was then poured over the upper sand layer to complete the floor surface of each building.

The north concession stand

was completed within the Northern Exclusion Zone at the Site which has been designated as a restricted use area due to historical levels of petroleum products and chlorinated solvents. Due to the impacts beneath this building, a vapor suppression system/ passive sub-slab depressurization system was installed

beneath the vapor barrier described above to reduce the potential for impacted soil gas to migrate into the building. The vapor suppression system consisted of two 1-foot deep by 1-ft wide trenches within the base layer of fifteen inches of compacted granular material. Each trench was then backfilled with approximately 4-inches of imported pea gravel. A 4-inch diameter, geotextile wrapped slotted, smooth walled PVC ventilation pipe was then installed within each trench on top of the pea gravel. The remainder of the annular space of each trench was then backfilled to the top of the 15-inch granular fill material layer with pea gravel. The PVC slotted piping was manifolded to 4-inch PVC solid riser pipes running up the exterior wall of the building to two passive wind turbine units. The vapor suppression system was designed to create negative pressure (i.e. vacuum) in the subsurface beneath the building, thus preventing soil gas from entering the building itself. Refer to Figure 9 for an as-built of the vapor suppression system. There are no active ECs at the Site.

3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10. Unless waived by the NYSDEC, confirmation samples of applicable environmental media are required before terminating any remedial actions at the site. Confirmation samples require Category B deliverables and a Data Usability Summary Report (DUSR).

As discussed below, the NYSDEC may approve termination of a groundwater monitoring program. When a remedial party receives this approval, the remedial party will decommission all site-related monitoring, injection and recovery wells as per the NYSDEC CP-43 policy.

The remedial party will also conduct any needed site restoration activities, such as asphalt patching and decommissioning treatment system equipment. In addition,

the remedial party will conduct any necessary restoration of vegetation coverage, trees and wetlands, and will comply with NYSDEC and United States Army Corps of Engineers regulations and guidance. Also, the remedial party will ensure that no ongoing erosion is occurring on the site.

3.3.3.1 - Cover (or Cap)

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity.

3.3.3.2 – Vapor Barrier/ Vapor Suppression System

The vapor barriers will not be removed and the vapor suppression system will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH project managers. If monitoring data indicates that the systems may no longer be required, a proposal to discontinue the systems will be submitted by the remedial party to the NYSDEC and NYSDOH project managers.

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4.0 OPERATION AND MAINTENANCE PLAN

4.1 General

This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the vapor suppression system. This Operation and Maintenance Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the site to operate and maintain the vapor suppression system;
- Will be updated periodically to reflect changes in site conditions or the manner in which the vapor suppression system is operated and maintained.

A copy of this Operation and Maintenance Plan , along with the complete SMP, is to be maintained at the site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of this SMP.

It should be noted that an Operation and Maintenance Plan dated November 2006 was developed by LaBella following redevelopment of the Site to provide guidance regarding characterization and management of subsurface impacted soil, groundwater, and man-made industrial derived fill materials encountered during development activities at the Site. The 2006 Operation and Maintenance Plan also provided details regarding the vapor suppression system. This document supersedes the 2006 Operation and Maintenance Plan.

4.2 Operation and Maintenance of Vapor Suppression System

The following sections provide a description of the operations and maintenance of the vapor suppression system. The vapor suppression system is passive (i.e., there are no mechanical or electrical components).

4.2.1 Routine System Operation and Maintenance

The vapor suppression system is a passive system with no electrical components, monitoring devices or alarms. No startup testing is required as the system will not stop operating unless the components of the system (e.g., subsurface piping, riser piping, or passive wind turbine) are removed or damaged. There are no components requiring regular measuring or monitoring. The only checks required for the system are to confirm the following above grade components are present and intact.

- (2) Passive wind turbines installed on the roof; and
- Exposed portion of the riser pipe installed on the north side of the building.

There is no routine maintenance required if the components are present and intact. If damage or missing components are noted during routine or non-routine operation and maintenance, the components sound be repaired as soon as possible by a qualified contractor. The Departments will be notified within two business days if damaged or missing components are observed.

4.2.2 Non-Routine Operation and Maintenance

There is no non-routine maintenance required if the components are present and intact. If damage or missing components are noted during routine or non-routine operation and maintenance, the components sound be repaired as soon as possible by a qualified contractor. The Departments will be notified within two business days if damaged or missing components are observed.

4.2.3 Fire Safety

The City will conduct fire safety inspections as required per the Fire Code of New York State. All fire safety items will comply with federal and state laws as well as local ordinances and building codes. The maintenance and inspections will confirm to NFPA 1584 guidance. The City's inspection records will be available for NYSDEC review upon request. It should be noted there are no active remedial systems (i.e., no electrical components that would present a fire safety concern).

5.0 PERIODIC ASSESSMENTS/EVALUATIONS

5.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary of vulnerability assessments that will be conducted for the site during periodic assessments, and briefly summarizes the vulnerability of the site and/or engineering controls to severe storms/weather events and associated flooding.

- Flood plain – the Site is not within a flood plain
- Site Drainage and Storm Water Management - there are no known Site drainage concerns.
- Erosion - A majority of the Site is covered with the stadium including turf field, concrete, or asphalt pavement. The northern portion of the Site includes grass and is the area most susceptible to erosion. This area will be inspected for erosion during routine inspections. Repairs will be made as necessary.
- High Wind – there are no areas particularly susceptible to damage from falling trees/ utilities due to high winds.
- Electricity – there are no electrical components to the remedy; therefore, the remedy is not effected by power loss.
- Spill/ Containment Release – there are no storm-related spill concerns at the Site.

- Wildfires – there is very limited vegetation in the area; therefore, there is no concern due to wildfires at the Site.
- Drought – there is very limited vegetation in the area and groundwater is not utilized at the Site; therefore, there is no concern due to wildfires at the Site.

5.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the Periodic Review Report (PRR).

The following components have been evaluated as part of this SMP:

- Waste generation – there is no waste generated as part of the remedy. Sampling is not required; therefore, there is no equipment, gloves, etc. used. All inspections are conducted visually. If repairs to engineering controls are needed in the future, waste generation will be considered.
- Energy usage– the vapor suppression system is passive and does not use electricity. There is no energy usage as part of the remedy.
- Emissions – inspections are performed annually by LaBella. LaBella's office and City Hall are within 1 mile of the Site. Emissions from transportation are limited. There are no other emissions related to remedial systems other than transportation to and from the Site.
- Water usage – there is no water usage required as part of the remedy.
- Land and/or ecosystems – The remedy included establishing a cover system which was completed during redevelopment of the Site for the sports stadium. The remedy does not require further disturbance of the land.

The remedy includes a cover system and passive vapor suppression system. There is no waste generated or electricity or water used, and emissions from vehicles is limited due to the proximity of the Site to LaBella's office and City Hall. Based on this assessment, there is no need to reduce waste, energy or water usage, or emissions at this time relative to the remedy.

5.2.1 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the NYSDEC project manager feels appropriate, e.g. during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

5.2.2 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the Site, use of consumables in relation to visiting the Site in order to conduct system checks and/or collect samples, and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. There is no routine sampling required. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources. LaBella's office is within 1 mile of the Site, limiting transportation emissions for inspections as much as possible.

5.3 Remedial System Optimization

A Remedial System Optimization (RSO) study will be conducted any time that the NYSDEC project manager or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the site's cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

The RSO study will focus on overall site cleanup strategy, process optimization and management with the intent of identifying impediments to cleanup and improvements to site operations to increase efficiency, cost effectiveness and

remedial time frames. Green remediation technology and principals are to be considered when performing the RSO.

6.0. REPORTING REQUIREMENTS

6.1 Site Management Reports

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in Appendix I. These forms are subject to NYSDEC revision. All site management inspection, maintenance, and monitoring events will be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer (PE) who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

There is no sampling required at this time. If monitoring or sampling is required in the future, this SMP will be revised to include the required Monitoring and Sampling Plan, as well as appropriate forms.

All applicable inspection forms and other records, including system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table D and summarized in the Periodic Review Report.

Table D: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Inspection Report	Annually
Periodic Review Report	Every 3 years, or as otherwise determined by the NYSDEC

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC project manager.

All interim inspection reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;

- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Any observations, conclusions, or recommendations.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database

in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

6.2 Periodic Review Report

A PRR shall be submitted every 3 years to the NYSDEC project manager or at another frequency as may be required by the NYSDEC project manager. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix D -Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results, if applicable, will also be incorporated into the Periodic Review Report. (Note that there is currently no media sampling required as part of this SMP.) The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site.
- Results of the required annual site inspections.
- Description of any change of use, import of materials, or excavation that occurred during the certifying period.
- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- Identification of any wastes generated during the reporting period, along with waste characterization data, manifests, and disposal documentation.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- A site evaluation, which includes the following:

- The operation of the vapor suppression system, including identification of any needed repairs or modifications;
- Any new conclusions or observations regarding site contamination based on inspections;
- Recommendations regarding any necessary changes to the remedy; and
- The overall performance and effectiveness of the remedy.

There is no sampling required at this time; therefore, a Monitoring and Sampling Plan is not required as part of this SMP. If monitoring or sampling is required in the future, this SMP will be revised.

6.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a qualified environmental professional as defined in 6 NYCRR Part 375 or Professional Engineer licensed to practice and registered in New York State will prepare, and include in the Periodic Review Report, the following certification as per the requirements of NYSDEC DER-10:

"*For each institutional or engineering control identified for the site, I certify that all of the following statements are true:*

- *The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*

- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and*
- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative] for the site."

"I certify that the New York State Education Department has granted a Certificate of Authorization to provide Professional Engineering services to the firm that prepared this Periodic Review Report."

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] for the site."

The signed certification will be included in the Periodic Review Report.

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager. The Periodic Review

Report may also need to be submitted in hard-copy format if requested by the NYSDEC project manager.

6.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control or failure to conduct site management activities, a Corrective Measures Work Plan will be submitted to the NYSDEC project manager for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC project manager.

7.0 REFERENCES

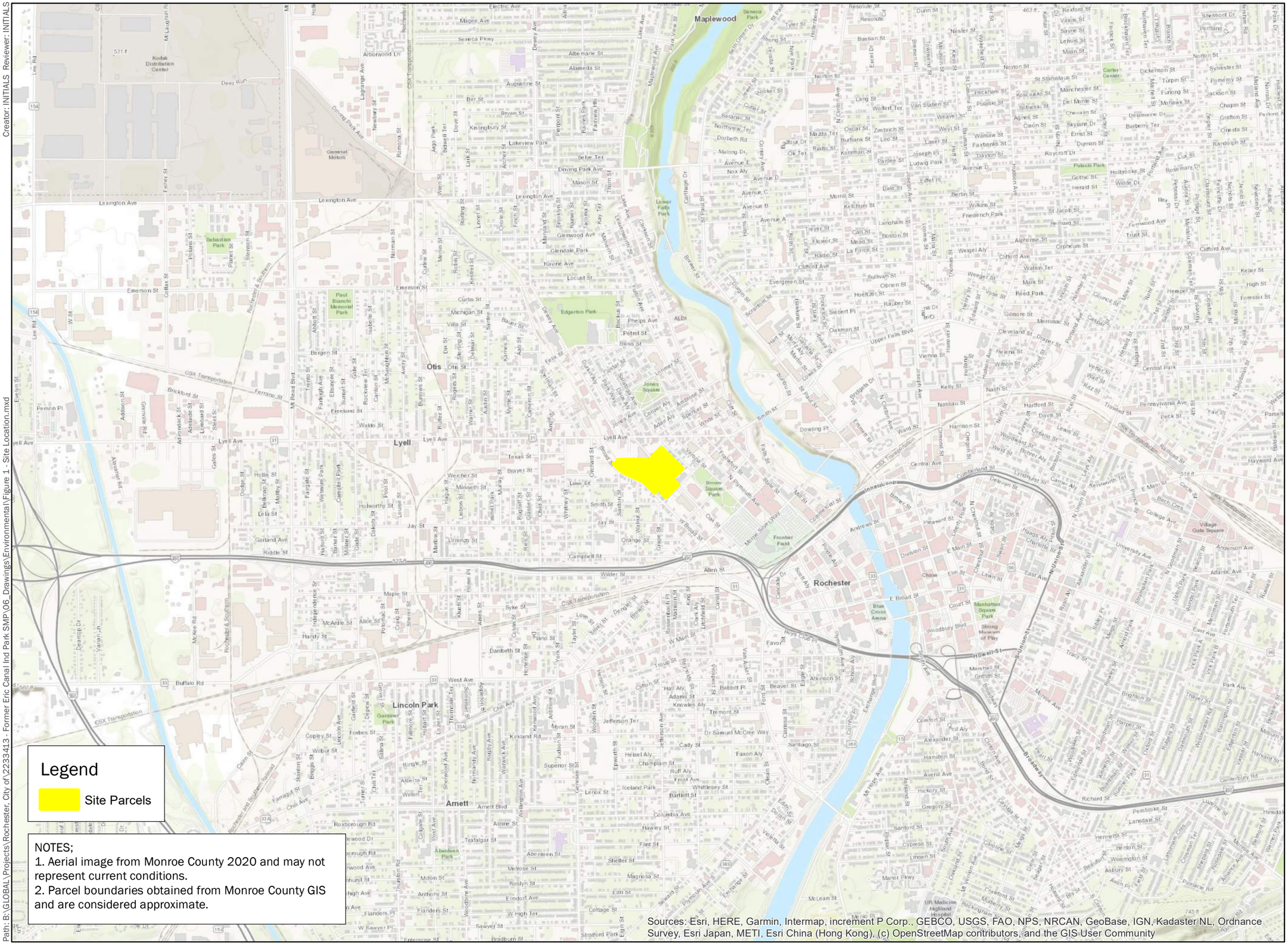
- Phase I Audit, Smith & Oak Streets, Day Engineering, May 1988
- Phase I Environmental Site Assessment, Erie Canal Industrial Park, Block No. 2 Smith & Oak Streets, ECCO, December 18, 1989
- Phase II Environmental Site Assessment, Erie Canal Industrial Park, Block No. 2 Smith & Oak Streets, ECCO, June 15, 1990
- Phase II Investigation, Smith & Oak Streets, Day Engineering, October 1991
- Phase II Supplemental Investigation, Erie Canal Industrial Park, Day Hampton Associates, July 1994
- Summary of Environmental Sampling Results, Park Enterprises, Erie Canal Industrial Park Block No. 2, by Sear-Brown Group, August 12, 1997
- Brownfield Re-Development Remedial Work Plan, Erie Canal Industrial Park, Haley & Aldrich of New York, November 1997
- Post Remediation Operation and Maintenance Plan, Erie Canal Industrial Park, Haley & Aldrich, August 1999
- Final Engineering Report Remediation Blocks 2 and 3, Haley & Aldrich, September 1999
- Environmental Site Assessment Reports, Erdman Anthony, October 1999
- Soil and Water Management Plan (SWMP), LaBella, September 2003
- Orphan Underground Storage Tank Removal & Closure Report, LaBella, January 2006
- Phase II Environmental Site Assessment Preliminary Site Characterization, LaBella, June 2006
- Soil and Groundwater Management Report (SGMR), LaBella, draft dated November 2006
- Rochester Rhinos' Paetec Park Brownfield Redevelopment Site Operations and Maintenance Plan, LaBella, November 2006
- NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.
- NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation".

- NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

FIGURES

Creator: INITIALS Reviewer: INITIALS

Path: B:\GLOBAL\Projects\Rochester, City of\2233413 - Former Erie Canal Ind Park SMP\06_Drawings\Environmental\Figure 1 - Site Location.mxd



LaBella
Powered by partnership.

CITY OF ROCHESTER

SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

N

0 2,000 Feet

1 inch = 2,000 feet

LaBella Project No: 2233413

Date: 9/22/2023

11" x 17"

SITE LOCATION

FIGURE 1

Creator: INITIALS Reviewer: INITIALS

Path: B:\GLOBAL\Projects\Rochester, City of\2233413 - Former Eric Canal Ind Park SMP\06_Drawings\Environmental\Figure 2 - Site Layout.mxd

LaBella
Powered by partnership.

CITY OF ROCHESTER

SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

N

0 125 Feet

1 inch = 125 feet

LaBella Project No: 2233413

Date: 11/27/2023

11" x 17"

SITE LAYOUT

FIGURE 2

NOTES;
1. Aerial image from Monroe County 2020 and may not represent current conditions.
2. Previous testing locations were georeferenced from previous reports and are considered approximate.
3. Groundwater elevations obtained from Phase II ESA by DAY, October 1991. Only bedrock wells are used in the model. Elevations used in the model are shown in feet above mean sea level.
4. Contours developed using Surfer 14, kriging method.

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CITY OF ROCHESTER

SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

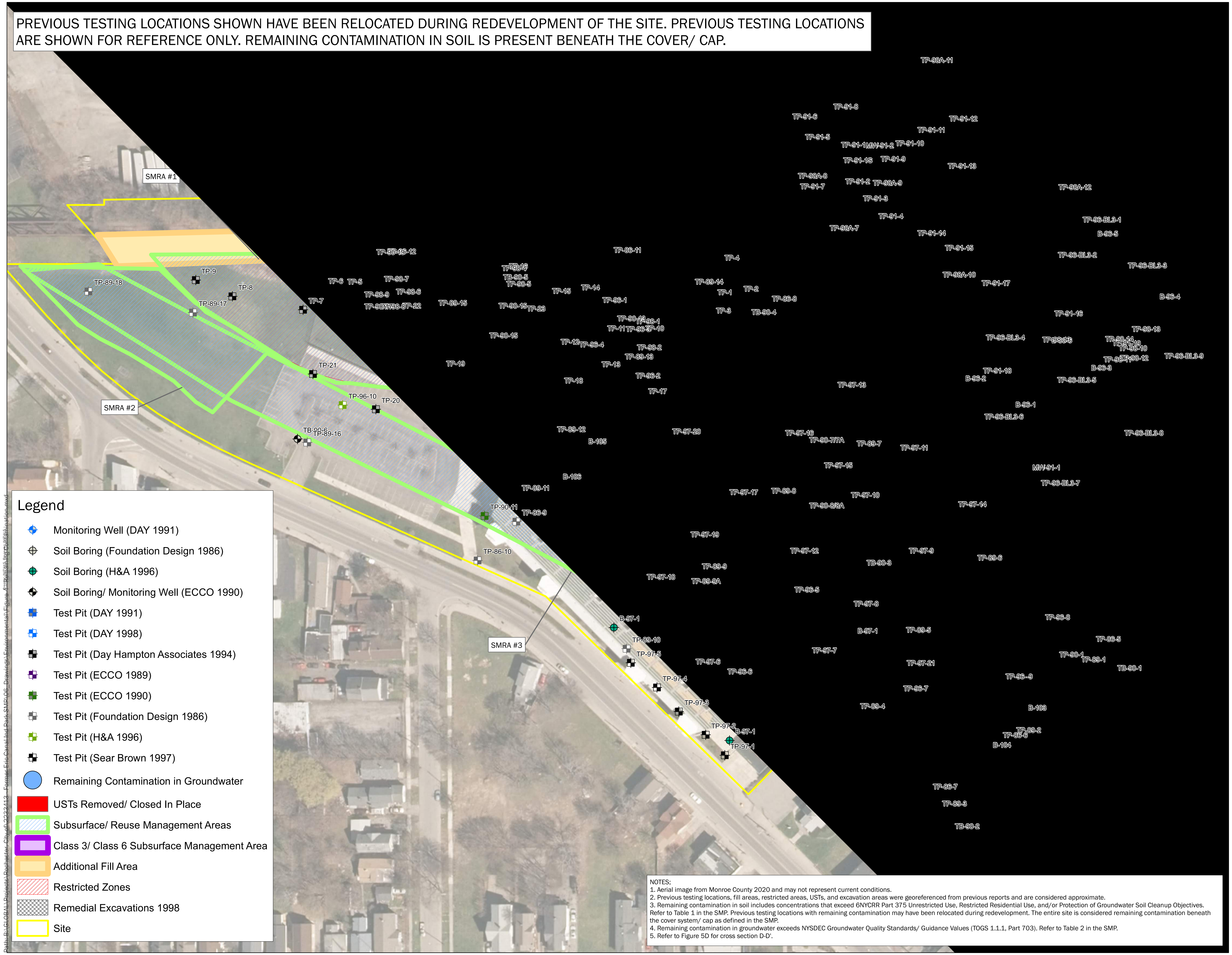
LaBella Project No: 2233413

Date: 11/27/2023

11" x 17"

GROUNDWATER CONTOUR MAP

FIGURE 3



Legend

- Monitoring Well (DAY 1991)
- Soil Boring (Foundation Design 1986)
- Soil Boring (H&A 1996)
- Soil Boring/ Monitoring Well (ECCO 1990)
- Test Pit (DAY 1991)
- Test Pit (DAY 1998)
- Test Pit (Day Hampton Associates 1994)
- Test Pit (ECCO 1989)
- Test Pit (ECCO 1990)
- Test Pit (Foundation Design 1986)
- Test Pit (H&A 1996)
- Test Pit (Sear Brown 1997)
- Remaining Contamination in Groundwater
- USTs Removed/ Closed In Place
- Subsurface/ Reuse Management Areas
- Class 3/ Class 6 Subsurface Management Area
- Additional Fill Area
- Restricted Zones
- Remedial Excavations 1998
- Site

NOTES;
1. Aerial image from Monroe County 2020 and may not represent current conditions.
2. Previous testing locations, fill areas, restricted areas, USTs, and excavation areas were georeferenced from previous reports and are considered approximate.
3. Remaining contamination in soil includes concentrations that exceed 6NYCRR Part 375 Unrestricted Use, Restricted Residential Use, and/or Protection of Groundwater Soil Cleanup Objectives. Refer to Table 1 in the SMP. Previous testing locations with remaining contamination may have been relocated during redevelopment. The entire site is considered remaining contamination beneath the cover system/ cap as defined in the SMP.
4. Remaining contamination in groundwater exceeds NYSDEC Groundwater Quality Standards/ Guidance Values (TOGS 1.1.1, Part 703). Refer to Table 2 in the SMP.
5. Refer to Figure 5D for cross section D-D'.

LaBella
Powered by partnership.

CITY OF ROCHESTER

SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

N

0 50 Feet

1 inch = 50 feet

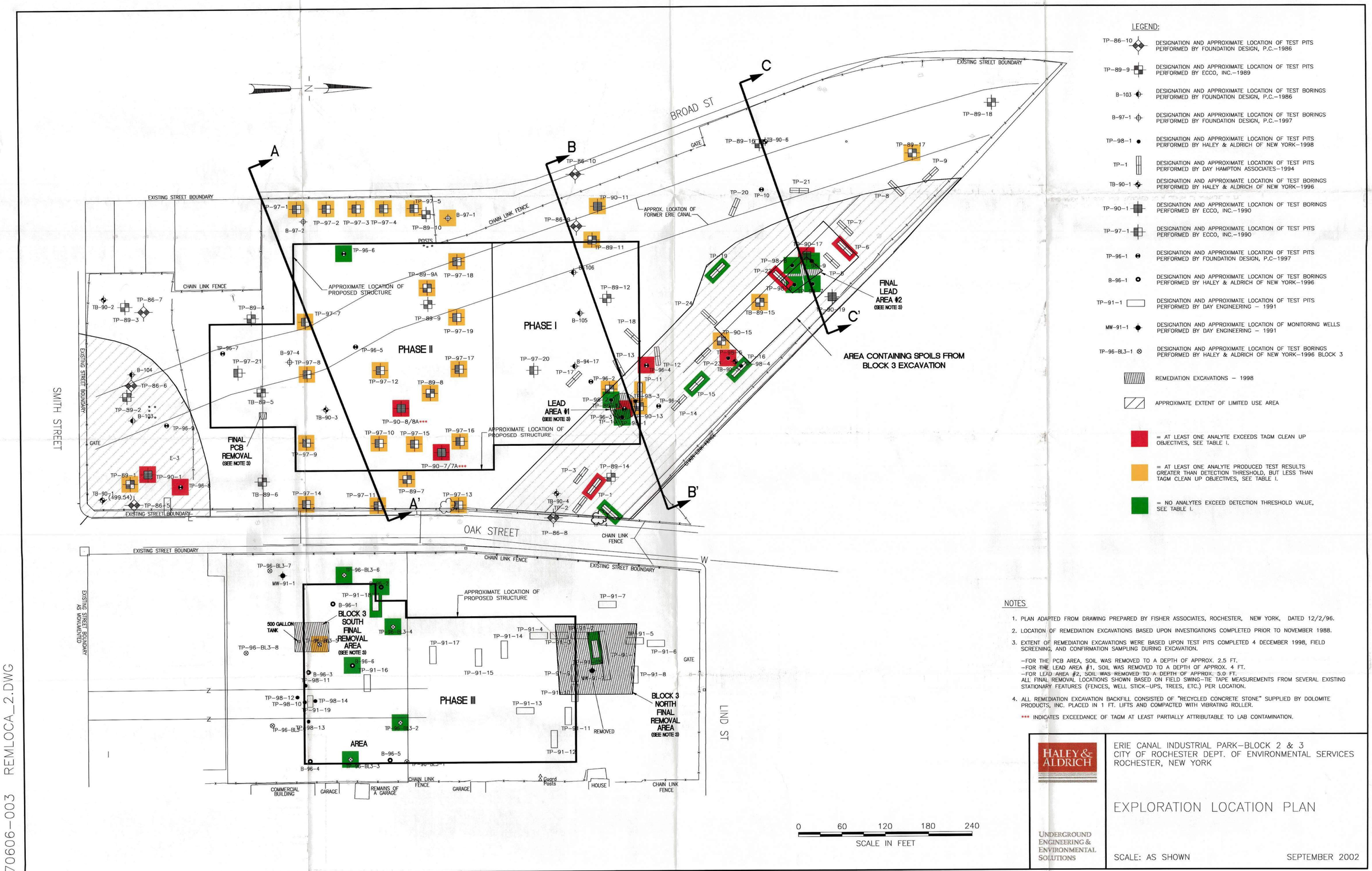
LaBella Project No: 2233413

Date: 11/27/2023

24" x 36"

REMAINING CONTAMINATION IN SOIL AND GROUNDWATER

FIGURE 4



LEGEND:

- TP-86-10 — DESIGNATION AND APPROXIMATE LOCATION OF TEST PITS PERFORMED BY FOUNDATION DESIGN, P.C.-1986
- TP-89-9 — DESIGNATION AND APPROXIMATE LOCATION OF TEST PITS PERFORMED BY ECCO, INC.-1989
- B-103 — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORINGS PERFORMED BY FOUNDATION DESIGN, P.C.-1986
- B-97-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORINGS PERFORMED BY FOUNDATION DESIGN, P.C.-1997
- TP-98-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST PITS PERFORMED BY HALEY & ALDRICH OF NEW YORK-1998
- TP-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST PITS PERFORMED BY DAY HAMPTON ASSOCIATES-1994
- TB-90-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORINGS PERFORMED BY HALEY & ALDRICH OF NEW YORK-1996
- TP-90-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORINGS PERFORMED BY ECCO, INC.-1990
- TP-97-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST PITS PERFORMED BY ECCO, INC.-1990
- TP-96-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST PITS PERFORMED BY FOUNDATION DESIGN, P.C-1997
- B-96-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORINGS PERFORMED BY HALEY & ALDRICH OF NEW YORK-1996
- TP-91-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST PITS PERFORMED BY DAY ENGINEERING - 1991
- MW-91-1 — DESIGNATION AND APPROXIMATE LOCATION OF MONITORING WELLS PERFORMED BY DAY ENGINEERING - 1991
- TP-96-BL3-1 — DESIGNATION AND APPROXIMATE LOCATION OF TEST BORINGS PERFORMED BY HALEY & ALDRICH OF NEW YORK-1996 BLOCK 3
- REMEDIATION EXCAVATIONS - 1998
- APPROXIMATE EXTENT OF LIMITED USE AREA
- = AT LEAST ONE ANALYTE EXCEEDS TAGM CLEAN UP OBJECTIVES, SEE TABLE I.
- = AT LEAST ONE ANALYTE PRODUCED TEST RESULTS GREATER THAN DETECTION THRESHOLD, BUT LESS THAN TAGM CLEAN UP OBJECTIVES, SEE TABLE I.
- = NO ANALYTES EXCEED DETECTION THRESHOLD VALUE, SEE TABLE I.

NOTES

1. PLAN ADAPTED FROM DRAWING PREPARED BY FISHER ASSOCIATES, ROCHESTER, NEW YORK, DATED 12/2/96.
2. LOCATION OF REMEDIATION EXCAVATIONS BASED UPON INVESTIGATIONS COMPLETED PRIOR TO NOVEMBER 1988.
3. EXTENT OF REMEDIATION EXCAVATIONS WERE BASED UPON TEST PITS COMPLETED 4 DECEMBER 1998, FIELD SCREENING, AND CONFIRMATION SAMPLING DURING EXCAVATION.
   - -FOR THE PCB AREA, SOIL WAS REMOVED TO A DEPTH OF APPROX. 2.5 FT.
   - -FOR THE LEAD AREA #1, SOIL WAS REMOVED TO A DEPTH OF APPROX. 4 FT.
   - -FOR LEAD AREA #2, SOIL WAS REMOVED TO A DEPTH OF APPROX. 5.0 FT.

   ALL FINAL REMOVAL LOCATIONS SHOWN BASED ON FIELD SWING-TIE TAPE MEASUREMENTS FROM SEVERAL EXISTING STATIONARY FEATURES (FENCES, WELL STICK-UPS, TREES, ETC.) PER LOCATION.
4. ALL REMEDIATION EXCAVATION BACKFILL CONSISTED OF "RECYCLED CONCRETE STONE" SUPPLIED BY DOLOMITE PRODUCTS, INC. PLACED IN 1 FT. LIFTS AND COMPACTED WITH VIBRATING ROLLER.

*** INDICATES EXCEEDANCE OF TAGM AT LEAST PARTIALLY ATTRIBUTABLE TO LAB CONTAMINATION.

0 60 120 180 240
SCALE IN FEET

HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

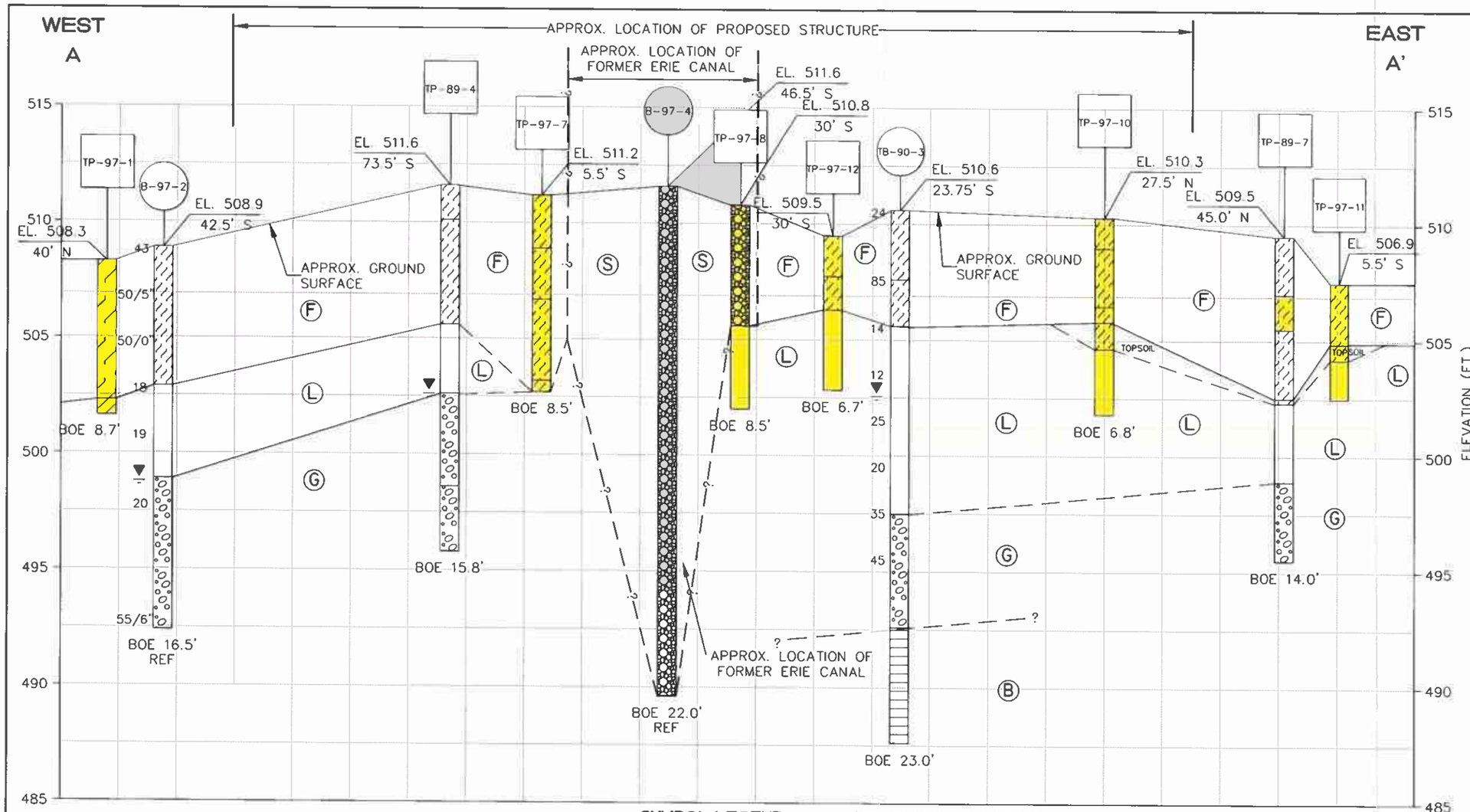
ERIE CANAL INDUSTRIAL PARK-BLOCK 2 & 3
CITY OF ROCHESTER DEPT. OF ENVIRONMENTAL SERVICES
ROCHESTER, NEW YORK

EXPLORATION LOCATION PLAN

SCALE: AS SHOWN SEPTEMBER 2002

70606-003 REMLOCA_2.DWG

FIGURE 5



NOTES:

1. ELEVATIONS ARE IN FEET AND ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD).
2. LINES REPRESENTING INTERFACES BETWEEN OR CHANGES WITHIN STRATA ON PROFILES ARE BASED UPON INTERPOLATION BETWEEN BORINGS SHOWN ON PROFILES AS WELL AS BORINGS NOT SHOWN ON PROFILES. THE INTERFACE LINES ARE INTENDED TO SHOW THE GENERAL SEQUENCE OF STRATA AND MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
3. OFFSET DISTANCES INDICATED ARE MEASURED FROM THE PLAN LOCATION OF THE PROFILE, PERPENDICULAR TO THE LINE.
4. WATER LEVELS NOTED DURING DRILLING COULD HAVE BEEN AFFECTED BY THE EXTRACTION OF TOOLS OR OTHER DRILLING PROCEDURES. WATER LEVELS SHOWN IN COMPLETED BORINGS ARE FOR INFORMATION PURPOSES ONLY. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER LEVEL. FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO VARIATIONS IN PRECIPITATION, SEASON, TIDAL FLUCTUATION, ADJACENT CONSTRUCTION ACTIVITY, CONSTRUCTION DEWATERING SYSTEMS AND OTHER FACTORS.
5. REFER TO THE HALEY & ALDRICH REPORT FOR BORING LOGS, PLAN LOCATION OF BORINGS AND DETAILED DESCRIPTION OF STRATA.
6. THE STANDARD PENETRATION RESISTANCE, "N", IS DEFINED AS THE NUMBER OF BLOWS REQUIRED TO DRIVE A STANDARD SPLIT-SPOON SAMPLER (1-3/8 IN. I.D., 2 IN. O.D.) A DISTANCE OF 18 INCHES INTO THE INDISTURBED SOIL UNDER THE IMPACT OF A 140-LB. HAMMER FREE-FALLING 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO ADVANCE THE SAMPLER EACH SIX INCHES WAS RECORDED. THE "N" VALUE IS TAKEN AS THE NUMBER OF BLOWS REQUIRED TO ADVANCE THE SAMPLER THE LAST 12 INCHES OF THE 18 INCH SAMPLING RANGE.
7. GROUNDWATER LEVELS ARE APPROXIMATE ON THE DATE AND LOCATION OBSERVED. GROUNDWATER LEVELS SHOULD BE EXPECTED TO FLUCTUATE WITH PRECIPITATION, SEASON, TEMPERATURE, AND CONSTRUCTION ACTIVITY IN THE AREA.
8. COMPOSITE SAMPLE FOR CHEMICAL ANALYSIS INDICATED BY COLORATION OF FULL DEPTH.

LEGEND

= AT LEAST ONE ANALYTE EXCEEDS TAGM CLEAN UP OBJECTIVES AT THE DEPTH INDICATED, SEE TABLE 1.

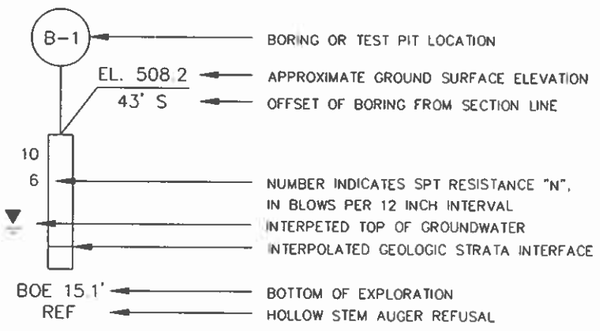
= AT LEAST ONE ANALYTE PRODUCED TEST RESULTS GREATER THAN DETECTION THRESHOLD, BUT LESS THAN TAGM CLEAN UP OBJECTIVES AT THE DEPTH INDICATED, SEE TABLE 1.

= NO ANALYTES EXCEED DETECTION THRESHOLD VALUE AT DEPTH INDICATED, SEE TABLE 1.

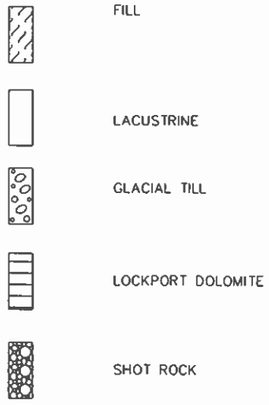
0 40 80
HORIZONTAL SCALE IN FEET

0 5 10
VERTICAL SCALE IN FEET

SOIL BORING LEGEND



SYMBOL LEGEND



STRATUM DESCRIPTION

(F) MISCELLANEOUS FILL
LOOSE TO VERY DENSE, BLACK, BROWN AND TAN, SAND, SILT, AND GRAVEL OR CRUSHED STONE, METAL, WOOD, BRICK, ASPHALT, AND/OR CINDERS.

(L) LACUSTRINE DEPOSITS
STIFF TO HARD, BROWN AND TAN, SILT AND SAND, OCCASIONAL CLAY LENSES.

(G) GLACIAL TILL
DENSE, BROWN AND GRAY-BROWN, SAND ,SILT, AND GRAVEL , OCCASIONAL COBBLES.

(B) BEDROCK
HARD, GRAY, THIN BEDDED, DOLOMITE WITH OBLIQUE AND WEATHERED FRACTURES.

(S) SHOT ROCK FILL
SHOT ROCK (TUNNELING WASTE) GENERATED DURING THE CONSTRUCTION OF THE COMBINED SEWER OVERFLOW ABATEMENT PROJECT (CSOAP) IN THE EARLY 1980's, PRIMARILY CRUSHED STONE, SHOT ROCK AND BOULDERS (AS LARGE AS 4 FT. IN DIAMETER)

HALEY & ALDRICH

ERIE CANAL INDUSTRIAL PARK - BLOCK 2 & 3
CITY OF ROCHESTER DEPT. OF ENVIRONMENTAL SERVICES
ROCHESTER, NEW YORK

SUBSURFACE PROFILE A-A'

SCALE: AS SHOWN

SEPTEMBER 2002

70606-003 XSECA-A.DWG

FIGURE 5A

WEST

EAST

APPROXIMATE LOCATION OF PROPOSED STRUCTURE

APPROX. EXTENT OF LIMITED USE AREA

B

B'

APPROX. LOCATION OF FORMER ERIE CANAL

LEAD AREA #1

TP-86-10 EL. 509.5 33' N

TP-86-9 EL. 510.8 10' N

B-106 EL. 511.3' 14' S

B-105 EL. 509.5' 24.5' S

TP-13 EL. ~507.7 0.0'

TP-89-13 EL. ~507.6 11' S

BOE 5.0'

BOE 5.0'

APPROX. LOCATION OF FORMER ERIE CANAL

BOE 7.0'

BOE 13.3'

BOE 11.5'

BOE 19.0'

515 510 505 500 495 485 ELEVATION (FT.)

43 100/1" 32 13 17 113/10"

19 16 9 23

Ⓢ Ⓕ Ⓛ Ⓑ

NOTES:

1. ELEVATIONS ARE IN FEET AND ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD).
2. LINES REPRESENTING INTERFACES BETWEEN OR CHANGES WITHIN STRATA ON PROFILES ARE BASED UPON INTERPOLATION BETWEEN BORINGS SHOWN ON PROFILES AS WELL AS BORINGS NOT SHOWN ON PROFILES. THE INTERFACE LINES ARE INTENDED TO SHOW THE GENERAL SEQUENCE OF STRATA AND MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
3. OFFSET DISTANCES INDICATED ARE MEASURED FROM THE PLAN LOCATION OF THE PROFILE, PERPENDICULAR TO THE LINE.
4. WATER LEVELS NOTED DURING DRILLING COULD HAVE BEEN AFFECTED BY THE EXTRACTION OF TOOLS OR OTHER DRILLING PROCEDURES. WATER LEVELS SHOWN IN COMPLETED BORINGS ARE FOR INFORMATION PURPOSES ONLY. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER LEVEL. FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO VARIATIONS IN PRECIPITATION, SEASON, TIDAL FLUCTUATION, ADJACENT CONSTRUCTION ACTIVITY, CONSTRUCTION DEWATERING SYSTEMS AND OTHER FACTORS.
5. REFER TO THE HALEY & ALDRICH REPORT FOR BORING LOGS, PLAN LOCATION OF BORINGS AND DETAILED DESCRIPTION OF STRATA.
6. THE STANDARD PENETRATION RESISTANCE, "N", IS DEFINED AS THE NUMBER OF BLOWS REQUIRED TO DRIVE A STANDARD SPLIT-SPOON SAMPLER (1-3/8 IN. I.D., 2 IN. O.D.) A DISTANCE OF 18 INCHES INTO THE INDISTURBED SOIL UNDER THE IMPACT OF A 140-LB. HAMMER FREE-FALLING 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO ADVANCE THE SAMPLER EACH SIX INCHES WAS RECORDED. THE "N" VALUE IS TAKEN AS THE NUMBER OF BLOWS REQUIRED TO ADVANCE THE SAMPLER THE LAST 12 INCHES OF THE 18 INCH SAMPLING RANGE.
7. GROUNDWATER LEVELS ARE APPROXIMATE ON THE DATE AND LOCATION OBSERVED. GROUNDWATER LEVELS SHOULD BE EXPECTED TO FLUCTUATE WITH PRECIPITATION, SEASON, TEMPERATURE, AND CONSTRUCTION ACTIVITY IN THE AREA.
8. COMPOSITE SAMPLE FOR CHEMICAL ANALYSIS INDICATED BY COLORATION OF FULL DEPTH.

LEGEND

= AT LEAST ONE ANALYTE EXCEEDS TAGM CLEAN UP OBJECTIVES AT THE DEPTH INDICATED, SEE TABLE I.

= AT LEAST ONE ANALYTE PRODUCED TEST RESULTS GREATER THAN DETECTION THRESHOLD, BUT LESS THAN TAGM CLEAN UP OBJECTIVES AT THE DEPTH INDICATED, SEE TABLE I.

= NO ANALYTES EXCEED DETECTION THRESHOLD VALUE AT DEPTH INDICATED, SEE TABLE I.

0 40 80
HORIZONTAL SCALE IN FEET

0 5 10
VERTICAL SCALE IN FEET

SOIL BORING LEGEND

B-1 — BORING OR TEST PIT LOCATION

EL. 508.2 — APPROXIMATE GROUND SURFACE ELEVATION

43' S — OFFSET OF BORING FROM SECTION LINE

10 / 6 — NUMBER INDICATES SPT RESISTANCE "N", IN BLOWS PER 12 INCH INTERVAL

▼ — INTERPETED TOP OF GROUNDWATER

INTERPOLATED GEOLOGIC STRATA INTERFACE

BOE 15.1' REF — BOTTOM OF EXPLORATION; HOLLOW STEM AUGER REFUSAL

SYMBOL LEGEND

FILL

LACUSTRINE

GLACIAL TILL

LOCKPORT DOLOMITE

SHOT ROCK

STRATUM DESCRIPTION

Ⓕ **MISCELLANEOUS FILL**
LOOSE TO VERY DENSE, BLACK, BROWN AND TAN, SAND, SILT, AND GRAVEL OR CRUSHED STONE, METAL, WOOD, BRICK, ASPHALT, AND/OR CINDERS.

Ⓛ **LACUSTRINE DEPOSITS**
STIFF TO HARD, BROWN AND TAN, SILT AND SAND, OCCASIONAL CLAY LENSES.

Ⓖ **GLACIAL TILL**
DENSE, BROWN AND GRAY-BROWN, SAND ,SILT, AND GRAVEL , OCCASIONAL COBBLES.

Ⓑ **BEDROCK**
HARD, GRAY, THIN BEDDED, DOLOMITE WITH OBLIQUE AND WEATHERED FRACTURES.

Ⓢ **SHOT ROCK FILL**
SHOT ROCK (TUNNELING WASTE) GENERATED DURING THE CONSTRUCTION OF THE COMBINED SEWER OVERFLOW ABATEMENT PROJECT (CSOAP) IN THE EARLY 1980's, PRIMARILY CRUSHED STONE, SHOT ROCK AND BOULDERS (AS LARGE AS 4 FT. IN DIAMETER).

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

ERIE CANAL INDUSTRIAL PARK – BLOCK 2 & 3
CITY OF ROCHESTER DEPT. OF ENVIRONMENTAL SERVICES
ROCHESTER, NEW YORK

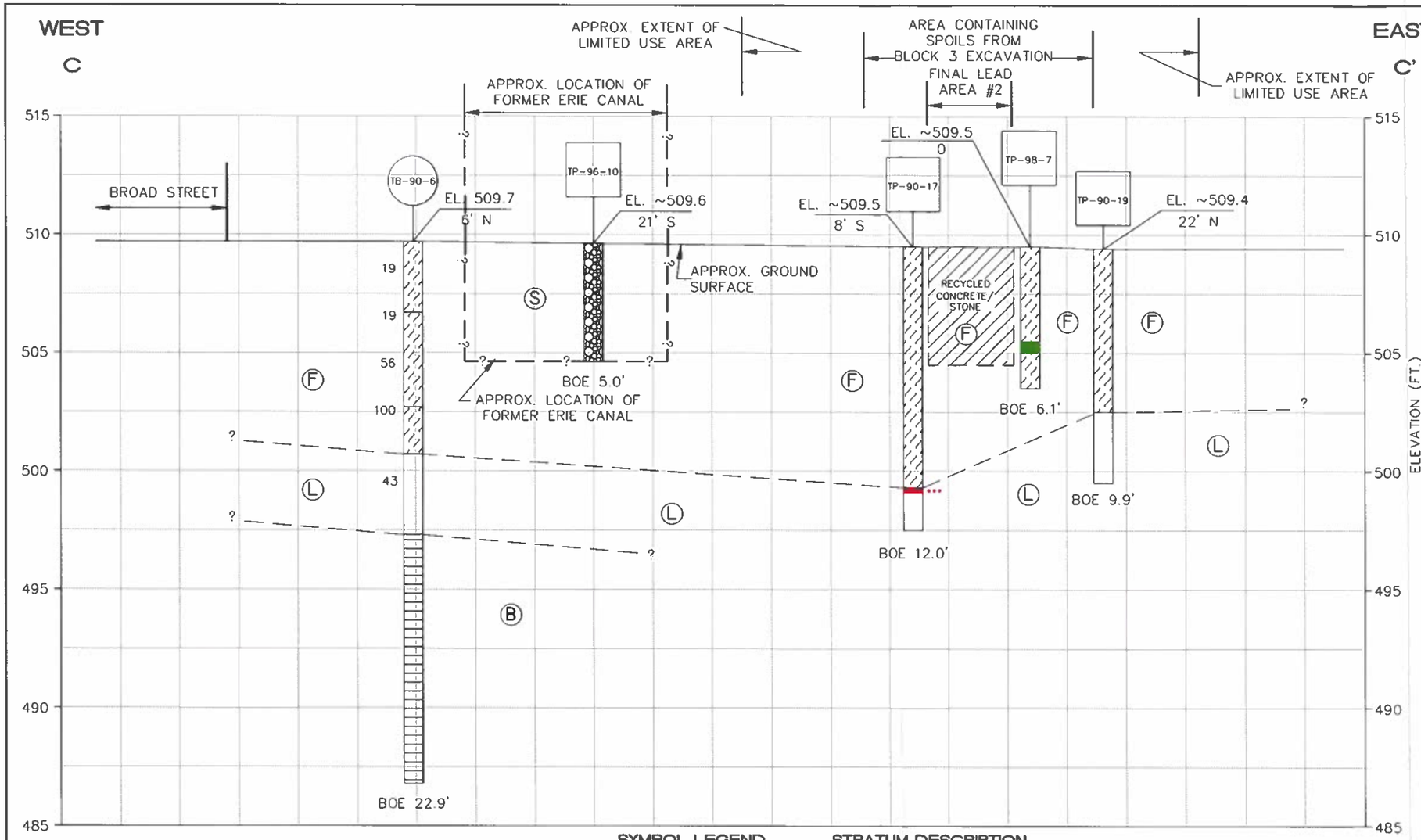
SUBSURFACE PROFILE B-B'

SCALE: AS SHOWN

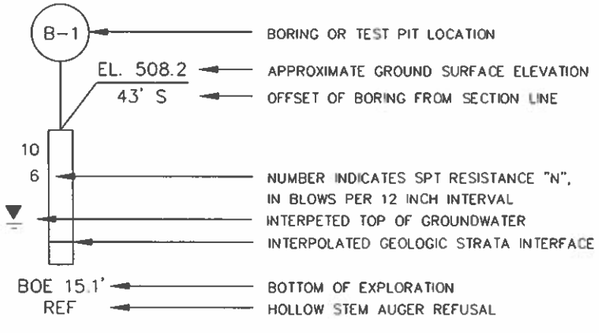
SEPTEMBER 2002

70606-003 XSECB-B.DWG

FIGURE 5B



SOIL BORING LEGEND



SYMBOL LEGEND

STRATUM DESCRIPTION

(F) MISCELLANEOUS FILL

LOOSE TO VERY DENSE, BLACK, BROWN AND TAN, SAND, SILT, AND GRAVEL OR CRUSHED STONE, METAL, WOOD, BRICK, ASPHALT, AND/OR CINDERS.

(L) LACUSTRINE DEPOSITS

STIFF TO HARD, BROWN AND TAN, SILT AND SAND, OCCASIONAL CLAY LENSES.

(G) GLACIAL TILL

DENSE, BROWN AND GRAY-BROWN, SAND ,SILT, AND GRAVEL , OCCASIONAL COBBLES.

(B) BEDROCK

HARD, GRAY, THIN BEDDED, DOLOMITE WITH OBLIQUE AND WEATHERED FRACTURES.

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SHOT ROCK (TUNNELING WASTE) GENERATED DURING THE CONSTRUCTION OF THE COMBINED SEWER OVERFLOW ABATEMENT PROJECT (CSOAP) IN THE EARLY 1980's, PRIMARILY CRUSHED STONE, SHOT ROCK AND BOULDERS (AS LARGE AS 4 FT. IN DIAMETER).

NOTES:

1. ELEVATIONS ARE IN FEET AND ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD).
2. LINES REPRESENTING INTERFACES BETWEEN OR CHANGES WITHIN STRATA ON PROFILES ARE BASED UPON INTERPOLATION BETWEEN BORINGS SHOWN ON PROFILES AS WELL AS BORINGS NOT SHOWN ON PROFILES. THE INTERFACE LINES ARE INTENDED TO SHOW THE GENERAL SEQUENCE OF STRATA AND MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS.
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8. COMPOSITE SAMPLE FOR CHEMICAL ANALYSIS INDICATED BY COLORATION OF FULL DEPTH.
9. *** INDICATES EXCEEDANCE OF THE TAGM AT LEAST PARTIALLY ATTRIBUTABLE TO LAB CONTAMINATION.

LEGEND

- = AT LEAST ONE ANALYTE EXCEEDS TAGM CLEAN UP OBJECTIVES AT THE DEPTH INDICATED, SEE TABLE I.
- = AT LEAST ONE ANALYTE PRODUCED TEST RESULTS GREATER THAN DETECTION THRESHOLD, BUT LESS THAN TAGM CLEAN UP OBJECTIVES AT THE DEPTH INDICATED, SEE TABLE I.
- = NO ANALYTES EXCEED DETECTION THRESHOLD VALUE AT DEPTH INDICATED, SEE TABLE I.

0 40 80
HORIZONTAL SCALE IN FEET

0 5 10
VERTICAL SCALE IN FEET

HALEY & ALDRICH

ERIE CANAL INDUSTRIAL PARK – BLOCK 2 & 3
CITY OF ROCHESTER DEPT. OF ENVIRONMENTAL SERVICES
ROCHESTER, NEW YORK

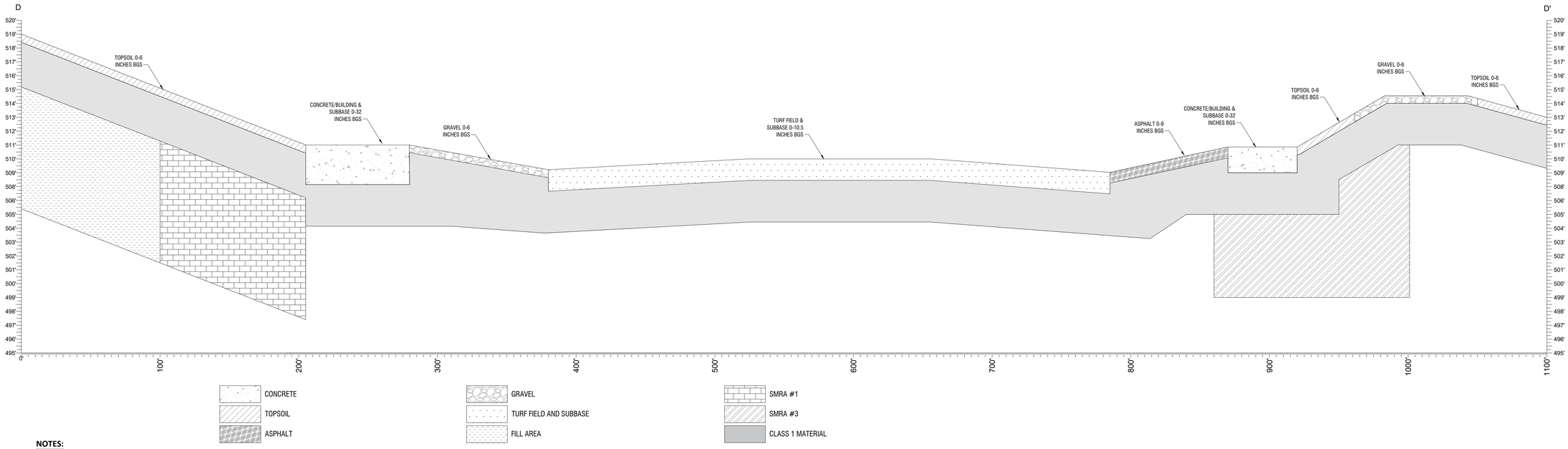
SUBSURFACE PROFILE C-C'

SCALE: AS SHOWN

SEPTEMBER 2002

70606-003 XSECB-B.DWG

FIGURE 5C



NOTES:

1. CLASS 1 MATERIAL USED AS NON-STRUCTURAL FILL BENEATH PARKING LOTS, SIDEWALKS, AND PLAYING FIELD TO VARYING DEPTHS GENERALLY UP TO 3-FT BGS. CLASS 1 MATERIAL ALSO USED AS SURFACE COVER FOR LANDSCAPED AREAS.
2. SOIL MANAGEMENT REUSE AREA (SMRA) #1 - CLASS 3 MATERIAL FROM 8-10 FT BGS, CLASS 6 MATERIAL FROM 6-8 FT BGS, CLASS 1 AND 2 MATERIAL FROM 3-6 FT BGS, AND CLASS 1 MATERIAL FROM 0.5-3 FT BGS.
3. SMRA #3 - CLASS 6 SOIL FROM 6-12 FT BGS, CLASS 1 AND 2 MATERIAL FROM 3-6 FT BGS, AND CLASS 1 MATERIAL FROM 0.5-3 FT BGS.
4. ALL LOCATIONS AND DEPTHS WERE DETERMINED FROM PREVIOUS REPORTS AND ARE CONSIDERED APPROXIMATE.

NO.	REVISION	BY	DATE
:	:	:	:
:	:	:	:
:	:	:	:
:	:	:	:
:	:	:	:
:	:	:	:

LaBella
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PROJECT/CLIENT

SITE MANAGEMENT PLAN
ROCHESTER COMMUNITY
SPORTS COMPLEX
FORMER ERIE COUNTY
INDUSTRIAL PARK
CITY OF ROCHESTER

DRAWING TITLE

CROSS SECTION D-D'

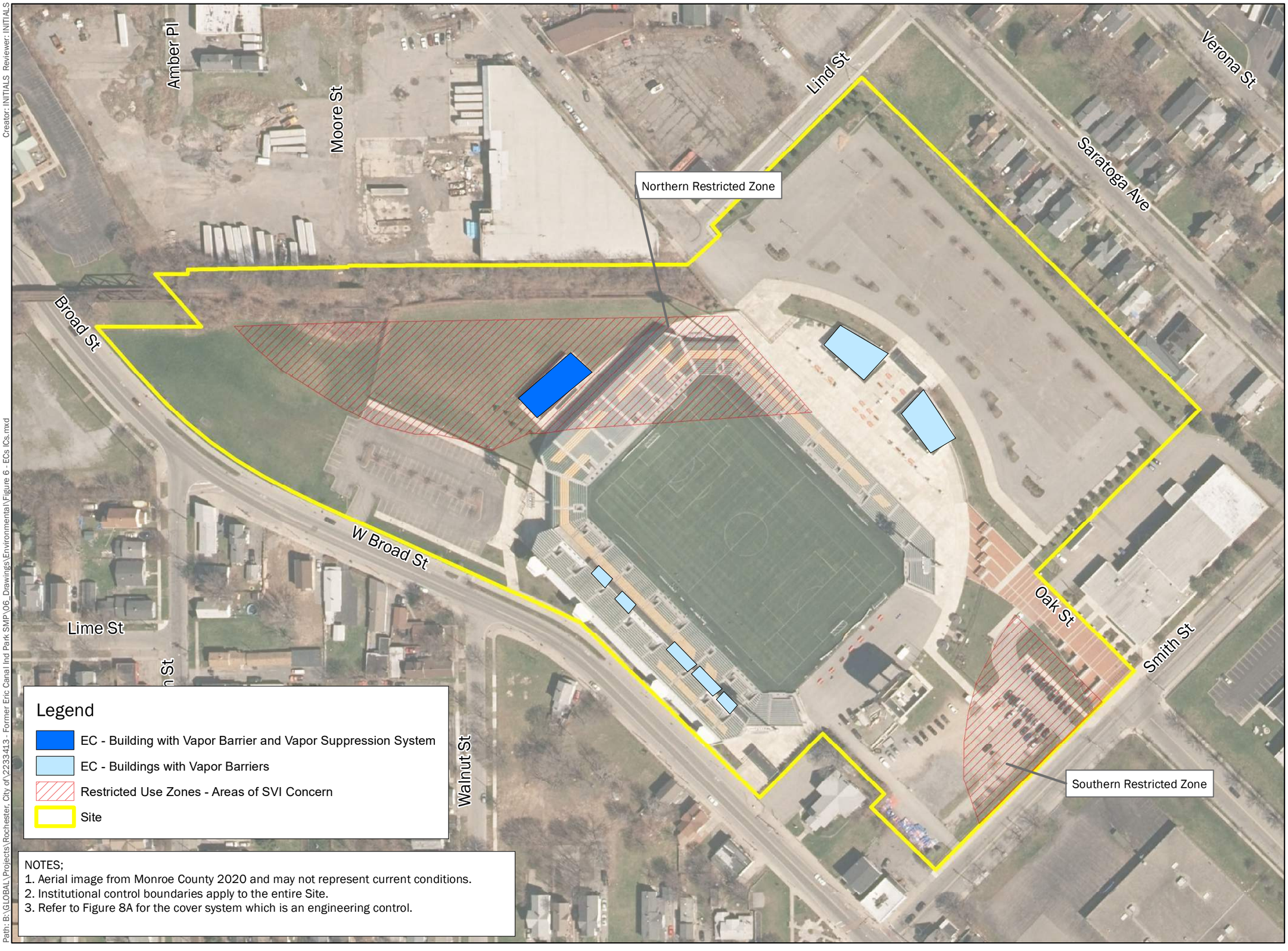
ISSUED FOR: FINAL
DATE: OCTOBER, 2023

DESIGNED BY: AB
DRAWN BY: DRP
REVIEWED BY: AB

PROJECT/DRAWING NUMBER

2233413

FIGURE 5D



Creator: INITIALS Reviewer: INITIALS

Path: B:\GLOBAL\Projects\Rochester, City of\2233413 - Former Eric Canal Ind Park SMP\06_Drawings\Environmental\Figure 6 - ECs ICs.mxd

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CITY OF ROCHESTER

SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

N

0 125 Feet

1 inch = 125 feet

LaBella Project No: 2233413

Date: 11/27/2023

11" x 17"

AREA OF SOIL VAPOR INTRUSION CONCERN, INSTITUTIONAL CONTROL BOUNDARIES AND ENGINEERING CONTROLS

FIGURE 6

Note #1

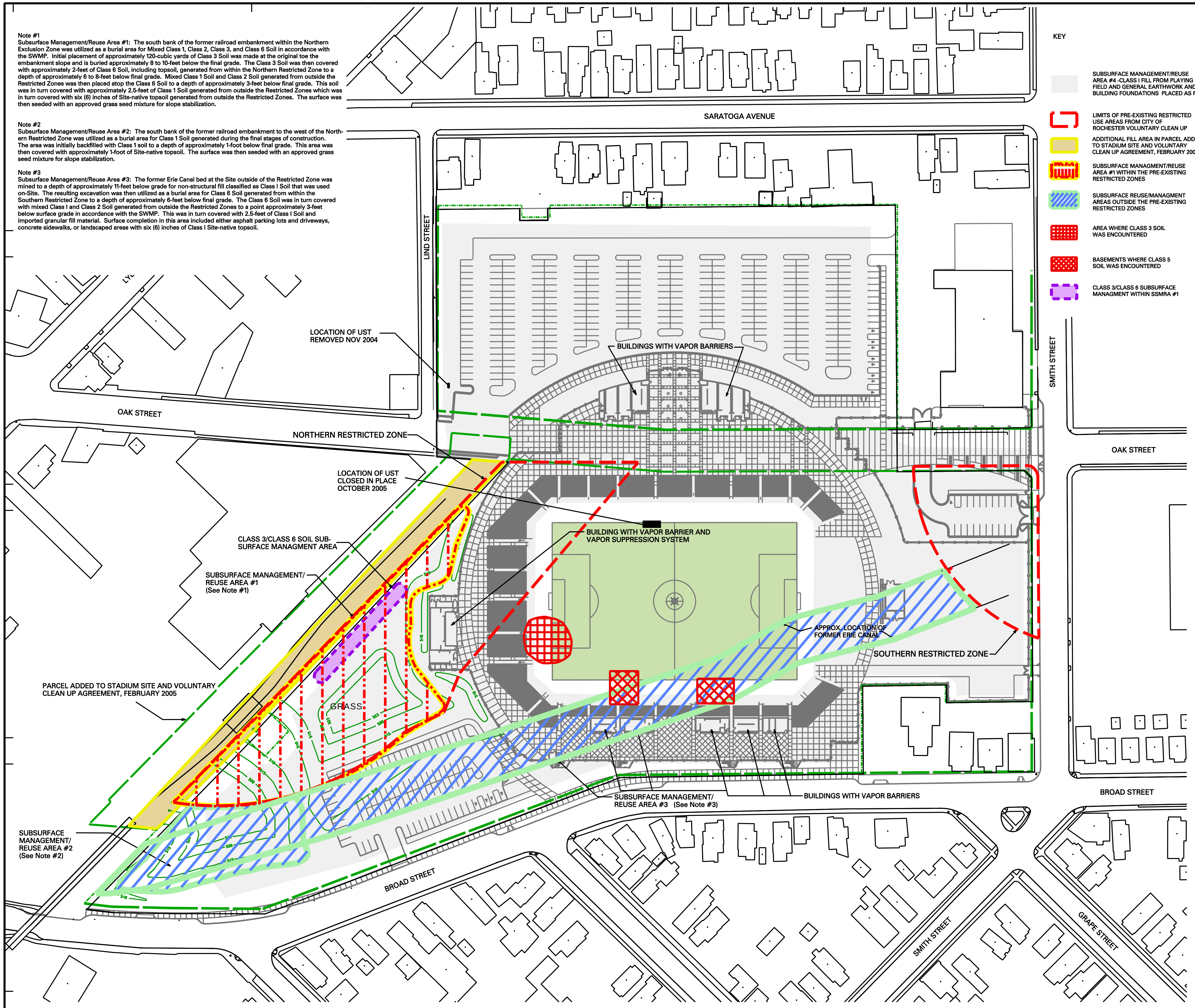
Subsurface Management/Reuse Area #1: The south bank of the former railroad embankment within the Northern Exclusion Zone was utilized as a burial area for Mixed Class 1, Class 2, Class 3, and Class 6 Soil in accordance with the SWMP. Initial placement of approximately 120-cubic yards of Class 3 Soil was made at the original toe the embankment slope and is buried approximately 8 to 10-feet below the final grade. The Class 3 Soil was then covered with approximately 2-feet of Class 6 Soil, including topsoil, generated from within the Northern Restricted Zone to a depth of approximately 6 to 8-feet below final grade. Mixed Class 1 Soil and Class 2 Soil generated from outside the Restricted Zones was then placed atop the Class 6 Soil to a depth of approximately 3-feet below final grade. This soil was in turn covered with approximately 2.5-feet of Class 1 Soil generated from outside the Restricted Zones which was in turn covered with six (6) inches of Site-native topsoil generated from outside the Restricted Zones. The surface was then seeded with an approved grass seed mixture for slope stabilization.

Note #2

Subsurface Management/Reuse Area #2: The south bank of the former railroad embankment to the west of the Northern Restricted Zone was utilized as a burial area for Class 1 Soil generated during the final stages of construction. The area was initially backfilled with Class 1 soil to a depth of approximately 1-foot below final grade. This area was then covered with approximately 1-foot of Site-native topsoil. The surface was then seeded with an approved grass seed mixture for slope stabilization.

Note #3

Subsurface Management/Reuse Area #3: The former Erie Canal bed at the Site outside of the Restricted Zone was mined to a depth of approximately 11-feet below grade for non-structural fill classified as Class I Soil that was used on-Site. The resulting excavation was then utilized as a burial area for Class 6 Soil generated from within the Southern Restricted Zone to a depth of approximately 6-feet below final grade. The Class 6 Soil was in turn covered with mixed Class I and Class 2 Soil generated from outside the Restricted Zones to a point approximately 3-feet below surface grade in accordance with the SWMP. This was in turn covered with 2.5-feet of Class I Soil and imported granular fill material. Surface completion in this area included either asphalt parking lots and driveways, concrete sidewalks, or landscaped areas with six (6) inches of Class I Site-native topsoil.



SPORT+VENUE+EVENT
323 West 8th St., Suite 700
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(816) 221-1500

LABELLA ASSOCIATES
Consultants
300 State Street, Suite 201
Rochester, NY 14614
(585) 454-6110

BREDSON & ASSOCIATES
Consultants
9503 E 63rd Street, Suite 214
Raytown, MO. 64133
(816) 356-0569

ROCHESTER RHINOS PAETEC PARK
ROCHESTER, NEW YORK

PACKAGE

REVISIONS

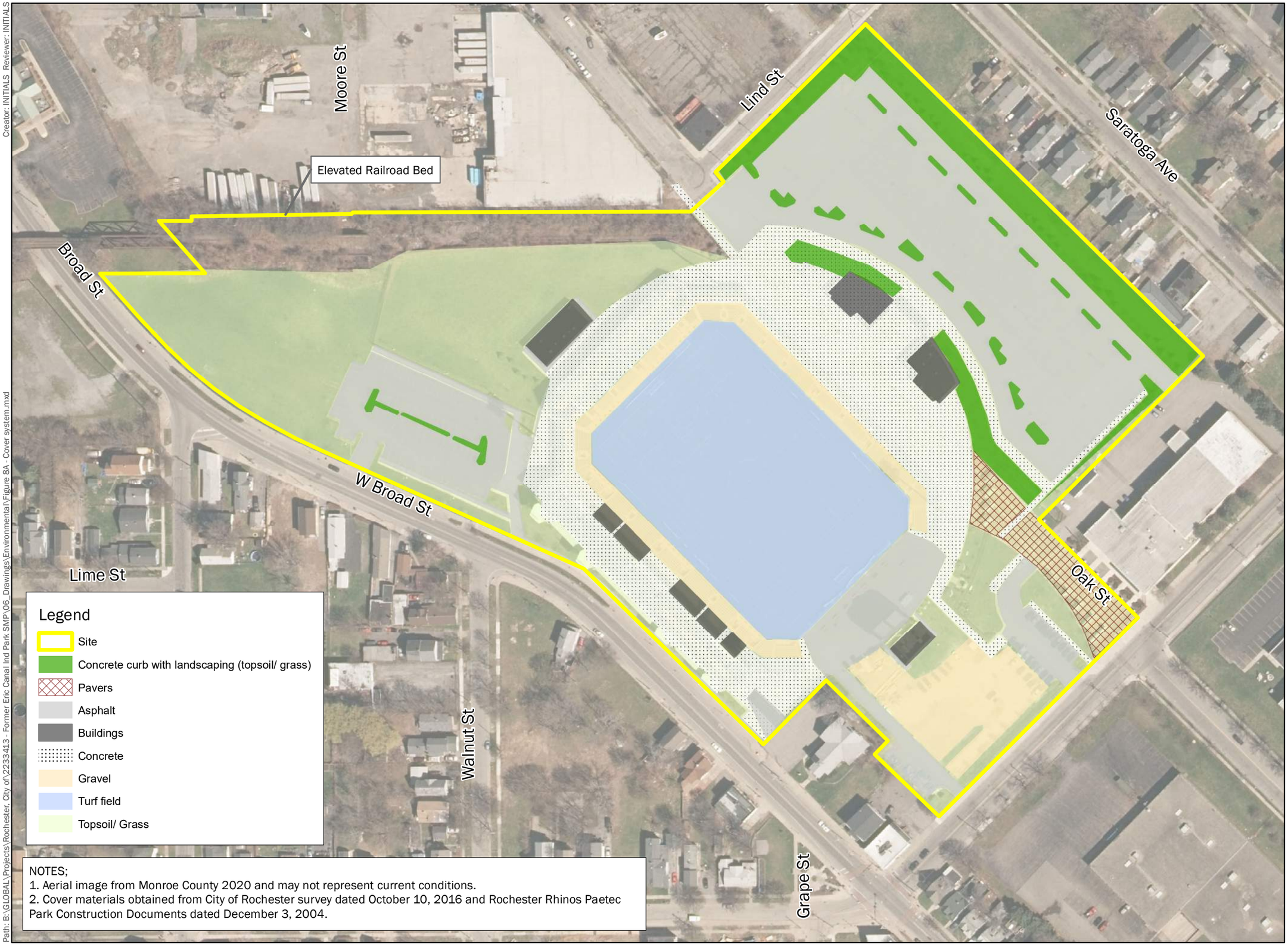
NO.	DATE	DESCRIPTION

KEYPLAN

PROJECT NO. 203174.06	ISSUED BY:
DRAWN BY: RCN	REVIEWED BY: CS
ISSUE DATE: 6-27-2006	

SHEET TITLE:
REUSE OF MATERIALS

FIGURE 7



NOTES;
1. Aerial image from Monroe County 2020 and may not represent current conditions.
2. Cover materials obtained from City of Rochester survey dated October 10, 2016 and Rochester Rhinos Paetec Park Construction Documents dated December 3, 2004.

LaBella
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CITY OF ROCHESTER
SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

N

0 125 Feet

1 inch = 125 feet

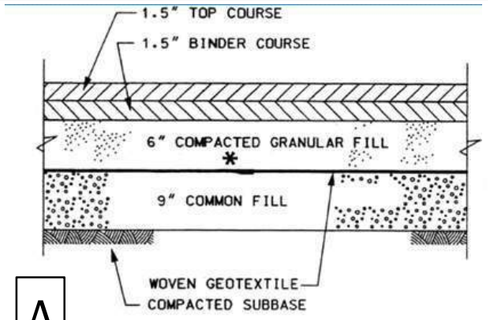
LaBella Project No: 2233413

Date: 11/27/2023

11" x 17"

COVER SYSTEM AS-BUILT

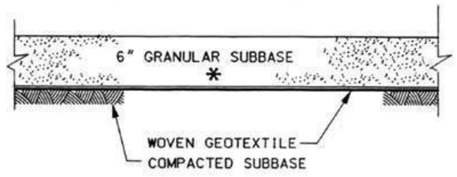
FIGURE 8A



A

ASPHALT PAVEMENT

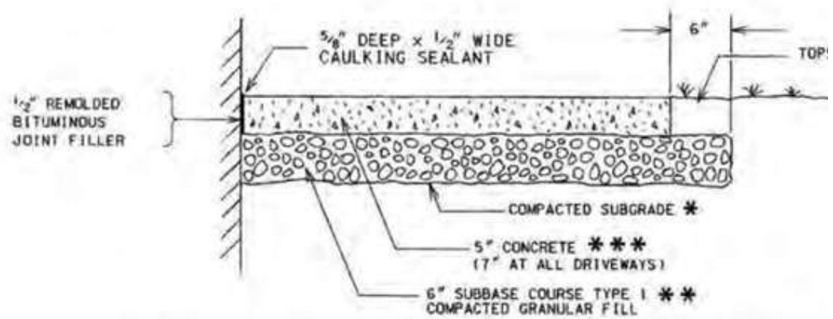
* CONTRACTOR TO REGRADE AND ADD MATERIAL AS NECESSARY



B

SURFACE BENEATH SEATING

* CONTRACTOR TO REGRADE AND ADD MATERIAL AS NECESSARY



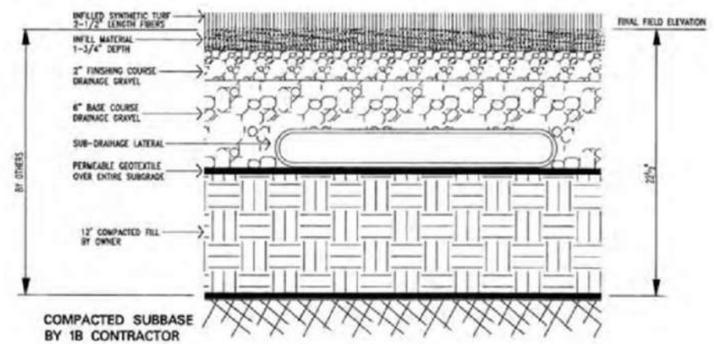
C

CONCRETE SIDEWALK SECTION

* OUTSIDE OF ROW. INSTALL WOVEN GEOTEXTILE OVER 7" COMMON FILL ABOVE COMPACTED SUBGRADE

** CONTRACTOR TO REGRADE AND ADD MATERIAL AS NECESSARY

*** USE CLASS K CONCRETE FOR SIDEWALKS WITHIN C.O.R. R.O.W.. REFER TO SPECIFICATION FOR ALL OTHER LOCATIONS.

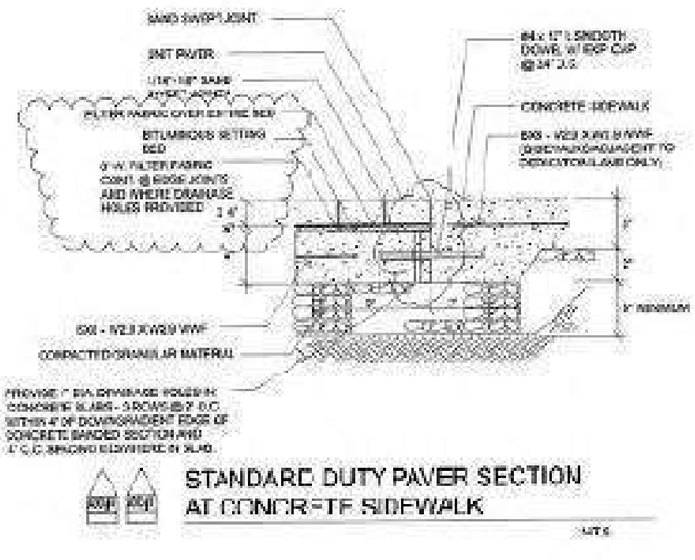


D

FIELD ROUGH GRADE DETAIL

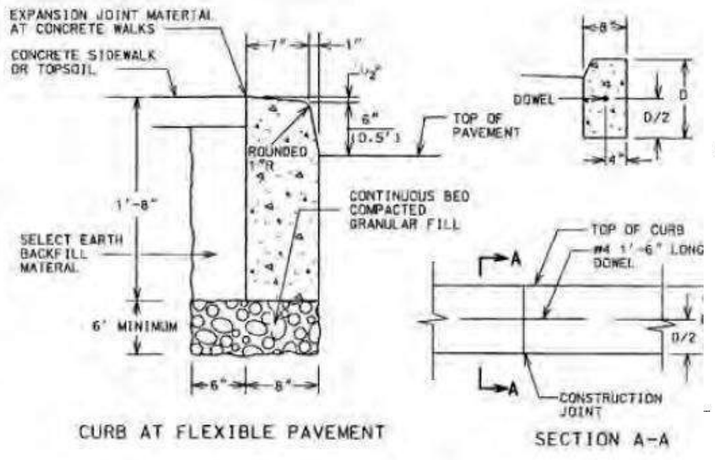
SECTION AT SOCCER PITCH

3" = 1'-0"



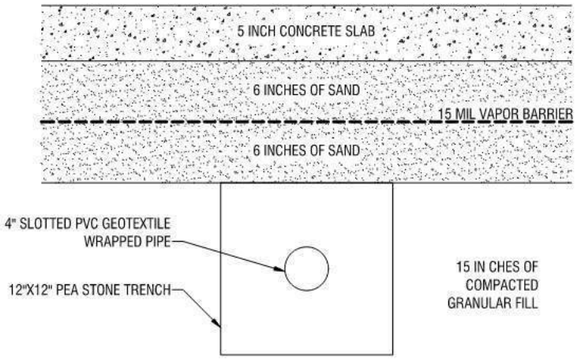
E

STANDARD DUTY PAVER SECTION AT CONCRETE SIDEWALK



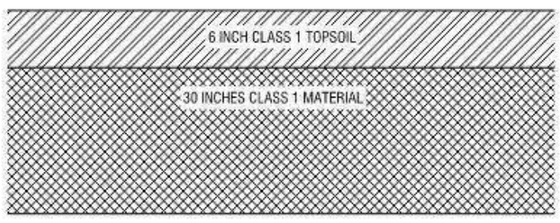
F

CONCRETE CURB



G

FOUNDATION DETAIL WITH PASSIVE VAPOR SUPPRESSION SYSTEM



H

TOPSOIL

NOTES;
1. Details obtained from Rochester Rhinos Paetec Park Construction Documents dated December 3, 2004.
2. Cover system installed from 2004-2006 during redevelopment.
3. Refer to Figure 8A for locations of cover system materials.

LaBella
Powered by partnership.

CITY OF ROCHESTER

SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

NOT TO SCALE

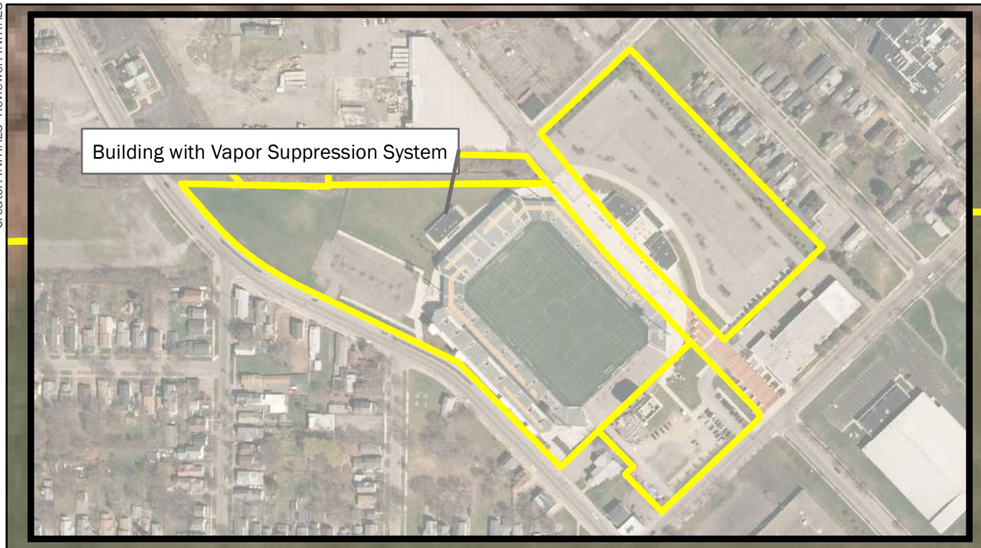
LaBella Project No: 2233413

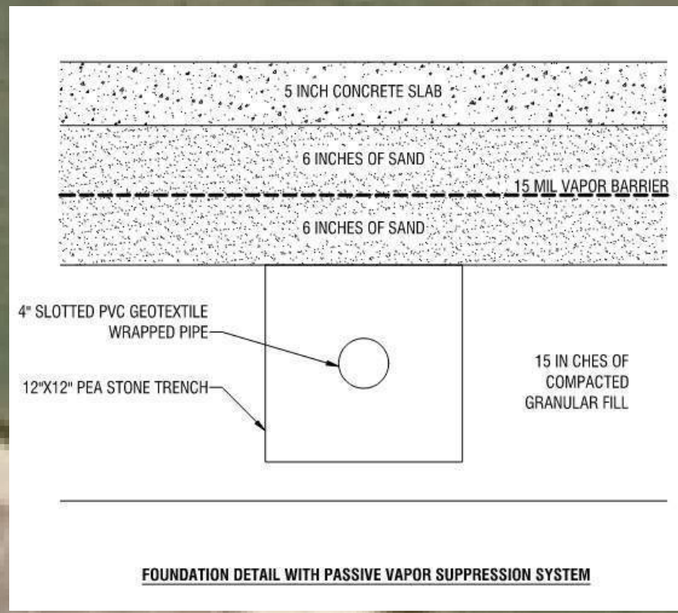
Date: 10/4/2023

11" x 17"

COVER SYSTEM DETAILS

FIGURE 8B





FOUNDATION DETAIL WITH PASSIVE VAPOR SUPPRESSION SYSTEM

Legend

- Riser Pipe (4" PVC)
- Sub-Slab Ventilation Piping (4" Slotted PVC Geotextile Wrapped)
- Site Parcels

NOTES;
1. Aerial image from Monroe County 2020 and may not represent current conditions.
2. Parcel boundaries obtained from Monroe County GIS and are considered approximate.
3. Piping locations are approximate.

LaBella
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CITY OF ROCHESTER
SITE MANAGEMENT PLAN

ROCHESTER COMMUNITY SPORTS COMPLEX

FORMER ERIE CANAL INDUSTRIAL PARK

N

0 25 Feet

1 inch = 25 feet

LaBella Project No: 2233413

Date: 9/22/2023

11" x 17"

PASSIVE VAPOR SUPPRESSION SYSTEM AS-BUILT

FIGURE 9

TABLES

Rochester Community Sports Complex (RCSC) Former Erie Canal Industrial Park (ECIP)
Site Management Plan
Table 1 - Remaining Contamination in Soil
LaBella Project #2233413

ID		Restricted	Protection of	TP-89-1	TP-90-1 (dup)	TP-90-7	TP-90-7	TP-90-7A	TP-90-8	TP-90-8	TP-90-8A	TP-90-11	TP-90-13	TP-90-13	TP-90-13B	TP-90-13C
Sample Depth	**Unrestricted**	Residential Use	Groundwater	2-9'	4.5' & 8'	3.2'	6.9'	6.5-6.9'	1.9-3.5'	1.9-3.5'	6.8-7'	6.4'	6-8'	9'	7'	7.5-8'
Sample Date	**Use SCOs**	SCOs	SCOs	10/5/1989	1/18/1990	1/18/1990	1/18/1990	1/19/1990	1/19/1990	1/19/1990	1/19/1990	1/19/1990	1/19/1990	1/19/1990	1/19/1990	1/19/1990
VOCs																
Benzene	0.06	4.8	0.06	**0.151**	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	0.05	100	0.05	--	--	**0.24**	**0.13**	**0.051**	**0.06**	**0.7**	**0.1**	**0.052**	**0.06**	**0.066**	**0.053**	**0.088**
Xylenes	0.26	100	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	0.7	100	0.7	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	1	41	1	--	**1.4**	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	0.27	26	0.27	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.47	21	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																
PCBs, Total	0.1	1	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																
Arsenic	13	16	16													
Cadmium	2.5	4.3	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	63	400	450	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0.18	0.81	0.73	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs																
Benzo(a)anthracene	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	1	1	22													
Benzo(b)fluoranthene	1	1	1.7													
Chrysene	1	3.9	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	0.8	3.9	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	0.33	0.33	1000													
Indeno(1,2,3-cd)pyrene	0.5	0.5	8.2	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
Concentrations in micrograms per kilogram (mg/kg) or parts per million (ppm)
-- indicates no exceedances of applicable Soil Cleanup Objectives (SCOs)
Bold font indicates the concentration exceeds 6NYCRR Part 375 Unrestricted Use SCOs
Underlined font indicates the concentration exceeds 6NYCRR Part 375 Restricted Residential Use SCOs
Red font indicates the concentration exceeds 6NYCRR Part 375 Protection of Groundwater SCOs
Data was obtained from previous reports (refer to Section 8.0 of the SMP)

Rochester Community Sports Complex (RCSC) Former Erie Canal Industrial Park (ECIP)
Site Management Plan
Table 1 - Remaining Contamination in Soil
LaBella Project #2233413

ID		Restricted	Protection of	TP-01	TP-06	TP-11	TP-4 (1996)	TP-8 (1996)	TP-97-10	TP-97-12	TP-97-16	TP-98-5	TB-1(RR)	TB-3(RR)	TB-6(RR)	TB-8(RR)
Sample Depth	**Unrestricted**	Residential Use	Groundwater	4.1'	4.6'	6.8'	1.3-3'	0-4'	1.5-5.8'	composite	1.9-7.9'	7.01'	0-1'	0-1'	0-1'	0-1'
Sample Date	**Use SCOs**	SCOs	SCOs	5/20/1994	5/20/1994	5/20/1994	11/8/1996	11/8/1996	7/8/1997	7/8/1997	7/8/1997	12/4/1998	11/28/2005	11/28/2005	11/28/2005	11/28/2005
VOCs																
Benzene	0.06	4.8	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	0.05	100	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes	0.26	100	1.6	**1.3**	**29**	--	--	--	--	**0.4674**	--	--	--	--	--	--
Toluene	0.7	100	0.7	--	**7**	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	1	41	1	--	**4.9**	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	0.27	26	0.27	--	**1.3**	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	0.47	21	0.47	--	**1.3**	--	--	--	--	--	--	--	--	--	--	--
PCBs																
PCBs, Total	0.1	1	3.2	--	--	**2.9**	--	--	**8**	--	**1.7**	--	--	--	--	--
Metals																
Arsenic	13	16	16										--	--	**42.2**	**16.8**
Cadmium	2.5	4.3	7.5	--	--	--	**2.83**	--	--	--	--	--	--	--	**4.36**	**3.19**
Lead	63	400	450	--	--	--	**404**	--	--	--	--	--	**85**	**152**	**193**	**117**
Mercury	0.18	0.81	0.73	--	--	--	**1.49**	**0.456**	--	--	--	--	--	**0.318**	--	**0.327**
SVOCs																
Benzo(a)anthracene	1	1	1	--	--	--	--	--	--	--	--	**1.322**	**1.05**	--	**3.79**	**1.32**
Benzo(a)pyrene	1	1	22										--	--	**3.2**	**1.28**
Benzo(b)fluoranthene	1	1	1.7										--	--	**3.45**	**1.42**
Chrysene	1	3.9	1	--	--	--	--	--	--	--	--	**1.113**	**1.06**	--	**3.69**	**1.48**
Benzo(k)fluoranthene	0.8	3.9	1.7	--	--	--	--	--	--	--	--	**2.487**	--	--	**3.19**	**0.819**
Dibenz(a,h)anthracene	0.33	0.33	1000										--	--	**0.811**	--
Indeno(1,2,3-cd)pyrene	0.5	0.5	8.2	--	--	--	--	--	--	--	--	**0.507**	**0.52**	--	**1.68**	**0.736**

Notes:
Concentrations in micrograms per kilogram (mg/kg) or parts per million (ppm)
-- indicates no exceedances of applicable Soil Cleanup Objectives (SCOs)
Bold font indicates the concentration exceeds 6NYCRR Part 375 Unrestricted Use SCOs
Underlined font indicates the concentration exceeds 6NYCRR Part 375 Restricted Residential Use SCOs
Red font indicates the concentration exceeds 6NYCRR Part 375 Protection of Groundwater SCOs
Data was obtained from previous reports (refer to Section 8.0 of the SMP)

Rochester Community Sports Complex (RCSC) Former Erie Canal Industrial Park (ECIP)
Site Management Plan
Table 2 - Remaining Contamination in Groundwater
LaBella Project #2233413

ID	NYSDEC Groundwater Standard	MW-1	TB-90-1	TB-90-3	TB-90-4	TB-90-5	TB-90-4	TB-90-5
Sample Date		9/13/1991	2/16/1990	2/16/1990	2/16/1990	2/16/1990	5/23/1994	5/23/1994
VOCs								
Vinyl chloride	2	--	--	--	--	--	7.9	--
1,1-dichloroethane	5	--	--	--	--	72	--	14
cis-1,2-dichloroethene	5	--	--	--	--	--	19	10
trans-1,2-dichloroethyelene	5	--	16	6	--	54	--	--
Trichloroethylene	5	--	17	--	--	12	--	--
Tetrachloroethylene	5	--	--	--	--	--	--	--
Benzene	1	--	22	--	--	--	--	--
Toluene	5	--	5.8	--	--	--	--	--
Xylenes, total	5	--	220	--	--	--	--	--
Chloroform	7	--	--	--	7.2	--	--	--
1,1,1-trichloroethane	5	--	--	--	--	120	--	--
1,1-dichloroethylene	5	--	--	--	--	4	--	--
Chloroethene	5	--	--	--	--	20	--	--
Metals								
Lead	25	37	--	--	--	--	--	--

Notes:
Concentrations in micrograms per liter (ug/L) or parts per billion (ppb)
Yellow highlight indicates concentration exceeds NYSDEC TOGS 1.1.1 Groundwater Quality Standard/ Part 703 Guidance Value
Data was obtained from previous reports (refer to Section 8.0 of the SMP)
-- indicates no exceedances of applicable Soil Cleanup Objectives (SCOs)

Rochester Community Sports Complex (RCSC) Former Erie Canal Industrial Park (ECIP)
Site Management Plan
Table 3 - Groundwater Elevation Data
LaBella Project #2233413

Well	Well Type	Top of Riser Elevation (ft)	Static Water Level (ft bgs)	GW Elevation (ft) 10/11/1991
MW-1	Bedrock	510.93	16.19	494.74
MW-2	Bedrock	506.94	11.57	495.37
TB-90-1	Overburden	511.4	damaged	damaged
TB-90-2	Overburden	514.57	15.22	499.35
TB-90-3	Bedrock	512.4	17.68	494.72
TB-90-4	Bedrock	509.71	15.9	493.81
TB-90-5	Bedrock	511.09	15.41	495.68
TB-90-6	Bedrock	511.74	16.93	494.81

Data obtained from Phase II ESA by DAY, October 1991

Table 4 - Applicable SCOs

Appendix 5
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on *Soil Cleanup Guidance*. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent[1]	1 [3]	19	19	19	1 [3]
Chromium, Trivalent[1]	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 [3]	1.8	8.9	17	0.0033 [3]
4,4'-DDT	0.0033 [3]	1.7	7.9	47	0.0033 [3]
4,4'-DDD	0.0033 [3]	2.6	13	14	0.0033 [3]
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 [4]
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 [4]
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4[2]	4.8	24	102	NS
Endosulfan II	2.4[2]	4.8	24	102	NS
Endosulfan sulfate	2.4[2]	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

Table 4 - Applicable SCOs

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 [3]	0.33 [3]	0.33 [3]	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]
Phenanthrene	100	100	100	500	NS
Phenol	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 [3]	0.1 [3]	0.1 [3]	0.1 [3]	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 [3]	0.33 [3]	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

Table 4 - Applicable SCOs

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)
NS = Not Specified

Footnotes:
[1] The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.
[2] The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.
[3] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.
[4] This SCO is derived from data on mixed isomers of BHC.

Table 4 - Applicable SCOs

Soil Sample Results

Soil cleanup objectives for PFOA and PFOS have been proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values:

Guidance Values for Anticipated Site Use	PFOA (ppb)	PFOS (ppb)
Unrestricted	0.66	0.88
Residential	6.6	8.8
Restricted Residential	33	44
Commercial	500	440
Industrial	600	440
Protection of Groundwater[2]	1.1	3.7

APPENDIX A – LIST OF SITE CONTACTS

Name	Phone/Email Address
Site Owner Jane M. Forbes Assoc. Environmental Specialist City of Rochester 30 Church Street Room 300B Rochester, NY 14614	(585)428-7892 Jane.Forbes@CityofRochester.Gov
Remedial Party Jane M. Forbes Assoc. Environmental Specialist City of Rochester 30 Church Street Room 300B Rochester, NY 14614	(585)428-7892 Jane.Forbes@CityofRochester.Gov
Qualified Environmental Professional Mike Pelychaty LaBella Associates, DPC 300 State Street Rochester, NY 14614	585-295-6253 mpelychaty@labellapc.com
NYSDEC DER Project Manager Joshuah J. Klier 6274 East Avon-Lima Road Avon, NY 14414	585-226-5357 Joshuah.klier@dec.ny.gov
NYSDEC DER Project Manager's Supervisor David Pratt 6274 East Avon-Lima Road Avon, NY 14414	585-226-5315 david.pratt@dec.ny.gov
NYSDEC Site Control Kelly Lewandowski 625 Broadway Albany, NY 12233-7020	518-402-9547 kelly.lewandowski@dec.ny.gov
[NYSDOH Project Manager]	[phone] [email address]
~~[On and off-site access contacts such as tenants, adjacent property owners, etc.]~~	~~[phone] [email address]~~

	~~[Remedial Party Attorney]~~	~~[phone] [email address]~~

APPENDIX B – EXCAVATION WORK PLAN (EWP)

B-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination or breach or alter the site's cover system, the site owner or their representative will notify the NYSDEC contacts listed in the table below. Table B-1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B-1.

Table B-1: Notifications*

NYSDEC Project Manager; Joshuah Klier	585-226-5357 Joshuah.klier@dec.ny.gov
NYSDEC Regional HW Engineer; David Pratt	585-226-5315 david.pratt@dec.ny.gov
NYSDEC Site Control; Kelly Lewandowski	518-402-9547 kelly.lewandowski@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated, any modifications of truck routes, and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;

- A schedule for the work, detailing the start and completion of all intrusive work, and submittals (e.g., reports) to the NYSDEC documenting the completed intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP, 29 CFR 1910.120 and 29 CFR 1926 Subpart P;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix G of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with the required request to import form and all supporting documentation including, but not limited to, chemical testing results.

The NYSDEC project manager will review the notification and may impose additional requirements for the excavation that are not listed in this EWP. The alteration, restoration and modification of engineering controls must conform with Article 145 Section 7209 of the Education Law regarding the application professional seals and alterations.

B-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed during all excavations into known or potentially contaminated material (remaining contamination) or a breach of the cover system. Soils exhibiting greater than 50 ppm shall not be reused on-Site. Soil/ fill with less than 50 ppm PID readings may be tested for reuse as defined in Section B-7. A qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will perform the screening. Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Section B-7 of this Appendix.

B-3 SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

B-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site. A site utility stakeout will be completed for all utilities prior to any ground intrusive activities at the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements). Trucks transporting contaminated soil must have either tight-fitting opaque covers that are secured on the sides and/or back, or opaque covers that are locked on all sides.

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials. Material accumulated from the street cleaning and egress cleaning activities will be disposed off-site at a permitted landfill facility in accordance with all applicable local, State, and Federal regulations.

B-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with either tight-fitting opaque covers that are secured on the sides and/or back, or opaque covers that are locked on all sides. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes will be determined based on the work to be performed and included in the 15-day notification to NYSDEC. ~~are as follows~~. All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.; ~~[(g) community input [where necessary]~~

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

B-6 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed off-site in a permitted facility in accordance with all local, State and Federal regulations. If

disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC project manager. Unregulated off-site management of materials from this site will not occur without formal NYSDEC project manager approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, (e.g. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C&D debris recovery facility). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include, but will not be limited to: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled consistent with 6 NYCRR Parts 360, 361, 362, 363, 364 and 365. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 360-15 registered or permitted facility).

B-7 MATERIALS REUSE ON-SITE

During redevelopment of the Site in 2004-2006, materials were reused on-Site as defined in the *Soil and Water Management Plan* (SWMP) by LaBella dated August 2004 (refer to Section 2.2.2 in this SMP for classifications of materials and Table B in this SMP for final placement of materials). Soil and fill exhibiting less than 50 ppm PID readings, light to moderate petroleum odor and/or staining were reused on Site beneath the cover/ cap. Soil and fill exhibiting 50-1,000 ppm PID readings, moderate petroleum odor and staining were reused in restricted use areas, beneath paved parking lots, or used as landscaped bio-cell berms and covered with clean material.

For the purpose of this SMP and consistency with previous redevelopment work, a PID screening level of 50 ppm, will be utilized for reuse of materials. Materials exhibiting PID readings less than 50 ppm and light to moderate petroleum odor and/or staining may be tested per DER-10 Table 5.4(e)10 for potential reuse beneath the cover system (minimum 2-ft clean material) or beneath a cap (e.g., asphalt, concrete). Materials exhibiting PID readings greater than 50 ppm, significant odors/ staining or free product may not be reused on-Site and shall be disposed of in accordance with Section B-6.

The qualified environmental professional, as defined in 6 NYCRR Part 375, will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material (i.e. contaminated) does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within the cover system or within landscaping berms. Contaminated on-site material may only be used beneath the site cover as backfill for subsurface utility lines with prior approval from the DEC project manager.

Proposed materials for reuse on-site must be sampled for full suite analytical parameters including per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. The sampling frequency will be in accordance with DER-10 Table 5.4(e)10 unless prior approval is obtained from the NYSDEC project manager for modification of the sampling frequency. The analytical results of soil/fill material testing must meet the site use criteria presented in NYSDEC DER-10 Appendix 5 – Allowable Constituent Levels for Imported Fill or Soil for all constituents listed, and the NYSDEC Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances November 2022 guidance values. Approvals for modifications to the analytical parameters must be obtained from the NYSDEC project manager prior to the sampling event.

Soil/fill material for reuse on-site will be segregated and staged as described in Sections B-2 and B-3 of this EWP. The anticipated size and location of stockpiles will be provided in the 15-day notification to the NYSDEC project manager. Stockpile locations will be based on the location of site excavation activities and proximity to nearby site features. Material reuse on-site will comply with requirements of NYSDEC

DER-10 Section 5.4(e)4. Any modifications to the requirements of DER-10 Section 5.4(e)4 must be approved by the NYSDEC project manager.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

B-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed off-site at a permitted facility in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

B-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the Site use per DER-10 (i.e., Restricted Residential) ~~[RAWP, decision document, or Record of Decision]~~. The existing cover system is comprised of a minimum of 36 ~~24~~ inches of clean soil, turf field, asphalt pavement, concrete covered sidewalks and concrete building, etc.. ~~The demarcation layer, consisting of [orange snow fencing material, white geotextile or equivalent material, etc.] will be replaced to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions~~

~~for disturbance of remaining contaminated soils defined in this SMP.~~ If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP. The alteration, restoration and modification of engineering controls must conform with Article 145 Section 7209 of the Education Law regarding the application professional seals and alterations.

B-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional, as defined in 6 NYCRR Part 375, and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review. A copy of the form is presented in Appendix J.

Material from industrial sites, spill sites, other environmental remediation sites, or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d) and DER-10 Appendix 5 for protection of groundwater and restricted residential use. Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in Table 4. Soils that meet 'general' fill requirements under 6 NYCRR Part 360.13, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC project manager. Material requiring chemical testing will be sampled in accordance with DER-10 Table 5.4(e)10. Soil material will be sampled for the full suite of analytical parameters, including PFAS and 1, 4-dioxane. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases. Stockpiles will be maintained in accordance with Section B-11.

B-11 STORMWATER POLLUTION PREVENTION

A Stormwater Pollution Prevention Plan will be generated on a project-specific basis as needed. Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

B-12 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition. The NYSDEC project manager will be promptly notified of the discovery.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes [TAL metals, TCL volatiles and semi-volatiles (including 1,4-dioxane), TCL pesticides and PCBs, and PFAS], unless the site history and previous sampling results provide sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC project manager for approval prior to sampling. Any tanks will be closed as per NYSDEC regulations and guidance.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone within two hours to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

B-13 COMMUNITY AIR MONITORING PLAN

Appendix 1A of DER-10, Generic Community Air Monitoring Plan will be implemented for any ground intrusive work at the Site. The CAMP is included as Appendix H. CAMP locations will be determined based on wind direction during the work.

~~A figure showing the location of air sampling stations based on generally prevailing wind conditions is shown in Figure [x]. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.~~

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

B-13: Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

If ground-intrusive activities will occur within 20 feet of potentially exposed individuals or structures, a special requirements CAMP will be developed for the work. When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 part-per-million, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 micrograms per cubic meter, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 micrograms per cubic meter or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

~~B-13B: Special Requirements for Indoor Work with Co-Located Residences or Facilities~~

~~Unless a self-contained, negative pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur~~. ~~Monitoring requirements shall be as stated above under "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms~~. ~~Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly~~. ~~In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities~~. ~~Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.~~

B-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. The need for specific odor control methods will be determined based on the work to be performed ~~to be used on a routine basis will include [define elements]~~. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the

project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

B-15 DUST CONTROL PLAN

Particulate monitoring must be conducted according to the Community Air Monitoring Plan (CAMP) provided in Section B-13. If particulate levels at the site exceed the thresholds listed in the CAMP or if airborne dust is observed on the site or leaving the site, the dust suppression techniques listed below will be employed. The remedial party will also take measures listed below to prevent dust production on the site.

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved using a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.

- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

B-16 OTHER NUISANCES

The following items may be necessary. These plans are generally not required for submission to the NYSDEC.

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX C
RESPONSIBILITIES of
OWNER and REMEDIAL PARTY

Responsibilities

The responsibilities for implementing the Site Management Plan ("SMP") for the Rochester Community Sports Complex (RCSC), also known as Former Erie Canal Industrial Park (ECIP) site (the "site"), number V00099, are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

The City of Rochester (the "owner").

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

The City of Rochester.

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the site.

Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.

2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) Environmental Easement remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.

3) In the event the site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.

4) The owner shall grant access to the site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.

5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. If damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section 1.3- Notifications.

6) If some action or inaction by the owner adversely impacts the site, the owner must notify the site's RP and the NYSDEC in accordance with the time frame indicated in [Section 1.3- Notifications and coordinate the performance of necessary corrective actions with the RP.

7) The owner must notify the RP and the NYSDEC of any change in ownership of the site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the site properties. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 1.3 of the SMP. A change of use includes, but is not limited to, any activity that may increase direct human or environmental exposure (e.g., day care, school or park). A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

~~8) If an owner has a written agreement to perform work for the RP, a description of the activities may be inserted here. (The corresponding agreement should also be included in the SMP.) The owner will [insert activities here: maintain fences, conduct mowing, etc] on behalf of the RP. The RP remains ultimately responsible for maintaining the engineering controls.~~

~~9)~~8) Until such time as the NYSDEC deems the passive vapor suppression ~~mitigation~~ system unnecessary, the owner shall operate the system, ~~pay for the utilities for the system's operation,~~ and report any maintenance issues to the RP and the NYSDEC.

~~10)If the site remedy requires the installation, operation, and/or maintenance of a drinking water treatment system, insert the following: Until such time as the~~

~~NYSDEC deems the drinking water treatment system unnecessary, the owner shall operate the drinking water treatment system, pay for the utilities and report any maintenance issues to the RP and the NYSDEC.~~

11) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

Remedial Party Responsibilities

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the site.

2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.

4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html .

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section 1.3- Notifications of the SMP.

7) The RP is responsible for the proper maintenance of any installed vapor intrusion mitigation systems associated with the site, as required in Section 5 ~~or Appendix[X] (Operation, Monitoring and Maintenance Manual)~~ of the SMP.

~~8) The RP is responsible for the proper monitoring and maintenance of any installed drinking water treatment system associated with the site, as required in Section [X] or Appendix [X] (Operation, Monitoring and Maintenance Manual).~~

~~9)~~8) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.

~~10)~~9) Any change in use, change in ownership, change in site classification (*e.g.*, delisting), reduction or expansion of remediation, and other significant changes related to the site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. The RP shall contact the NYSDEC project manager to discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the activities set forth above.

APPENDIX D – ENVIRONMENTAL EASEMENT

~~APPENDIX [x] – FIELD SAMPLING PLAN~~

~~This Appendix should be consistent with the protocols developed during the investigation phase of the project, and should include a description of:~~

- ~~Well gauging;~~
- ~~Well purging;~~
- ~~Sampling methodology (soil, groundwater, sediment, soil vapor, system sampling, etc.;~~
- ~~Analytical methodology:~~
  - ~~Lab certification;~~
  - ~~Analytical methods;~~
  - ~~Analytes.~~

APPENDIX E – MONITORING WELL BORING AND CONSRUCTION LOGS

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Phase II Environmental Site Assessment
Former Railroad Parcel Investigation
Rochester Rhinos Paetec Park Stadium Development Site
424 Oak Street, Rochester, New York

BORING: TB-1(RR)
SHEET 1 OF 1
JOB: 205420
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co. BORING LOCATION: Railroad Tracks - Eastern Portion TIME: 0855 TO 0925
DRILLER: Jeff Schweitzer GROUND SURFACE ELEVATION: NA DATUM: NA
LABELLA REPRESENTATIVE: C. A. Stiles START DATE: 28-Nov-05 END DATE: 28-Nov-05

TYPE OF DRILL RIG: ~~Truck~~/Track Mounted Geoprobe Model 6610DT DRIVE SAMPLER TYPE: 4-foot Macrocore
AUGER SIZE AND TYPE: NA INSIDE DIAMETER: ~1.8-Inch
OVERBURDEN SAMPLING METHOD: Direct Push OTHER:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	1.7-ft.	0.0-ft	**FILL MATERIAL** Dark brown f SAND. little(-) mf(+) anoular Gravel. trace cm Sand. trace Silt (Includes cinders. coal fragments, and coal dust), moist, no odors.	0.1	
					0.2	
2						
4	S-2 4' - 8'	1.7-ft.	4.0-ft.	rown mf(+) SAND. trace f subanoular to subrounded Gravel. moist. no odors.	0.0	
					0.1	
6						
8	S-3 8' - 12'	1.4-ft.	8.0-ft.	rown mf(+) SAND. trace f subrounded Gravel. moist. no odors.	5.0	
					5.2	
10						
12	S-4 12' - 16'	2.2-ft.	12.0-ft.	As above, moist to damp, no odors.	7.5	
				ALLUVIUM	3.9	
14			13.1-ft.	Brown SILT, little(+) vf Sand, damp, no odors.		
16	S-5 16'-20'	2.6-ft.	16.0-ft.	Brown SILT, little(-) mf subangular Gravel, trace vf Sand, wet to saturated @ ~18.2-ft., no odors.	2.1	
					0.7	
18				.... Grading To		
				Brown f SAND, little(-) Silt, trace(-) f subrounded Gravel, wet, no odors. *End of Boring @ 20.0-feet Below Ground Surface*		

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				20.0-Ft.	Approximately 18.2-ft.

NOTES: Boring caves in to 10.4-ft after sampling to 20.0-feet.

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
3) Abbreviations and = 35 to 50 % c = coarse
some = 20 to 35% m = medium BGS = Below the Ground Surface
little = 10 to 20% f = fine NA = Not Applicable
trace = 1 to 10%

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PROJECT
Phase II Environmental Site Assessment
Former Railroad Parcel Investigation
Rochester Rhinos Paetec Park Stadium Development Site
424 Oak Street, Rochester, New York

BORING: TB-2(RR)
SHEET 1 OF 1
JOB: 205420
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co. | BORING LOCATION: Railroad Tracks - Apparent Chemical Transfer Area | TIME: 0930 TO 0955
DRILLER: Jeff Schweitzer | GROUND SURFACE ELEVATION: NA | DATUM: NA
LABELLA REPRESENTATIVE: C. A. Stiles | START DATE: 28-Nov-05 | END DATE: 28-Nov-05

TYPE OF DRILL RIG: ~~Truck~~/Track Mounted Geoprobe Model 6610DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPLING METHOD: Direct Push
DRIVE SAMPLER TYPE: 4-foot Macrocore
INSIDE DIAMETER: ~1.8-Inch
OTHER:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	2.0-ft.		**FILL MATERIAL**		
			0.0-ft	lack to dark brown c(+)mf SAND. little(+) mf angular Gravel (Includes cinders. coal fraoments and coal dust), moist, no odors.	0.0	
					0.4	
			1.85-ft.	Brown mf SAND, damp, no odors.		
2						
4	S-2 4' - 8'	2.3-ft.	4.0-ft.	Brown Clayey SILT, trace(-) f Sand, damp, no odors.	0.3	
			4.6-ft.	Brown mf SAND, damp, no odors.	1.1	
6						
8	S-3 8' - 12'	2.0-ft.	8.0-ft.	rown mf to mf(+) SAND. trace f subrounded Gravel. damo. no odors.	1.3	
					1.7	
10						
12	S-4 12' - 16'	1.9-ft.	12.0-ft.	rown mf(+) SAND. little(-) Silt & Clay (Isolated Clasts). trace(-) f subrounded to angular Gravel, damp, no odors.	0.6	
					1.2	
			13.5-ft.	Black cmf SAND, trace(+) f angular Gravel (Includes cinders and coal fragments), damp, no odors.		
14						
16	S-5 16'-20'	3.1-ft.	16.0-ft.	As above, damp to wet, no odors.	0.1	
				ALLUVIUM	0.0	
			17.1-ft.	Brown with some gray mottling Clayey SILT, little vf Sand, trace(-) f subrounded Gravel, wet, no odors.		
18				.... Grading To	0.1	
				Brown f SAND, little(-) Silt, trace(-) f subrounded Gravel, wet, no odors.		
				End of Boring @ 20.0-feet Below Ground Surface		

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				20.0-Ft.	Not Encountered

NOTES:

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
3) Abbreviations
and = 35 to 50 %
some = 20 to 35%
little = 10 to 20%
trace = 1 to 10%
c = coarse
m = medium
f = fine
BGS = Below the Ground Surface
NA = Not Applicable

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PROJECT
Phase II Environmental Site Assessment
Former Railroad Parcel Investigation
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424 Oak Street, Rochester, New York

BORING: TB-3(RR)
SHEET 1 OF 1
JOB: **205420**
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co. BORING LOCATION: Railroad Tracks - Apparent Chemical Transfer Area TIME: 1000 TO 1025
DRILLER: Jeff Schweitzer GROUND SURFACE ELEVATION: NA DATUM: NA
LABELLA REPRESENTATIVE: C. A. Stiles START DATE: 28-Nov-05 END DATE: 28-Nov-05

TYPE OF DRILL RIG: ~~Truck/~~Track Mounted Geoprobe Model 6610DT DRIVE SAMPLER TYPE: 4-foot Macrocore
AUGER SIZE AND TYPE: NA INSIDE DIAMETER: ~1.8-Inch
OVERBURDEN SAMPLING METHOD: Direct Push OTHER:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	1.75-ft.		**FILL MATERIAL**		
			0.0-ft	Gray c angular GRAVEL, moist, no odors.	0.1	
			0.2-ft	Black to dark brown c(+)mf SAND, little(-) cmf angular Gravel, trace Silt (Includes cinders, coal fragments, and coal dust), moist, no odors.	0.2	
2						
4	S-2 4' - 8'	2.1-ft.	4.0-ft.	Brown mf SAND, little Silt & Clay, trace(-) f subangular to subrounded Gravel, moist, no odors	0.3	
					0.7	
6						
8	S-3 8' - 12'	2.1-ft.	8.0-ft.	As above, damp, no odors.	1.1	
					1.8	
10						
12	S-4 12' - 16'	2.6-ft.	12.0-ft.	rown mf(+) SAND. trace(+) Silt & Clay (Isolated Clasts). damp. no odors.	0.4	
					0.1	
			13.5-ft.	Dark gray to black cmf SAND, some mf angular to subangular Gravel (Includes cinders and coal dust), damp, no odors.		
14			14.0-ft.	Brown mf SAND, trace Clayey Silt (Isolated Clasts), damp, no odors.	0.2	
16	S-5 16'-20'	2.4-ft.	16.0-ft.	As above, damp to wet, no odors.	0.3	
					0.2	
18			18.0-ft	Black cmf SAND, trace f angular Gravel (Includes cinders), saturated, no odors.	0.4	
				ALLUVIUM		
			18.05-ft	Grayish-brown SILT, little mf Sand, little mf subrounded Gravel, saturated, no odors.		
				End of Boring @ 20.0-feet Below Ground Surface		

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				20.0-Ft.	Approximately 18.0-ft.

NOTES: Boring caves in to 10.4-ft after sampling to 20.0-feet.

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
3) Abbreviations
and = 35 to 50 % c = coarse
some = 20 to 35% m = medium BGS = Below the Ground Surface
little = 10 to 20% f = fine NA = Not Applicable
trace = 1 to 10%

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Phase II Environmental Site Assessment
Former Railroad Parcel Investigation
Rochester Rhinos Paetec Park Stadium Development Site
424 Oak Street, Rochester, New York

BORING: TB-4(RR)
SHEET 1 OF 2
JOB: 205420
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co.
DRILLER: Jeff Schweitzer
LABELLA REPRESENTATIVE: C. A. Stiles
BORING LOCATION: Railroad Tracks - Apparent Chemical Transfer Area
GROUND SURFACE ELEVATION: NA
START DATE: 28-Nov-05 END DATE: 28-Nov-05
TIME: 1030 TO 1105
DATUM: NA

TYPE OF DRILL RIG: ~~Truck~~/Track Mounted Geoprobe Model 6610DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPLING METHOD: Direct Push
DRIVE SAMPLER TYPE: 4-foot Macrocore
INSIDE DIAMETER: ~1.8-Inch
OTHER:

DEPTH	SAMPLE NO. AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	1.8-ft.	0.0-ft	**FILL MATERIAL** Black cmf SAND, little mf angular Gravel (Includes cinders, coal fragments, and glass beads), moist, no odors.	0.1	
			1.5-ft.	Brown mf SAND, moist, no odors.	0.2	
2						
4	S-2 4' - 8'	1.6-ft.	4.0-ft.	Brown mf SAND, little(-) Clayey Silt (Isolated Clast), moist, no odors.	0.3	
					0.3	
6						
8	S-3 8' - 12'	2.7-ft.	8.0-ft.	Brown mf SAND, little Clayey Silt, trace(-) f angular Gravel (Includes cinders), moist, no odors	0.4	
					0.5	
10					0.5	
12	S-4 12' - 16'	2.3-ft.	12.0-ft.	rown mf(+) SAND. trace Clavey Silt (Isolated Clasts). damp. no odors.	1.7	
					1.0	
14			13.6-ft.	Brownish-gray cmf SAND (Includes cinders) damp, no odors.		
16	S-5 16'-20'	1.7-ft.	16.0-ft.	Brown mf SAND, trace mf angular Gravel (Includes cinders and crushed gravel), damp to wet, no odors.	0.6	
				ALLUVIUM	0.5	
18			17.1-ft.	Brown with some gray mottling Clayey SILT, little vf Sand, trace(-) f subrounded Gravel, wet, no odors.		
				.... Grading To	0.1	
				Brown f SAND, little(-) Silt, trace(-) f subrounded Gravel, wet, no odors.		
				End of Boring @ 20.0-feet Below Ground Surface		

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Approximately 20.0-ft.

NOTES:

GENERAL NOTES
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PROJECT
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424 Oak Street, Rochester, New York

BORING: TB-4(RR)
SHEET 2 OF 2
JOB: **205420**
CHKD BY:

DEPTH	SAMPLE NO. AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
20	S-6 20' to 24'	2.7-ft.	20.0-ft.	**ALLUVIUM** Grayish-brown Clayey SILT, little mf subrounded Gravel, little cmf Sand, saturated, no odors.	0.3	
				.... Grading To	0.2	
22				Grayish-brown Clayey SILT, some mf Sand, trace f subrounded Gravel, saturated, no odors.	0.3	
24				*End of Boring @ 24.0-feet Below Ground Surface*		
26						
28						
30						
32						
34						
36						
38						
40						

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Approximately 20.0-ft.

NOTES:

GENERAL NOTES
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BORING: TB-4(R

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Former Railroad Parcel Investigation
Rochester Rhinos Paetec Park Stadium Development Site
424 Oak Street, Rochester, New York

BORING: TB-5(RR)
SHEET 1 OF 2
JOB: 205420
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co. BORING LOCATION: Railroad Tracks - Apparent Chemical Transfer Area TIME: 1110 TO 1150
DRILLER: Jeff Schweitzer GROUND SURFACE ELEVATION: NA DATUM: NA
LABELLA REPRESENTATIVE: C. A. Stiles START DATE: 28-Nov-05 END DATE: 28-Nov-05

TYPE OF DRILL RIG: ~~Truck~~/Track Mounted Geoprobe Model 6610DT DRIVE SAMPLER TYPE: 4-foot Macrocore
AUGER SIZE AND TYPE: NA INSIDE DIAMETER: ~1.8-Inch
OVERBURDEN SAMPLING METHOD: Direct Push OTHER:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	2.0-ft.		**FILL MATERIAL**		
			0.0-ft	Black cmf SAND, little(+) mf angular to subrounded Gravel (Includes cinders, slag and coal fragments with trace glass beads), moist, no odors.	0.1	
			1.4-ft.	rown mf(+) SAND. little(+) Clavey Silt (Isolated Clasts). damp. no odors.	0.3	
2						
4	S-2 4' - 8'	2.4-ft.	4.0-ft.	rown mf(+) SAND. little(-) Clavey Silt (Isolated Clast). damp. no odors.	0.3	
					0.4	
6					0.5	
8	S-3 8' - 12'	1.7-ft.	8.0-ft.	rown mf(+) SAND. little(-) Clavey Silt (Isolated Clast). with 0.5-In. thick laver of coal cinders at 13.1-ft., damp, no odors.	0.3	
					0.3	
10						
12	S-4 12' - 16'	1.3-ft.	12.0-ft.	Brown f SAND, little(+) Clayey Silt (Isolated Clasts), damp to wet, no odors.	0.6	
					0.5	
14						
16	S-5 16'-20'	1.5-ft.	16.0-ft.	Brown f SAND, little(+) Clayey Silt (Isolated Clasts), wet to saturated @ ~17.0-ft., no odors.	0.5	
				ALLUVIUM	0.5	
			17.1-ft.	Brown with some gray mottling Clayey SILT, little vf Sand, trace(-) f subrounded Gravel, wet, no odors.		
18				.... Grading To		
				Brown f SAND, little(-) Silt, trace(-) f subrounded Gravel, wet, no odors.		

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Approximately 17.0-ft.

NOTES:

GENERAL NOTES
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424 Oak Street, Rochester, New York

BORING: TB-5(RR)
SHEET 2 OF 2
JOB: **205420**
CHKD BY:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
20	S-6 20' to 24'	2.7-ft.	20.0-ft.	**ALLUVIUM** Brownish-gray to gray with brown mottling Clayey SILT, little mf(+) Sand, trace mf(+) angular Gra saturated, no odors.	0.3	
				.... Grading To	0.2	
22				Gray and brown mottled SILT, some mf Sand, trace f subrounded Gravel, saturated, no odors.	0.3	
24				*End of Boring @ 24.0-feet Below Ground Surface*		
26						
28						
30						
32						
34						
36						
38						
40						

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Approximately 17.0-ft.

NOTES:

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424 Oak Street, Rochester, New York

BORING: TB-6(RR)
SHEET 1 OF 2
JOB: 205420
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co. BORING LOCATION: Railroad Tracks - East side of bridge. TIME: 1230 TO 1300
DRILLER: Jeff Schweitzer GROUND SURFACE ELEVATION: NA DATUM: NA
LABELLA REPRESENTATIVE: C. A. Stiles START DATE: 28-Nov-05 END DATE: 28-Nov-05

TYPE OF DRILL RIG: ~~Truck~~/Track Mounted Geoprobe Model 6610DT DRIVE SAMPLER TYPE: 4-foot Macrocore
AUGER SIZE AND TYPE: NA INSIDE DIAMETER: ~1.8-Inch
OVERBURDEN SAMPLING METHOD: Direct Push OTHER:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	1.0-ft.	0.0-ft	**FILL MATERIAL** Black cmf SAND, some f subangular Gravel (Includes cinders and coal), moist, no odors.	0.1	
2						
4	S-2 4' - 8'	0.9-ft.	4.0-ft.	Brown mf SAND, moist, no odors.	0.3	
6						
8	S-3 8' - 12'	3.2-ft.	8.0-ft.	Brown mf SAND, some Clayey Silt (Isolated Clast), trace f angular to subangular Gravel (Includes cinders), damp, no odors.	0.3 0.2	
10					0.3	
12	S-4 12' - 16'	3.0-ft.	12.0-ft.	Brown f SAND, some(+) Silt to Clayey Silt (Isolated Clasts), damp, no odors.	0.1 0.5	
14					1.2	
16	S-5 16'-20'	2.7-ft.	16.0-ft.	Brown mf SAND, little Clayey Silt (Isolated Clasts), damp to wet, no odors.	0.3 0.3	
18					0.2	

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Not Encountered

NOTES:

GENERAL NOTES
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PROJECT
Phase II Environmental Site Assessment
Former Railroad Parcel Investigation
Rochester Rhinos Paetec Park Stadium Development Site
424 Oak Street, Rochester, New York

BORING: TB-6(RR)
SHEET 2 OF 2
JOB: 205420
CHKD BY:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
20	S-6 20' to 24'	1.5-ft.	20.0-ft.	**ALLUVIUM** Brown SILT, trace(+) mf(+) Sand, trace f subrounded to subangular Gravel, wet, no odors.	0.3	
22					0.2	
24				*End of Boring @ 24.0-feet Below Ground Surface*		
26						
28						
30						
32						
34						
36						
38						
40						

WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED
				24.0-Ft.	Not Encountered

NOTES:

GENERAL NOTES
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BORING: TB-6(RR

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Phase II Environmental Site Assessment
Former Railroad Parcel Investigation
Rochester Rhinos Paetec Park Stadium Development Site
424 Oak Street, Rochester, New York

BORING: TB-7(RR)
SHEET 1 OF 2
JOB: 205420
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co. | BORING LOCATION: Railroad Tracks - West side of bridge. | TIME: 1305 TO 1330
DRILLER: Jeff Schweitzer | GROUND SURFACE ELEVATION: NA | DATUM: NA
LABELLA REPRESENTATIVE: C. A. Stiles | START DATE: 28-Nov-05 | END DATE: 28-Nov-05

TYPE OF DRILL RIG: ~~Truck~~/Track Mounted Geoprobe Model 6610DT | DRIVE SAMPLER TYPE: 4-foot Macrocore
AUGER SIZE AND TYPE: NA | INSIDE DIAMETER: ~1.8-Inch
OVERBURDEN SAMPLING METHOD: Direct Push | OTHER:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	1.8-ft.	0.0-ft	**FILL MATERIAL** lack cmf SAND. little(+) mf(+) anoular to subanoular Gravel. trace(-) Silt (Includes cinders. coa and trace ash), moist, no odors.	0.0	
					0.1	
2						
4	S-2 4' - 8'	1.9-ft.	4.0-ft.	Brown mf SAND, little(+) Silt to Clayey Silt (Isolated Clasts), moist, no odors.	0.2	
					0.2	
6						
8	S-3 8' - 12'	2.2-ft.	8.0-ft.	As above, moist, no odors.	0.1	
					0.2	
10						
12	S-4 12' - 16'	1.9-ft.	12.0-ft.	Brown f SAND, trace Clayey Silt (Isolated Clasts), trace f subrounded Gravel, moist to damp, no odors.	0.1	
					0.0	
14						
16	S-5 16'-20'	2.1-ft.	16.0-ft.	rown mf(+) SAND. little Silt (Isolated Clasts). moist. no odors.	0.6	
					1.0	
18						

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Not Encountered

NOTES:

GENERAL NOTES
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Rochester Rhinos Paetec Park Stadium Development Site
424 Oak Street, Rochester, New York

BORING: TB-7(RR)
SHEET 2 OF 2
JOB: **205420**
CHKD BY:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
20	S-6 20' to 24'	2.5-ft.	20.0-ft.	**ALLUVIUM** Brown Clayey SILT, little mf subrounded Gravel, little(-) vf Sand, damp, no odors.	0.0	
				.... Grades To	0.0	
22				Brown f SAND and SILT, trace f subangular to subrounded Gravel, damp to wet, no odors.	0.0	
24				*End of Boring @ 24.0-feet Below Ground Surface*		
26						
28						
30						
32						
34						
36						
38						
40						

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Not Encountered

NOTES:

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BORING: TB-7(RR

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BORING: TB-8(RR)
SHEET 1 OF 2
JOB: 205420
CHKD BY:

CONTRACTOR: Nothnagle Drilling Co. BORING LOCATION: Railroad Tracks - Western portion. TIME: 1330 TO 1405
DRILLER: Jeff Schweitzer GROUND SURFACE ELEVATION: NA DATUM: NA
LABELLA REPRESENTATIVE: C. A. Stiles START DATE: 28-Nov-05 END DATE: 28-Nov-05

TYPE OF DRILL RIG: ~~Truck~~/Track Mounted Geoprobe Model 6610DT DRIVE SAMPLER TYPE: 4-foot Macrocore
AUGER SIZE AND TYPE: NA INSIDE DIAMETER: ~1.8-Inch
OVERBURDEN SAMPLING METHOD: Direct Push OTHER:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	S-1 0' to 4'	2.4-ft.		**FILL MATERIAL**		
			0.0-ft	Grav c(+)m anoular GRAVEL. drv. no odors.	0.0	
			0.2-ft	Black cmf SAND, little mf angular to subangular Gravel (Includes cinders and coal fragments) moist, no odors.	0.1	
2			1.8-ft.	Brown mf SAND, moist, no odors.		
4	S-2 4' - 8'	2.6-ft.	4.0-ft.	Brown mf SAND, some(-) Clayey Silt (Isolated Clasts), moist, no odors.	0.1	
					0.2	
6					0.4	
8	S-3 8' - 12'	2.5-ft.	8.0-ft.	Brown mf SAND, some(-) Clayey Silt (Isolated Clasts), moist, no odors with 3-In. thick layer of brownish-gray cmf angular GRAVEL and cmf SAND from 8.5 to 8.7-ft., moist, no odors.	0.1	
					0.2	
10					0.1	
12	S-4 12' - 16'	2.0-ft.	12.0-ft.	Brown mf SAND, some(-) Clayey Silt (Isolated Clasts), moist, no odors.	0.2	
					0.2	
14						
16	S-5 16'-20'	2.2-ft.	16.0-ft.	Brown f SAND, trace Clayey Silt (Isolated Clasts), moist to damp+F101, no odors.	0.3	
					0.2	
18						

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME			
				24.0-Ft.	Not Encountered

NOTES:

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BORING: TB-8(RR)
SHEET 2 OF 2
JOB: **205420**
CHKD BY:

DEPTH	SAMPLE NO AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
20	S-6 20' to 24'	1.2-ft.	20.0-ft.	**ALLUVIUM** Brown Clayey SILT to SILT, little mf(+) Sand, little mf(+) subrounded Gravel, wet, no odors.	0.0	
22						
24				*End of Boring @ 24.0-feet Below Ground Surface*		
26						
28						
30						
32						
34						
36						
38						
40						

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	NOTES:
DATE	TIME	ELAPSED TIME				
				24.0-Ft.	Not Encountered	

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
3) Abbreviations
and = 35 to 50 %
some = 20 to 35%
little = 10 to 20%
trace = 1 to 10%
c = coarse
m = medium
f = fine
BGS = Below the Ground Surface
NA = Not Applicable

BORING: TB-8(RR

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. LEAD AREA 1 EXCAVATION FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 2 ELEVATION: -- EXPLORATION DATE: 12/7/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	-TOPSOIL/ORGANICS-	
		8 wall and 2 bottom samples		Brown silty fine to medium SAND, debris, concrete blocks, wood, asphalt, some areas of staining and petro odor.	0.0-17.0 ppm (dependant upon location: see map)
2					
		(Wall samples between 3.5 ft. and 4.0 ft.	3.25	Brown fine to medium SAND.	
4				Bottom of Exploration at 4.0 ft.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 60 feet WIDTH 50 feet	DEPTH:
				JAR SAMPLES:
			BOULDERS	BAG SAMPLES:
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL:
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. LEAD AREA 1

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. LEAD AREA 2 EXCAVATION (TP-22 location) FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 2 ELEVATION: -- EXPLORATION DATE: 12/8/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.3	-TOPSOIL/ORGANICS-	
				Brown fine to medium SAND, debris, wood, concrete blocks.	0.0-5.0 ppm
2	6 wall and 1 bottom samples (Wall samples taken from 3.75 ft to 4.5 ft.		3.0	Gray black gravelly fine to medium SAND. Asphalt.	
4			4.0	Brown fine to medium SAND, strong petro odor, stained soils.	10 - 180 ppm
				Bottom of Exploration at 5.0 ft.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 45 feet WIDTH 25 feet	DEPTH: 5.0
				JAR SAMPLES:
			BOULDERS	BAG SAMPLES:
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL:
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. LEAD AREA 2

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-1 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION
LOCATION: BLOCK 2
CLIENT: CITY OF ROCHESTER
CONTRACTOR: CDM
EQUIPMENT USED: CAT 225 LC

LOCATION: BLOCK 2
ELEVATION: --
EXPLORATION DATE: 12/4/98
H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.3	TOPSOIL/ORGANICS	
				Brown fine to medium SAND. Little rock cobbles/asphalt. Staining and petro odor.	
2	S1A @ 3.0				
			3.0		
	S1B @			Brown fine to medium SAND, little brick.	
			3.75		
4	4.0			Brown fine to medium SAND.	
6				Bottom of Exploration at 6.2 ft.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 6 feet WIDTH 4.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.2
JAR SAMPLES: 2
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP-98-1

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-2 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 2 ELEVATION: -- EXPLORATION DATE: 12/4/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.2	TOPSOIL/ORGANICS	
				Brown, fine to medium SAND, little cobbles.	
			1.5		
2	S1 @ 2.5			Black stained layer with petro odor.	
			2.5		
				Brown fine to medium SAND.	
4					
6				Bottom of Exploration at 5.5 ft.	
8					
10					

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-3 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 2 ELEVATION: -- EXPLORATION DATE: 12/4/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.75	Gravelly SAND fill, broken concrete blocks.	
2	S1 @ 3.0		2.25	Brown fine to medium SAND brick. Little rock frag. Petro staining and odor.	45 ppm
4				Brown fine to medium SAND.	
6				Bottom of Exploration at 6.5 ft.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 8 feet WIDTH 4 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.5

JAR SAMPLES: 2

BAG SAMPLES: --

WATER LEVEL: --

TEST PIT NO. TP-98-3

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-4 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION
LOCATION: BLOCK 2
CLIENT: CITY OF ROCHESTER
CONTRACTOR: CDM
EQUIPMENT USED: CAT 225 LC

LOCATION: BLOCK 2
ELEVATION: --
EXPLORATION DATE: 12/4/98
H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.3	TOPSOIL/ORGANICS	
				Brown silty fine to medium SAND wood. Concrete blocks.	
			1.5		
2				Brown fine to medium SAND, some concrete blocks.	
		S4A @ 4.0			
4			4.0		
				Black gray fine to coarse SAND, slight petro odor.	
			5.0		
				Brown fine to medium SAND, patches of gray black sand, very slight petro odor.	
6					
8					
		S4B @ 10.0			
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 10 feet WIDTH 4.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH:	11.7
JAR SAMPLES:	2
BAG SAMPLES:	--
WATER LEVEL:	--
TEST PIT NO.	TP-98-4

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-5 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 2 ELEVATION: -- EXPLORATION DATE: 12/4/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.3	TOPSOIL/ORGANICS	
				Brown fine to medium SAND	
2			2.0		
		S5A @ 3.0		Gray brown fine to medium SAND, little silt. Significant petro odor.	
4					
6		S5B @ 7.01			
8			8.0		
10					
12				Bottom of Exploration at 11.2 ft.	

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 15 feet WIDTH 4 feet	DEPTH: 11.2
				JAR SAMPLES: 2
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-98-5

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-6 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 2 ELEVATION: -- EXPLORATION DATE: 12/4/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.3	-TOPSOIL/ORGANICS Brown fine to medium SAND.	
2			1.5	Gray to brown fine to medium SAND. Some cobbles. Debris, wood, strong petro. odor and staining.	Encountered former building foundation.
4		S1 @ 4.0			
6				Bottom of Exploration at 6.0 ft.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 8 feet WIDTH 4.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.0

JAR SAMPLES: 1

BAG SAMPLES: --

WATER LEVEL: --

TEST PIT NO. TP-98-6

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-7 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION
LOCATION: BLOCK 2
CLIENT: CITY OF ROCHESTER
CONTRACTOR: CDM
EQUIPMENT USED: CAT 225 LC

LOCATION: BLOCK 2
ELEVATION: --
EXPLORATION DATE: 12/4/98
H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.3	-TOPSOIL/ORGANICS-	
				Brown fine to coarse SAND, concrete blocks, wood, debris. Petro odor and stained soils.	
2					
		S1 @ 4.0			
4					
6				Bottom of Exploration at 6.1 ft.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT
* Hrs after completed		

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 8 feet WIDTH 4.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 6.1
JAR SAMPLES: 1
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP-98-7

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-8 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION
LOCATION: BLOCK 2
CLIENT: CITY OF ROCHESTER
CONTRACTOR: CDM
EQUIPMENT USED: CAT 225 LC

LOCATION: BLOCK 2
ELEVATION: --
EXPLORATION DATE: 12/4/98
H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.2	-TOPSOIL/ORGANICS-	
				Brown fine to coarse SAND, little cobbles, brick.	
2			2.75		
		S1 @ 3.5		Brown fine to coarse SAND, little cobbles, brick. Petro. staining and odor begin.	
4					
6				Bottom of Exploration at 5.8 ft.	
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 8 feet WIDTH 4.0 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 5.8
JAR SAMPLES: 1
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP-98-8

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-9 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 2 ELEVATION: -- EXPLORATION DATE: 12/4/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.2	-TOPSOIL/ORGANICS-	
				Brown fine to coarse SAND, some cobbles, wood, concrete blocks. Petro odor and staining of soils.	
2					
4		S1 @ 4.5			
6				Bottom of Exploration at 5.5 ft.	
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 8 feet WIDTH 4.0 feet	DEPTH: 5.5
				JAR SAMPLES: 1
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-98-9

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-10 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 3 South Petroleum Area ELEVATION: -- EXPLORATION DATE: 12/8/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.5	-TOPSOIL/ORGANICS-	Completed in the vicinity of TP-19.
				Brown fine to coarse SAND, some coarse gravel, little silt.	0.3 ppm
2		No Samples Taken			
			3.0	Gray black fine to coarse SAND, little cobbles, cinders, brick.	1.0 ppm
4					
			4.5	Brown silty fine to coarse SAND, some coarse gravel.	0 ppm
6					
8					
10					
			10.75	Bottom of Exploration at 10.75 ft.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT
* Hrs after completed		

APPROXIMATE PIT DIMENSIONS AT SURFACE
LENGTH 20 feet WIDTH 12 feet
BOULDERS
8" to 18" DIAMETER: No. = Vol. cu ft
Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY
DEPTH: 10.75
JAR SAMPLES: --
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP-98-10

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-11 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 3 South Petroleum Area ELEVATION: -- EXPLORATION DATE: 12/8/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.5	-TOPSOIL/ORGANICS-	20' West of TP-98-10.
				Brown fine to coarse SAND, some coarse gravel.	1.0 ppm
2					
			3.0	Gray black fine to coarse SAND, little coarse gravel, cinders, brick debris.	2.2 ppm
4			4.25	Brown silty fine to medium SAND, some coarse gravel. Trace clay Trace cobbles.	1.6 ppm
6			6.5	Same, except soils become gray-brown.	1.5 ppm
8					
10					
12				Bottom of Exploration at 11.25 ft.	

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 15 feet WIDTH 4 feet	DEPTH: 11.25
				JAR SAMPLES: --
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-98-11

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-12 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION
LOCATION: BLOCK 2
CLIENT: CITY OF ROCHESTER
CONTRACTOR: CDM
EQUIPMENT USED: CAT 225 LC

LOCATION: BLOCK 3
South Petroleum Area
ELEVATION: --
EXPLORATION DATE: 12/9/98
H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.5	-TOPSOIL/ORGANICS-	15.0' South of TP-98-10.
				Brown fine to coarse SAND, some coarse gravel.	2.3 ppm
2			2.0	Brown fine to coarse SAND, some coarse gravel, debris.	
			3.25	Gray black fine to coarse SAND, little coarse gravel, cinders, brick.	3.1 ppm
4			4.25	Brown silty fine to coarse SAND, some coarse gravel, trace debris.	
		No Samples Taken			2.7 ppm
6					
			7.0	Same, except becomes gray-brown.	2.9 ppm
8					
10					
			11.75	Bottom of Exploration at 11.75 ft.	
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 15 feet WIDTH 4 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 11.75
JAR SAMPLES: --
BAG SAMPLES: --
WATER LEVEL: --

TEST PIT NO. TP-98-12

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-13 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION LOCATION: BLOCK 2 CLIENT: CITY OF ROCHESTER CONTRACTOR: CDM EQUIPMENT USED: CAT 225 LC	LOCATION: BLOCK 3 South Petroleum Area ELEVATION: -- EXPLORATION DATE: 12/9/98 H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.4	-TOPSOIL/ORGANICS-	20.0' South of TP-98-10.
				Brown gravelly fine to coarse SAND, little debris.	2.5 ppm
2		No Samples Taken			
			2.5	Gray black fine to coarse SAND, some gravel, cinders, brick.	2.6 ppm
			3.5	Brown silty fine to coarse SAND, some gravel debris, brick, wood, concrete boulders.	
4					5.4 ppm
6					
			6.5	Gray brown silty fine to coarse SAND, some gravel.	3.0 ppm
8					
10					
				Moisture Present.	5.1 ppm
12			12.0	Bottom of Exploration at 12.0 ft.	

WATER LEVEL		
DATE	TIME*	DEPTH FT
* Hrs after completed		

APPROXIMATE PIT DIMENSIONS AT SURFACE	
LENGTH 18 feet	WIDTH 12 feet
BOULDERS	
8" to 18" DIAMETER: No.	= Vol. cu ft
Over 18" DIAMETER: No.	= Vol. cu ft

SUMMARY	
DEPTH:	12.0
JAR SAMPLES:	--
BAG SAMPLES:	--
WATER LEVEL:	--
TEST PIT NO.	TP-98-13

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-98-14 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK REMEDIATION
LOCATION: BLOCK 2
CLIENT: CITY OF ROCHESTER
CONTRACTOR: CDM
EQUIPMENT USED: CAT 225 LC

LOCATION: BLOCK 3 South Petroleum Area
ELEVATION: --
EXPLORATION DATE: 12/9/98
H&A REP.: R. DEDRICK

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			.4	-TOPSOIL/ORGANICS-	20' North of TP-98-10.
				Brown fine to coarse SAND, little gravel.	2.1 ppm
2					
			2.5	Gray brown fine to coarse SAND, some gravel, cinders.	2.2 ppm
		No Samples Taken	3.25	Brown silty fine to coarse SAND, little coarse gravel.	
4					3.2 ppm
6					
			7.75		
8				Same, except gray brown.	2.5 ppm
10					
12			12.0		
				Gray brown gravelly fine to coarse SAND, some cobbles, weak petro odor.	3.1 ppm Encountered water pipe (40.0 ppm around pipe).
				Bottom of Exploration at 13.5 ft.	

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 40 feet WIDTH 6 feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 13.5
JAR SAMPLES: --
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP-98-14

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 0

Project: ECIP - PACIFIC ENTERPRISE

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-1 Weather: SUN+CLOUDS Temp.: 70°

Witnessed By: KDI

START : 0710
STOP : 0726

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: _____
☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5'	GRASS SURFACE COVER W/ TOPSOIL
0.5-6.0	BROWN CLAYEY SILT AND FINE SILTY SAND (DRY)(LOOSE)
	[FILL] (CONCRETE FOUNDATION W/ CONCRETE RUBBLE,
	W/ WOOD + METAL DEBRIS)
6.0'	BROWN SILT W/ FINE SAND (MOIST)(STIFF)(NATIVE)
6.8'	TOTAL DEPTH
	0721 COMPOSITE SOIL SAMPLE 0-6'6"
	TCLP METALS
	H. SPACE = 0.5 PPM

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 1

Project: ECP Park Construction

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECP

Equipment Used: KATO HD-900

Test Hole No: TP-97-2 Weather: SUN + CLOUDS Temp.: 70°

Witnessed By: K IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

START: 0727
STOP: 0745

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5	GRASS COVER w/ TOPSOIL
0.5-4.5'	LIGHT BROWN TO BROWN CLAYEY SILT AND FINE
	SILTY SAND (DRY) (MED - SL. DENSE) [FILL]
	(TRACE OF CONCRETE WOOD + METAL DEBRIS)
	2" DIA PIPE ON WEST WALL - w/CAP - LOOKS
	LIKE ABANDONED UTILITY LINE TO OLD BLDG.
4.5-5.9'	BROWN SILT w/FINE SAND (MOIST) (STIFF) NATIVE
	0735 COMPOSITE SOIL SAMPLE 0-5.9'
	TCLP METALS
	H-SPACE = 0.4 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 2

Project: ECP PARK ENTERPRISE

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECP

Equipment Used: KATO HD-900

Test Hole No: TP-97-3 Weather: SUN + CLOUDS Temp.: 70°

Witnessed By: V. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: _____

START : 0747
STOP : 0807

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5	GRASS COVER W/ TOPSOIL
0.5-2.9'	LIGHT BROWN TO BROWN CLAYEY SILT AND FINE SILTY
	SAND (DRY) (MEDIUM DENSE) [FILL] (TRACE OF CONCRETE,
	WOOD DEBRIS, SOME BRICK) 4 PIPES FROM WEST WALL -8"
	IRON, 1" COPPER, 2-1" STEEL (1 IS ELECT. CONDUIT)
2.9-4.3'	BROWN SILT W/ FINE SAND (MOIST) (STIFF) NATIVE
	0800 COMPOSITE SOIL SAMPLE 0-4.3'
	TCLP METALS
	H. SPACE = 0.4 PPM

THE
SEAR-BROWN
GROUP

Project: ECIP PARK ENTERPRISES
Project No: 12507
Date: 7/8/97

TEST PIT LOG

Location: ECIP
Equipment Used: KATO HD-900
Test Hole No: TP-97-4 Weather: SUN+CLOUDS Temp.: 70°
Witnessed By: K IGNACZAK

- [x] No Rock Encountered.
- [ ] Rock Encountered At ___ Ft.
  Shovel (Could/Could Not) Pull Through Rock.
  Remarks:
- [x] No Ground Water Encountered.
- [ ] Ground Water Encountered At ___ Ft.

START 0809
STOP 0820

Depth (ft.)	Observation
0-0.5	GRASS COVER W/TOPSOIL
0-4.3'	LIGHT BROWN TO BROWN CLAYEY SILT AND FINE SILTY SAND (DRY)(SL. DENSE) FILL
	(FOUNDATION WALL ON EAST SIDE, 2" ~~METAL~~ IRON PIPE
	ON WEST WALL, FLOOR SLAB AT 4.5' 3" THICK)
	TRACE OF CONCRETE AND RED BRICK + SOME STYROFOAM FRAGMENTS
4.3'-4.8'	BROWN SILT W/FINE SAND (MOIST)(STIFF) NATIVE
	0815 COMPOSITE SOIL SAMPLE 0-4.8'
	TCLP METALS
	H. SPACE = 0.3 ppm
	S7004S00000

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 4

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-5 Weather: SUN + CLOUDS Temp.: 70°

Witnessed By: K. IGNASIAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

START 0825
STOP 0843

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.4'	TOPSOIL W/GRASS COVER
0.4-3.6	BROWN TO DARK BROWN CLAYEY SILT W/ FINE
	SILTY SAND AND GRAVEL. (LOOSE)(DRY) (FILL)
	(SIGNIFICANT PORTION OF CONCRETE, BRICK, METAL,
	WOOD + SLIGHT AMOUNT OF RUBBISH) SOME DARK STAINING
	OF FILL AT 3-3.6 - NO ODOR
3.6-6.0	BROWN SILT W/FINE SAND (MOIST)(STIFF)(NATIVE)
	0820 COMPOSITE SOIL SAMPLE AT 3-3.6'
	TCLP METALS, PCBS, TPH + REACTIVITY
	H SPACE = 0.3

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 5

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-6 Weather: SUN + CLOUDS Temp.: 70°

Witnessed By: K. IGNASIAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: _____

START 0845
STOP 0900

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.4	GRASS COVER W/ TOPSOIL
0.4-2.5'	BROWN CLAYEY SILT AND SILTY SAND (MOIST)(MED STIFF) [FILL] (TRACE OF CONCRETE) (NO SIGNIFICANT AMOUNT OF FILL]
2.5'-5.5'	BROWN SILT W/FINE SAND (MOIST)(MED. STIFF)(NATIVE)
	0850 COMPOSITE SOIL SAMPLE 0.4-2.5'
	TCLP METALS
	H. SPACE = 0.2

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 6

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-7 Weather: OVERCAST Temp.: 70°

Witnessed By: V. IGNATZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks:
☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

START 0905
STOP 0950

Depth (ft.)	Observation
0-0.5	GRASS COVER W/ TOPSOIL
0.5-1	BROWN CLAYEY SILT AND FINE SAND W/ GRAVEL
	(DRY)(SL. DENSE)[FILL]
1'-4.5'	GRAY CLAY AND CRUSHED STONE (SHOT ROCK)[FILL]
5'	OLD CANAL FOUND. WALL ON WEST SIDE. 36' WIDTH
4.5'-	BROWN CLAYEY SILT AND FINE SAND W/ FINE TO
	COARSE GRAVEL (MOIST)(LOOSE)(SOME CABLE, METAL
	DEBRIS)[FILL]
	NO NATIVE ENCOUNTERED
	0927 COMPOSITE SOIL SAMPLE 0.5-
	TCLP METALS
	H. SPACE = 0.2

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 7

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-8 Weather: OVERCAST Temp.: 70°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks:

START 0955
STOP 1035

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5'	GRASS COVER W/TOPSOIL
0.5-2.0	BROWN TO LIGHT BROWN CLAYEY SILT AND FINE SAND
	W/GRAVEL (DRY) (SL. DENSE) [FILL]
2-3.6'	GRAY CLAY AND CRUSHED STONE (SHOT ROCK) [FILL]
4.5'	OLD CANAL WALL IN CENTER - RR SPUR W/TIES
	ON EAST SIDE OF WALL.
3.6'-8.3'	DARK GRAY AND DARK BROWN CLAYEY SILT AND
	SILTY SAND WITH FINE GRAVEL, LARGE PERCENTAGE
	IS CINDERS (MOIST) (SL. DENSE) [FILL] (STRONG CREOSOTE
	AND SLIGHT PETRO TYPE ODOR) (RR TIES - FORMER SPUR)
	1015 COLLECT COMPOSITE SAMPLE 3.6-8.3'
	TCLP METALS, REACTIVITY, PCBs, TPH, VOC 8260

H. SPACE = 1.9 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 8

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-9 Weather: OVERCAST Temp.: 70°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks:
☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

START 1037
STOP 1105

Depth (ft.)	Observation
0-0.3'	GRASS COVER W/ TOPSOIL
0.3-1.0	BROWN TO LIGHT BROWN CLAYEY SILT AND FINE SAND W/ GRAVEL (DRY)(SL. DENSE) [FILL]
1.0-3.8	DARK GRAY CLAYEY SILT AND SILTY SAND WITH FINE GRAVEL, LARGE PERCENTAGE IS CINDERS (MOIST) (SL. DENSE) [FILL] (SOME METAL, WOOD & RED BRICK FRAGMENTS) (SL CREOSOTE ODOR)
3.3-4.4	BROWN SILT W/ FINE SAND (MOIST)(MED STIFF)(NATIVE)
	1050 COMPOSITE SOIL SAMPLE 1.0-2.3'
	TCLP METALS, PCBs, TPH
	H SPACE = 0.2

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 2 9

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-10 Weather: SUN + CLOUDS Temp.: 75°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

START 1109
STOP

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5	TOPSOIL W/ GRASS COVER
0.5-1.0	BROWN TO LIGHT BROWN CLAYEY SILT AND FINE SAND W/ GRAVEL (DRY) (SL. DENSE) [FILL]
1.0-5.8	STRATIFIED DARK GRAY + GRAY CLAYEY SILT AND FINE SILTY SAND WITH CINDERS (MOIST) (SL. DENSE) [FILL] (STRONG CREOSOTE ODOR W/ SL PETRO ODOR) (SOME METAL, WOOD, BRICK + GLASS DEBRIS)
5.8-6.9	GRAY TO DARK GRAY STAINED NATIVE SOIL WHICH APPEARS TO BE TOPSOIL/ORGANIC MATERIAL (MOIST) (SL. STIFF) (SAME ODOR AS ABOVE)
	1120 COLLECT COMPOSITE SAMPLE 1-5.8'
	TCLP METALS, PCBs, TPH, REACTIVITY, VOCs 8260

HSPACE = 8.8 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 0

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-11 Weather: SUN Temp.: 75°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: _____

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5	TOPSOIL W/ GRASS COVER
0.5-2.9	GRAY & DARK GRAY CLAYEY SILT AND FINE SILTY SAND W/ FINE GRAVEL (MOIST)(SL. DENSE)(SL. CREOSOTE ODOR)
2.9-5.0	GRAY & OLIVE GRAY ~~SILT~~ CLAYEY SILT WITH TRACE OF SILTY SAND (STIFF)(MOIST) (NATIVE)
	11AD COLLECT COMPOSITE SOIL SAMPLE 0.5-5.0
	TCLP METALS, PCBS, TPH, VOC 8260
	H. SPACE = 1.6 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 1

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD-900

Test Hole No: TP-97-12 Weather: SUN Temp.: 75°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

START: 1150
STOP = 1225

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5	GRASS COVER AND TOPSOIL
0.5-2	LIGHT BROWN CLAYEY SILT AND SILTY SAND W/ FINE GRAVEL (SL. DENSE) (DRY) [FILL]
2-3	DARK GRAY CLAYEY SILT AND FINE SAND WITH FINE GRAVEL (MOIST) (SL. DENSE) [FILL] / METAL, BRICK AND CONCRETE DEBRIS) (STRONG CREOSOTE AND PETROLEUM TYPE ODOR)
3-4.5	STAINED GRAY TO OLIVE GRAY CLAYEY SILT (MOIST) (DENSE) (NATIVE)
4.5-5.5	BROWN CLAYEY SILT (MOIST) (DENSE) (NATIVE
	1200 COLLECT COMPOSITE SAMPLE 3-4.5
	TCLP METALS, PCBs, TPH, VOC 8260

H-SPACE = 62.9 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 2

Project: ECIP PARK ENTERPRISE

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-13 Weather: SUN Temp.: 75°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

START 1310
STOP 1345

Depth (ft.)	Observation
0-0.2'	GRASS COVER AND TOPSOIL
0.2-6.2'	LIGHT BROWN TO BROWN CLAYEY SILT AND FINE SILTY SAND
	W/ CONCRETE AND RED BRICK FRAGMENTS, OLD FOUNDATION
	WALLS ON NORTH AND SOUTH WALLS, 4" DIA. METAL
	PIPE RUNNING E-W @ 7.5' BGS. SL. CREOSOTE ODOR, SOME GLASS
6.2-6.5	SLAB FLOOR
6.2-11.4	BROWN CLAYEY SILT (MOIST)(DENSE) NATIVE
11.4-14	GRAY SILTY SAND (BECOMING WET)(DENSE) NATIVE
	1330 COLLECT COMPOSITE SOIL SAMPLE 0.2-6.2
	TCLP METALS
	H SPACE = 0.2 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 3

Project: ECIP PARK ENTERPRISE

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-14 Weather: OVERCAST Temp.: 75°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

START 1352
STOP 1410

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
2-0.5	GRASS COVER W/ TOPSOIL
0.5-1	GRAY TO DARK GRAY SEAM CLAYEY SILT WITH SOME SAND
	AND CONCRETE, BRICK AND METAL FRAGMENTS
	(DRY)(DENSE) [FILL] (NO OBVIOUS ODOR)
1-1.5	TOPSOIL (NATIVE)
1.5-3.0	BROWN CLAYEY SILT (MOIST)(DENSE) NATIVE
3.0-14.6	GRAY CLAYEY SILT (MOIST)(DENSE) NATIVE
	1400 COLLECT COMPOSITE SOIL SAMPLE 0.5-1
	TCLP METALS, TPH, PCBS
	H SPACE = 0.3 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 4

Project: ECIP PARK ENTERPRISE

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-15 Weather: OVERCAST Temp.: 75°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: _____

START 1412
STOP 1430

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.5	GRASS COVER W/TOPSOIL
0.5-8.3	FILL COMPRISED OF CONCRETE, METAL, BRICK, TIRES, WOOD
	BROWN CLAYEY SILT AND SILTY SAND (MOIST)(LOOSE)
	CINDER BLOCK WALL ALONG WEST SIDE
8.3-8.9	CONCRETE SLAB
8.9-10.3	BROWN CLAYEY SILT (MOIST)(DENSE)(NATIVE)
	1420 COLLECT COMPOSITE SAMPLE 0.5-8.3
	TCLP METALS
	H SPACE = 0.5 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 5

Project: ECIP PARK ENTERPRISE

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-16 Weather: OVERCAST Temp.: 75°

Witnessed By: K. IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks:
☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

START 1432
STOP 1452

Depth (ft.)	Observation
0-0.5	GRASS COVER W/ TOPSOIL
0.5-1.9'	LIGHT BROWN CLAYEY SILT AND SILTY SAND W/ FINE GRAVEL
1.9-7.9'	DARK BROWN TO DARK GRAY CLAYEY SILT AND SILTY SAND
	W/ DEBRIS COMPRISED OF ELECTRICAL WIRE, SLAG,
	RUBBER, CONCRETE AND METAL (MOIST)(SL. DENSE)
	[FILL] NO NOTICEABLE ODOR
7.9-8.8'	BROWN CLAYEY SILT (MOIST)(DENSE) NATIVE
	1440 COLLECT COMPOSITE SAMPLE 1.9-7.9
	TCLP METALS, TPH, PCBs, REACTIVITY
	H SPACE = 0.3 ppm

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 6

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-17 Weather: OVERCAST Temp.: 75°

Witnessed By: K IGNASZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

START = 1500
STOP = 1521

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.2	GRASS COVER W/TOPSOIL.
0.2-1.5	LIGHT BROWN CLAYEY SILT AND SILTY SAND W/FINE GRAVEL (DRY)(LOOSE) [FILL]
1.5-2.0	DARK GRAY CLAYEY SILT, +SILTY CLAY, ASH, CINDERS W/METAL DEBRIS
2.0-6.0	BRICK LAYER
6.0-9.0	STAINED GRAY TO DARK GRAY CLAYEY SILT AND SILTY SAND (MOIST)(DENSE)(NATIVE)(SL. CREOSOTE + PETRO ODOR)
9-15.9	BROWN CLAYEYEY SILT (MOIST)(DENSE) NATIVE
	1510 COLLECT SOIL SAMPLE 0.2-1.5
	2.0-6.0
	TCLP METALS, TPH, PCB, VOL 8260

HSPACE = 4.0 ppm

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THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 7

Project: ECID PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-18 Weather: OVERCAST Temp.: 75°

Witnessed By: K. IGNASZAK

START: 1522
STOP: 1600

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: _____
☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.3	GRASS COVER W/ TOPSOIL.
0.3-1.2	LIGHT BROWN CLAYEY SILT AND SILTY SAND W/ FINE GRAVEL (DRY) (LOOSE) [FILL]
1.2-6.5	GRAY CLAYEY SILT AND ROCK FRAGMENTS (SHOT ROCK) [FILL]
6.5-9.0	BROWN CLAYEY SILT ~~ADD~~ (MOIST) (DENSE) NATIVE
	SLIGHT DARK GRAY SEAM AT 3.0' LOOKS LIKE CINDERS + ASH. @ 3'
	CONCRETE CANAL WALL IN CENTER OF FOOTER
	1540 COLLECT COMPOSITE SOIL SAMPLE 3'
	TCLP METALS

THE
SEAR-BROWN
GROUP

0 0 0 0 3 3 7 0 0 3 8

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-19 Weather: OVERCAST Temp.: 75°

Witnessed By: K. IGNACZAK

☒ No Rock Encountered.
☐ Rock Encountered At ___ Ft.
Shovel (Could/Could Not) Pull Through Rock.
Remarks: ___

START 1602
STOP 1650

☒ No Ground Water Encountered.
☐ Ground Water Encountered At ___ Ft.

Depth (ft.)	Observation
0-0.3	GRASS COVER W/TOPSOIL
0.3-2.5	LIGHT BROWN CLAYEY SILT AND SILTY SANDY WITH FINE GRAVEL (DRY) (LOOSE) [FILL]
2.5-3.2	DARK GRAY CLAYEY SILT WITH SILTY SAND WITH CINDERS (LOOSE) (DRY) [FILL] (SL. CREOSOTE ODOR) (MISC. DEBRIS COMPRISED OF WOOD, SOME METAL)
	CANAL WALL IN CENTER OF TESTPIT
	RR TIES (FOUR) ON EAST SIDE OF WALL AT 2.5', DARK GRAY STAINING W/ STRONG CREOSOTE ODOR AND SL. PETRO ODOR.
3.2-10	DARK CLAYEY SILT + SAND W/ TYPICAL FILL - SOME RED STAINING NOTED
	1625 COLLECT COMPOSITE SOIL SAMPLE FROM 2.5-10 FT
	TCLP METALS, TPH, PCBs, REACTIVITY, VOCs, 8260

H SPACE = 1.8 ppm

THE
EAR-BROWN
ROUP

0 0 0 0 3 3 7 0 0 3 9

Project: ECIP PARK ENTERPRISES

Project No: 14507

Date: 7/8/97

TEST PIT LOG

Location: ECIP

Equipment Used: KATO HD 900

Test Hole No: TP-97-20 Weather: RAIN Temp.: 76°

Witnessed By: K. IGNASZAK

- ☐ No Rock Encountered.
- ☐ Rock Encountered At ___ Ft.
  Shovel (Could/Could Not) Pull Through Rock.
  Remarks: _____
- ☐ No Ground Water Encountered.
- ☐ Ground Water Encountered At ___ Ft.

START 1652
STOP

Depth (ft.)	Observation
0-0.2	GRASS COVER W/ TOPSOIL
	AT ± 3' HIT PRESSURIZED VESSEL. SIZE & TYPE
	OF VESSEL UNKNOWN. HIGH PRESSURE GAS-
	GREYISH WHITE IN COLOR, EMITTED TO
	3-5' IN HEIGHT. UNKNOWN CHEMICAL ODOR.
	PRESSURE DISSIPATES IN 3-5 MIN.
	911 CALLED. MCDOH, FIRE DEPT. & HAZ MAT
	ON SITE. NOT ABLE TO IDENTIFY GAS.
	CARL HETTENBAUGH - NYSEC CALLED, HE INSTRUCTS
	TO BURY PIPE + PUT FENCE UP AROUND AREA.

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

0 0 0 0 3 3 7 0 0 9 1

Test Boring No.: B-97-1
Job No.: 97056
Page: 1 of 1
Report Date: 07/15/97

Project: Park Enterprises Bldg. Broad St., Rochester, NY
Client: Foundation Design,PC
Elevation: 509.4
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. Kahn
Start: 07.07.97
Completed: 07.07.97

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler 0"/6"	6"/12"	12"/18"	18"/24"	N	Sample No.	Sample depth	Soil and Rock Information
		5	7						Topsoil and Organic Matter 0'6"
				7	8	14	1	0'0"-2'0"	Misc. Fill Material Consisting of Brick, Cinders, Ash,
		10	14						Silt Sand and Gravel, etc
				17	11	31	2	2'0"-4'0"	Misc Fill Material
5		8	9						
				9	9	18	3	4'0"-6'0"	Misc. Fill Material 5'9"
		5	4						Firm Brown Moist Clayey Silt Organic Nodules Noted 6'0"
				7	7	11	4	6'0"-8'0"	Firm Brown Wet Silty Fine Sand 8'0"
		9	8						Firm Brown Wet Fine to Very Fine Sand, Some Silt
10				8	8	16	5	8'0"-10'0"	Little Medium to Fine Gravel 10'0"
		8	14						Compact Grey Brown Wet Fine to Very Fine Sand,
				22	21	36	6	11'0"-13'0"	Little Silt and Coarse to Fine Gravel
15									16'0"
		50/6				50/6	7	16'0"-16'6"	Very Dense Grey Dry Rock Fragments
									Augered to Refusal 16'6"
									Boring Terminated @ 16'6"
20									
25									Notes: Elevations Provided By Others
30									
35									

N=No. of Blows to 2" Spoon 12" with 140 lb.wt. Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt. Ea. Blow

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B-97-2
Job No.: 97056
Page: 1 of 1
Report Date: 07/15/97

Project: Park Enterprises Bldg. Broad St., Rochester, NY
Client: Foundation Design,PC
Elevation: 508.9
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. Kahn
Start: 07.07.97
Completed: 07.07.97

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler 0"/6"	6"/12"	12"/18"	18"/24"	N	Sample No.	depth	Soil and Rock Information
		6	16						Topsoil and Organic Matter 0'10"
				27	21	43	1	0'0"-2'0"	Fill Material Consisting of Silt , Sand , Gravel and
		50/5				50/5	2	2'0"-2'5"	Brick, Cinders etc
		50/0				50/0	3	4'0"-4'0"	Very Dense Brown Dry Fill
5									
									6'0"
		9	9						Pushing Gravel Ahead of Sampler Spoon No Recovery
				9	9	18	4	6'0"-8'0"	From Cuttings Wet Silty Fine Sand, Trace Fine
		9	8						Gravel
10				11	11	19	5	8'0"-10'0"	No Recovery From Cuttings Same as Sample #4 10'0"
		7	8						Firm Brown Wet Fine to Very Fine Sand, Little Silt
				12	7	20	6	11'0"-13'0"	and Coarse to Fine Gravel
15									
		55/6				55/6	7	16'0"-16'6"	Very Dense Brown Wet Auger Refusal @ 16'6"
									Boring Terminated @ 16'6"
20									
25									Notes: Elevations Provided By Others
30									
35									

N=No. of Blows to 2" Spoon 12" with 140 lb.wt. Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt. Ea. Blow

Target Drilling Company
1850 Lakeville Road
Avon, New York 14414

Test Boring No.: B-97-4
Job No.: 97056
Page: 1 of 1
Report Date: 07/15/97

Project: Park Enterprises Bldg. Broad St., Rochester, NY
Client: Foundation Design,PC
Elevation: 511.6
Water Level - Casing In:
Below Surface - Casing Out:

Geologist:
Driller: S. Kahn
Start: 07.07.97
Completed: 07.07.97

Seasonal and climatic changes may alter observed water levels.

	C	Blows on Sampler				N	Sample		Soil and Rock Information
0		0"/6"	6"/12"	12"/18"	18"/24"		No.	depth	
		11	16						Topsoil and Organic Matter 0'10"
				14	16	30	1	0'0"-2'0"	Fill Material Consisting of Silt , Sand , Gravel and Rock Fragments, Dry and Grey in Color
		14	19						
				14	14	33	2	2'0"-4'0"	No Recovery
5		14	10						
				5	5	15	3	4'0"-6'0"	Fill Material Dry Grey
		6	10						
				10	16	20	4	6'0"-8'0"	Fill Material Dry Grey
		15	19						
10				22	23	41	5	8'0"-10'0"	Fill Material Dry Grey
		10	18						
				14	12	32	6	11'0"-13'0"	Fill Material Dry Grey
15									
		7	12						
				8	12	20	7	16'0"-18'0"	Fill Material Dry Grey
20									
									Very Dense Dak Grey Saturated Rock Fragments
		40	50			90	8	21'0"-22'0"	(Petroleum Type Odor) Auger Refusal @ 22'0"
									Boring Terminated @ 22'0"
25									Notes: Elevations Provided By Others
30									
35									

N=No. of Blows to 2" Spoon 12" with 140 lb.wt. Ea. Blow
N=No. of Blows to Drive Spoon with lb. wt. Ea. Blow

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Test Pit Log

Project No. 7-1906.0 Page 1 of 1 Test Pit No. TP97-5
Project Name Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY
Client The Nichols Team, Inc., 75 Highpower Road, Rochester, NY
Elevation 508.5 Weather Overcast, 70 Inspector J. Netzband
Date Started 7/8/97 Completed 7/8/97 Operator Eric
Backhoe Subcontractor KBH Construction Equipment Kato HD900 Excavator

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL, trace organics 0'6" Firm black-brown damp FILL: 25% silt, sand, gravel, topsoil; 5% wire, cloth, scrap metal, brick; 50% cobbles, boulders; 20% wood
4			3'6" Broken CONCRETE SLAB 3'11"
6			Firm brown moist SILT, little sand, trace clay 6'0" Test pit terminated at 6'0"
8			
10			
12			
14			Notes: 1. Sides sloughed 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-6
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	509.7	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2	S-1	2'0"	TOPSOIL 0'6" Compact brown black mottled SILT, little sand, little topsoil, little cinders, (fill)
4	S-2	3'0"	2'5" TOPSOIL 3'4" Compact brown moist SILT, little sand
6			5'6" Test pit terminated at 5'6"
8			
10			
12			
14			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	Page 1 of 2		Test Pit No.	TP97-7 (west)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	511.2	Weather	overcast 70	Inspector	J. Netzband
Date Started	07-08-97	Completed	07-08-97	Operator	Eric
Backhoe Subcontractor	KBH Construction		Equipment	Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'2" Compact brown moist SILT, some gravel, little sand (fill)
4			2'3" Compact black GRAVEL & ASH, little topsoil 2'8" Firm brown moist SILT, little sand, trace clay, trace brick (fill)
6			4'0" Compact brown moist SILT, little sand, trace gravel (possible native soil)
8			
10			8'0" Test pit terminated at 8'0"
12			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Soil profile represents section on outside (west) canal wall. Profile located 15 feet west of wall. 4. Canal wall located 31' east & 70' north of fence corner. Top of the three foot wide canal wall at 5'0" 5. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.
14			

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Test Pit Log

Project No.	7-1906.0	**Page** 2 of 2		**Test Pit No.**	TP97-7 (east)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	511.2	**Weather**	overcast 70	**Inspector**	J. Netzband
Date Started	07-08-97	**Completed**	07-08-97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'2" Compact brown moist SILT, some gravel, little sand (fill) 2'3" Dense gray moist GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders, trace wire (tunnel spoils)
4			
6			4'5" Compact black FILL: 75% cobbles & boulders; 20% silt, sand & gravel; 5% wood, topsoil
8			8'0"
10			Dense gray moist GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders, trace wire (tunnel spoils) 8'5" Test pit terminated at 8'5"
12			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Soil profile represents section on inside (east) canal wall. Profile is located along wall; black layer terminates 10 feet off wall 4. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.
14			

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 2		**Test Pit No.**	TP97-8 (west)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	510.8	**Weather**	overcast 70	**Inspector**	J. Netzband
Date Started	07-08-97	**Completed**	07-08-97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'2" Dense gray damp GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders (tunnel spoils) 2'0"
4			Firm brown damp SILT, some sand 2'6" Dense gray damp GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders (tunnel spoils)
6			6'0"
8			Test pit terminated at 6'0"
10			
12			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Soil profile represents section inside (west) the canal walls. Profile located along the canal wall 4. Canal wall is located 106' east and 70' north of the fence corner. The top of the three foot wide wall is at 4.5 feet 5. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.
14			

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Test Pit Log

Project No.	7-1906.0	**Page** 2 of 2		**Test Pit No.**	TP97-8 (east)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	510.8	**Weather**	overcast 70	**Inspector**	J. Netzband
Date Started	07-08-97	**Completed**	07-08-97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications / Remarks
2			TOPSOIL 0'2" Dense gray damp GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders (tunnel spoils)
4			2'0" Firm brown damp SILT, some sand (fill)
6			3'6" Compact black moist GRAVEL, trace sand, trace silt, trace railroad tie, trace roots (old railroad bed)
8			5'3" Firm gray moist SILT, trace clay, trace sand (possible native soil)
10			8'6" Test pit terminated at 8'6"
12			Notes: 1. Sidesvertical and stable 2. Dry on completion 3. Heavy odor from railroad bed 4. Soil profile represents section outside (east) canal walls. The profile is located 15' east of the wall 5. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.
14			

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-9
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	509.7	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**		Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL, trace organics 0'2" Compact brown damp GRAVEL, some sand, some silt, trace glass, trace cinders, trace ash, trace wood (fill) 1'9"
4			Compact black damp GRAVEL, some sand, some silt, trace brick, trace wood, trace scrap metal (fill) 3'3" Compact brown moist SILT, some sand
6			4'4" Test pit terminated at 4'4"
8			
10			
12			
14			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-10
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	510.3	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**		Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'8" Compact brown dry SILT, some gravel, some sand (fill) 1'4" Firm black brown moist ASH, SILT & SAND FILL, little pipe, trace metal fragments, trace wood
4			3'10" Firm gray moist SILT, some sand (fill) 4'6" TOPSOIL
6	S-1	5'6"	5'8" Firm gray moist SILT, little sand, trace clay 6'10" Test pit terminated at 6'10"
8			
10			
12			
14			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Pipes on west end from 1'6" to 3'0" 4. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No. 7-1906.0 Page 1 of 1 Test Pit No. TP97-11
Project Name Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY
Client The Nichols Team, Inc., 75 Highpower Road, Rochester, NY
Elevation 506.9 Weather Overcast, 70 Inspector J. Netzband
Date Started 7/8/97 Completed 7/8/97 Operator Eric
Backhoe Subcontractor KBH Construction Equipment Kato HD900 Excavator

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications / Remarks
2			TOPSOIL 0'4" Firm gray damp FILL: 70% silt, sand & gravel; 30% cobbles, brick, wood
4	S-1 S-2	3'0" 4'0"	2'9" TOPSOIL 3'4" Firm gray moist SILT, trace sand, trace clay
6			5'0" Test pit terminated at 5'0"
8			
10			
12			
14			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-12
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	509.5	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'2" Compact brown damp GRAVEL, some sand, some silt (fill) 1'9"
4			Compact black moist SILT, some sand, trace organics, trace scrap metal (fill) 3'2" Compact gray moist SILT, some sand
6			Grades to brown below 5'0"
8			6'8" Test pit terminated at 6'8"
10			
12			
14			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-13
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	507.1	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'4" Loose brown dry FILL: 80% brick, concrete block, wood, cinders; 10% topsoil, silt, sand & gravel; 10% bottles, pipe
4			
6			
8	S-1	8'0"	6'2" CONCRETE SLAB 6'5" Firm brown moist SILT, some sand, trace clay
10			
12			11'4" Compact gray moist SAND, some silt, little gravel 14'0" Test pit terminated at 14'0"
14	S-2	13'0"	Notes: 1. Sides vertical and stable 2. Wet at 14'0" 3. Poured concrete foundation walls on west & east sides of the test pit 4. Eight inch diameter steel pipe at 8'6" 5. Elevation was referenced to sanitary sewer manhole rim 0A22 + 14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 2		**Test Pit No.**	TP97-14
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	508.1	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications / Remarks
2			TOPSOIL 0'2" Firm brown moist SILT, little sand, little ash, little topsoil, trace glass, trace asphalt (fill)
4			3'9" TOPSOIL
6	S-1 S-2	4'3" 6'0"	4'6" Firm brown moist SILT, little sand
8			
10	S-3	9'0"	8'4" Compact brown moist SILT, some sand, trace gravel
12			
14			Dense gray below 13'0"

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Test Pit Log

Project No.	7-1906.0	**Page** 2 of 2		**Test Pit No.**	TP97-14
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	508.1	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
16			14'6" Test pit terminated at 14'6"
18			
20			
22			
24			
26			
28			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-15
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	509.8	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction		**Equipment**	Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'5" Loose brown black FILL: 85% brick, concrete block, wood, pipe, engine parts, porcelain, cans, tires, metal rods, springs; 15% silt, sand & gravel
4			
6			
8			
10			8'3" CONCRETE SLAB 8'9" Firm brown moist SILT, little sand
12			10'3" Test pit terminated at 10'3"
14			Notes: 1. Sides caved 2. Dry on completion 3. Concrete block foundation walls on west and east sides of test pit 4. Elevation was referenced to sanitary sewer manhole rim OA 22 +14.06 assuming an elevation of 507.22.

EDUCATION DESIGN, P.C.

Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-16
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	508.8	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'4" Compact brown dry SAND & GRAVEL, some silt 1'9"
4			Firm gray moist layered ASH, CINDERS & SLAG, with silt, little sand, trace clay (trace brick, I-beam, wood, wire, metal barrels)
6			
8			7'11"
10			Firm brown moist SILT, little sand 8'9" Test pit terminated at 8'9"
12			
14			Notes: 1. Sides not stable 2. Dry on completion 3. Foundation wall on north end of test pit top of wall at 3'6" 4. Elevation was referenced to sanitary sewer manhole rim 0A.22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 2		**Test Pit No.**	TP97-17
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	508.9	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications / Remarks
2			TOPSOIL 13'0" Compact brown dry SILT, some sand, little gravel (fill)
4			1'6" Compact black moist CINDERS, little gravel
6			2'6" BRICKS
8			6'0" Compact gray moist SILT, little sand, trace gravel (Iron staining on north end of test pit from 6'0" to 9'0")
10			
12			
14	S-1	13'0"	12'2" Compact gray moist SAND, some silt, little gravel, few cobbles

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Test Pit Log

Project No.	7-1906.0	**Page** 2 of 2		**Test Pit No.**	TP97-17
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	508.9	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
16			15'10"
18			Test pit terminated at 15'10"
20			
22			
24			
26			
28			Notes: 1. Sides caved above 6'0" 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

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Test Pit Log

Project No.	7-1906.0	**Page** 1 of 2		**Test Pit No.**	TP97-18 (west)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	510.3	**Weather**	overcast 70	**Inspector**	J. Netzband
Date Started	07-08-97	**Completed**	07-08-97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**		Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications / Remarks
2			TOPSOIL 0'2" Compact dry SILT, some gravel, some sand (fill) 1'3" Dense gray damp GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders (tunnel spoils)
4			2'4" Firm black moist GRAVEL, some ash, some topsoil
6			4'0" Firm brown moist SILT, some sand
8			
10			9'0" Test pit terminated at 9'0"
12			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Soil profile represents section outside (west) of the canal walls. Profile is located 10' west of wall 4. Canal wall is located 35' north and 26' east of the fence corner. The top of the three foot wide wall is at 5'6"
14			5. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

FOUNDATION DESIGN, P.C.

Test Pit Log

Project No.	7-1906.0	Page 2 of 2		Test Pit No.	TP97-18 (east)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	510.3	Weather	overcast 70	Inspector	J. Netzband
Date Started	07-08-97	Completed	07-08-97	Operator	Eric
Backhoe Subcontractor	KBH Construction		Equipment	Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'3" Compact brown dry SILT, some gravel, some sand (fill) 1'3" Dense gray moist GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders to 42" diameter (tunnel spoils)
4			
6			
8			1'0" street sweeping pocket at 7'0" 8'0" Test pit terminated at 8'0"
10			
12			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Soil profile represents section inside (east) canal wall. Profile is located along wall 4. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.
14			

DESIGN, P.C.

Test Pit Log

Project No.	7-1906.0	**Page** 1 of 2		**Test Pit No.**	TP97-19 (west)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	510.4	**Weather**	overcast 70	**Inspector**	J. Netzband
Date Started	07-08-97	**Completed**	07-08-97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**	Kato HD900 Excavator		

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'2" Compact gray dry GRAVEL, some sand, trace silt, trace clay, few cobbles, few boulders to 24" diameter (tunnel spoils)
4			2'2" Firm black CINDER ASH with wood (fill) 3'2" Dense gray moist GRAVEL, some sand, trace silt, trace clay, few cobbles, few boulders (tunnel spoils)
6			6'0" Test pit terminated at 6'0"
8			
10			
12			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Soil profile represents section inside (west) canal walls. The profile is located along the canal wall. 4. The canal wall is located 35' north and 97' east of the fence corner. The top of wall is at 6'0". 5. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.
14			

DESIGN, P.C.

Test Pit Log

Project No.	7-1906.0	Page 2 of 2		Test Pit No.	TP97-19 (east)
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	510.4	Weather	overcast 70	Inspector	J. Netzband
Date Started	07-08-97	Completed	07-08-97	Operator	Eric
Backhoe Subcontractor	KBH Construction		Equipment	Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications · Remarks
2			TOPSOIL 0'2" Compact gray dry GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders (tunnel spoils)
4			2'0" Firm black moist GRAVEL, trace ash, trace roots with railroad ties (old railroad bed)
6			5'2" Firm gray brown moist SILT, little sand, trace clay (possible native soil)
8			
10			10'0"
12			Test pit terminated at 10'0" Notes: 1. Sides vertical and stable 2. Dry on completion 3. Soil profile represents a section outside (east) of the canal bed. The profile is located 15' east of the canal wall. 4. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.
14			

DESIGN, P.C.

Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-20
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	509.3	**Weather**	overcast 70	**Inspector**	J. Netzband
Date Started	07-08-97	**Completed**	07-08-97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction		**Equipment**	Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			0'3" Compact brown damp GRAVEL, some sand, some silt (fill) 1'0"± Compact black moist incinerator ash FILL
4			3'0"± Test pit terminated at 3'0"±
6			
8			
10			
12			
14			Notes: 1. Sides caved above 6'0" 2. Dry on completion 3. High pressure vapors found at about 3'0" - test pit was abandoned. 4. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

FOUNDATION DESIGN, P.C.

Test Pit Log

Project No.	7-1906.0	**Page** 1 of 1		**Test Pit No.**	TP97-21
Project Name	Park Enterprises Building, Erie Canal Industrial Park, Rochester, NY				
Client	The Nichols Team, Inc., 75 Highpower Road, Rochester, NY				
Elevation	511.4	**Weather**	Overcast, 70	**Inspector**	J. Netzband
Date Started	7/8/97	**Completed**	7/8/97	**Operator**	Eric
Backhoe Subcontractor	KBH Construction	**Equipment**		Kato HD900 Excavator	

Depth Below Surface	Sample Number	Depth of Sample	Soil and Rock Classifications Remarks
2			TOPSOIL 0'4" Compact gray damp GRAVEL, some sand, little silt, trace clay, few cobbles, few boulders to 24" diameter (tunnel spoils - fill)
4			
6			
8			3" layer of brown SILT, little sand, little gravel, trace organics from 6'6" to 6'9"
10			9'10" Test pit terminated at 9'10"
12			
14			Notes: 1. Sides vertical and stable 2. Dry on completion 3. Elevation was referenced to sanitary sewer manhole rim 0A22 +14.06 assuming an elevation of 507.22.

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP1 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK CLIENT: CITY OF ROCHESTER CONTRACTOR: KBH CONSTRUCTION CO., INC. EQUIPMENT USED: CASE 580C BACKHOE	LOCATION: See Site Plan ELEVATION: Not Identified EXPLORATION DATE: 11/08/96 CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.7	-TOPSOIL- Dark brown SILT and very fine SAND, moist with roots.	Nuisance odor present, no VOCs measured.
2				-FILL- Black cinders, ash, granular (gravel size) cinders, and occasional metal and ceramic (pots), dry. No VOCs (0.7-4 ft). Minor water seepage at 4 ft. interface, clear, no sheen.	
4			4.0	Light brown SILT and very fine SAND, little clay, slightly plastic. Grading at 5-1/2 ft. to very fine sand and silt with cobbles, damp. (4-7.5 ft.)	
6					
8				Bottom of Exploration at 7.5 ft.	
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH 8 ft. WIDTH 2 ft.

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 7.5 ft.

JAR SAMPLES: 0.7-4 ft.

BAG SAMPLES: --

WATER LEVEL: --

TEST PIT NO. TP-1

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-2 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK CLIENT: CITY OF ROCHESTER CONTRACTOR: KBH CONSTRUCTION CO., INC. EQUIPMENT USED: CASE 580C BACKHOE	LOCATION: See Site Plan ELEVATION: Not Identified EXPLORATION DATE: 11/08/96 CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	Dark brown SILT and cinder (0-.33 ft.) -TOPSOIL/FILL-	
				-FILL-	
2				Black soil (SILT), cinder, ash, misc. paper/plastic, dry. (0.3-3 ft.)	VOCs 1-2 ppm.
			3.0		
4				Light brown SILT and very fine SAND, dry-moist (3-5 ft.)	
				Bottom of Exploration at 5.0 ft.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 6 ft WIDTH 2.5 ft	DEPTH: 5.0 ft.
				JAR SAMPLES: --
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-2

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-3 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK CLIENT: CITY OF ROCHESTER CONTRACTOR: KBH CONSTRUCTION CO., INC. EQUIPMENT USED: CASE 580C BACKHOE	LOCATION: See Site Plan ELEVATION: Not Identified EXPLORATION DATE: 11/08/96 CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Dark brown SILT, moist (0-.5 ft.). -TOPSOIL-	
				-FILL-	Sampled 0.3-2.5 ft.
2				Orange and brown cinders and ash, moist (.5-2.5 ft.)	VOCs 2.5 ppm. Orange, possible iron staining.
			2.5	Light brown SILT, with very fine sand, little clay, slightly plastic, moist (2.5-6 ft.).	
4					
6				Bottom of Exploration at 6.0 ft.	
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 8 ft WIDTH 2 ft	DEPTH: 6.0 ft
				JAR SAMPLES: 0.3-2.5 ft.
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-3

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-4 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK CLIENT: CITY OF ROCHESTER CONTRACTOR: KBH CONSTRUCTION CO., INC. EQUIPMENT USED: CASE 580C BACKHOE	LOCATION: See Site Plan ELEVATION: Not Identified EXPLORATION DATE: 11/08/96 CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				-TOPSOIL-	
				Dark to light brown SILT, moist to wet. (0-1.3 ft.)	
			1.3		
2				-FILL-	
				Cinders, ash, and cobbles, moist, some open space between cobbles at 3.0 ft. Water flow rapid +/- 10 gpm, (1.3-3.0 ft.)	VOCs 6.8 ppm. Sheen on water sampled (1.3-3.0 ft.)
			3.0		
4				Gray to brown SILT and CLAY, plastic.	
				Stop excavating-water filled excavation.	
				Bottom of Exploration at 5.0 ft.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 5 ft WIDTH 2 ft	DEPTH: 5.0 ft
11/8/96	15	3		JAR SAMPLES: 1.3-3.0 ft.
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. * Vol. cu ft	WATER LEVEL: 3 ft.
* Hrs after completed			Over 18" DIAMETER: No. * Vol. cu ft	TEST PIT NO. TP-4

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-5 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK CLIENT: CITY OF ROCHESTER CONTRACTOR: KBH CONSTRUCTION CO., INC. EQUIPMENT USED: CASE 580C BACKHOE	LOCATION: See Site Plan ELEVATION: Not Identified EXPLORATION DATE: 11/08/96 CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				-TOPSOIL- Dark brown SILT, moist, roots (0-0.7 ft.)	
			0.7	-FILL-	
			1.3	GRAY SHOT ROCK (<6 in. size), little soil (silt and rock fragments) caves at 3.0 ft., slight water inflow (<1 gpm), (0.7-8.0 ft.)	May be good backfill. No VOCs. Sampled 0-3.0 ft.
2					
4					
6				At 6 ft. concrete (sidewall of canal?) appears to be oriented north/south parellel to test pit.	
8			8.0	Dark brown SILT and tree parts. Limit of backhoe; still in tree wood (8.0-8.5 ft.)	
10				Bottom of Exploration at 8.5 ft.	
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 9 ft WIDTH 2.5 ft	DEPTH: 8.5 ft
11/8/96	--	3		JAR SAMPLES: 0-3.0 ft.
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. * Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-5

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-6 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: CASE 580C BACKHOE

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/08/96
CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				-TOPSOIL-	
				Soil mixed cinder and ash, moist. (0-1.3 ft.)	No VOCs. Sampled 0-1.3 ft.
			1.3		
2				Brown SILT, little sand and clay, moist to damp, (1.3 to 7.0 ft.).	No VOCs.
4					
6					
				Bottom of Exploration at 7.0 ft.	
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 7 ft WIDTH 2.5 ft	DEPTH: 7.0 ft
		NA		JAR SAMPLES: 0-1.3 ft.
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-6

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-7 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: CASE 580C BACKHOE

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/08/96
CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				-TOPSOIL- Dark brown SILT, moist, roots (0-1.2 ft.).	
			1.3	-FILL- GRAY SHOT ROCK (<6 in.), little soil (silt and fine rock fragments), wet, (1.3-5.5 ft.).	No VOCs.
2					
4				Concrete, cannot excavate further.	
				Bottom of Exploration at 5.5 ft.	
6					
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH NA WIDTH NA	DEPTH: 5.5 ft
		NA		JAR SAMPLES: --
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. * Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. * Vol. cu ft	TEST PIT NO. TP-7

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-8 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: CASE 580C BACKHOE

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/08/96
CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.3	Dark brown SILT, moist, roots (0-0.3 ft.) -TOPSOIL-	
				Pea gravel (0.3 - 1.5 ft.). Concrete (1.5 to 1.6 ft.) -FILL-	
			1.6		
2			2.5	Gray SILT, stained, moist, slightly plastic (1.6-2.5 ft.).	VOCs 5.8 ppm. Sampled 0-4.0 ft.
4			4.0	Gray to brown SILT to very fine SAND, moist, slightly plastic (2.5 - 4.0 ft.)	
				-FILL-	
			5.5	SILT, C&D debris, wood, brick, stained, (4-5.5 ft.).	Nusiance odor. No VOCs measured.
6					
				Gray SILT to very fine SAND, moist, slightly plastic. (5.5 - 7.5 ft.)	Some cavings between 5.5 - 7.5 ft. Sampled 5.5 - 7.0 ft.
8				Bottom of Exploration at 7.5 ft.	
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 9 ft WIDTH 3.5 ft	DEPTH: 7.5 ft
		NA		JAR SAMPLES: 0-4.0 ft.
			BOULDERS	BAG SAMPLES: 5-1/2-7
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-8

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-9 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK CLIENT: CITY OF ROCHESTER CONTRACTOR: KBH CONSTRUCTION CO., INC. EQUIPMENT USED: CASE 580C BACKHOE	LOCATION: See Site Plan ELEVATION: Not Identified EXPLORATION DATE: 11/08/96 CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
2				-TOPSOIL/FILL-	
				Brown SILT and GRAVEL, moist (0-3.5 ft.) Water seepage at 3.5 ft. (<1 gpm with a slight sheen).	
			3.5		VOCs 2 ppm
4				-FILL-	Sampled stained soil at 4.5-5.5 ft.
6				Dark brown-black ASH with cinder stained soil, wood timbers, moist to wet, caves at times (3.5 - 7.5 ft.)	
8				Bottom of Exploration at 7.5 ft.	
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 7 ft WIDTH 2 ft	DEPTH: 7.5 ft
		NA		JAR SAMPLES: 4.5-5.5 ft.
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-9

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP-10 FILE NO. 70606-000

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK CLIENT: CITY OF ROCHESTER CONTRACTOR: KBH CONSTRUCTION CO., INC. EQUIPMENT USED: CASE 580C BACKHOE	LOCATION: See Site Plan ELEVATION: Not Identified EXPLORATION DATE: 11/08/96 CDM REP.: von Schondorf

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.9	-TOPSOIL- Dark brown SILT, moist (0-0.9 ft.)	
2					No VOCs measured.
4				-FILL-	
6				Gray SHOT ROCK (< 6 in.) and C&D debris, wood, brick, metal, moist to wet (.9 to 5.5 FT.). Caving through out pit, stopped further excavation. Bottom of Exploration at 5.5 ft.	
8					
10					
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH 7 ft WIDTH 3.5 ft	DEPTH: 5.5 ft.
		NA		JAR SAMPLES: --
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP-10

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP1 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Brown SAND, some silt.	
				-FILL-	
			1.0		
				Dark brown and black mottled fine sand, bricks and cinders.	
2					
				-FILL-	
			3.5		
4				Dark brown and black mottled silt, brick and large pieces of slab concrete. -FILL-	
				Bottom of Exploration at approximately 4.5 ft.	Hit either rock or large piece of concrete which did not yield.
				General Comments	Organic vapor readings <= 3 ppm. One composite soil sample taken of all soils.
6					
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH feet WIDTH feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 4.5 ft.
JAR SAMPLES: TP1
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP1

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP2 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Brown SAND, some silt, small roots. -FILL-	
			1.5	Brown and orange fine to medium SAND, bricks and concrete pieces. -FILL-	
2				Same.	entering pit at approx. 2 ft. depth.
4				-FILL-	
				Bottom of Exploration at approximately 4.5 ft.	Hit either rock or large piece of concrete which did not yield.
6				General Comments	Organic vapor readings <= 0.8 ppm. One composite soil sample taken of all soils.
8					
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH feet WIDTH feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 4.5 ft.
JAR SAMPLES: TP2*
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP2

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP3 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Brown SAND, some silt.	
				-FILL-	
			1.5		
2				Brownish and black mottled fine SAND, cinders.	
				-FILL-	
			3.0		
				Same, except cinders, ash and railroad ties.	
4				-FILL-	Organic vapor readings in this area <= 11 ppm.
			5.5		
6				Orange, gray, and black fine sand, some gravel.	
8					
			9.0		
10				Orange, gray, and black fine sand with boulders.	
				Bottom of Exploration at approximately 11.0 ft.	
12				General Comments	One composite sample taken of all soils (TP3A) One composite sample taken from 3.0-5.5 ft.* (TP3B)

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH feet WIDTH feet	DEPTH: 11.0 ft.
				JAR SAMPLES: TP3A, TP3B
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP3

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP4 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Brown sand with some silt. -FILL-	
2				Brown fine SAND, with brick fill.	Small trickle of water entering pit at approx. 3 ft. depth.
4					
6				-FILL-	
			6.5	Orange and gray stiff silt, some gravel.	
8					
				Bottom of Exploration at approximately 9.5 ft.	
10				General Comments	Organic vapor readings <= 0.5 ppm. One composite sample taken of all soils.
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH feet WIDTH feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 9.5 ft.
JAR SAMPLES: TP4*
BAG SAMPLES: --
WATER LEVEL: --
TEST PIT NO. TP4

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP5 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Brown SAND with some silt, small roots.	
2				-FILL-	
			2.5	Light brown fine to medium sand, some silt. -FILL-	
			3.5	Dark brown and black sand and silt, with bricks, wood, glass, clay tile, steel bars, cinders, ash, and some concrete materials. -FILL-	
4					
6			6.0	Orange and black clay and silt.	Soil had odor and appeared stained from 6.0 to 7.0 ft.
				Bottom of Exploration at approximately 7.0 ft.	Water was entering excavation at approx. 6.5 ft. deep from an object (unknown) that was hit. Water contained sheen on it. Organic vapor readings from 3.5 to 7.0 ft. <= 16 ppm.
8					
				General Comments	One composite sample taken of 0 to 3.5 ft. soil (TP5A) One composite sample taken from 3.5 to 7.0 ft. (TP5B)* One composite blank sample taken from all soils.
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH feet WIDTH feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 7.0 ft.

JAR SAMPLES: TP5A, TP5B, TP5BL

BAG SAMPLES: --

WATER LEVEL: --

TEST PIT NO. TP5

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP6 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Brown sand with some silt. -FILL-	
				Light brown to orange silt, tile, brick and concrete pieces.	
2				-FILL-	
			2.5	Sand, some silt with light gray ash material. -FILL-	
			3.0	Black silt and clay. -FILL-	
			3.5	Light brown and gray clay with few boulders.	
4					
6					
8				Bottom of Exploration at approximately 8.5 ft.	
10				General Comments	Organic vapor readings <= 1.0 ppm. One composite soil sample taken of all soils (TP6). One composite blank sample taken of all soils (TP6BL).
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH feet WIDTH feet	DEPTH: 8.5 ft.
				JAR SAMPLES: TP6, * TP6BL
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP6

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP7 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Brown sand with some silt. -FILL-	
			1.0	Light brown sand, some silt and gravel. -FILL-	
2				Brown sand, some silt, with boulders, gravel, and brick.	
4					
			5.0	-FILL-	
6				Brown sand, some silt and gravel, with cinders, dense paper products, and brick.	Small trickle of water entering pit at approx. 5.0 ft. depth.
			8.0	-FILL-	
8				Brownish stiff clay.	
				Bottom of Exploration at approximately 9.0 ft.	
10				General Comments	Organic vapor readings <= 2.0 ft. One composite sample taken of all soils.
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH feet WIDTH feet	DEPTH: 9.0 ft.
				JAR SAMPLES: TP7
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP7

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP8 FILE NO. 70606-001

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
				Brown sand with some silt and gravel.	
				-FILL-	
2			2.0	Light brown stiff clay with small rocks, cinders and brick. -FILL-	
			2.5	Blackish clay, some sand and silt.	Soil appeared stained and had an odor.
4					
				-FILL-	
			5.0	Brown, orange and gray stiff clay.	
6					
8				Bottom of Exploration at approximately 8.0 ft.	
				General CommentS	Organic vapor readings <= 1.0 ppm. One composite soil sample taken of all soils (TP8A). One composite soil sample taken of stained soil (2.5 to 5.0 ft.) (TP8B). One composite blank sample taken of all soils (TP8BL).
10					
12					

WATER LEVEL		
DATE	TIME*	DEPTH FT

* Hrs after completed

APPROXIMATE PIT DIMENSIONS AT SURFACE

LENGTH feet WIDTH feet

BOULDERS

8" to 18" DIAMETER: No. = Vol. cu ft

Over 18" DIAMETER: No. = Vol. cu ft

SUMMARY

DEPTH: 8.0 ft.

JAR SAMPLES: TP8A
TP8B, TP8BL

BAG SAMPLES: --

WATER LEVEL: --

TEST PIT NO. TP8

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST PIT REPORT	TEST PIT NO. TP9 FILE NO. 70606-002

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
LOCATION: OAK & SMITH STREET, ROCHESTER, NEW YORK
CLIENT: CITY OF ROCHESTER
CONTRACTOR: KBH CONSTRUCTION CO., INC.
EQUIPMENT USED: BACKHOE #416

LOCATION: See Site Plan
ELEVATION: Not Identified
EXPLORATION DATE: 11/14/96
CDM REP.: Christine Vitt

SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.5	Brown sand, some silt. -FILL-	
				Brown sand, silt with bricks, wood.	
2					
4					
6					
			7.5	-FILL-	
8				Light brown with orange stiff clay.	
				Bottom of Exploration at approximately 8.0 ft.	
10				General Comments	Organic vapor readings <= 3.0 ppm. One composite sample of all soils taken (TP9). One composite blank sample of all soils taken (TP9BL).
12					

WATER LEVEL			APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE	TIME*	DEPTH FT	LENGTH feet WIDTH feet	DEPTH: 8.0 ft.
				JAR SAMPLES: TP9, TP9BL
			BOULDERS	BAG SAMPLES: --
			8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: --
* Hrs after completed			Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. TP9

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST BORING REPORT	BORING NO. B-1

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
CLIENT: CITY OF ROCHESTER
CONTRACTOR: BUFFALO DRILLING

FILE NO. 70606-001
SHEET NO. 1 OF 1
LOCATION: See Plan

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	HSA	S	---
INSIDE DIAMETER (IN)	4-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: CME-55, Truck-Mounted
BIT TYPE: 4-1/4 in. HSA, split spoon
DRILL MUD: ---
OTHER: Auger while sampling to refusal at 13.3 ft.

ELEVATION: 508.2
DATUM: NGVD
START: 14 Nov. 1996
FINISH: 14 Nov. 1996
DRILLER: D. Rimbeck
H&A REP: M. Beikirch

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
		2 5 4 6	S1 15"/24"	0.0 2.0		Loose dark brown silty fine SAND, little gravel, moist. Small amount of slag throughout. -FILL-
		15 100/3"	S2 9"/9"	2.0 2.8		Same, red brick at 2.8 ft. in end of spoon. Boulder at 2.5 ft. while augering, passed through after 4 min. Augered to 4.0 ft.
5		14 9 9 6	S3 12"/24"	4.0 6.0		Medium dense brown fine sandy SILT, trace clay, some slag and tan silty friable brick/rock, trace gravel, moist. Concrete coarse gravel/cobble in end of spoon.
		4 3 6 4	S4 19"/24"	6.0 8.0	7.2	Same, with more clay. Loose tan silty fine SAND, trace medium sand, moist to wet. -LACUSTRINE-
		3 10 10 10	S5 13"/24"	8.0 10.0		Same, except medium dense, with red-brown cobble/coarse gravel at 9.5 ft.
10		6 10 9 10	S6 17"/24"	10.0 12.0		Coarse to medium sand layer at 9.9 ft. Same, with trace medium to coarse sand. Green-red cobble in end of spoon.
		8 12 50/3"	S7 12"/15"	12.0 13.3	12.5	Same, with little gravel, small piece of dolostone in bottom of spoon. No water in bottom of hole. Medium dense gray silty fine SAND, little gravel, moist to wet. -TILL-
15						Bottom of Exploration at 13.3 ft. Auger refusal at 13.3 ft.
20						
25						

WATER LEVEL DATA					
DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	BOTTOM OF HOLE	WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT): 13.3
ROCK CORED (LIN FT): ---
SAMPLES: 7S
BORING NO. B-1

H&A OF NEW YORK, ROCHESTER, NEW YORK
Consulting Geotechnical Engineers,
Geologists and Hydrogeologists

TEST BORING REPORT

BORING NO. B-2

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
CLIENT: CITY OF ROCHESTER
CONTRACTOR: BUFFALO DRILLING

FILE NO. 70606-001
SHEET NO. 1 OF 1
LOCATION: See Plan

ELEVATION: 507.2
DATUM: NGVD
START: 14 Nov. 1996
FINISH: 14 Nov. 1996
DRILLER: D. Rimbeck
H&A REP: M. Beikirch

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	HSA	S	---
INSIDE DIAMETER (IN)	4-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: CME-55, Truck-Mounted
BIT TYPE: 4-1/4 in. HSA, split spoon
DRILL MUD: ---
OTHER: Auger while sampling to refusal at 15.1 ft.

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
		2 4 8 9	S1 15"/24"	0.0 2.0		Medium dense dark brown to black fine SAND, trace medium to coarse sand and fine gravel with slag and roots and clayey seams throughout, damp to moist. -TOPSOIL/FILL-
		18 14 7 8	S2 18"/24"	2.0 4.0		Same, no roots, less slag fragments, moist.
5		3 4 4 5	S3 22"/24"	4.0 6.0		Loose tan to brown silty fine SAND, trace clay or less, trace medium to coarse sand, slag piece throughout, moist.
		3 6 6 4	S4 14"/24"	6.0 8.0		Same, except medium dense, with clay pods the size of peas throughout the sample. -FILL-
		3 3 5 11	S5 16"/24"	8.0 10.0	9.7	Same, except loose and wet.
10		6 9 14 19	S6 14"/24"	10.0 12.0		Medium dense tan fine SAND, little silt, trace medium to coarse sand, wet. -LACUSTRINE- Same, with trace coarse sand to fine gravel, moist to wet.
		17 40 66 29	S7 12"/24"	12.0 14.0	12.0	Very dense, gray silty fine SAND, little coarse sand to gravel and dolostone fragments, moist to wet. -TILL-
15		34 52 50/1	S8 13"/13"	14.0 15.1		Same, with gray dolostone chips and pieces in spoon tip. No water in hole.
						Bottom of Exploration at 15.1 ft. Auger refusal at 15.1 ft.
20						
25						

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	BOTTOM OF HOLE	WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT):	15.1
ROCK CORED (LIN FT):	---
SAMPLES:	8S
BORING NO.	B-2

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST BORING REPORT	BORING NO. B-3

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
CLIENT: CITY OF ROCHESTER
CONTRACTOR: BUFFALO DRILLING

FILE NO. 70606-001
SHEET NO. 1 OF 1
LOCATION: See Plan

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	HSA	S	---
INSIDE DIAMETER (IN)	4-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: CME-55, Truck-Mounted
BIT TYPE: 4-1/4 in. HSA, split spoon
DRILL MUD: ---
OTHER: Auger while sampling to refusal at 9.3 ft.

ELEVATION: 508.4
DATUM: NGVD
START: 14 Nov. 1996
FINISH: 14 Nov. 1996
DRILLER: D. Rimbeck
H&A REP: M. Beikirch

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
0		7 10 11 6	S1 19"/24"	0.0 2.0		Medium dense dark brown-black fine to medium SAND, trace silt, fine gravel, and clay, with red-brick fragments and slag, moist to damp, roots throughout.
		9 9 29 22	S2 13"/24"	2.0 4.0		Same, except dense, little to trace gravel, damp. Mica-like, fibrous-platy material at 3.9 ft. (small gravel-size fragment).
5		21 19 11 5	S3 11"/24"	4.0 6.0		Medium dense, gravelly fine to medium SAND, trace silt, damp.
		3 4 8 8	S4 14"/24"	6.0 8.0		Same, except fine SAND, little coarse sand-gravel, moist. -FILL-
		4 6 50/3"	S5 6"/15"	8.0 9.3	8.2	Same, with quartzite cobble in end of spoon. Auger chattering at 8.2 ft. -TILL-
10						Bottom of Exploration at 9.3 ft.
15						
20						
25						

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	DEPTH (FT) TO: BOTTOM OF HOLE	DEPTH (FT) TO: WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT):	9.3
ROCK CORED (LIN FT):	---
SAMPLES:	5S
BORING NO.	B-3

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST BORING REPORT	BORING NO. B-4

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
CLIENT: CITY OF ROCHESTER
CONTRACTOR: BUFFALO DRILLING

FILE NO. 70606-001
SHEET NO. 1 OF 1
LOCATION: See Plan

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	HSA	S	---
INSIDE DIAMETER (IN)	4-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: CME-55, Truck-Mounted
BIT TYPE: 4-1/4 in. HSA, split spoon
DRILL MUD: ---
OTHER: Auger while sampling to refusal at 15.2 ft.

ELEVATION: 509.4
DATUM: NGVD
START: 14 Nov. 1996
FINISH: 14 Nov. 1996
DRILLER: D. Rimbeck
H&A REP: M. Beikirch

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
0		2 3 6 7	S1 12"/24"	0.0 2.0		Loose brown, red-brown fine SAND, trace silt, roots, medium sand, damp to moist. -TOPSOIL/FILL-
		4 3 4 4	S2 12"/24"	2.0 4.0		Same, except black-brown tan with slag all throughout the spoon, and pieces of charcoal noted also.
5		2 3 3 3	S3 15"/24"	4.0 6.0		Same, except fine-medium SAND, trace fine gravel, moist to wet. -FILL-
		3 4 6 4	S4 16"/24"	6.0 8.0	6.5 7.8	Same. Loose, brown silty fine SAND, trace medium sand, moist.
10		2 3 4 6	S5 16"/24"	8.0 10.0		Loose tan fine to medium SAND, moist. Same, with medium sand lens at 8.4 to 8.6 ft. and a clayey silt layer at 9.4 to 9.6 ft. -LACUSTRINE-
		2 2 3 5	S6 7"/24"	10.0 12.0		Same, except no clay, trace coarse sand to fine gravel.
		3 3 4 26	S7 18"/24"	12.0 14.0	14.0	Same, with trace gravel, moist. Clay and silt lens at 12.5 to 12.7 ft., fine to coarse sand layer from 11.2 to 12.0 ft., wet to saturated. (Driller notes water approximately 3 ft. deep in bottom of hole).
15		52 50/3"	S8 7"/9"	14.0 14.7	15.2	Very dense brown gravelly fine SAND, damp. -TILL-
						Auger refusal at 15.2 ft. Bottom of Exploration at 15.2 ft.
20						
25						

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	BOTTOM OF HOLE	WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT):	15.2
ROCK CORED (LIN FT):	--
SAMPLES:	8S
BORING NO.	B-4

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST BORING REPORT	BORING NO. B-5

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
CLIENT: CITY OF ROCHESTER
CONTRACTOR: BUFFALO DRILLING

FILE NO. 70606-001
SHEET NO. 1 OF 1
LOCATION: See Plan

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	HSA	S	---
INSIDE DIAMETER (IN)	4-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: CME-55, Truck-Mounted
BIT TYPE: 4-1/4 in. HSA, split spoon
DRILL MUD: ---
OTHER: Auger while sampling to refusal at 13.0 ft.

ELEVATION: 507.2
DATUM: NGVD
START: 14 Nov. 1996
FINISH: 14 Nov. 1996
DRILLER: D. Rimbeck
H&A REP: M. Beikirch

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
		1 6 3 3	S1 15"/24"	0.0 2.0		Loose brown fine SAND, trace medium coarse sand, trace gravel, roots, very little to no slag, moist. -FILL-
		4 3 4 4	S2 13"/24"	2.0 4.0		Same, except black and brown mottled fine SAND, little gravel and slag, moist to wet.
5		8 10 18 30	S3 20"/24"	4.0 6.0	4.6	Medium dense black fine SAND, little medium sand to fine gravel, damp, much slag and crushed slag all throughout sample. -FILL-
		53 35 11 10	S4 0"/24"	6.0 8.0		Push cobble. No sample collected. Auger to 8.0 ft.
						Inadvertently augered to 9 ft.
10		8 5 13 15	S5 0"/12"	9.0 10.0		No recovery.
		9 15	S6 6"/24"	10.0 12.0		Medium dense, red-brown fine SAND, little medium sand, trace coarse sand to fine gravel, moist. -FILL- Same, except with little fine gravel, moist to wet. Black mucky ooze comes up in bottom of augers, no odor.
		19 50/2"	S7 8"/8"	12.0 12.7		Auger refusal at 13.0 ft. Bottom of Exploration at 13.0 ft.
15						
20						
25						

WATER LEVEL DATA						SAMPLE IDENTIFICATION	SUMMARY
DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	DEPTH (FT) TO: BOTTOM OF HOLE	DEPTH (FT) TO: WATER	O Open End Rod T Thin Wall Tube U Undisturbed Sample S Split Spoon	OVERBURDEN (LIN FT): 13.0 ROCK CORED (LIN FT): -- SAMPLES: 7S BORING NO. B-5

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists	TEST BORING REPORT	BORING NO. B-6

PROJECT: ERIE CANAL INDUSTRIAL PARK - TRU-FORM PARCEL
CLIENT: CITY OF ROCHESTER
CONTRACTOR: BUFFALO DRILLING

FILE NO. 70606-001
SHEET NO. 1 OF 1
LOCATION: See Plan

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
TYPE	HSA	S	---
INSIDE DIAMETER (IN)	4-1/4	1-3/8	---
HAMMER WEIGHT (LB)	---	140	---
HAMMER FALL (IN)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

RIG TYPE: CME-55, Truck-Mounted
BIT TYPE: 4-1/4 in. HSA, split spoon
DRILL MUD: ---
OTHER: Auger while sampling to refusal at 14.9 ft.

ELEVATION: 508.5
DATUM: NGVD
START: 14 Nov. 1996
FINISH: 14 Nov. 1996
DRILLER: D. Rimbeck
H&A REP: M. Beikirch

DEPTH (FT)	CASING BLOWS PER FT	SAMPLER BLOWS PER 6 IN	SAMPLE NUMBER & RECOVERY	SAMPLE DEPTH (FT)	STRATA CHANGE (FT)	VISUAL CLASSIFICATION AND REMARKS
0		3 7 9 9	S1 4"/24"	0.0 2.0		Medium dense brown fine SAND, trace silt and medium sand, wet with roots. -FILL-
		9 7 11 22	S2 9"/24"	2.0 4.0		Same, except gravelly fine SAND, damp to moist. Noted (4) coarse gravel to cobble fragments within sample. -FILL-
5		36 25 17 20	S3 14"/24"	4.0 6.0		Dense gravelly fine to coarse SAND, slag cobble (friable) at 5.6 ft., damp to moist, red brick at 5.0 ft.
		11 6 7 5	S4 10"/24"	6.0 8.0		Same, except medium dense fine to medium SAND, trace to little fine gravel, wet. Fine sandy SILT at 7.6-7.7 ft.
		3 3 8 10	S5 9"/24"	8.0 10.0		Same, except with trace gravel, moist, and silt layer with little clay at 9.4 to 9.9 ft. Fine SAND layer at 9.9 - 10.0 ft. wet.
10		6 5 5 20	S6 14"/24"	10.0 12.0		Same, except loose with silty, little clay layer at 10.8 to 11.0 ft.
		34 21 50/3"	S7 7"/15"	12.0 13.3	11.9 13.0	Dense brown fine sand, little fine gravel, trace coarse sand, damp. Note liquidy brown, runny soil coming up as auger spoils. -TILL-
					14.1	Very dense brown medium to coarse SAND, little fine sand, trace gravel, wet. -OUTWASH/TILL-
15		25 26 50/0"	S8 12"/12"	14.0 15.0		Very dense brown-gray fine SAND, trace medium to coarse sand and little gravel, wet. -TILL-
						Auger refusal at 14.9 ft. Bottom of Exploration at 15.0 ft. Notes: 1. No recovery on first try on first B-6 hole. Red brick residue noted on bottom of spoon. 2. On first B-6 hole auger refusal at 5.2 ft. Remob onto new hole 8 ft. south and 10 ft. west, and auger without sampling to 4.0 ft.
20						
25						

WATER LEVEL DATA					
DATE	TIME	ELAPSED TIME (HR)	DEPTH (FT) TO: BOTTOM OF CASING	DEPTH (FT) TO: BOTTOM OF HOLE	DEPTH (FT) TO: WATER

SAMPLE IDENTIFICATION

O Open End Rod
T Thin Wall Tube
U Undisturbed Sample
S Split Spoon

SUMMARY

OVERBURDEN (LIN FT):	15.0
ROCK CORED (LIN FT):	--
SAMPLES:	8S
BORING NO.	B-6

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Log of Test Pit TP-1

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Northeast portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *9.5 Feet*
Equipment Reach:	Weather: *Sunny; 50° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1					FILL. Reworked brown silt, bricks, gravel, metal, and wood pieces.	
			11		Black discolored metal shavings.	Sweet petroleum-like odor. Water perched in metal shavings.
2						
3			25		Brown sandy SILT. Mix of fine to coarse gravel.	Sweet petroleum-like odor.
4	01	Grab	54		Sample 01 collected at 4.1'.	
5						
			35			
6						
7			13			
8			6.1			Faint petroleum-like odor.
9			5.1			
			0.1			No odors.
10					Bottom of Test Pit = 9.5'.	
11						
12						
13						
14						

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Log of Test Pit TP-2

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Northeast portion of parcel*
Date: *5/20/94*	GW Depth: *2.0 Feet*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *5.0 Feet*
Equipment Reach:	Weather: *Sunny; 50°*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
0			13		FILL. Reworked sandy silt with gravel and wood debris.	Black discolored soils with oil/sweet/petroleum like odor.
1						
2			26			Water perched in Fill. Oil product observed on water.
3			34			
4			56			
5			43		Hard, solid bottom. Possible concrete slab.	Backhoe refusal.
6					Bottom of Test Pit = 5.0'.	
7						
8						
9						
10					Test Pit excavated between two foundation walls.	
11						
12						
13						
14						

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0 0 0 2 7

Log of Test Pit TP-3

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *East portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *11.9 Feet*
Equipment Reach:	Weather: *Sunny; mid 50° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
0–3			ND		FILL. Black fine cinders, metal, and clay tile fragments.	
3–10			ND		Native. Brown silty SAND. Fine to medium gravel mix.	No unusual odors or staining.
10–11			ND		Brown fine sand, some fine to coarse gravel.	
12			ND		Bedrock.	
					Bottom of Test Pit = 11.9'.	
					NB = Non-Detectable	

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Log of Test Pit TP-4

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Northeast portion of parcel*
Date: *5/20/94*	GW Depth: *1.5 Feet*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *8.8 Feet*
Equipment Reach:	Weather: *Sunny; mid 50° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1			ND		FILL. Bricks and clay tile fragments.	
2					Metal shavings and reworked silt.	Black, oily odor. Water perched in FILL.
3	02	Grab	9.9 *13.4 14.1		Sample 02 collected at 2.2'.	
4			28.6		Gray/Brown fine SAND, some silt, fine to medium gravel, moist.	Petroleum-like odors.
5			*3.7 *0.1			
6						
7						
8			32.1 *ND			
9					Bottom of Test Pit = 8.8'.	No odors
10					Test Pit excavated in a trench-like fashion in a north/south direction. Solis at north end of test Pit did not appear to have been impacted.	
11						
12						
13					ND = Non-Detectable * = PID VALUES (ppm)	
14						

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Log of Test Pit TP-5

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *North portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joesph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *11.5 Feet*
Equipment Reach:	Weather: *Sunny; mid 50° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1			0.1		FILL. Reworked brown silt, cobbles, gravel, and wood debris.	Fill/ musty odor.
2						
3			*30			
4			0.2		3" lense of black discolored soil/cinder mix.	
5			ND *20			
6					Brown/gray fine SAND.	
7						
8			*ND		Black/gray sandy SILT. Some fine gravel.	
9						
10			*ND		Brown fine SAND. Some silt, moist.	
11						
12					Bedrock Bottom of Test Pit = 11.5'.	
13					ND = Non-Detectable * = PID VALUES (ppm)	
14						

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Log of Test Pit TP-6

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *North portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *11.4 Feet*
Equipment Reach:	Weather: *Sunny; mid 50° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GEOLOGIC DESCRIPTION	REMARKS
1				FILL. Reworked brown silt, cobbles, mix of gravel, bricks and pieces of clay tile pipe.	
2					
3			*>300	Wood/timber (Horizontal position)	
	03	Grab	48.3	Black cinder material, slag. Sample 04 (PCB) collected at 3.3'.	Faint sweet type odor.
4					Strong sweet odor in stained soils.
	04	Grab	104	Reworked grey sandy silt, moist. Sample 03 (8240, DWPS) collected at 4.6'.	
5			*280		
6			*300		
7					
			151		Sweet odor.
8			*100	Brown/grey sandy SILT, modeled, moist compact and dense.	
			95.6		
9			5.6		
			*50	Moist.	No odors.
10					
11			*2.0		
			ND	Boulders and bedrock	No odors.
12				Bottom of Test Pit = 11.4'.	
13				Soils around and attached to boulders had black, discolored (petroluem- like) staining. No odors. Moist.	
				ND = Non-Detectable	
14				* = FID VALUES (ppm)	

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Log of Test Pit TP-7

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Center portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc,*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *5.5 Feet*
Equipment Reach:	Weather: *Sunny; upper 50° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1			ND *0.1		FILL, Reworked silt,clay tile fragments, bricks, concrete chuncks, mix of gravel.	No unusual staining or odors.
2						
3						
4						
5			*>1000 ND			FID reading collected within conduit pipe.
6					1" diameter conduit with electric line. Bottom of Test Pit = 5.5'.	
7						
8					ND = Non Detectable x = PID VALUES (ppm)	
9						
10						
11						
12						
13						
14						

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Log of Test Pit TP-8

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Northwest portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *3.2 Feet*
Equipment Reach:	Weather: *Sunny; upper 50° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
0			ND		FILL. Reworked brown silt.	No unusual staining or odors.
1						
2					Shot rock fill, wire strap.	Difficult excavation of shotrock fill.
3			ND		Bottom of Test Pit = 3.2'.	
4						
5					ND = Non-Detectable	
6						
7						
8						
9						
10						
11						
12						
13						
14						

0 0 0 0 1 8 0 0 0 5 5

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Log of Test Pit TP-9

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Northwest portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *8.9 Feet*
Equipment Reach:	Weather: *Sunny; 60° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
0–2			ND *1.0		FILL. Reworked brown silt.	No unusual staining or odors.
2–5			ND *10 *50		Shot rock fill, brick debris, clay tile fragments, dry.	
5–9			2.3 *2.0 1.1		Black/grey silt, mix of gravel, black metal shavings. Reworked fill consisting of clay,silt, sand, trace stained soils.	Slight petroleum-like odor associated with metal shavings.
9					Bottom of Test Pit = 8.9'.	No groundwater encountered. Some slumping of walls.

ND = Non-Detectable

* = FID VALUES (ppm)

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Log of Test Pit TP-10

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *East portion of parcel*
Date: *5/20/94*	GW Depth: *11.9 Feet*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *11.9 Feet*
Equipment Reach:	Weather: *Sunny; upper 60° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1–3			1.2 *15		FILL. Reworked silt, wood, metal debris, brick pieces.	Black, discolored, sweet petroleum-like odor.
3–4					Brown/grey fine SAND.	
4–10			*35 1.3 1.1 *8.0		Brown SAND, little silt, fine gravel, mottledd, moist.	Faint sweet odor.
10–11					Brown fine SAND, mix of coarse gravel, and cobbles (3), moist to saturated.	
11–12			2.0		Brown fine SAND and gravel.	Water on top of rock. No sheen.
12					Bedrock	
12–13					Bottom of Test Pit = 11.9'.	
13–14					* = FID VALUES (ppm)	

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Log of Test Pit TP-11

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *East portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *11.9 Feet*
Equipment Reach:	Weather: *Sunny; 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
0			*20		FILL. Reworked brown/black silt, mix of gravel, small metal pieces.	Black staining, petroleum-like odor.
1			8.1 *10			
2						
3			21 *40			Petroleum-like odor.
4						
5			17.1 *390		Brown silty SAND some fine gravel, moist.	
6						
7	05	Grab	15.6 *>1000		Sample 05 (8240, TCL, DWPS) collected.	Strong volatile odor.
8						
9			*25			Odor lessens.
10			*35 *10			
11			*4.6			
12					Soils moist to saturated.	Very slight odor.
13					Bottom of Test Pit = 11.9'. x = PID VALUES (ppm)	
14						

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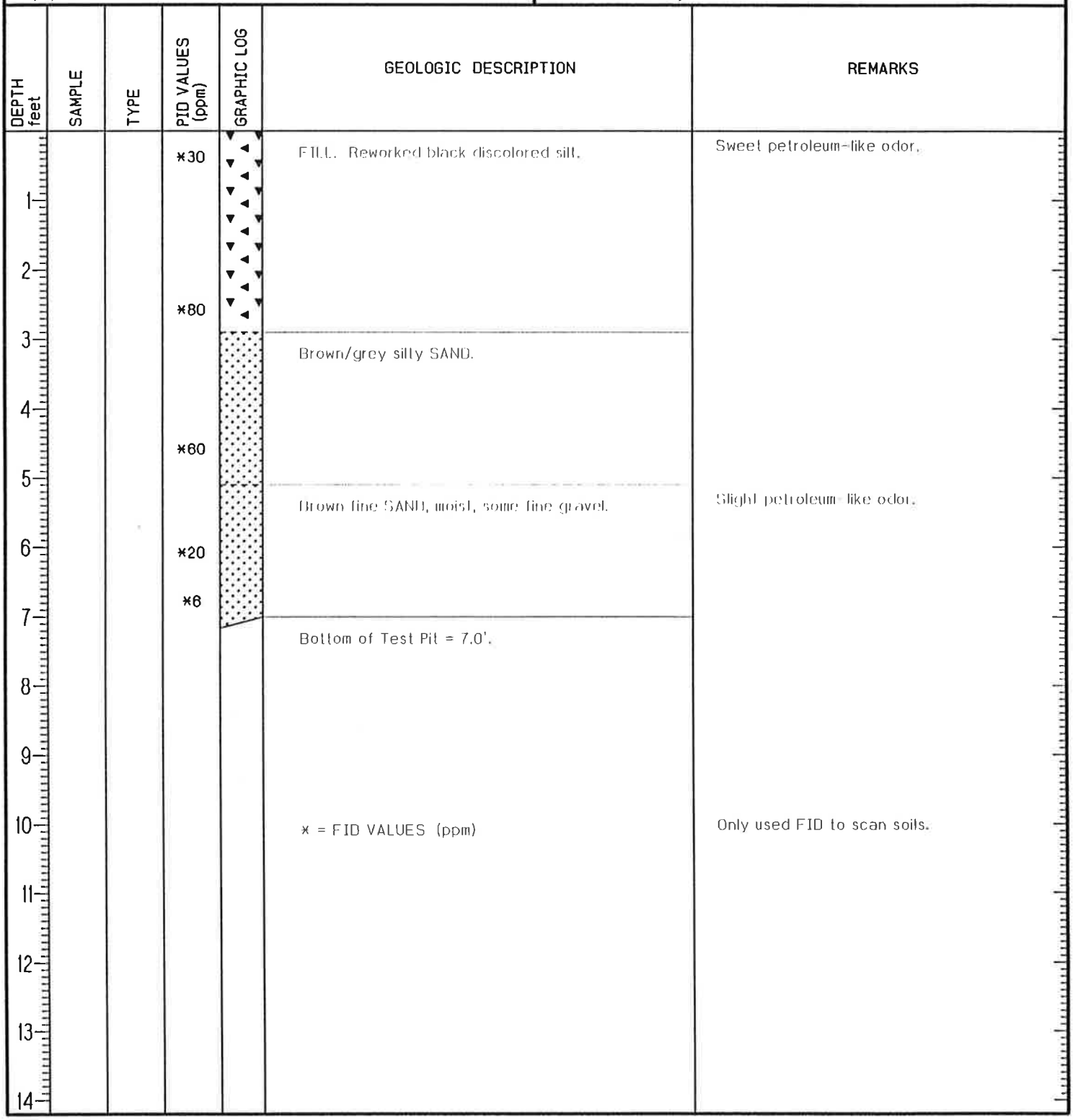
Log of Test Pit TP-12

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *South portion of parcel*
Date: *5/20/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *7.0 Feet*
Equipment Reach:	Weather: *Sunny; 75° F*



Day Hampton, Associates Environmental Engineering Consultants	000018	000037 **Log of Test Pit TP-13**
Project: *Phase II Supplemental Investigation*		Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*		Test Pit Location: *Southeast portion of parcel*
Date: *5/20/94*		GW Depth: *1.2 Feet*
Excavation Comp.: *Buckman Construction, Inc.*		Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*		Total Depth: *7.0 Feet*
Equipment Reach:		Weather: *Sunny; 75° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1			*40		FILL. Reworked silt, slag, bricks, cinders, and pieces of clay tile pipe (70%).	
2			*30		Perched ground water in fill.	Oil product/globules on water.
3			*100			
4					Brown/grey SILT (excavated from under water).	
5						
6						
7			*20		Bottom of Test Pit = 7.0'.	
8						
9						
10					* - PID VALUES (ppm)	Only used PID to scan soils.
11						
12						
13						
14						

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0 0 0 3 8
Log of Test Pit TP-14

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *North, center portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *10.9 Feet*
Equipment Reach:	Weather: *Sunny; 65° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1–3			ND		FILL-Reworked silt and gravel,bricks, and clay tile fragments.	
3			1.0		3" lense of black cinder material.	Slight aromatic odor.
4			*>100			
4–7			5.6		Grey silty SAND, moist, some medium gravel.	Sweet volatile odor.
7			*250		Brown fine SAND.	Old gasoline-like odor.
8			176			
10			35		Brown fine SAND, moist, some fine gravel.	
11			*ND			
11			ND		Bottom of Test Pit = 10.9'.	Very faint odor.

ND - Non Detectable

x = PID VALUES (ppm)

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Log of Test Pit TP-15

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *North, center portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *13.1 Feet*
Equipment Reach:	Weather: *Sunny; 65° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1–4					FILL. Reworked brown sill, mix of gravel, some cobbles, bricks, and clay tile pipe fragments.	
4			11.9		Brown silty SAND.	Slight sweet odor.
5					Brown/grey fine SAND.	Old gasoline like/sweet odor.
7			78 *110			
8	07	Grab	212 192 *320		Sample 07 collected at 7.8'.	
9			150 *380			
10			2.1 *6.1		Brown fine SAND. Brown fine SAND, some fine gravel, moist.	Very faint gasoline-like/sweet odor. Moist to saturated soils.
12			ND *1.0			
13					Bedrock Bottom of Test Pit = 13.1'.	ND = Non-Dectectable * = FID VALUES (ppm)
14						

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0 0 0 0 1 8 0 0 0 4 0

Log of Test Pit TP-16

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *North portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin*
Excavation Method: *Ford Backhoe*	Total Depth: *12.4 Feet*
Equipment Reach:	Weather: *Sunny; 65° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1–3			0.3		FILL. Reworked brown/black silt, mix of gravel, few cobbles, wood pieces, brick fragments, slag boulders (shot rock), metal pieces.	
4			1.4		FILL. Brown silt with pockets of black staining. Cobbles and boulders. Loose.	Slight petroleum-like odor.
5–10			1.0 *4.0			
11			1.7		Brown fine SAND, some fine to medium gravel, moist.	No odors.
12			ND		Bedrock	
13					Bottom of Test Pit = 12.4'.	ND = Non-Detectable * = FID VALUES (ppm)
14						

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Log of Test Pit TP-17

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Southeast portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *7.0 Feet*
Equipment Reach:	Weather: *Sunny; 60° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1					FILL. Reworked silt, gravel, wood and cinders.	
2			11.8		Black/grey silty SAND.	Petroleum-like odor.
3						
4			0.1		Brown fine SAND.	No odors.
5						
6						
7			0.1		Bottom of Test Pit = 7.0'.	
8						
9						
10					Soil at east and west ends of test pit did not appear to have been impacted with petroleum-like odors. The petroleum stained soil appeared as a discontinuous pocket within the test pit.	
11						
12						
13						
14						

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Log of Test Pit TP-18

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *South portion of parcel, center*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *3.9 Feet*
Equipment Reach:	Weather: *Sunny; mid 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
0–2			ND		FILL. Reworked silt, metal pieces, gravel, 6 railroad timbers, cinders	Creosote staining on timbers (1.0 ppm with PID)
2–4			ND		Brown/gray silty SAND, mottled (red/olive color), moist, friable	No unusual odors
4			ND		Bottom of test pit = 3.9'.	Test pit appeared to have been excavated on a former railroad spur/track location.
					ND = Non-Deteclable	

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Log of Test Pit TP-19

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Center portion of parcel (SG-44)*
Date: *5/23/94*	GW Depth: *6.5 Feet*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *8.0 Feet*
Equipment Reach:	Weather: *Sunny; mid 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1	06	COMP	0.1		FILL. Reworked sill, bricks, blasted shot rock, metal strap, concrete chunks, coal fragments.	
2						
3					Wood piece.	Water perched around wood fill.
4			*4.0			
5			*6.0		Reworked gray/black sill, moist	
6			0.8			
			*2.3			
7			9.2		Wood/lumber debris. Black discolored pockets of soil intermixed in FILL.	Heavy water infiltration. Water exhibited a sheen. Pet odor.
			*30			
			25		Wood fill, saturated	
8			*10		Test pit terminated at 8.0' due to water mixing with soil.	Water exhibited a PID reading of 6.0 ppm. PID reading collected from water retained in the backhoe bucket.
9						
10					* = FID VALUES (ppm)	
11					NOTE: Sample 06 consisted of a composite of soil throughout test pit.	
12						
13						
14						

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Log of Test Pit TP-20

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *South portion of parcel, center*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *4.3 Feet*
Equipment Reach:	Weather: *Sunny; mid 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1			0.1		FILL. Reworked silt, and brick fragments.	No staining or unusual odors.
2			0.1		FILL. Shot rock, compact, fine to cobbles in size.	
3						
4			ND *22			
5			ND *12		Bottom of test pit = 4.3'.	
6						
7					ND = Non-detectable	
8					* = FID VALUES (ppm)	
9						
10						
11						
12						
13						
14						

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Log of Test Pit TP-21

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Center portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *4.5 Feet*
Equipment Reach:	Weather: *Sunny; mid 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1					FILL. Reworked brown silt.	No staining or unusual odors.
2			0.2		FILL. Shot rock (various sizes), few brick pieces and wire.	
3						
4						
			3.5			Backhoe hit refusal on large boulders and shot rock debris.
5			*6.0		Bottom of test pit = 4.5'.	
6						
					* = PID VALUES (ppm)	
7						
8						
9						
10						
11						
12						
13						
14						

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Log of Test Pit TP-22

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Center portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *11.9 Feet*
Equipment Reach:	Weather: *Sunny; mid 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1	07, 08		ND *ND		FILL. Reworked silt with bricks, cement blocks, metal shavings, rags, wood, metal pieces, slag, paper, glass bottles, tar roofing paper, black plastic battery casings (30-40%), battery remanents (blue/green material).	Observed a black plastic casing that indicated "Monarc Battery".
5			0.5			
6			ND *ND		Sheet metal debris - like roof decking or siding materials.	
11			28 *7.0		Brown/gray fine SAND, some fine gravel.	Slight pet odor (sweet type odor).
12			ND *ND		BEDROCK encountered at 11.9'.	ND = Non-Detectable * = PID VALUES (ppm)
13					NOTE: Sample No. 07 consisted of a composite sample collected of fill material throughout the test pit. Sample No. 08 also consisted of a composite sample of a blue/green material observed throughout the test pit.	

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Log of Test Pit TP-23

Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Center portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *10.7 Feet*
Equipment Reach:	Weather: *Sunny; mid 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1			0.1 *ND		FILL. Reworked brown silt, some sand and bricks.	No staining or unusual odors.
2						
3			ND *ND		Brown silty SAND, moist.	
4						
5						
6						
7			ND *ND			
8					Brown fine SAND, mix of fine gravel, moist.	
9						
10			ND *ND		Mix of some cobbles, moist to saturated.	
11			ND *ND		Bottom of test pit = 10.7'. ND = Non-detected * = FID VALUES (ppm)	
12						
13						
14						

Day Hampton, Associates 0 0 0 1 8 0 0 0 Environmental Engineering Consultants	Log of Test Pit TP-24
Project: *Phase II Supplemental Investigation*	Project Location: *Smith, Oak, and Broad St., Rochester, NY*
Project No.: *94088S-DH*	Test Pit Location: *Center portion of parcel*
Date: *5/23/94*	GW Depth: *Not Encountered*
Excavation Comp.: *Buckman Construction, Inc.*	Geologist/Tech.: *Steven Mullin/Joseph Biondolillo*
Excavation Method: *Ford Backhoe*	Total Depth: *10.8 Feet*
Equipment Reach:	Weather: *Sunny; mid 70° F*

DEPTH feet	SAMPLE	TYPE	PID VALUES (ppm)	GRAPHIC LOG	GEOLOGIC DESCRIPTION	REMARKS
1			ND *ND		FILL. Reworked silt, bricks.	
2						
3			10.1 82.0		Black cinders, slag (large pieces), coal, few fire bricks.	
4						
5			*ND		Metal bucket (crushed).	
6						
7						
8						
9			0.5 *1.0		Brown fine SAND, little fine gravel.	No staining or unusual odors.
10						
11			ND *0.1		Bottom of test pit = 10.8'. ND = Non-detected * = FID VALUES (ppm)	
12						
13						
14						

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-1	BOTTOM OF PIT: 12.5'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: 12.5'
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1 2 3 4 5 6				<1/ <1/ <5/ <5/	Dry, loose, reworked silty (fill) with brick, coal slag, glass, ash, some silty clay at 4.0'. No unusual odors.
7 8 9				30 500/ >1,000 550/ >1,000	Discolored fine brown & black silty clay sand with strong diesel fuel color.
10 11 12				600/ >1,000 20-60	(Moist to wet) Moist brown fine sandy silt with gravel over bedrock.
13 14					Bedrock encountered at 12.5 feet. No soil sample collected.

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-1S	BOTTOM OF PIT: 7.5 '
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 8/28/91	LOGGED BY: Steve Mullin
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, reworked silty (fill) with brick, coal slag, glass, ash, some silty clay at 4.0'. No unusual odors.
2					
3				N/D	
4					
5				N/D	
6					
7	[redacted]	AES No 7322		30/800 500/ 1,000	Discolored fine brown & black silty clay sand with strong diesel fuel odor. Moist, trace gravel.
8					
9					Notes:
10					Soil sample collected at 7.0 to 7.5 feet.
11					
12					
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-2	BOTTOM OF PIT: 10.0'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of bricks, slag, cinders, coal fragments. No unusual odors.
2				N/D	Reworked fine to medium sandy silt fill, no discoloration or unusual odors.
3				5/10	
4				5/10	
5				450/ >1,000	Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. Discolored, petroleum-stained with a prominent petroleum (i.e., diesel fuel) odor. Moist and friable.
6				450/ >1,000	
7					Seams of clayey silt.
8				450/ >1,000	(Moist to wet, no staining observed)
9					
10				250/	
11					Notes:
12					No soil sample collected. Test pit walls vertical and stable.
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-3	BOTTOM OF PIT: 7.5'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A (dry)
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1 2				N/D N/D	Dry, loose, discolored silty FILL, consisting of clay tile, bricks, glass, slag, cinders, coal fragments, wood, scrap metal, ash. No unusual odors.
3 4 5				N/D 5/10	Reworked brown sandy silt Fill, some gravel. No unusual odors or staining.
6 7				250/500 400/ >1,000	Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. Discolored, petroleum-stained with a prominent petroleum (i.e., diesel fuel) odor. Moist and friable. Seams of clayey silt.
8 9 10 11 12 13 14					Notes: No soil sample collected. Test pit walls vertical and stable.

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-4	BOTTOM OF PIT: 10.0'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION:
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D N/D	Dry, loose, discolored silty FILL, consisting of bricks, glass, slag, cinders, coal fragments, wood, scrap metal, ash. No unusual odors.
2 3 4 5				N/D N/D	Brown silty fine sand with alernating black cinder and slag seams (4-6 inches thick). May have been former railroad ballast material. No unusual odors or petroleum staining.
6 7 8 9 10				N/D 0.5/0.5 N/D	Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. (Moist to wet, no staining observed)
11 12 13 14					Bedrock encountered at 10.0 feet. Notes: No soil sample collected. Test pit walls vertical and stable.

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-5	BOTTOM OF PIT: 8.8'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1 2 3 4 5 6				50/60 50/60 50/60	Dry, loose, discolored silty FILL, consisting of concrete bricks, slag, cinders, coal fragments, scrap metal. Distinct black, petroleum stained seams and discontinuous lens of soil, may have been old motor oil. Slight petroleum odor.
7 8 9				200/600 450/800 200/600	Grayish-brown fone silty sand, little fine gravel, trace course gravel and cobbles. Discolored, petroleum-stained with a prominent petroleum (i.e., diesel fuel) odor. Moist and friable. Seams of clayey silt. (Moist to wet)
10 11 12 13 14					Notes: No soil sample collected. Test pit walls vertical and stable.

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-6	BOTTOM OF PIT: 9.5'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A (dry)
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL. No unusual odors.
2				N/D	
3				N/D	Brown fine silty sand, little fine gravel, trace course gravel and cobbles. Moist and friable. Seams of clayey silt.
4					(Moist to wet, no staining observed)
5				5/10	
6					
7				14/18	
8					
9				0.8/4	
10					Bedrock encountered at 9.5 feet.
11					Notes:
12					No soil sample collected. Test pit walls vertical and stable.
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
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TEST PIT No.: TP-7	BOTTOM OF PIT: 8.5'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A (dry)
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of concrete footer, bricks, glass, slag, cinders, coal fragments, wood, scrap metal, ash. No unusual odors.
2					
3					
4				N/D	
5				N/D	Brown fine silty sand, little fine gravel, trace course gravel and cobbles. Moist and friable. Seams of clayey silt.
6					
7				N/D	
8				N/D	(Moist to wet, no staining observed).
9					Bedrock not encountered.
10					Notes:
11					No soil sample collected. Test pit walls vertical and stable.
12					
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-8	BOTTOM OF PIT: 9.0'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A (dry)
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of bricks, glass, slag, cinders, coal fragments, wood, scrap metal, ash. No unusual odors.
2					
3				N/D	
4				N/D	Brown fine silty sand, little fine gravel, trace course gravel and cobbles. Moist and friable. Seams of clayey silt.
5					
6				N/D	
7					(Moist to wet, no staining observed).
8					
9				N/D	(Brown clayey silt, slightly plastic, slightly sticky.)
10					Bedrock encountered at 9.0 feet.
11					Notes:
12					No soil sample collected. Test pit walls vertical and stable.
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-9	BOTTOM OF PIT: 10.0'
LOCATION: See drawing No. C1.1	GROUNDWATER ELEVATION: 10.0'
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1 2				N/D N/D	Dry, loose, discolored silty FILL, consisting of asphalt, concrete bricks, glass, slag, cinders, coal fragments, wood, scrap metal, ash. No unusual odors.
3 4 5				N/D N/D	Brown sandy clay silt with unsorted medium to course gravel. No discoloration or unusual odors.
6 7 8 9 10	[redacted]	AES No 7135	Grab	600/ >1,000 600/ 500/900 300/500 600/ >1,000	Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. Discolored, petroleum-stained with a prominent petroleum (i.e., diesel fuel) odor. Moist and friable. Layer of black petroleum-stained soil at 6.0-7.0 feet, may have been old motor oil. Strong odor. (Moist to wet.)
11 12 13 14					Bedrock encountered at 10.0 feet. Notes: Groundwater exhibited a sheen. Soil sample collected at 6.0 to 7.0 feet. Test pit walls vertical and stable.

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-10	BOTTOM OF PIT: 8.0
LOCATION: See drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of plastic, bricks, wood, scrap metal. No unusual odors.
2				N/D	Asphalt
3					Fine sandy silt, discolored and stained with petroleum. Petroleum odor.
4					
5				250/	Black, oily stained seam, petroleum odor.
6				300/	Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. Discolored petroleum-stained with a prominent petroleum (i.e., diesel fuel) odor. Moist and friable.
7					
8				550/	
9					Notes:
10					No soil sample collected. Test pit walls vertical and stable.
11					
12					
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-11	BOTTOM OF PIT: 9.0'
LOCATION: See drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 8/28/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of rebar, bricks, glass, wood. No unusual odor.
2				N/D	Asphalt
3				250/	
4					
5					Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. Discolored, petroleum-stained with a prominent petroleum
6					
7				350/	(i.e., diesel fuel) odor. Moist and friable. Layer of black, oily stained soil from 6-7 feet.
8					
9				250/	(Moist to wet.)
10					Notes:
11					
12					No soil sample collected. Test pit walls vertical and stable.
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-12	BOTTOM OF PIT: 9.5'
LOCATION: See drawing No. C1.1	GROUNDWATER ELEVATION: 8.5'
DATE: 8/29/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of concrete bricks, wood, scrap metal. No unusual odors.
2				N/D	
3				N/D	
4				N/D	
5				N/D	Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. Seams of clayey silt and yellowish brown mottles at 6.0 feet.
6					
7				N/D	(Moist to wet, no staining observed)
8					
9					
10					Bedrock encountered at 9.5 feet
11					Notes:
12					No soil sample collected. Test pit walls vertical and stable. Groundwater at 8.5 feet with a petroleum sheen.
13					
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-13	BOTTOM OF PIT: 9.5'
LOCATION: See drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 8/29/91	LOGGED BY: Joseph J. Biondolillo
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of metal cable, concrete, bricks, glass, wood, scrap metal. No unusual odors.
2				N/D	
3					
4				N/D	Whitish-gray ash seam, no staining or odors.
5				N/D	Medium silty sand seam, no staining or odors.
6				N/D	Grayish-black ash seam, no staining or odors.
7				N/D	Grayish-brown fine silty sand, little fine gravel, trace course gravel and cobbles. Moist and friable.
8				N/D	
9				N/D	(Moist to wet, no staining observed).
10					
11					Bedrock encountered at 9.5 feet.
12					Notes:
13					No soil sample collected. Test pit walls vertical and stable.
14					

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TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-14	BOTTOM OF PIT: 9.5
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 9/6/91	LOGGED BY: Steven R. Mullin
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	OVA (ppm)	SOIL & ROCK CLASSIFICATION
1					Dry, loose, discolored silty FILL, consisting of bricks, wood, scrap metal. No unusual odors.
2					
3					
4				8.0	Black discolored fine sand, moist, sweet odor.
5					Brown sand.
6					Black discolored sand.
7				N/D	Grayish-brown fine silty sand, little fine gravel, trace coarse gravel & cobbles. Mixed with little clay.
8					
9					
10					Bedrock
11					Notes:
12					No soil sample collected.
13					
14					

DAY ENGINEERING, P.C.
2144 BRIGHTON-HENRIETTA TOWN LINE ROAD
ROCHESTER, NEW YORK 14623

TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-15	BOTTOM OF PIT: 9'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A
DATE: 9/6/91	LOGGED BY: Steven R. Mullin
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	OVA (ppm)	SOIL & ROCK CLASSIFICATION
1					Dry, loose, discolored silty FILL, consisting of bricks, glass, slag, cinders, coal fragments, wood, scrap metal. No unusual odors.
2				8-10	
3					
4					
5					
6				20	Grayish-brown silty sand, moist, sweet odor. Little fine gravel.
7					
8					
9				N/D	(Wood, trace course gravel, cobbles & boulders) (Bedrock)
10					Notes:
11					No soil sample collected.
12					
13					
14					

DAY ENGINEERING, P.C.
2144 BRIGHTON-HENRIETTA TOWN LINE ROAD
ROCHESTER, NEW YORK 14623

TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-16	BOTTOM OF PIT: 11.5
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 9/6/91	LOGGED BY: Steven R. Mullin
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1					Dry, loose, discolored silty FILL, consisting of bricks, cinders, coal fragments, wood, scrap metal. No unusual odors.
2					
3					
4				/400	
5					Brown sandy silt with some cobbles and boulders, sweet odor.
6					
7					Black discolored sandy silt, moist with sweet odor, some coarse gravel.
8				/70	
9				/<20	Brown sandy silt, moist, sweet odor.
10					Brown sandy silt with coarse gravel.
11					(Bedrock)
12					Notes:
13					No soil collected.
14					

DAY ENGINEERING, P.C.
2144 BRIGHTON-HENRIETTA TOWN LINE ROAD
ROCHESTER, NEW YORK 14623

TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-17	BOTTOM OF PIT: 10'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 9/6/91	LOGGED BY: Steven R. Mullin
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1 2				N/D	Dry, loose, discolored silty FILL, consisting of bricks, slag, wood, scrap metal, asphalt. No unusual odors.
3 4 5 6 7 8				>10	Brown sandy silt, little gravel & clay. Black discolored seams. (4" diameter pipe) (1 1/2" diamter pipe)
9 10					Brown sandy silt (Bedrock)
11 12 13 14					Notes: No soil sample collected.

0 0 0 1 7 5 0 0 4 2

DAY ENGINEERING, P.C.
2144 BRIGHTON-HENRIETTA TOWN LINE ROAD
ROCHESTER, NEW YORK 14623

TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-18	BOTTOM OF PIT: 10.5'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 9/6/91	LOGGED BY: Steven R. Mullin
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1 2 3					Dry, loose, discolored silty FILL, consisting of bricks, and wood. No unusual odors.
4 5 6 7				4/20	4" seam of black discolored soil Grayish-brown fine silty sand with medium to coarse gravel.
8 9		AES No 7323	Grab	150/200	Fine sand, strong sweet odor.
10				6/10	Silty sand with fine to medium gravel, moist. No staining or odors.
11 12 13 14					Notes: Sample collected at 7.5-8.5 feet.

DAY ENGINEERING, P.C.
2144 BRIGHTON-HENRIETTA TOWN LINE ROAD
ROCHESTER, NEW YORK 14623

TEST PIT LOG
PROJECT: Smith & Oak Street
Rochester, New York

TEST PIT No.: TP-19	BOTTOM OF PIT: 9.5'
LOCATION: See Drawing No. C1.1	GROUNDWATER ELEVATION: N/A, dry
DATE: 9/6/91	LOGGED BY: Steven R. Mullin
METHOD OF EXCAVATION: Backhoe	SHEET: 1 OF 1

DEPTH (ft)	SAMPLE DEPTH	SAMPLE NUMBER	TYPE OF SAMPLE	HNU/OVA (ppm)	SOIL & ROCK CLASSIFICATION
1				N/D	Dry, loose, discolored silty FILL, consisting of bricks, glass, slag, cinders, wood, scrap metal. No unusual odors.
2					
3					Boulders
4				N/D	Grayish-brown sand and FILL with boulders and coarse gravel, ash, cinders and coal. Black seam of stained sandy silt. (Slag, pipe, bricks)
5				/15	
6				/30	
7				/15	
8				150/300	
9					(Asphalt)
10					Notes:
11					No soil sample collected.
12					
13					
14					

0 0 0 0 1 7 5 0 0 4 5

DAY ENGINEERING, P.C. 2144 BRIGHTON-HENRIETTA T.L. ROAD ROCHESTER, NEW YORK 14623	WELL LOG: MW-1
PROPERTY: Smith & Oak Street Rochester, New York **DRILLER:** Nothnagle Drilling	**DATE:** August 29, 1991 **LOGGED BY:** Steve Mullin **PAGE:** 1 OF 1

HNU (ppm)	DEPTH (ft)	SOIL & ROCK CLASSIFICATION Remarks
<1		Various FILL materials, including brown silt, plastic, bricks, wood, coarse gravel, boulders, and similar construction and demolition debris.
<1		
<1	5	(wood)
<1		(discolored wood, bricks)
<1	10	
<1		Brown SANDY SILT, little brown SILTY CLAY.
<1		(groundwater)
<1	15	
<1		Gray, hard, crystalline DOLOMITE BEDROCK, weathered, some fractures, some shaley partings. (fractures)
<1	20	
<1		(vugs)
<1		
<1	25	End of boring at 24'2"

00001750046

DAY ENGINEERING, P.C. 2144 BRIGHTON-HENRIETTA T.L. ROAD ROCHESTER, NEW YORK 14623	WELL LOG: MW-2
PROPERTY: Smith & Oak Street Rochester, New York **DRILLER:** Nothnagle Drilling	**DATE:** August 29, 1991 **LOGGED BY:** Steve Mullin **PAGE:** 1 OF 1

HNU (ppm)	DEPTH (ft)	SOIL & ROCK CLASSIFICATION Remarks
<1		Various FILL materials, including brown silt, plastic, bricks, wood, cinders, and slag. (seam of asphalt)
<1		
20	5	Brown fine SILTY SAND, some medium coarse gravel. (petroleum odors)
450		
250		(seam of black, petroleum stained silt, moist, with a petroleum odor)
250		
200		
	10	Gray, hard crystalline DOLOMITE BEDROCK, some weathered shale partings. (gypsum)
<1		
<1		(vugs)
<1	15	
<1		
<1		End of boring at 17'7"
<1	20	
<1		
<1		
<1	25	

TIME PLOTTED: WED,SEPT.,25,10:00:00,1991
FILENAME: SMITHW1

REF1: SMITHW1
REF2: SMITHW1T
REF3: REF3

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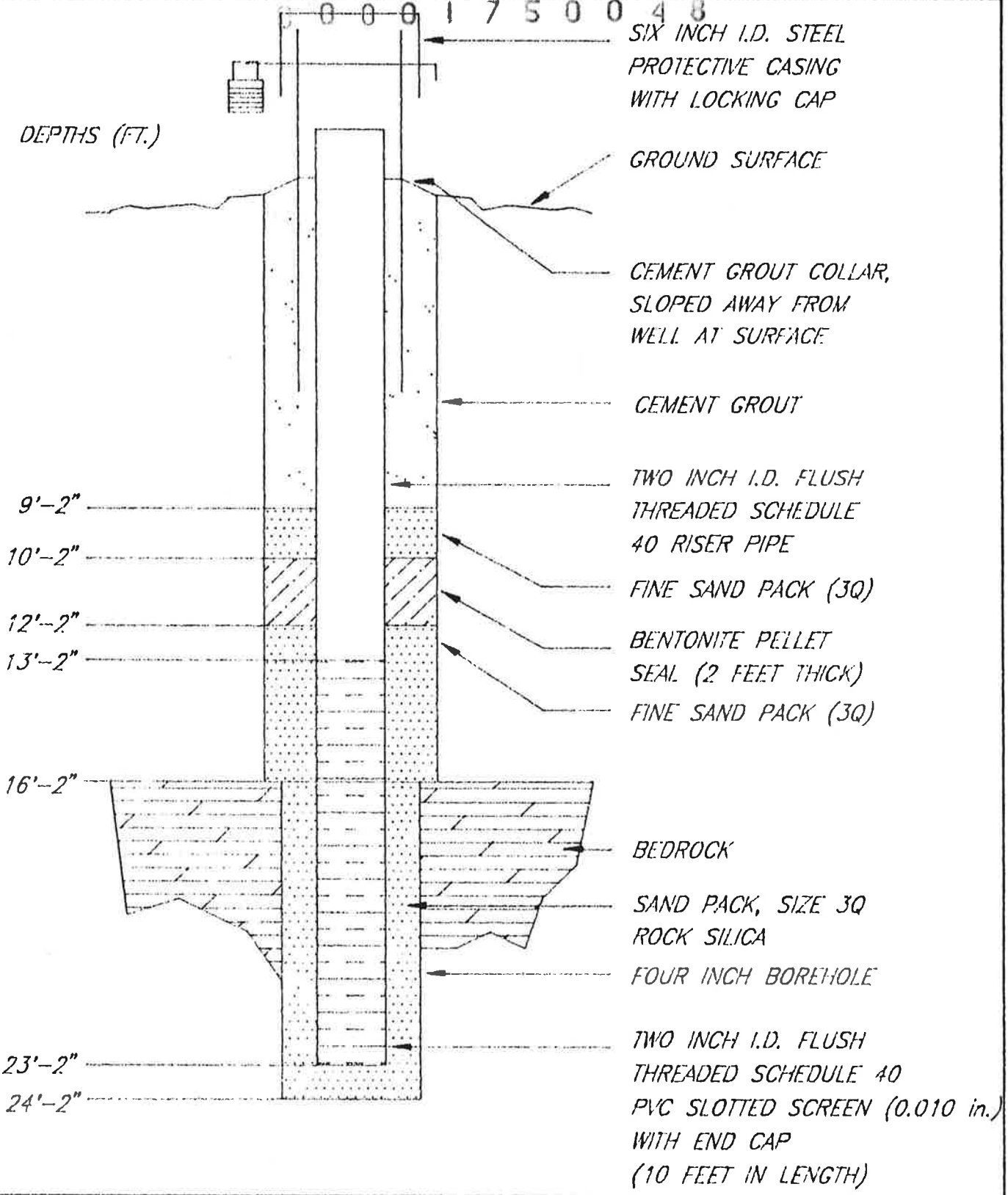

DRAWING NO. C1.2 / PROJECT NO. 91-1251S	PROJECT TITLE: PHASE II, SMITH AND OAK STREET SITE, ROCHESTER, NEW YORK DRAWING TITLE: MONITORING WELL MW-1 DETAIL	**DAY ENGINEERING, P.C.** *ENVIRONMENTAL ENGINEERING CONSULTANTS* *ROCHESTER, NEW YORK*	REVIEWED BY: SRM — DATE: 09/24/91 DRAWN BY: DMS — DATE DRAWN: 09/19/91 SCALE: NONE — DATE ISSUED: 09/25/91

TIME PLOTTED: WED SEPT 25 09:00:00 1991
FILENAME: SMITHW2

REF1: SMITHW02
REF2: SMITHWT
REF3: REF3

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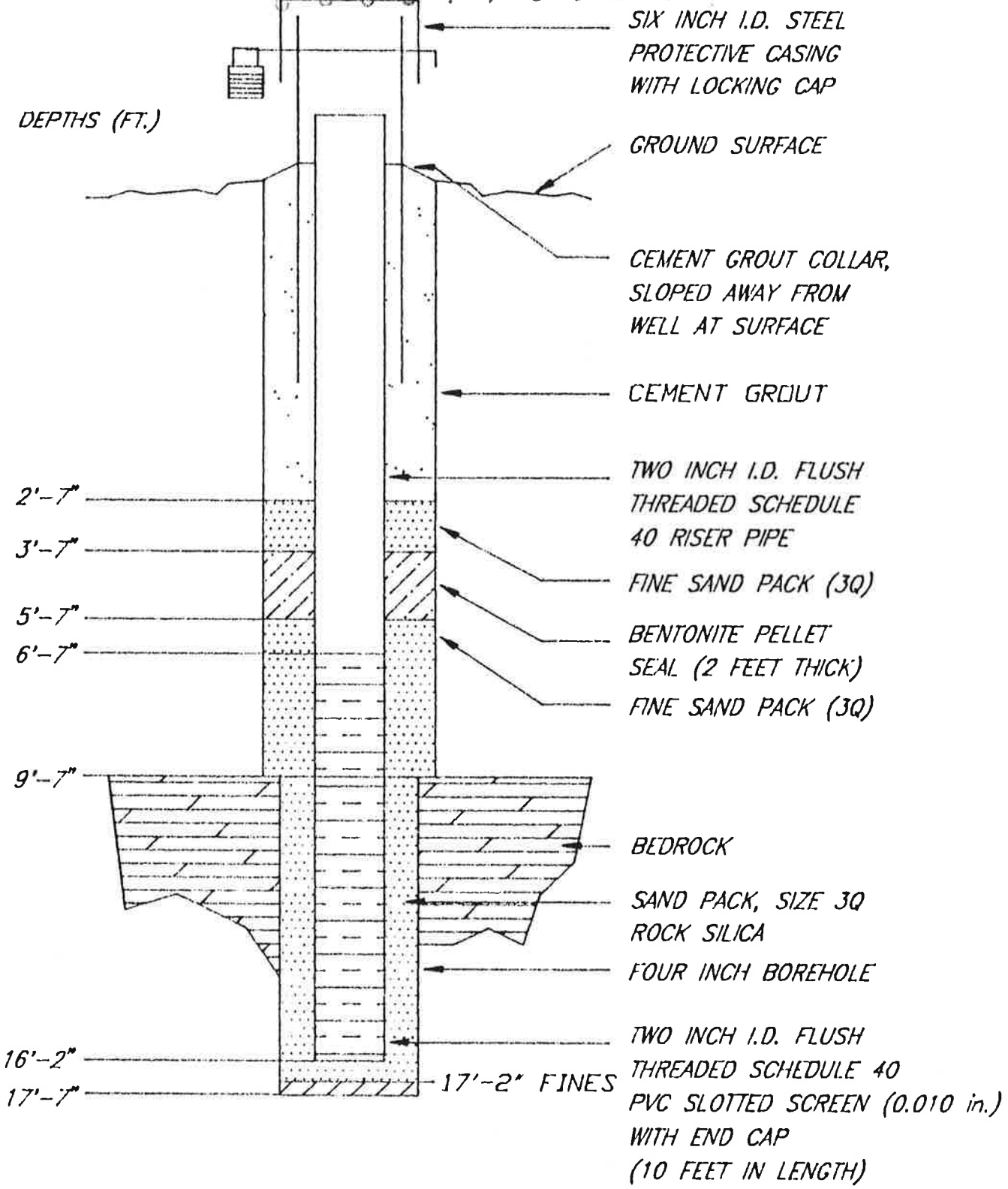


PROJECT NO. 91-1251S DRAWING NO. C1.3	PROJECT TITLE SMITH AND OAK STREET SITE ROCHESTER, NEW YORK DRAWING TITLE MONITORING WELL MW-2 DETAIL	**DAY ENGINEERING, P.C.** *ENVIRONMENTAL ENGINEERING CONSULTANTS* *ROCHESTER, NEW YORK*	REVIEWED BY SRM — DATE 09/24/91 DRAWN BY DMS — DATE DRAWN 09/19/91 SCALE NONE — DATE ISSUED 09/25/91

DATE
STARTED 1/18/90
FINISHED 1/18/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

TEST PIT NO. TP-90-1
SURFACE ELEV. 510.4' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH (FT)	LOG	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
1				Black-brown SILT and fine-coarse Sand, some fine-coarse Gravel, trace brick, trace metal (moist, FILL)	HNu: 0.0-0.8 ppm
2			TP-90-1	Orange Slag/Rock @ 2'-3'	
3					Water entering Test Pit @ 3.5'
4					
5			TP-90-1	5.0'	
6				Tan-brown SILT, trace sand, w/ occ. black staining, oily odors (moist-wet, FILL) 6.5'	HNu: 0.5-10.0 ppm @ 4.5'
7			TP-90-1	Brown & black fine-coarse GRAVEL and Silt, some fine-coarse Sand (moist, FILL) 8.0'	HNu: 10-18 ppm 30 ppm @ 8.0'
8			TP-90-1	Tan-brown Clayey SILT, little fine-coarse Sand (moist) 9.0'	HNu: 0.2-0.6 ppm
9				Tan-brown SILT, little fine Sand (moist-wet) 10.0'	HNu: 0.2-0.5 ppm
10					
11				Pink-gray SILT and fine-coarse Sand, some fine-coarse Gravel, occ. Cobbles (moist-wet)	HNu: 0.0-0.2 ppm @ 10'-15'
12					
13					
14					
15					HNu: 0.0 ppm @ 15'-17'
16			TP-90-1		
17				Test Pit Complete at 17.0'	
18				No Free Standing Water Encountered at Test Pit Completion	
19					
20					

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik

METHOD OF INVESTIGATION: Dennis Fisk Excavating Co. Komatsu F150 Backhoe

DATE
STARTED 1/18/90
FINISHED 1/19/90
SHEET 1 OF 1

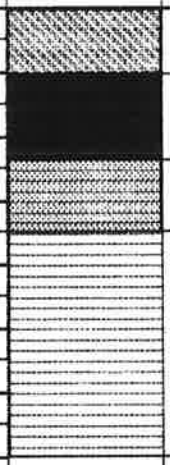
ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

TEST PIT NO. TP-90-7
SURFACE ELEV. 509.9' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York



DEPTH (FT)	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
1			Tan-brn. SILT and fine-coarse Sand (Topsoil) (moist-wet, FILL) 1.0'	HNu: 0.0 ppm
2		TP-90-7	Blk. CINDERS/SLAG and Bricks, Metal Conduit (moist, FILL) 2.3'	HNu: 0.4 - 0.6 ppm
3			Gy. & Blk. Clayey SILT and Brick Fragments Decayed Wood, Cinders (moist-wet, FILL) 3.5'	HNu: 0.2 ppm
4			Yellow-tan & gy. Clayey SILT little fine Sand (moist)	HNu: 0.0- 0.2 ppm
5				
6			6.9'	
7		TP-90-7	Test Pit Complete at 6.9'	
8			No Free Standing Water Encountered at Test Pit Completion	
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

CLASSIFICATION: **Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik**

METHOD OF INVESTIGATION: **Dennis Fisk Excavating Co. Komatsu F150 Backhoe**

DATE
STARTED 1/19/90
FINISHED 1/19/90
SHEET 1 OF 1

ECCO INC.
The Environmental Consulting Company

SUBSURFACE LOG

TEST PIT NO. TP-90-8
SURFACE ELEV. 510.5' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH (FT)	LOG	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
1				Brn. fine-coarse SAND and fine-coarse Gravel, occasional Concrete Fragments/Bricks, Metal Conduit (moist, FILL) 1.9'	HNu: 0.2 ppm
2			TP-90-8		
3				Blk. CINDERS/SLAG/SAND, with Metal, Wire (moist-wet, FILL) - Slight Oily Sheen 3.5'	HNu: 0.5 - 1.0 ppm
4				Yellow & gy. Clayey SILT little fine Sand (moist) 4.5'	HNu: 0.2 ppm
5				Black SILT, little fine Sand (moist) 5.7'	HNu: 0.1 - 0.2 ppm
6			TP-90-8		
7				Yellow-tan & gy. Clayey SILT, little fine-coarse Sand, little fine-coarse Gravel (moist) 7.4'	HNu: 0.0 ppm
8				Test Pit Complete at 7.4'	Water entering test pit at 4.5'
9				No Free Standing Water Encountered at Test Pit Completion	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik

METHOD OF INVESTIGATION: Dennis Fisk Excavating Co. Komatsu F150 Backhoe

DATE
STARTED 1/19/90
FINISHED 1/19/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

TEST PIT NO. TP-90-11
SURFACE ELEV. 508.8' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH (FT)	LOG	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
1				Brown SILT and fine-coarse Sand, some fine-coarse Gravel (moist, FILL) 1.4'	HNu: 0.0 ppm
2				Black SILT/CINDERS/SLAG, some fine-coarse Sand (moist-wet, FILL)	HNu: 0.0 ppm
3				3.6'	
4				Yellow-tan & gray Clayey SILT, little fine-coarse Sand (moist-wet)	HNu: 0.0 ppm
5			TP-90-11		
6				6.4'	
7				Test Pit Complete at 6.4'	
8				No Free Standing Water Encountered at Test Pit Completion	
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik

METHOD OF INVESTIGATION: Dennis Fisk Excavating Co. Komatsu F150 Backhoe

DATE
STARTED 1/19/90
FINISHED 1/19/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company
SUBSURFACE LOG

TEST PIT NO. TP-90-13
SURFACE ELEV. 506.7' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH (FT)	LOG	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
1			TP-90-13	Blk. CINDERS/SLAG/SAND, with Gravel, occasional Brick Fragments (moist, FILL) 2.1'	HNu: 0.5 - 1.3 ppm
2					
3			TP-90-13	Tan-brown SILT, little fine Sand, trace clay (moist-wet)	HNu: 0.0 - 0.4 ppm
4					
5				6.0'	
6			TP-90-13	Interbedded gray-pink SILT, seams of fine-coarse Gravel (wet)	HNu: 8 - 20 ppm
7				8.0'	
8			TP-90-13	Yellow-tan SILT, little fine Sand (moist-wet) 9.0'	HNu: 0.0 ppm
9				Test Pit Complete at 9.0'	
10				No Free Standing Water Encountered at Test Pit Completion	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik

METHOD OF INVESTIGATION: Dennis Fisk Excavating Co. Komatsu F150 Backhoe

DATE
STARTED 1/18/90
FINISHED 1/18/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

TEST PIT NO. TP-90-15
SURFACE ELEV. 508.6' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH (FT)	LOG	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
0				Black TOPSOIL (moist, FILL) 0.4'	HNu: 0.0 ppm
1–2			TP-90-15	Brown fine-coarse SAND, some Silt, occasional Bricks, Cobbles (moist, FILL) 2.3'	HNu: 0.0 ppm
3			TP-90-15	Blk. & brown CINDERS/SLAG/SAND (moist-wet, FILL) 3.4'	HNu: 0.5 - 1.0 ppm
4–5			TP-90-15	Yellow-brown Clayey SILT, little fine Sand (moist) 5.2'	HNu: 1.0 ppm
6			TP-90-15	Black CINDERS/SLAG/SAND (moist-wet, FILL) 6.4'	HNu: 1 - 3 ppm
7–8			TP-90-15	Gray-pink/brown SILT and fine-coarse Sand (moist) 8.0'	HNu: 0.0 ppm
9–20				Test Pit Complete at 8.0' No Free Standing Water Encountered at Test Pit Completion	

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik

METHOD OF INVESTIGATION: Dennis Fisk Excavating Co. Komatsu F150 Backhoe

DATE
STARTED 1/18/90
FINISHED 1/18/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

TEST PIT NO. TP-90-17
SURFACE ELEV. 509.5' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH (FT)	LOG	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
1				Brown fine-coarse SAND and fine-coarse Gravel, occasional Bricks, Cobbles (moist, FILL) 2.4'	HNu: 0.0 ppm
3			TP-90-17	Red-brown fine-coarse SAND and fine-coarse Gravel (moist, FILL) 3.3'	HNu: 0.2 ppm
4				Black SILT/CINDERS/SLAG (moist, FILL) 3.7'	HNu: 0.2 ppm
5				Tan & brown interbedded SILT and fine Sand (moist)	HNu: 0.2 - 1.0 ppm
6				6.5'	
7				Black CINDERS/SLAG (moist, FILL) 6.9'	HNu: 0.5 ppm
8				Gray-brown SILT and fine Sand, occasional Gravel lenses, Railroad Ties, Decayed Wood Pieces (moist, FILL)	HNu: 0.2 ppm
10			TP-90-17	10.2'	
11				Black SILT, trace sand, wood (moist) 10.6'	HNu: 3-5 ppm
12				Yellow & tan-brown SILT and fine-coarse Gravel, some fine-coarse Sand (moist) 12.0'	HNu: 0.0 - 0.2 ppm
13				Test Pit Complete at 12.0'	
14				No Free Standing Water Encountered at Test Pit Completion	
20					

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik

METHOD OF INVESTIGATION: Dennis Fisk Excavating Co. Komatsu F150 Backhoe

DATE
STARTED 1/18/90
FINISHED 1/18/90
SHEET 1 OF 10

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

TEST PIT NO. TP-90-19
SURFACE ELEV 509.4' ±
G.W. ELEV. NONE

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH (FT)	LOG	SAMPLE DEPTH	SAMPLE NO	DESCRIPTION	NOTES
1				Tan-brown fine SAND, trace silt (moist,FILL) 2.0'	HNu: 0.0 ppm
2					
3				Brown-black SILT and fine-coarse Gravel, little Clay,Cobbles, Shot Rock (moist, FILL) 4.0'	HNu: 0.0 ppm
4					
5				Tan-brown SILT, little fine Sand (moist, FILL) 5.8'	HNu: 0.0 ppm
6					
7				Black SILT, little fine-medium Sand, little Decayed Wood (moist, FILL) 6.9'	HNu: 0.0 ppm
8				Yellow-brown SILT, little fine-coarse Sand, trace clay and occasional clay lenses (moist) 8.7'	HNu: 0.0 ppm
9				Tan-brown Clayey SILT, little fine-coarse Gravel, trace sand (moist) 9.9'	HNu: 0.0 ppm
10				Test Pit Complete at 9.9'	
11				No Free Standing Water Encountered at Test Pit Completion	
12					
13					
14					
15					
16					
17					
18					
19					
20					

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488; Andrew J. Kucserik

METHOD OF INVESTIGATION: Dennis Fisk Excavating Co. Komatsu F150 Backhoe

DATE STARTED 2/1/90
FINISHED 2/1/90
SHEET 1 OF 1

ecco INC. 071
The Environmental Consulting Company

SUBSURFACE LOG

SURFACE ELEV. 509.6±
RISER ELEV. 511.40

TB-90-1

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH-FT	LOG	SAMPLE TYPE	SAMPLE NO	BLOWS ON SAMPLER 0/6	BLOWS ON SAMPLER 6/12	BLOWS ON SAMPLER 12/18	BLOWS ON SAMPLER 18/24	DESCRIPTION	NOTES
		AG	-	-	-			Black & brown fine-coarse SAND and Silt, some fine-coarse Gravel (moist, FILL)	HNu = 10.0 ppm
		ss	1	10	12	12	14		
		ss	2	9	10	12	15	5.0'	HNu = 15.0 ppm
5		ss	3	2	2	3	3	Black & brown SILT and fine-coarse Sand, little fine-coarse Gravel(moist-wet, FILL) 7.0'	HNu = 200.0 ppm
		ss	4	1	2	3	3	Tan-brown & black fine-medium SAND, some Silt (moist) 9.0'	HNu = 200.0 ppm
10		ss	5	5	10	11	13	Tan & gray SILT, some fine-coarse Sand, trace-little fine-coarse Gravel (moist-wet)	HNu = 160.0 ppm
		ss	6	12	13	15	18	Becomes brown (wet)	HNu = 5.0 ppm
15		ss	7	15	30	72	100	Becomes red-brown, contains "and" fine-coarse Sand, some fine-coarse Gravel (moist-wet)	
		ss	8	32	40	42	70	Becomes gray-brown	HNu = 2.0 ppm
20								(moist-wet)	
		ss	9	72	65	100/.4'		21.4'	HNu = 0.0 ppm
25								Auger and Sampler Refusal @ 21.4'	
30									
35									

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488
Andrew J. Kucserik

METHOD OF INVESTIGATION: Empire Soils Investigations, Inc
Truck Mounted Drill Rig
Acker AD-II with HSA
ASTM D-1586

DATE STARTED 1/29/90
FINISHED 1/29/90
SHEET 1 OF 1

ecco INC. 0 7 2
The Environmental Consulting Company

SUBSURFACE LOG

TB-90-2
SURFACE ELEV 512.9±
RISER ELEV. 514.57

PROJECT: Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION: Phase II Investigation
Smith and Oak Streets
Rochester, New York

DEPTH-FT	LOG	SAMPLE TYPE	SAMPLE NO	BLOWS ON SAMPLER 0/6	6/12	12/18	18/24	DESCRIPTION	NOTES
		AG	-	-	-				
		SS	1	10	5			Red-brown Clayey SILT, some fine-coarse Sand, trace wood, trace asphalt (moist, FILL)	HNu = 0.0 ppm
				6	8				
		SS	2	9	8			Contains occ. black seams @ 3.7' - 3.8'	HNu = 0.8 ppm
5				8	6			5.0'	
		SS	3	10	20			Black CINDERS/SLAG/SAND (wet, FILL)	HNu =0.2 ppm
				23	40			6.8'	
		SS	4	12	20			Red-brown Clayey SILT, trace-little fine-coarse Sand (moist)	HNu =0.0 ppm
				13	13			9.0'	
10		SS	5	5	5			Red-brown SILT and fine-coarse Sand, trace Gravel, occasional fine Sand Seams (wet)	HNu =0.0 ppm
				13	13				
		SS	6	12	14				HNu =0.0 ppm
				17	20				
		SS	7	10	25				HNu =0.0 ppm
15				35	65			Contains some fine-coarse Gravel	
		SS	8	35	65				HNu =0.0 ppm
				100/0.5'					
20								Becomes gray-brown	
		SS	9	40	65			21.3'	HNu =0.0 ppm
				100/0.3'					
								Auger and Sampler Refusal @ 21.3'	
25									
30									
35									

CLASSIFICATION: Visual-Manual Identification as per ASTM D-2488
Andrew J. Kucserik

METHOD OF INVESTIGATION: Empire Soils Investigations, Inc.
Truck Mounted Drill Rig
Acker AD-II with HSA
ASTM D-1586

DATE
STARTED 1/31/90
FINISHED 2/1/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

HOLE NO. TB-90-3
SUFACE ELEV. 510.6±
G.W. ELEV.
CASING ELEV. 512.54

PROJECT Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION Phase II Investigation
Smith and Oak Street
Rochester, New York

DEPTH-FT	LOG	SAMPLE TYPE	SAMPLE NO	BLOWS ON SAMPLER 0/6	BLOWS ON SAMPLER 6/12	BLOWS ON SAMPLER 12/18	BLOWS ON SAMPLER 18/24	DESCRIPTION	NOTES
		AG	-	-	-			Blk.-brn. f-c SAND and Silt, some f-c Gravel (moist, FILL)	HNu PID readings not obtained due to equipment malfunction
		SS	1	10	14	20	50		
								3.0'	
		SS	2	14	25	60	90	Blk.-brn. SILT, little f-c Sand, tr. gravel (moist, FILL)	
5								5.0'	
		SS	3	8	7	7	9	Tan-brn. SILT, little f. sand, tr. clay (moist-wet)	
		SS	4	7	7	5	5	Becomes gy.-brn. (wet)	
10		SS	5	8	12	13	16	Contains occ. fine sand and clay laminae	
		SS	6	10	8	12	11	Contains little-some f-c sand (moist)	
		SS	7	11	15	20	28	Contains little f-c gravel	
15								(moist-wet)	
		SS	8	11	15	30	38		
		AG	-	-	-			18.0'	
		NQ	1					Hard, gy. Dolostone BEDROCK, thin bedded-bedded, oblique fractures @ 18.3'-18.6', weathered fractures @ 18.6'-18.8'	
20		NQ	2					Occ. Shaley partings @ 22.5'	
25								Boring Completed at 23.0'	
30									
35									

CLASSIFICATION
Visual-Manual Identification
as per ASTM D-2488
Andrew J. Kucserik

METHOD OF INVESTIGATION Empire Soils Investigations, Inc.
Truck Mounted Drill Rig
w/Hollow Stem Augers (HSA),
ASTM D-1586

0 0 0 0 1 7 9 0 0 7 4

DATE
STARTED 1/31/90
FINISHED 1/31/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

HOLE NO. TB-90-4
SUFACE El 507.8±
G.W. ELEV.
CASING ELI 509.71

PROJECT Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION Phase II Investigation
Smith and Oak Street
Rochester, New York

DEPTH-FT	LOG	SAMPLE TYPE	SAMPLE NO	BLOWS ON SAMPLER (0/6 6/12 12/18 18/24)	DESCRIPTION	NOTES
		AG	-	- -	Brn.-Blk. f-c SAND and Silt, some f-c Gravel/slag/Glass/Brick (moist, FILL)	
		SS	1	4 5 / 6 9	3.0'	HNU=0.0 ppm
5		SS	2	5 6 / 7 10	White-brn. f-c SAND (Brick pcs.) (moist, FILL) 5.0'	HNu=0.0 ppm
		SS	3	6 7 / 8 7	Red-brn. f-m SAND and Bricks (moist, FILL) 7.0'	HNu=0.0 ppm
		SS	4	4 7 / 12 20	Blk. f-c GRAVEL, some f-c Sand, little silt (wet, FILL) 9.0'	HNu=0.0 ppm
10		SS	5	12 20 / 20 26	Tan-Brn. SILT and f-c Sand, little f. Sand, little f. Gravel(wet)	HNU=0.0 ppm
		SS	6	27 100/.3	contains trace clay	HNU=0.0 ppm
		AG	-	- - / - -	Boulder encoutered at 11.8' - 12.5' 13.7'	
15		NQ	1		Hard gray Dolostone BEDROCK, oblique fractures at 14.1'-14.9', minor surface pitting; vertical fracturing at 14.9'-16.1'	
20						
25					Boring Complete at 23.5'	
30						
35						

CLASSIFICATION
Visual-Manual Identification
as per ASTM D-2488
Andrew J. Kucserik

METHOD OF INVESTIGATION
Empire Soils Investigations, Inc.
Truck Mounted Drill Rig
w/Hollow Stem Augers (HSA),
ASTM D-1586

0 0 0 0 1 7 9 0 0 7 5

DATE
STARTED 1/31/90
FINISHED 2/1/90
SHEET 1 OF 1

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

HOLE NO. TB-90-5
SUFACE ELEV. 509.4±
G.W. ELEV. 496.39
CASING ELEV. 511.09

PROJECT Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION Phase II Investigation
Smith and Oak Street
Rochester, New York

DEPTH-FT	LOG	SAMPLE TYPE	SAMPLE NO	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	DESCRIPTION	NOTES
		SS	1	10 - 100/.5' -	Blk. SILT and f-c Gravel, tr. wood (wet, FILL)	HNu PID readings not obtained due to equipment malfunction
		SS	2	16 20 16 20	Becomes blk.-brn. 4.0'	
5		SS	3	6 11 30 29	Blk. SILT, some wood pieces, little f-c Gravel (moist, FILL)	
		SS	4	12 10 11 10	Contains decayed wood (RR ties/timbers)	
		SS	5	8 6 7 6	Becomes brn.-blk. 10.0'	
10		SS	6	5 15 10 12	Tan-brn. SILT and f-c Sand, little-some f-c Gravel (moist)	
		SS	7	17 100/.5'	Contains some f-c Gravel (moist-wet) 13.0'	
		NQ	1		Hard, gy. Dolostone BEDROCK, thin bedded-bedded	
15		NQ	2			
					Contain occ. Shaley partings	
20		NQ	3		Weathered bedding planes @ 20.6'-20.8'	
		NQ	4			
25					Boring Complete at 23.6 feet	
30						
35						

CLASSIFICATION
Visual-Manual Identification
as per ASTM D-2488
Andrew J. Kucserik

METHOD OF INVESTIGATION
Empire Soils Investigations, Inc.
Truck Mounted Drill Rig
w/Hollow Stem Augers (HSA),
ASTM D-1586

DATE
STARTED 1/30/90
FINISHED 1/30/90
SHEET 1 OF 1

0 0 0 0 1 7 9 0 0 7

ecco INC.
The Environmental Consulting Company

SUBSURFACE LOG

HOLE NO. TB-90-6
SUFACE ELEV. 509.7
G.W. ELEV.
CASING ELEV. 511.74

2/16/90
497.12

PROJECT Erie Canal Industrial Park
Block No. 2
Project No. 90-119SC

LOCATION Phase II Investigation
Smith and Oak Street
Rochester, New York

DEPTH-FT	LOG	SAMPLE TYPE	SAMPLE NO	BLOWS ON SAMPLER (0/6, 6/12, 12/18, 18/24)	DESCRIPTION	NOTES
		AG	-	- -	Gy.-brn. SILT and Crushed Stone (moist, FILL)	
		SS	1	4 7 / 12 13	3.0'	HNu=0.0 ppm
		SS	2	8 9 / 10 13	Brn. SILT and f-c Sand, some f-c Gravel (moist, FILL)	HNu=0.0 ppm
5		SS	3	11 40 / 16 20	Contains "and" crushed Stone, some f-c Sand (wet) 7.0'	HNu=0.0 ppm
		SS	4	35 100	Gy. CRUSHED STONE and f-c Sand, little Silt (moist, FILL) 9.0'	HNu=0.0 ppm
10		SS	5	19 19 / 24 22	Red-brn. SILT and f-m Sand, little-some f-c Gravel (moist-wet)	HNu=0.0 ppm
		SS	6	100/0.4'	(wet) 12.4'	
		NQ	1			
15		NQ	2		Hard, gy. Dolostone BEDROCK, thin bedded Becomes thin bedded to bedded Minor Solution cavity @ 15.5'-15.55'	
20						
25					Boring Complete @ 22.9'	
30						
35						

CLASSIFICATION
Visual-Manual Identification
as per ASTM D-2488
Andrew J. Kucserik

METHOD OF INVESTIGATION Empire Soils Investigations, Inc.
Truck Mounted Drill Rig
w/Hollow Stem Augers (HSA),
ASTM D-1586

DATE October 5, 1989

SHEET 1 OF 2

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

0 0 0 0 1 7 3 0 0

TEST PIT LOG

TEST PIT NO. TP-89-1

GROUND SURFACE EL.. 98.73

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2

JOB NUMBER: 89-0815C

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan-brown fine-coarse GRAVEL and Silt (moist, FILL) 1.1'	
2				0.2	Black SILT / CINDERS / SLAG / BRICK (moist, FILL) 2.0'	
3				0.2	Tan-brown SILT, little fine Sand (moist, FILL) 3.0'	
4				50-60	Black SILT, little fine Sand (moist, FILL) 4.3'	Oil/gasoline odors noted @ 3.0'-4.3'
5					Tan-brown SILT, some fine-coarse Sand, little fine-coarse Gravel (moist)	
6				3-15		
7					7.0'	
8				20-30	Black and brown SILT, little fine Sand (moist) 8.0'	
9				1-5	Tan-brown fine-coarse SAND and Silt, trace gravel (moist) 9.0'	
10					Tan-brown SILT and fine-coarse Sand (wet)	
11				0.0		
12						
13					13.0'	
14				0.0	Gray-tan/brown SILT and fine-coarse Sand, some Cobbles, little fine-coarse Gravel (moist)	
15						PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE October 5, 1989

SHEET 2 OF 2

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

TEST PIT LOG

TEST PIT NO. TP-89-1

GROUND SURFACE EL.. 98.73

PROJECT: ERIE CANAL INDUSTRIAL PARK BLOCK No. 2

LOCATION: SMITH & OAK STREETS, ROCHESTER, N.Y.

JOB NUMBER: 89-087SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
16						
					TEST PIT COMPLETE @ 16.2'	
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE October 5, 1989

SHEET 1 OF 2

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

0 0 0 0 1 7 0 0 0 3

TEST PIT LOG

TEST PIT NO. TP-89-2

GROUND SURFACE EL.. 101.75

PROJECT: Erie Canal Industrial Park LOCATION: Smith & Oak Streets, Rochester, N.Y.
Block No. 2

JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan-brown SILT and fine-coarse Sand (moist, FILL) 1.1'	
2				0.0	Gray CRUSHED STONE / SHOT ROCK (moist, FILL)	This test pit was excavated in the vicinity of the former Erie Canal
3						
4				0.0		
5						
6				0.0		
7						
8				0.0		
9						
10				0.0		
11						
12				0.0		
13						
14				0.0	(moist-wet)	
15						

PID = Photoionization Detector readings

CLASSIFICATION:
- By: Andrew J. Kucserik
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: Track-mounted backhoe
- Model Name/No.: Komatsu PC-150

DATE October 5, 1989

SHEET 2 OF 2

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

0 0 0 0 1 / 3 0 0 3

TEST PIT LOG

TEST PIT NO. TP-89-2

GROUND SURFACE EL.. 101.75

PROJECT: ERIE CANAL INDUSTRIAL PARK BLOCK No.2

LOCATION: SMITH & OAK STREETS, ROCHESTER, N.Y.

JOB NUMBER: 89-087SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
16				0.0		
					TEST PIT COMPLETE @ 16.2'	
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

PID = Photoionization Detector readings

CLASSIFICATION:

- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:

- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE OCTOBER 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

TEST PIT LOG

TEST PIT NO. TP-89-3

GROUND SURFACE EL.. 102.94

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2 JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
0				0.0	Tan-brn. SILT and f-c Sand (moist, FILL)	
1				0.0	Black SILT/CINDERS/SLAG/BRICKS (moist, FILL) 1.2'	
2					Gray-black fine-coarse SAND and Silt, some fine-coarse Gravel, Bricks, Scrap Metal (moist, FILL)	
3						
4				0.0		
5					5.7'	
6					Tan-brown SILT and fine-coarse Sand, trace gravel (moist-wet)	
7				0.0	7.2'	
8				0.0	Black SILT, trace sand (moist, PEAT) 7.8'	
9					Tan-brown SILT, mottled fine-coarse Sand, occasional Cobbles/Boulders	
10				0.0	(moist-wet)	
11						
12						
13						
14				0.0		
15					TEST PIT COMPLETE @ 15.2'	PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE OCTOBER 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

TEST PIT LOG

TEST PIT NO. TP-89-4

GROUND SURFACE EL.. 100.58

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2 JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Black SILT and fine-coarse Gravel, some fine-coarse Sand (moist, FILL)	
					1.5'	
2					Gray CRUSHED STONE / SHOT ROCK and tan-brown Silt (moist, FILL)	
3				0.0		
4						
5				0.0		
6					6.0'	
7				0.0	Tan-brown, mottled fine SAND, little-trace Silt, occasional Clay lenses (moist)	
8						
9					(wet) 9.0'	
10				0.0	Tan-brown SILT, trace sand (wet)	
11						
12				0.0		
13					13.0'	
14				0.0	Gray-brown SILT and fine-coarse Sand, some fine-coarse Gravel, occasional Cobbles (wet)	PID = Photoionization Detector readings
15					TEST PIT COMPLETE @ 15.8'	

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE OCTOBER 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

TEST PIT LOG

TEST PIT NO. TP-89-5

GROUND SURFACE EL.. 99.31

PROJECT: ERIE CANAL INDUSTRIAL PARK BLOCK NO. 2

LOCATION: SMITH & OAK STREETS, Rochester, N.Y.

JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Gray-brown & black SILT and fine-coarse Sand, some fine-coarse Gravel, trace bricks, scrap metal, pipes/conduits, concrete fragments (damp, FILL)	
2						
3				0.0		
4					4.0'	
5				0.0	Black and white CINDERS/ASHES and fine-coarse Sand, some fine-coarse Gravel (moist, FILL)	
6					6.0'	
7				0.0	Tan-brown SILT, some fine-coarse Sand, little fine-coarse Gravel (moist-wet)	
8						
9				0.0		
10						
11					11.0'	
12				0.0	Gray-brown SILT and fine-coarse Sand, some fine-coarse Gravel, occasional Cobbles (moist-wet)	
13					TEST PIT COMPLETE @ 13.0'	
14						PID = Photoionization Detector readings
15						

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE OCTOBER 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

0 0 0 1 7 3 0 0 4

TEST PIT LOG

TEST PIT NO. TP-89-6

GROUND SURFACE EL.. 99.54

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2

JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Brown SILT and fine-coarse Sand, trace bricks, gravel (moist, FILL) 1.2'	
2				0.0	Black & gray CRUSHED STONE / SLAG / CINDERS, trace brick, trace metal (moist, FILL) 2.5'	
3				0.0	Red and brown BRICK FRAGMENTS (moist, FILL) 3.5'	
4				0.0	Gray-brown / green SILT, little fine-medium Sand, trace decayed wood pieces (moist) 5.3'	
5				0.0	Black SILT, trace sand (moist, PEAT) 6.0'	
6					Green-brown SILT, little fine Sand (moist) 9.5'	
7				0.0		
8						
9						
10					Tan-brown SILT, little fine Sand (moist)	
11				0.0		
12						
13				0.0		
14						PID = Photoionization Detector readings
15					TEST PIT COMPLETE @ 14.5'	

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE October 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

00001730

TEST PIT LOG

TEST PIT NO. TP-89-7

GROUND SURFACE EL.. 98.43

PROJECT: Erie Canal Industrial Park LOCATION: Smith & Oak Streets, Rochester, N.Y.
Block No. 2

JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan & brown SILT, some fine - medium Sand (moist, FILL)	
2					2.5'	
3				2-5	Black CINDERS / SLAG / BRICKS / SCRAP METAL (FILL)	
4					4.0'	
5					Tan-green / brown SILT, little fine Sand, trace clay (moist)	
6				0.0		
7				0.0	7.0' Black SILT, trace Sand (moist, PEAT) 7.2'	
8					Tan-brown SILT, little - some fine - coarse Sand, trace gravel, occasional Cobbles (moist)	
9				0.0		
10						
11						
12				0.0		
13						
14					TEST PIT COMPLETE @ 14.0'	PID = Photoionization Detector readings
15						

CLASSIFICATION:
- By: Andrew J. Kucserik
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: Track-mounted backhoe
- Model Name/No.: Komatsu PC-150

DATE OCTOBER 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

TEST PIT LOG

TEST PIT NO. TP-89-8

GROUND SURFACE EL.. 99.14

PROJECT: ERIE CANAL INDUSTRIAL PARK BLOCK NO. 2

LOCATION: SMITH & OAK STREETS, Rochester, N.Y.

JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.2	Tan-brown SILT and fine-coarse Sand, little Brick Fragments (moist, FILL)	
2					2.4'	
3				1-3	Black and gray CINDERS/SLAG and Bricks, some Metal Pieces/Turnings (FILL)	
4					4.3'	
5				0.2	Black SILT, trace Sand (moist, PEAT) 4.7'	
6					Tan and brown SILT, little-some fine-coarse Sand (moist)	
7				0.0		
8						
9						
10				0.0		
11						
12						
13					TEST PIT COMPLETE @ 12.7'	
14						PID = Photoionization Detector readings
15						

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE October 5, 1989

SHEET / OF /

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

00017/3004

TEST PIT LOG

TEST PIT NO. TP-89-9

GROUND SURFACE EL.. 99.52

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2 JOB NUMBER: 89-0815C

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan-brown fine-coarse GRAVEL and fine-coarse Sand, little Silt (moist, FILL)	
2						
3				0.0		
					3.5'	
4					Gray CRUSHED STONE (moist, FILL)	
5				0.0		
6						
7				0.0		
8					TEST PIT COMPLETE @ 7.5'	
9						
10						
11						
12						
13						
14						
15						

PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE October 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

TEST PIT LOG

TEST PIT NO. TP-89-9A

GROUND SURFACE EL.. 99.52

PROJECT: Erie Canal Industrial Park Block No. 2

LOCATION: Smith & Oak Streets, Rochester, N.Y.

JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan-brown fine-coarse GRAVEL and fine-course Sand, little Silt (moist, FILL)	
2						
3				0.0	3.5'	Railroad timbers encountered @ 3.0'
4				1-2	Black SLAG / RAILROAD BALLAST (moist-wet, FILL)	Petroleum odors noted @ 4'-6'
5						
6				1-2		Top of concrete wall noted @ 40'
7						Excavation terminated; test pit collapsing @ 8.0'
8					TEST PIT COMPLETE @ 8.0'	
9						
10						
11						
12						
13						
14						PID = Photoionization Detector readings
15						

CLASSIFICATION:
- By: Andrew J. Kucserik
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: Track-mounted backhoe
- Model Name/No.: Komatsu PC-150

DATE October 5, 1989

SHEET 1 OF 1

ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

0 0 0 1 7 8 0 0 4

TEST PIT LOG

TEST PIT NO. TP-89-10

GROUND SURFACE EL.. 98.98

PROJECT: ERIE CANAL INDUSTRIAL PARK BLOCK NO. 2

LOCATION: SMITH & OAK STREETS, Rochester, N.Y.

JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Black-brown SILT, little fine Sand (moist) 1.0'	
2				0.0	Tan-brown fine SAND, some Silt) (moist)	
3						
4				0.0		
5						
6				0.0		
7						
8					TEST PIT COMPLETE @ 8.0'	
9						
10						
11						
12						
13						
14						PID = Photoionization Detector readings
15						

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE October 5, 1989

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ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

0 0 0 0 1 7 3 0 0

TEST PIT LOG

TEST PIT NO. TP-89-11

GROUND SURFACE EL.. 99.67

PROJECT: Erie Canal Industrial Park LOCATION: Smith & Oak Streets, Rochester, N.Y.
Block No. 2

JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan-brown fine-coarse SAND, some-little Silt (moist, FILL) 1.2'	
2					Gray CRUSHED STONE (moist, FILL)	
3				0.0	3.5'	
4				1-3	Black SLAG/Railroad BALLAST (moist-wet) 4.1'	
5				0.2	Gray CRUSHED STONE/CONCRETE/COBBLES, Scrap Metal (FILL)	
6						Presumed concrete canal (former) wall encountered @ 4.5'
7				0.2		
8						
9				0.0		
10					TEST PIT COMPLETE @ 9.3'	
11						
12						
13						
14						
15						

PID = Photoionization Detector readings

CLASSIFICATION:
- By: Andrew J. Kucserik
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: Track-mounted backhoe
- Model Name/No.: Komatsu PC-150

DATE October 5, 1989

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ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

TEST PIT LOG

TEST PIT NO. TP-89-12

GROUND SURFACE EL.. 97.94

PROJECT: Erie Canal Industrial Park Block No. 2

LOCATION: Smith & Oak Streets, Rochester, N.Y.

JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan-brown fine-coarse GRAVEL and fine-coarse Sand, little Silt, trace bricks, metal (moist, FILL)	
					1.5'	
2					Gray-black & brown SILT and Fractured Rock Fragments / Shot Rock / Cinders / Slag	
3				0.0	(FILL)	
					3.5'	
4					Tan-brown fine-medium SAND and Silt, occasional Cobbles, little fine-coarse Gravel (moist-wet)	
5				0.0		
6						
7						
8				0.0		
9						
10						
11				0.0	(wet @ 11'-12')	
12						
13					TEST PIT COMPLETE @ 12.5'	
14						PID = Photoionization Detector readings
15						

CLASSIFICATION:
- By: Andrew J. Kucserik
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: Track-mounted backhoe
- Model Name/No.: Komatsu PC-150

DATE October 6, 1989

SHEET / OF /

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0 0 0 0 1 7 3 0 0 5

TEST PIT LOG

TEST PIT NO. TP-89-13

GROUND SURFACE EL.. 96.49

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2 JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.3	Black CINDERS / SLAG (moist, FILL) — 1.0'	
2				0.4	Black FOUNDRY SAND and Cinders (moist, FILL) — 2.0'	
3				0.1 - 0.5	Tan-brown fine SAND, some Silt (moist)	
4						
5						
6						
7				15-25	— 7.0' Gray fine-coarse SAND, little-trace Silt (moist-wet) — 7.6'	Solvent odors noted @ 7'-7.5'
8					Tan-brown fine SAND, little Silt (moist)	
9				0.3 - 0.5		
10						
11				0.0	— 11.0' Gy.-brn. fine-coarse SAND and Silt (moist)	
12					TEST PIT COMPLETE @ 11.5'	
13						
14						
15						PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE OCTOBER 6, 1989

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TEST PIT LOG

TEST PIT NO. TP-89-14

GROUND SURFACE EL.. 96.50

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2 JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.2	Red-brown BRICKS and fine-coarse Sand, Some fine-coarse Gravel (moist, FILL)	
2					2.0'	
3				0.2-0.4	Black CINDERS/SLAG and fine-coarse Sand, Metal Shavings, Pipes/Tubing/conduit (moist-wet, FILL)	
4					3.7'	
5					Tan-brown fine SAND, little Silt (moist)	
6				0.0		
7						
8						
9				0.0		
10						
11					TEST PIT COMPLETE @ 11.0'	
12						
13						
14						
15						PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE OCTOBER 6, 1989

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0 0 0 1 7 3 0 0 5

TEST PIT LOG

TEST PIT NO. TP-89-15

GROUND SURFACE EL.. 98.49

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2

JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.4	Brown fine-coarse GRAVEL and fine-coarse Sand, Bricks, Cobbles (moist, FILL) 1.5'	
2				0.5-1.2	Brown & black fine-coarse GRAVEL, some fine-coarse Sand, some Cinders/Slag (moist, FILL) 3.0'	
3						
4				0.3-0.5	Tan-brown fine-medium SAND and Silt (moist, Possible FILL) 5.0'	Petroleum odors noted @ 3'-5'
5				0.5	Brn.-blk. SILT, little fine Sand (PEAT) 5.6'	
6				0.0	Tan-brown fine SAND, some-little Silt (moist)	
7						
8						
9				0.0		
10				0.0	10.0' Gray-brown fine SAND, some-little Silt (moist)	
11					TEST PIT COMPLETE WITH REFUSAL @ 11.0'	Refusal occurred on a boulder or top of bedrock
12						
13						
14						
15						PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE October 6, 1989

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0 0 0 0 1 7 3 0 0 5

TEST PIT LOG

TEST PIT NO. TP-89-16

GROUND SURFACE EL.. 99.83

PROJECT: Erie Canal Industrial Park LOCATION: Smith & Oak Streets, Rochester, N.Y.
Block No. 2

JOB NUMBER: 89-081SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Tan-brown SILT and fine - coarse Gravel, some fine - coarse Sand, Scrap Metal, Conduit (moist, FILL) 1.0'	
2					Gray CRUSHED STONE / SHOT ROCK, Cobbles, Boulders (moist, FILL)	
3				0.0		
4						
5				0.0		
6						
7				0.0		
8						
9				0.0		
10					TEST PIT COMPLETE @ 9.0'	
11						
12						
13						
14						
15						PID = Photoionization Detector readings

CLASSIFICATION:
- By: Andrew J. Kucserik
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: Track-mounted backhoe
- Model Name/No.: Komatsu PC-150

DATE OCTOBER 6, 1989

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ecco INC. THE ENVIRONMENTAL CONSULTING COMPANY

0001730

TEST PIT LOG

TEST PIT NO. TP-89-17

GROUND SURFACE EL.. 98.69

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2 JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.2-0.6	Brown fine-coarse GRAVEL and fine-coarse Sand, Bricks, Cobbles, Scrap Metal, Steel Wire, Metal Turnings (FILL)	
2					2.7'	Petroleum odors noted @ 2'-6'
3				1-1.5	Black CINDERS/SLAG/COAL and fine-coarse Sand, Scrap Metal (FILL) 3.6'	
4					Brown SILT and fine-coarse Gravel, some fine-coarse Sand,	
5				0.2-0.8	Bricks, Cobbles (FILL)	
6					6.0'	
7				0.5	Black CINDERS/SLAG/COAL (FILL)	
8					8.0'	
9				0.0-0.2	Tan-brown fine SAND and Silt (moist)	
10					9.6'	
11				0.0	Gy.-brown SILT and fine-coarse Sand, trace-little fine-coarse Gravel (moist)	
12				0.0	TEST PIT COMPLETE WITH REFUSAL @ 12.0'	Refusal occurred on a boulder or top of bedrock
13						
14						PID = Photoionization Detector readings
15						

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

DATE OCTOBER 6, 1989

SHEET 1 OF 1

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TEST PIT LOG

TEST PIT NO. TP- 89-18

GROUND SURFACE EL.. 99.72

PROJECT: ERIE CANAL INDUSTRIAL PARK LOCATION: SMITH & OAK STREETS, Rochester, N.Y.
BLOCK NO. 2

JOB NUMBER: 89-089SC

DEPTH (feet)	LOG	SAMPLE TYPE	SAMPLE NO	PID	DESCRIPTION	NOTES
1				0.0	Brown-tan SILT and fine Sand (moist, FILL) 0.8'	
2				0.0	Gray CRUSHED STONE / SHOT ROCK / COBBLES / BOULDERS (moist, FILL)	
3						
4				0.0		
5						
6						
7				0.0		
8						
9						
10				0.0		Excavation collapsing between 6'-11'
11						
12					TEST PIT COMPLETE WITH REFUSAL @ 11.3'	Refusal occurred on boulder(s) or top of rock
13						
14						
15						PID = Photoionization Detector readings

CLASSIFICATION:
- By: ANDREW J. KUCSERIK
- Method: Visual-Manual Identification as per ASTM D-2488

METHOD OF INVESTIGATION:
- Equipment Type: TRACK-MOUNTED BACKHOE
- Model Name/No.: KOMATSU PC-150

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PROJECT NO. 3008.01 PAGE 1 OF 2 BORING NO. B-103

PROJECT Lyell/Broad Industrial Park, Rochester, New York

CLIENT Foundation Design, P.C., 45 Steel Street, Rochester, New York

ELEVATION 512.6 INSPECTOR WEATHER

DATE STARTED 6/24/86 COMPLETED 6/24/86 TECHNICIAN S. Loranty

GROUND WATER – CASING IN – 16'0" AT COMPLETION 6/24 TIME

BELOW SURFACE – CASING OUT – -WELLPOINT AT

Seasonal and climatic changes may alter the observed water levels

DEPTH BELOW URFACE	C	BLOWS ON SAMPLER 0"/6"	6"/12"	12"/18"	18"/24"	N	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATION REMARKS
		26	23						Topsoil 0'2"
				25	25	48	1	0'0"-2'0"	Dense gray moist silt, some medium to fine gravel, trace fine to very fine sand, FILL
		45	35						Very dense gray moist
				25	26	60	2	2'0"-4'0"	
5		30	24						
				25	13	49	3	4'0"-6'0"	Dense gray moist
		3	5						
				12	13	17	4	6'0"-8'0"	Firm gray moist
		4	15						
10				13	11	28	5	8'0"-10'0"	Compact gray moist
		8	16						
				15	13	31	6	10'0"-12'0"	Compact gray moist
		28	25						
				23	29	48	7	12'0"-14'0"	Dense gray moist
15		8	22						
				18	20	40	8	14'0"-16'0"	Dense gray moist
		16	18						
				21	26	39	9	16'0"-18'0"	Compact gray moist
		9	20						
20				15	19	35	10	18'0"-20'0"	Compact gray moist
		9	12						Firm gray moist 21'6"
				15	50	27	11	20'0"-22'0"	Firm black wet organic matter, little silt, trace fine gravel
									Augers advanced to 24'3" 24'3"
25									Boring terminated at 24'3" Auger Refusal
									Notes: Advanced test hole with hollow stem auger casing

NOTES: N = NO. OF BLOWS TO DRIVE 3" SPOON 12" WITH 140 LB. WT. 30" EA. BLOW
C = NO. OF BLOWS TO DRIVE CASING WITH LB. WT. EA. BLOW

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PROJECT NO. 3008.01 PAGE 2 OF 2 BORING NO. B-103

PROJECT Lyell/Borad Industrial Park, Rochester, New York

CLIENT Foundation Design, P.C., 45 Steel Street, Rochester, New York

ELEVATION 512.6 INSPECTOR WEATHER

DATE STARTED 6/24/86 COMPLETED 6/24/86 TECHNICIAN S. Loranty

GROUND WATER – CASING IN – 16'0" AT COMPLETION 6 /26 TIME

BELOW SURFACE – CASING OUT – -WELLPOINT AT

DEPTH BELOW SURFACE	C	BLOWS ON SAMPLER 0"/6"	6"/12"	12"/18"	18"/24"	N	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATION REMARKS
									Notes: Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer N-values shown are NOT for Standard Penetration Test. A 140 pound hammer was used to drive a 3" sampler to allow recovery of larger samples.

NOTES: N = NO. OF BLOWS TO DRIVE _____ SPOON _____ WITH _____ LB. WT. _____ EA. BLOW
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BLOW

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PROJECT NO. 3008.01 PAGE 1 OF 1 BORING NO. B-104

PROJECT Lyell/Broad Industrial Park, Rochester, New York

CLIENT Foundation Design, P.C., 45 Steel Street, Rochester, New York

ELEVATION 512.8 INSPECTOR WEATHER

DATE STARTED 6/24/86 COMPLETED 6/24/86 TECHNICIAN S. Loranty

GROUND WATER – CASING IN – AT COMPLETION / TIME

BELOW SURFACE – CASING OUT – -WELLPOINT AT

Seasonal and climatic changes may alter the observed water levels

DEPTH BELOW SURFACE	C	BLOWS ON SAMPLER 0"/6"	6"/12"	12"/18"	18"/24"	N	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATION REMARKS
		10	14						Miscellaneous fill consisting of silt,
				15	25	29	1	0'0"-2'0"	sand, brick, coal, FILL 2'0"
		14	12						Compact brown moist silt, trace fine to
				14	10	26	2	2'0"-4'0"	very fine sand and fine gravel, FILL 4'0"
5		4	6						Firm brown moist silt, trace of organic
				7	5	13	3	4'0"-6'0"	matter and very fine sand
									8'0"
									Auger penetration more difficult at 8'0"
10									Compact brown moist silt, little medium
		10	18						to fine gravel, trace fine sand
				19	30	37	4	10'0"-12'0"	
15									
		20	35						
				70	100/4	105	5	15'0"-16'10"	Very dense brown moist
20									20'0"
		100/4				100/4	6	20'0"-20'4"	Very dense gray rock 20'4"
									Boring terminated at 20'4"
									Notes: Advanced test hole with hollow stem auger casing
25									Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA. BLOW
C = NO. OF BLOWS TO DRIVE CASING WITH LB. WT. EA. BLOW

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PROJECT NO. 3008.01 PAGE 1 OF 1 BORING NO. B-105

PROJECT Lyell/Broad Industrial Park, Rochester, New York

CLIENT Foundation Design, P.C., 45 Steel Street, Rochester, New York

ELEVATION 509.5 INSPECTOR WEATHER

DATE STARTED 6/25/86 COMPLETED 6/25/86 TECHNICIAN E. Gainer

GROUND WATER – CASING IN – 4'0" AT COMPLETION 6/25 TIME

BELOW SURFACE – CASING OUT – –WELLPOINT AT

Seasonal and climatic changes may alter the observed water levels

DEPTH BELOW SURFACE	C	BLOWS ON SAMPLER 0"/6"	6"/12"	12"/18"	18"/24"	N	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATION REMARKS
		9	9						Topsoil 1'0"
				10	5	19	1	0'0"-2'0"	Firm brown moist silt, little medium to fine sand, trace brick fragments, wood, FILL 3'6"
		9	8						
				8	12	16	2	2'0"-4'0"	
5		7	5						Firm brown moist silt, trace organic matter
				4	8	9	3	4'0"-6'0"	Loose brown moist 5'0"
									Loose brown wet silt, little medium to fine gravel, trace medium to fine sand
10									
		7	10						Firm brown moist
				13	14	23	4	10'0"-12'0"	
									Augers advanced to 13'4" 13'4"
15									Boring terminated at 13'4"

Notes: Advanced test hole with hollow stem auger casing
Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

NOTES: N = NO. OF BLOWS TO DRIVE 2" SPOON 12" WITH 140 LB. WT. 30" EA. BLOW
C = NO. OF BLOWS TO DRIVE CASING WITH LB. WT. EA. BLOW

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PROJECT NO. 3008.01 PAGE 1 OF 1 BORING NO. B-106

PROJECT Lyell/Broad Industrial Park, Rochester, New York

CLIENT Foundation Design, P.C., 45 Steel Street, Rochester, New York

ELEVATION 511.3 INSPECTOR WEATHER

DATE STARTED 6/25/86 COMPLETED 6/25/86 TECHNICIAN S. Loranty

GROUND WATER – CASING IN – AT COMPLETION / TIME

BELOW SURFACE – CASING OUT – -WELLPOINT AT

Seasonal and climatic changes may alter the observed water levels

DEPTH BELOW URFACE	C	BLOWS ON SAMPLER 0"/6"	6"/12"	12"/18"	18"/24"	N	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATION REMARKS
		5	13						Miscellaneous fill material consisting
				20	20	33	1	0'0"-2'0"	of silt, brick, concrete, wood
		12	22						
				25	15	47	2	2'0"-4'0"	Miscellaneous fill material
									Miscellaneous fill material
5		100/1				100/1	4	4'0"-4'1"	Augers advanced to 6'0" 6'0"
									Boring terminated at 6'0" Auger Refusal
									Notes: Advanced test hole with hollow stem auger casing
									Hole moved 2' to the south
									Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer
10									N-values shown are NOT for Standard Penetration Test. A 140 pound hammer was used to drive a 3" sampler to allow recovery of larger samples.

NOTES: N = NO. OF BLOWS TO DRIVE 3" SPOON 12" WITH 140 LB. WT. 30" EA. BLOW
C = NO. OF BLOWS TO DRIVE CASING WITH LB. WT. EA. BLOW

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PROJECT NO. 3008.01 PAGE 1 OF 1 BORING NO. B-106A

PROJECT Lyell/Broad Industrial Park, Rochester, New York

CLIENT Foundation Design, P.C., 45 Steel Street, Rochester, New York

ELEVATION _____ INSPECTOR _____ WEATHER _____

DATE STARTED 6/25/86 COMPLETED 6/25/86 TECHNICIAN S. Loranty

GROUND WATER – CASING IN – AT COMPLETION / TIME

BELOW SURFACE – CASING OUT – -WELLPOINT AT

Seasonal and climatic changes may alter the observed water levels

DEPTH BELOW RFACE	C	BLOWS ON SAMPLER 0'/6"	6"/12"	12"/18"	18"/24"	N	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATION REMARKS
									See B-106 for soil samples 0'0"-6'0"
5									Augers advanced to 6'0"
		8	14						Miscellaneous fill consisting of sand, silt, wood, concrete
				18	6	32	1	6'0"-8'0"	
		11	8						
10				5	5	13	2	8'0"-10'0"	Miscellaneous fill
		5	8						Miscellaneous fill
				9	12	17	3	10'0"-12'0"	Miscellaneous fill 12'6"
		12	13						Very dense brown wet silt, little medium to fine gravel, trace fine to very fine sand (note 2" spoon)
				100/4		113/10	4	12'0"13'4" Run #1	Augers advanced to 14'0", refusal 14'0"
15								14'0"-19'0"	Cobble fragments 14'2"
								Rec. 77%	Medium hard gray dolomite, horizontal to high angle fractures
								RQD 40%	19'0"
20									Boring terminated at 19'0"
									Notes: Advanced test hole with hollow stem auger casing Rock cored with series "M" double tube core barrel and diamond bit N-values shown are NOT for Standard Penetration Test. A 140 pound hammer was used to drive a 3" sampler to allow recovery of larger samples.

NOTES: N = NO. OF BLOWS TO DRIVE 3" SPOON 12" WITH 140 LB. WT. 30" EA. BLOW
C = NO. OF BLOWS TO DRIVE _____ CASING _____ WITH _____ LB. WT. _____ EA. BLOW

FOUNDATION DESIGN, P.C.

PROJECT NO. 6-752 PAGE 1 OF 1 TEST PIT NO. TP-5

PROJECT Lyell Broad Industrial Park, Rochester, New York

CLIENT City of Rochester, 30 Church Street, Rochester, New York

ELEVATION 509.3 WEATHER _____ INSPECTOR J. Netzband

DATE STARTED 7/24/86 COMPLETED 7/24/86 OPERATOR Pinone

Test pit excavated with a John Deere 310 tractor mounted backhoe

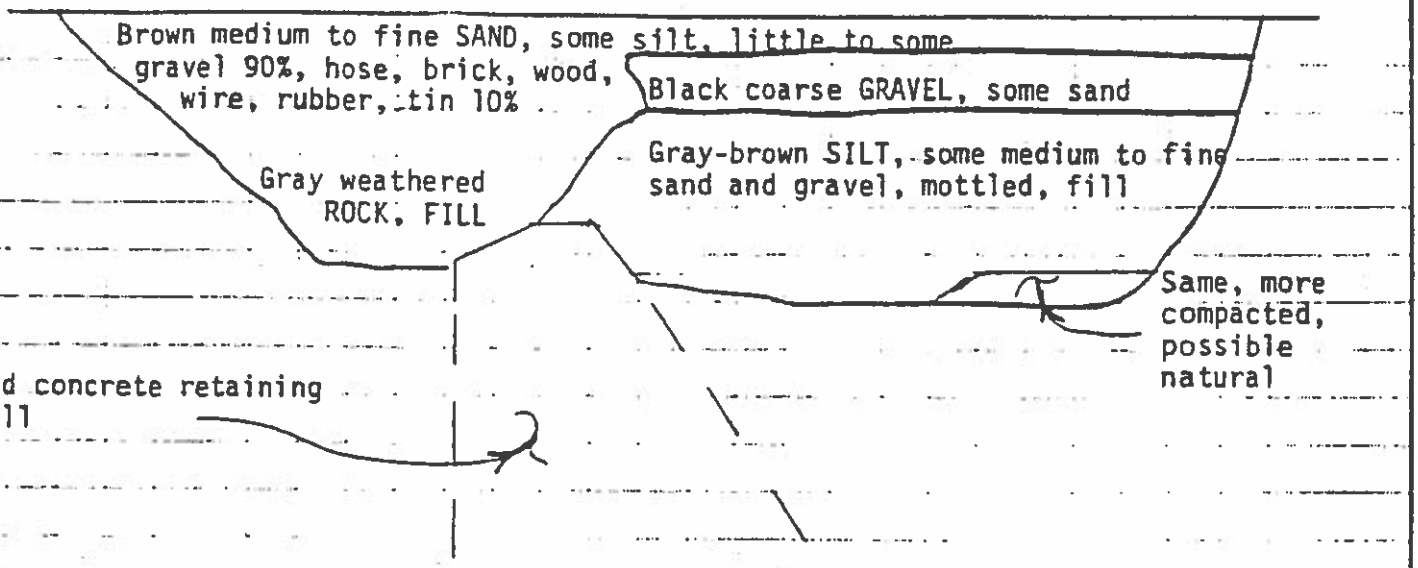
DEPTH BELOW SURFACE	P.P. (tsf)	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATIONS REMARKS
2				FILL consisting of sand, gravel, and silt 60%, concrete slabs and footings 30%, sewer pipe, brick, plastic, boulders, steel H-beam 10%, FILL
4				
6				Refusal on old basement floor 4'7"
				Test pit terminated at 4'7"
				Notes: Sides caving from large material excavated from the sides
				Dry on completion
				Five large concrete slabs with reinforcing bars protruding were removed from the hole. The size was up to 4'0"x2'0"x0'6"
				Tar odor noted in last foot excavated
				Hole was located 38 feet west of Oak Street curb
				Foundation wall one foot wide located 40 feet off Oak Street curb
				Eight inch abandonded sewer pipe was encountered. The pipe was at least 4 feet long
				Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

FOUNDATION DESIGN P.C.
45 Steel Street
ROCHESTER, NEW YORK 14606
(716) 458-0824

JOB Lyell Broad Industrial Park, Rochester, N.
SHEET NO. 1 OF 1
CALCULATED BY JDN DATE 7/24/86
CHECKED BY JRH DATE 7/24/86
SCALE 1"=4'

Elevation: 512.8

TEST PIT NO. TP-6



Notes: Sides vertical
Dry on completion
Black coarse gravel layer contained old railroad tires
East end of test pit was located 170 feet west of Oak Street curb
Retaining wall was located 177 feet west of Oak Street curb
Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

FOUNDATION DESIGN, P.C.

PROJECT NO. 6-752 PAGE 1 OF 1 TEST PIT NO. TP-7

PROJECT Lyell Broad Industrial Park, Rochester, New York

CLIENT City of Rochester, 30 Church Street, Rochester, New York

ELEVATION 512.3 WEATHER _____ INSPECTOR J. Netzband

DATE STARTED 7/24/86 COMPLETED 7/24/86 OPERATOR Pinone

Test pit excavated with a John Deere 310 tractor mounted backhoe

DEPTH BELOW SURFACE	P.P. (tsf)	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATIONS REMARKS
				ASPHALT and GRAVEL 0'3"
2				Black GRAVEL, little sand and silt, heavy petroleum odor, FILL 1'9"
4				Black-gray moist SILT, little medium to fine sand, trace red brick, glass, ash, petroleum odor, FILL
6				6'3"
8				TOPSOIL 6'11"
				Brown gray moist SILT, trace very fine sand and clay 7'4"
				Test pit terminated at 7'4"
				Notes: Sides vertical and stable Dry on completion Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

FOUNDATION DESIGN, P.C.
45 Steel Street
ROCHESTER, NEW YORK 14606
(716) 458-0824

Lyell Broad Industrial Park, Rochester, N.Y.

SHEET NO. 1 OF 1

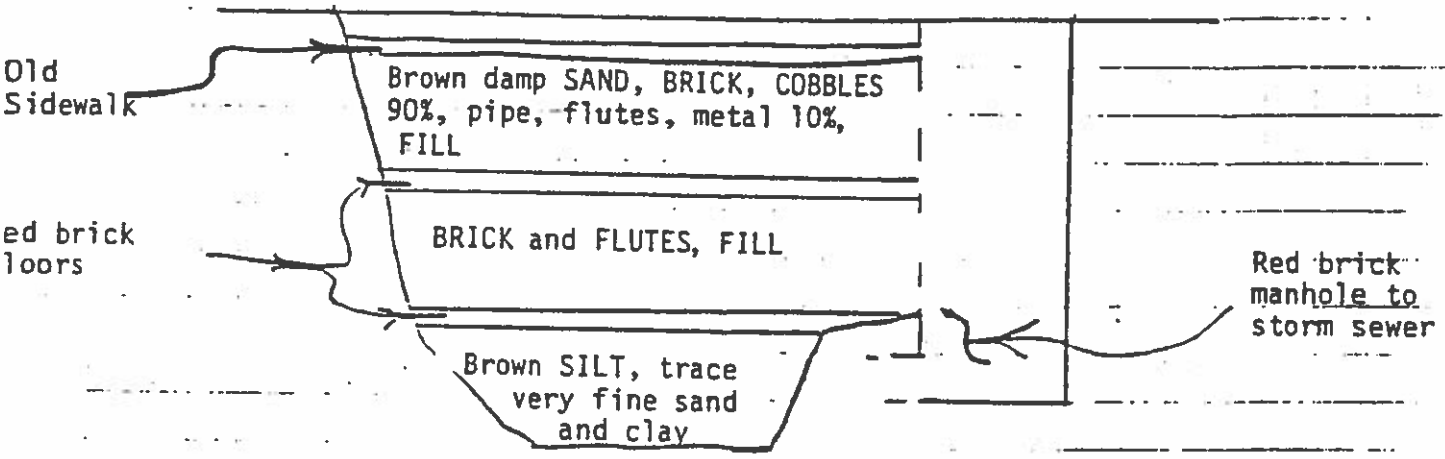
CALCULATED BY JDN DATE 7/24/86

CHECKED BY JRH DATE 7/24/86

SCALE 1"=4'

Elevation: 506.8

TEST PIT NO. TP-8



Notes:
- Sides caved
- Dry on completion
- Brick foundation wall along west side of test pit
- Storm sewer appears abandoned; runs in north and west direction
- Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

FOUNDATION DESIGN, P.C.

PROJECT NO. 6-752 PAGE 1 OF 1 TEST PIT NO. TP-9

PROJECT Lyell Broad Industrial Park, Rochester, New York

CLIENT City of Rochester, 30 Church Street, Rochester, New York

ELEVATION 510.8 WEATHER _____ INSPECTOR J. Netzband

DATE STARTED 7/24/86 COMPLETED 7/24/86 OPERATOR Pinone

Test pit excavated with a John Deere 310 tractor mounted backhoe

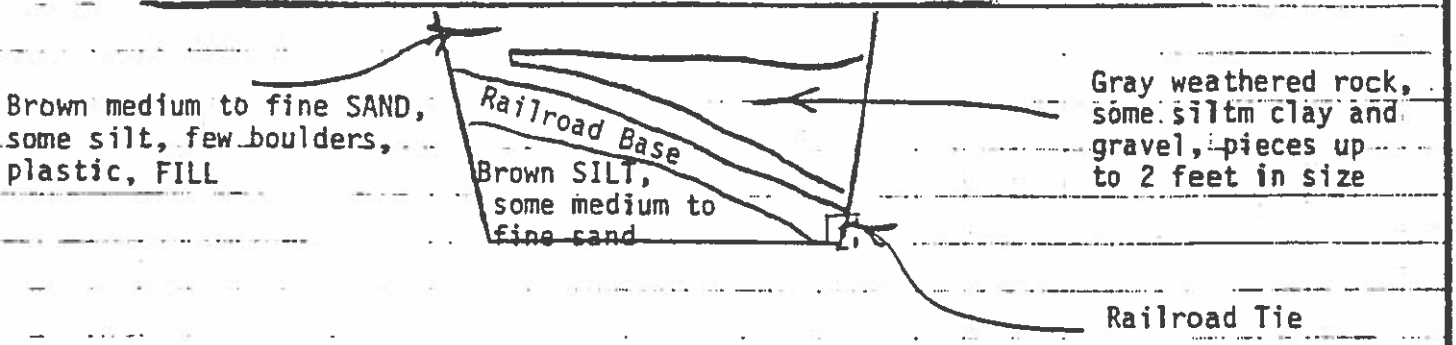
DEPTH BELOW SURFACE	P.P. (tsf)	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATIONS REMARKS
				Brown medium to fine SAND, some silt, dolomitic boulders noted, FILL
				1'9"
2				
				Gray weathered ROCK, some silt, little gravel and boulders up to four feet in size, FILL
4				
				5'1"
6				Test pit terminated at 5'1"
				Notes: Sides caved around boulders Dry on completion Trench was 46 feet long in search of retaining wall; none was found Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

FOUNDATION DESIGN P.C.
45 Steel Street
ROCHESTER, NEW YORK 14606
(716) 458-0824

JOB Lyell Broad Industria Park, Rochester, N.Y.
SHEET NO 1 OF 1
CALCULATED BY JDN DATE 7/24/86
CHECKED BY JRH DATE 7/24/86
SCALE 1"=4'

Elevation: 509.5

TEST PIT NO. TP-10



Notes: Dry on completion
Sides vertical
Old railroad base consists of coarse gravel, some sand, trace bottles, plastic and organics
Testpit located 12 feet west of TP-9
Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

FOUNDATION DESIGN, P.C.

PROJECT NO. 6-752 PAGE 1 OF 1 TEST PIT NO. TP-11

PROJECT Lyell Broad Industrial Park, Rochester, New York

CLIENT City of Rochester, 30 Church Street, Rochester, New York

ELEVATION 509.0 WEATHER _____ INSPECTOR J. Netzband

DATE STARTED 7/29/86 COMPLETED 7/29/86 OPERATOR Pinone

Test pit excavated with a John Deere 310 tractor mounted backhoe

DEPTH BELOW SURFACE	P.P. (tsf)	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATIONS REMARKS
2				Brown-gray moist medium to fine SAND, some silt, little gravel, trace cobbles, boulders up to two foot diameter, plastic bottles, wood, aspahlt, metal cans, metal pins, brick, FILL
4				
6				Petroleum odor noted
8				
10				8'9"
				Test pit terminated at 8'9"
				Notes: Sides caved below 4'6" Dry on completion Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

FOUNDATION DESIGN, P.C.

PROJECT NO. 6-752 PAGE 1 OF 1 TEST PIT NO. TP-12

PROJECT Lyell Broad Industrial Park, Rochester, New York

CLIENT City of Rochester, 30 Church Street, Rochester, New York

ELEVATION 510.4 WEATHER _____ INSPECTOR J. Netzband

DATE STARTED 7/29/86 COMPLETED 7/29/86 OPERATOR Pinone

Test pit excavated with a John Deere 310 tractor mounted backhoe

DEPTH BELOW SURFACE	P.P. (tsf)	SAMPLE NO.	DEPTH OF SAMPLE	SOIL AND ROCK CLASSIFICATIONS REMARKS
2				Brown moist medium to fine SAND, some silt, little gravel 50%, 3'0"x3'0"x0'6" concrete slabs, boulders and cobbles 45%, plywood, metal straps, wood 5%, FILL 2'5"
4				Hard brown-gray moist medium to fine SAND, some silt, little gravel, trace cobbles, boulders up to two foot diameter, brick, wood, asphalt, concrete, FILL Petroleum odor noted
6				
8				7'3" Topsoil 8'0"
10				Gray wet SILT, some medium to very fine sand, little gravel 9'4"
				Test pit terminated at 9'4" Notes: Sides caved below 3'6" Dry on completion Elevations referenced to rim of manhole elevation reported by Bergmann Associates in As-Built Design Plans for the Oak Steet Sanitary Sewer

APPENDIX F – QUALITY ASSURANCE PROJECT PLAN

Quality Assurance Project Plan

Rochester Community Sports Complex (RCSC)
(Former Erie Canal Industrial Park (ECIP))
NYSDEC Site # V00099

Location:

900 West Broad Street, 524, 565, and 559 Oak Street, and 488 Smith Street
Rochester, New York

LaBella Project No. 2210038

September 3, 2023

LaBella
Powered by partnership.

300 State Street, Suite 201 | Rochester, NY 14614 | p 585-454-6110 | f 585-454-3066

Table of Contents

1.0 INTRODUCTION

LaBella's Quality Assurance Project Plan (QAPP) is an integral part of its approach to environmental investigations. By maintaining a rigorous Quality Control (QC) program, our firm is able to provide accurate and reliable data. This QAPP should be followed during implementation of environmental investigation and remediation projects and should serve as a basis for quality control methods to be implemented during field programs. Project-specific requirements may apply.

The QC program contains procedures which allow for the proper collection and evaluation of data and documents that QC procedures have been followed during field investigations. The QC program presents the methodology and measurement procedures used in collecting quality field data. This methodology includes the proper use of equipment, documentation of sample collection, and sample handling procedures.

Procedures used in the firm's QC program are compatible with federal, state, and local regulations, as well as, appropriate professional and technical standards.

This QC program includes the following:

- QC Objectives and Checks
- Field Equipment, Handling, and Calibration
- Sampling and Logging Techniques
- Sample Handling, Packaging, and Shipping
- Laboratory Requirements and Deliverables

It should be noted that project-specific work plans (e.g., Remedial Investigation Work Plans) may have project specific details that will differ from the procedures in this QC program. In such cases, the project-specific work plan should be followed (subsequent to regulatory approval).

The characteristics of major importance for the assessment of generated data are accuracy, precision, completeness, representativeness, and comparability. Application of these characteristics to specific projects is addressed later in this document. The characteristics are defined below.

1.1 Accuracy

Accuracy is the degree of agreement of a measurement or average of measurements with an accepted reference or "true" value and is a measure of bias in the system.

1.2 Precision

Precision is the degree of mutual agreement among individual measurements of a given parameter.

1.3 Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.

1.4 Representativeness

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition

Careful choice and use of appropriate methods in the field will ensure that samples are representative. This is relatively easy with water or air samples since these components are homogeneously dispersed. In soil and sediment, contaminants are unlikely to be evenly distributed, and thus it is important for the sampler and analyst to exercise good judgment when removing a sample.

1.5 Comparability

Comparability expresses the confidence with which one data set can be compared to another. The data sets may be inter- or intra- laboratory.

2.0 MEASUREMENT OF DATA QUALITY

2.1 Accuracy

Accuracy of a particular analysis is measured by assessing its performance with "known" samples. These "knowns" take the form of EPA standard reference materials, or laboratory prepared solutions of target analytes spiked into a pure water or sample matrix. In the case of gas chromatography (GC) or GC/MS (mass spectrometry) analyses, solutions of surrogate compounds are used. These solutions can be spiked into every sample and are designed to mimic the behavior of target analytes without interfering with their determination.

In each case the recovery of the analyte is measured as a percentage, correcting for analytes known to be present in the original sample if necessary, as in the case of a matrix spike analysis. For EPA supplied known solutions, this recovery is compared to the published data that accompany the solution.

For the firm's prepared solutions, the recovery is compared to EPA-developed data or the firm's historical data as available. For surrogate compounds, recoveries are compared to EPA CLP acceptable recovery tables.

If recoveries do not meet required criteria, then the analytical data for the batch (or, in the case of surrogate compounds, for the individual sample) are considered potentially inaccurate. The analyst or his supervisor must initiate an investigation of the cause of the problem and take corrective action. This can include recalibration of the instrument, reanalysis of the QC sample, reanalysis of the samples in the batch, or flagging the data as suspect if the problems cannot be resolved. For highly contaminated samples, recovery of the matrix spike may depend on sample homogeneity. As a rule, analyses are not corrected for recovery of matrix spike or surrogate compounds.

2.2 Precision

Precision of a particular analysis is measured by assessing its performance with duplicate or replicate samples. Duplicate samples are pairs of samples taken in the field and transported to the laboratory as distinct samples. Their identity as duplicates is typically not known to the laboratory. For most purposes, precision is determined by the analysis of replicate pairs (i.e., two samples

prepared at the laboratory from one original sample). Often in replicate analysis the sample chosen for replication does not contain target analytes so that quantitation of precision is impossible. For EPA CLP analyses, replicate pairs of spiked samples, known as matrix spike/matrix spike duplicate samples, are used for precision studies. This has the advantage that two real positive values for a target analyte can be compared.

Precision is calculated in terms of Relative Percent Difference (RPD).

- Where X_1 and X_2 represent the individual values found for the target analyte in the two replicate analyses or in the matrix spike/matrix spike duplicate analyses.
- RPDs must be compared to the method RPD for the analysis. The analyst or his supervisor must investigate the cause of RPDs outside stated acceptance limits. This may include a visual inspection of the sample for non-homogeneity, analysis of check samples, etc. Follow-up action may include sample reanalysis or flagging of the data as suspect if problems cannot be resolved.
- During the data review and validation process, field duplicate RPDs are assessed as a measure of the total variability of both field sampling and laboratory analysis.

2.3 Completeness

Completeness for each parameter is calculated as follows:

- The firm's target value for completeness for all parameters is 100%. A completeness value of 95% will be considered acceptable. Incomplete results will be reported to the site managers. In planning the field sample collection, the site manager will plan to collect field duplicates from identified critical areas. This procedure should assure 100% completeness for these areas.

2.4 Representativeness

The characteristic of representativeness is not quantifiable. Subjective factors to be taken into account are as follows:

- The degree of homogeneity of a site;
- The degree of homogeneity of a sample taken from one point in a site; and
- The available information on which a sampling plan is based.

To maximize representativeness of results, sampling techniques and sample locations will be carefully chosen so that they provide laboratory samples representative of the site and the specific area. Within the laboratory, precautions are taken to extract from the sample bottle an aliquot representative of the whole sample. This includes premixing the sample and discarding pebbles from soil samples.

2.5 Comparability

Comparability of laboratory tests is ensured by utilizing only New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)- certified laboratories. This certification is the basis for demonstrating proficiency in testing requirements. Using ELAP certified laboratories will result in consistency amongst analytical data within a specific project and across projects.

3.0 QUALITY CONTROL TARGETS

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and RPD of duplicates/replicates are included in the QCP, Analytical Procedures. Note that tabulated values are not always attainable. Instances may arise where high sample concentrations, non-homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria. In such instances, the firm will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

4.0 SOIL BORING ADVANCEMENT & MONITORING WELL INSTALLATION PROCEDURES

Soil and groundwater sampling shall be conducted in accordance with NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation dated May 3, 2010 and any Site-specific work plans.

Prior to drilling, all drill sites will be cleared with appropriate utility companies to avoid potential accidents relating to underground utilities. Utility drawings will be reviewed, if available.

4.1 Drilling Equipment and Techniques

Direct Push Geoprobe Advanced Borings:

Soil borings and monitoring wells will be advanced with a Geoprobe direct push sampling system. The use of direct push technology allows for rapid sampling, observation, and characterization of relatively shallow overburden soils. The Geoprobe utilizes a four to five-foot macrocore sampler, with disposable polyethylene sleeves. Soil cores will be retrieved in four or five-foot sections, and can be easily cut from the polyethylene sleeves for observation and sampling. The macrocore sampler will be decontaminated between boring locations using an alconox and water solution.

Prior to initiating drilling activities, the Macrocores, drive rods, and pertinent equipment, will be steam cleaned or washed with an alconox and water solution. This cleaning procedure will also be used between each boring. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will be avoided. Plastic sheeting and/or clean support structures (e.g., pallets, sawhorses) will be used.

Test borings will be advanced with 2-inch (or larger) inside diameter (ID) direct push Macrocore through overburden soils. Drilling fluids, other than potable water will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative.

During the drilling, a properly calibrated photoionization detector (PID) will be used to screen soil cores retrieved from the Macrocores.

Direct Push Geoprobe advanced groundwater-monitoring wells typically utilize minimum 1.25-inch threaded flush joint PVC pipe with 0.010-in. slotted screen or pre-packed well screens. PVC piping used for risers and screens will conform to the requirements of ASTM-D 1785 Schedule 40 pipe.. All

materials used to construct the wells will be NSF/ASTM approved. Solvent PVC glue shall not be used at any time in the construction of the wells. The bottom of the screen shall be sealed with a treated cap or plug. No lead shot or lead wool is to be employed in sealing the bottom of the well or for sealant at any point in the well. Stainless steel wells or pre-packed PVC wells may be used if specified in the work plan and approved by the NYSDEC.

Hollow-Stem Auger Advanced Borings:

The drilling and installation of soil borings and monitoring wells will be performed using a rotary drill rig which will have sufficient capacity to perform 4 1/4-inch inside diameter (ID) hollow-stem auger drilling in the overburden, retrieve Macrocore or split-spoon samples, and perform necessary rock coring using NX, NQ, HQ or core barrel size as specified in the project-specific work plan. The borehole may be reamed up to 5 1/2-inch diameter prior to monitoring well installation as cased hole in the bedrock, or may be left as open bedrock hole, with regulatory concurrence. Equipment sizes and diameters may vary based on project-specific criteria. Any investigative derived waste generated during the advancement of soil borings and monitoring well installations will be containerized and characterized for proper disposal.

Prior to initiating drilling activities, the augers, rods, Macrocore, split spoons, and other pertinent equipment will be steam cleaned or washed with an alconox and water solution. This cleaning procedure will also be used between each boring. Steam cleaning activities will be performed in a designated on-site decontamination area. During and after the cleaning processes, direct contact between the equipment and the ground surface will be avoided. Plastic sheeting and/or clean support structures (e.g., pallets, sawhorses) will be used.
Test borings will be advanced with 4 1/4-inch (ID) hollow stem augers through overburden, and cored with a NX, NQ, HQ or core barrel size as specified in the project-specific work plan sized diamond core barrels in competent rock, driven by truck-, track-, or trailer-mounted drilling equipment. Alternative methods of drilling or equipment may be allowed or requested for project-specific criteria, but must be approved by the NYSDEC. Drilling fluids, other than water from a NYSDEC-approved source, will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative.

During the drilling, a (PID) will be used to screen soils retrieved from the split spoons or Macrocores. In the event that headspace field screening is required to determine the presence of VOCs in soil samples, the following procedure will be utilized:

- Soils from core will be inserted into an airtight glass jar and/or disposable polyethylene bag, and the container will be sealed immediately
- After sealing the container, the soils will be shaken or kneaded for 10-15 seconds to release volatiles into the headspace of the sealed container
- The PID inlet will be inserted into the headspace of the airtight container to screen soil samples for VOCs

During the drilling, visual screening will be utilized to identify any Non-Aqueous Phase Liquid (NAPL) in the soil cores.

Where bedrock wells are required, test borings shall be advanced into rock with NX, NQ, HR (or similar) coring tools. Only water from an approved source shall be used in rock coring. The consultant shall monitor and record the petrology, core recovery, fractures, rate of advance, and water lost or produced in each test boring. The Rock Quality Determination (RQD) value shall be calculated for each 5-foot core. Each core shall be screened with a PID upon extraction. All core samples shall be retained and stored by the consultant in an approved wooden core box for a period

of not less than one year.

The method selected may be percussion or rotary drilling. The method and equipment selected must be capable of penetrating the bedrock at each well location to a depth required by the work plan.

Bedrock well installation will involve construction of a rock socket in the weathered bedrock. The socket will be drilled into the top of rock (typically 1-ft. to 5-ft. into the top of rock) at each bedrock well location to allow a permanent steel casing to be grouted securely in place prior to completion of the well. The purpose for this is to provide a seal at the overburden/bedrock interface and into the upper bedrock surface, to prevent the entrance of overburden water into the bedrock. After the grout and casing have set up for a minimum of 12 hours, the remaining bedrock can be NX (or similar) cored through the steel casing to a depth determined by the project-specific work plan.

Bedrock wells will either be open coreholes in the rock or consist of threaded, flush-joint PVC piping. Construction will vary depending on the project and as such, specific construction of the wells will be detailed in the project-specific work plan. Bedrock wells which do utilized PVC piping for risers and screens will conform to the requirements of ASTM-D 1785 Schedule 40 pipe. All materials used to construct the wells will be NSF/ASTM approved.

Screen and riser sections shall be joined by flush-threaded coupling to form watertight unions that retain 100% of the strength of the casing. Solvent PVC glue shall not be used at any time in the construction of the wells. The bottom of the screen shall be sealed with a treated cap or plug. No lead shot or lead wool is to be employed in sealing the bottom of the well or for sealant at any point in the well.

4.1.1 Artificial Sand Pack

When utilized, granular backfill will be chemically and texturally clean, inert, siliceous, and of appropriate grain size for the screen slot size and the host environment The sand pack will be installed using a tremie pipe, when possible (i.e., a tremie pipe may not fit into smaller, 2-in. diameter boreholes). When utilized, the well screen and casing will be installed, and the sand pack placed around the screen and casing to a depth extending at least 2-ft.. A pre-packed well screen may be used if pre-approved by the NYSDEC.

An artificial sand pack will not be utilized in bedrock wells without screens (i.e., open borehole wells).

4.1.2 Bentonite Seal

A minimum 2-ft. thick seal will be placed directly on top of the sand pack, and care will be taken to avoid bridging. In the event that Site geology does not allow for a 2-ft. seal (e.g., only 1-ft. of space remains between the top of the sand pack and ground surface), the remaining space in the annulus will be filled with bentonite.

4.1.3 Grout Mixture

Upon completion of the bentonite seal, the well may be grouted with a non-shrinking cement grout (e.g., Volclay^{R}) mix to be placed from the top of the bentonite seal to the ground surface. The cement grout shall consist of a mixture of Portland cement (ASTM C 150) and water, in the proportion of not more than 7 gallons of clean water per bag of cement (1 cubic foot or 94 pounds). Additionally, 3% by weight of bentonite powder may be added.

4.1.4 Surface Protection

At all times during the progress of the work, precautions shall be used to prevent tampering with or

the entrance of foreign material into the well. Upon completion of the well, a suitable cap shall be installed to prevent material from entering the well. Where permanent wells are to be installed, the well riser shall be protected by a flush mounted road box set into a concrete pad or locking well cap for stick-up wells. A concrete pad, sloped away from the well, shall be constructed around the flush mount road box or stick-up casing at ground level.

Any well that is to be temporarily removed from service or left incomplete due to delay in construction shall be capped with a watertight cap.

4.2 Surveying

Coordinates and elevations will be established for each monitoring well and sampling location. Elevations to the closest 0.01 foot shall be used for the survey. These elevations shall be referenced to a regional, local, or project-specific datum. The location, identification, coordinates, and elevations of the wells will be plotted on maps with a scale large enough to show their location with reference to other structures at each site.

4.3 Well Development

After completion of the well, but not sooner than 24 hours after grouting is completed, development will be accomplished using pumping, bailing, or surge blocking. No dispersing agents, acids, disinfectants, or other additives will be used during development or introduced into the well at any other time. During development, water will be removed throughout the entire water column by periodically lowering and raising the pump intake (or bailer stopping point).

Development water will be either properly contained and treated as waste until the results of chemical analysis of samples are obtained or discharged on Site as determined by the Site-specific work plans and/or consultation with the NYSDEC representatives on Site.

The development process will continue until removal of a minimum of 110% of the water lost during drilling, three well volumes; whichever is greater, or as specified in the work plan. In the event that limited recharge does not allow for the recovery of all drilling water lost in the well or three (3) well volumes, the well will be allowed to stabilize to conditions deemed representative of groundwater conditions. Stabilization periods will vary by project but will be confirmed with the NYSDEC prior to sampling.

4.4 PFAS Soil Sampling Procedure

PFAS sampling will be conducted in accordance with current NYSDEC PFAS Guidance. Soil samples for PFAS analysis will be collected using PFAS-Free equipment. Samples will be collected in bottleware provided by the laboratory. Because PFAS are found in numerous everyday items, the following special precautions will be taken during sampling activities:

- No use of Teflon®-containing materials (e.g., Teflon® tubing, bailers, tape, sample jar lid liners, plumbing paste).
- No use of low density polyethylene (LDPE)-containing materials.
- No Tyvek® clothing will be worn by samplers.
- Clothes treated with stain-resistant or rain-resistant coatings (e.g., Gortex®) will be not be worn by samplers.
- All clothing worn by sampling personnel must have been laundered multiple times.
- No fast food wrappers, disposable cups or microwave popcorn will be within the vicinity of the wells/ samples.

- There will be no use of chemical (blue) ice packs, aluminum foil, or Sharpies® within the vicinity of the wells/ samples.
- No use of sunscreen, insect repellants, cosmetic, lotions or moisturizers will be allowed by sampling personnel the day of sampling.
- If any of the above items are handled by the field personnel prior to sampling activities, field personnel will wash their hands thoroughly with soap and water prior to any sampling activities.
- Powder-free nitrile gloves will be worn during all sample collection activities.

Quality assurance/ quality control (QA/QC) samples for PFAS sampling will include one (1) field duplicate, one (1) matrix spike / matrix spike duplicates (MS/MSD) and one (1) equipment blank. The procedures and rationale for collecting these samples are described below.

- Field duplicate – Sample will be used to assess the variability in concentrations of samples from the same well due to the combined effects of sample processing in the field and laboratory as well as chemical analysis.

- Matrix spike/matrix spike duplicate – Sample will be used to provide information about the effect of the sample matrix on the design and measurement methodology used by the laboratory.

- Equipment blank – Sample will be collected to help identify possible contamination from sampling equipment (i.e., shovel, soil core, etc.).

PFAS samples will be submitted to an Environmental Laboratory Accreditation Program (ELAP) certified laboratory for analysis of the full PFAS target analyte list (21 compounds listed in the NYSDEC Guidance) via modified USEPA Method 537 with a method detection limit not to exceed 1 ug/kg. Note, the laboratory utilized will be ELAP certified for PFOA and PFOS in drinking water by EPA method 537 or ISO 25101 as ELAP does not currently offer certification for PFAS compounds in matrices other than finished drinking water.

5.0 GEOLOGIC LOGGING AND SAMPLING

At each investigative location, borings will be advanced through overburden using either a drill rig and hollow-stem auger or direct push technology (split spoons or Macrocore). Soils will be evaluated for visual and olfactory evidence of impairment (i.e., staining, odors, and elevated PID readings) by a qualified individual. Sampling devices will be decontaminated according to procedures outlined in the Decontamination section of this document. When utilized, split-spoon samplers will be driven into the soil using a minimum 140-pound safety hammer and allowed to free-fall 30-inches, in accordance with ASTM-D 1586-84 specifications. The number of blows required to drive the sampler each 6-inches of penetration will be recorded. When required, samples will be stored in the appropriate bottleware (refer to Section 10) until analysis or deemed unnecessary.

In the event that maximum design depth of investigation is reached and hydrogeologic conditions are not suitable for well installation, the maximum drilling depth may be revised.

Boulders and bedrock encountered during well installation may be cored by standard diamond-core drilling methods using an NX, NQ, HQ size core barrel or other if specified in the project-specific work plan. All rock cores recovered will be logged by a qualified individual, and stored in labeled wooden core boxes. The cores will be stored by the firm until the project is completed or for at least one year. Drilling logs will be prepared by a qualified individual who will be present during drilling operations.

One copy of each field boring and well construction log and groundwater data, will typically be submitted as part of the investigation summary report (e.g., Remedial Investigation Report). The RQD value shall be calculated for each 5-foot section. Information provided in the logs shall include, but not be limited to, the following:

- Date(s), test hole identification, and project identification;
- Name of individual developing the log;
- Name of driller and assistant(s);
- Drill, make and model, auger size;
- Identification of alternative drilling methods used and justification thereof (e.g., rotary drilling with a specific bit type to remove material from within the hollow stem augers);
- Standard penetration test (ASTM D-1586) blow counts;
- Field diagram of each monitoring well installed with the depth to bottom of well/ screen, top of screen, length of riser, depth of steel casing, depths of sand pack, bentonite seal, grout, type of well completion etc.;
- Depth of each change of stratum;
- Identification of the material of which each stratum is composed, according to the USCS system or standard rock nomenclature, as appropriate;
- Depth interval from which each sample was taken, sample identification, and sample time;
- Depth at which hole diameters (bit sizes) change;
- Depth at which groundwater is encountered;
- Drilling fluid and quantity of water lost during drilling;
- Depth or location of any loss of tools or equipment;
- Depths of any fractures, joints, faults, cavities, or weathered zones

6.0 GROUNDWATER SAMPLING PROCEDURES

The groundwater in all new monitoring wells will be allowed to stabilize for at least 1week following development prior to sampling. Water levels will be measured to within 0.01 feet prior to purging and sampling. Sampling of each well will typically be accomplished in one of two ways; active or passive.

Active Sampling:

Active sampling includes bailing or pumping. Purging will be completed prior to active sampling if specified in the project-specific work plan. During purging, the following will be recorded in field books or groundwater sampling logs:

- date
- purge start time
- weather conditions
- presence of NAPL, if any, and approximate thickness
- pump rate
- pH
- dissolved oxygen
- temperature
- conductivity
- redox
- turbidity
- depth of well

- depth to water
- depth to pump intake
- purge end time
- volume of water purged

During low flow sampling, the water quality parameters including pH, conductivity, temperature, dissolved oxygen, redox, water level drawdown, and turbidity will be recorded at five (5) minute intervals. Samples will be collected after the parameters have stabilized for three (3) consecutive 5-minute intervals to within the specified ranges below:

- Water level drawdown (<0.3')
- Turbidity (+/- 10%, < 50-NTU for Metals Samples)
- pH (+/-0.1)
- Temperature (+/- 3%)
- Specific conductivity (+/- 3%)
- Dissolved Oxygen (+/- 10%)
- Oxidation reduction potential (+/- 10 millivolts)

Passive Sampling:

Groundwater samples will be collected via passive methods (i.e., no-purge) according to the following procedures and in the volumes specified in Table 10-1:

Samples will be collected via passive diffusion bag (PDB) samplers. PDB samplers are made of low-density polyethylene plastic tubing (typically 4 mil), filled with laboratory grade (ASTM Type II) deionized water and sealed at both ends.

- Pre-filled PDBs will not be stored for longer than 30 days and will be kept stored at room temperature in a sealed plastic bag until ready to use.
- PDBs filled in the field will be used immediately and not stored for future use.
- PDB samplers will only be used to collect groundwater samples which will be analyzed for VOCs.
- Mesh covers will be utilized for open rock holes as to not puncture the PDB and will be secured to the bag using zip-ties.
- PDB samplers will be deployed by hanging in the well at the depth(s) specified in the project-specific work plan. The depth at which the PDB is deployed will be recorded on the groundwater sampling form. The PDB samplers will be deployed at least 14 days prior to sampling;
- When transferring water from the PDB to sample containers, care will be taken to avoid agitating the sample, since agitation promotes the loss of volatile constituents;
- Gloves will be changed between collection of each PDB and tools used to open the PDB will be decontaminated with an alconox and potable water solution between each PDB;
- Any volume not used will be treated as investigation derived waste;
- Any observable physical characteristics of the groundwater (e.g., color, sheen, odor, turbidity) at the time of sampling will be recorded; and
- Weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

6.1 PFAS Groundwater Sampling Procedure

PFAS sampling will be conducted in accordance with current NYSDEC PFAS Guidance. Samples for PFAS analysis will be collected using PFAS-Free equipment, specifically a dedicated disposable high density polyethylene (HDPE) or PVC bailers, and/or low-flow sampling equipment with PFAS-Free components. Samples will be collected in bottleware provided by the laboratory. Because PFAS are found in numerous everyday items, the following special precautions will be taken during sampling activities:

- No use of Teflon®-containing materials (e.g., Teflon® tubing, bailers, tape, sample jar lid liners, plumbing paste).
- No use of low density polyethylene (LDPE)-containing materials.
- No Tyvek® clothing will be worn by samplers.
- Clothes treated with stain-resistant or rain-resistant coatings (e.g., Gortex®) will be not be worn by samplers.
- All clothing worn by sampling personnel must have been laundered multiple times.
- No fast food wrappers, disposable cups or microwave popcorn will be within the vicinity of the wells/ samples.
- There will be no use of chemical (blue) ice packs, aluminum foil, or Sharpies® within the vicinity of the wells/ samples.
- No use of sunscreen, insect repellants, cosmetic, lotions or moisturizers will be allowed by sampling personnel the day of sampling.
- If any of the above items are handled by the field personnel prior to sampling activities, field personnel will wash their hands thoroughly with soap and water prior to any sampling activities.
- Powder-free nitrile gloves will be worn during all sample collection activities.

Quality assurance/ quality control (QA/QC) samples for PFAS sampling will include one (1) field duplicate, one (1) matrix spike / matrix spike duplicates (MS/MSD) and one (1) equipment blank. The procedures and rationale for collecting these samples are described below.

- Field duplicate – Sample will be used to assess the variability in concentrations of samples from the same well due to the combined effects of sample processing in the field and laboratory as well as chemical analysis.

- Matrix spike/matrix spike duplicate – Sample will be used to provide information about the effect of the sample matrix on the design and measurement methodology used by the laboratory.

- Equipment blank – Sample will be collected to help identify possible contamination from sampling equipment (i.e., bailer). One equipment blank will be collected by pouring laboratory certified analyte-free deionized water over a bailer into the sample container.

PFAS samples will be submitted to an Environmental Laboratory Accreditation Program (ELAP) certified laboratory for analysis of the full PFAS target analyte list (21 compounds listed in the NYSDEC Guidance) via modified USEPA Method 537 with a method detection limit not to exceed 2 ng/L. Note, the laboratory utilized will be ELAP certified for PFOA and PFOS in drinking water by EPA method 537 or ISO 25101 as ELAP does not currently offer certification for PFAS compounds in matrices other than finished drinking water.

7.0 SOIL VAPOR INTRUSION SAMPLING PROCEDURES

Soil vapor intrusion (SVI) sampling is to be conducted in accordance with the *NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York* dated October 2006 and subsequent updates. Tracer gas testing is to be conducted for sub-slab sampling points to ensure concentrations of the tracer gas are not detected in the sub-slab at greater than 10% of the concentration detected in the atmosphere. An outdoor air sample is to be collected at an upwind direction as a control. A building inventory should be completed to document building construction information and identify products that may be contributing to the levels in indoor air.

8.0 FIELD DOCUMENTATION

8.1 Daily Logs/ Field Notebook

Daily logs are necessary to provide sufficient data and observations to enable participants to reconstruct events that occurred during the project and to refresh the memory of the field personnel if called upon to give testimony during legal proceedings. Daily logs may be kept in a project-specific notebook labelled with the project name/ number and contact information.

The daily log is the responsibility of the field personnel and will include:

- Name of person making entry;
- Start and end time of work;
- Names of team members on-site;
- Changes in required levels of personnel protection:
  - Level of protection originally used;
  - Changes in protection, if required; and
  - Reasons for changes.
- Air monitoring locations, start and end times, and equipment identification numbers;
- Summary of tasks completed;
- Summary of samples collected including location, matrix, etc.;
- Field observations and remarks;
- Weather conditions, wind direction, etc.;
- Any deviations from the work plan;
- Initials/ signature of person recording the information.

As with any data logbooks, no pages will be removed for any reason. If corrections are necessary, these must be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside. The correction must be initialed and dated. Corrected errors may require a footnote explaining the correction.

Sample documents, forms, or field notebooks are not to be destroyed or thrown away, even if they are illegible or contain inaccuracies that require a replacement document. If an error is made on a document assigned to one individual, that individual may make corrections simply by crossing a line through the error and entering the corrected information. The incorrect information should not be obliterated. Any subsequent error discovered on a document should be corrected by the person who made the entry. All corrections must be initialed and dated.

8.2 *Photographs*

Photographs will be taken to document the work. Documentation of a photograph is crucial to its validity as a representation of an existing situation. Photographs should be documented with date, location, and description of the photograph.

9.0 INVESTIGATION DERIVED WASTE

Purpose:

The purposes of these guidelines are to ensure the proper holding, storage, transportation, and disposal of materials that may contain hazardous wastes. Investigation-derived waste (IDW) included the following:

- Drill cuttings, drilling mud solids;
- Water produced during drilling;
- Well development and purge waters, unused PDB waters;
- Decontamination waters and associated solids;

IDW will be managed in substantial accordance with DER-10 and all applicable local, State and Federal regulations.

Procedure:

1. Contain all investigation-derived wastes in Department of Transportation (DOT)-approved 55-gallon drums, roll-off boxes, or other containers suitable for the wastes.
2. Place different media in separate drums (i.e., do not combine solids and liquids).
3. To the extent practicable, separate solids from drilling muds, decontamination waters, and similar liquids. Place solids within separate containers.
4. Transfer all waste containers to a staging area. Access to this area will be controlled. Waste containers must be transferred to the staging area as soon as practicable after the generating activity is complete.
5. Label all containers with regard to contents, origin, and date of generation. Use indelible ink for all labeling.
6. Collect samples for waste characterization purposes, use boring/well sample analytical data for characterization.
7. For wastes determined to be hazardous in character, be aware on accumulation time limitations. Coordinate the disposal of these wastes with the Owner and NYSDEC.
8. Dispose of investigation-derived wastes as follows;
    - Soil, water, and other environmental media for which analysis does not detect organic constituents, and for which inorganic constituents are at levels consistent with background, may be spread on-site (pending NYSDEC approval) or otherwise treated as a non-waste material.
    - Soils, water, and other environmental media in which organic compounds are detected or metals are present above background will be disposed as industrial waste or hazardous waste, as appropriate. Alternate disposition must be

consistent with applicable State and Federal laws.

- Personal protective equipment, disposable bailers, and similar equipment may be disposed as municipal waste, unless waste characterization results mandate disposal as industrial wastes

9. If waste is determined to be listed hazardous waste, it must be handled as hazardous waste as described above, unless a contained-in determination is accepted by the NYSDEC.

10.0 DECONTAMINATION PROCEDURES

Sampling methods and equipment have been chosen to minimize decontamination requirements and to prevent the possibility of cross-contamination. Decontamination of equipment will be performed between discrete sampling locations. Equipment used to collect samples between composite sample locations will not require decontamination between collection of samples. All drilling equipment will be decontaminated after the completion of each drilling location. Special attention will be given to the drilling assembly and augers.

Split spoons and other non-disposable equipment will be decontaminated between each sampling location. The sampler will be cleaned prior to each use, by one of the following procedures:

- Initially cleaned of all foreign matter;
- Sanitized with a steam cleaner;

OR

- Initially cleaned of all foreign matter;
- Scrubbed with brushes in alconox solution;
- Triple rinsed; and
- Allowed to air dry.

Other sampling equipment including but not limited to low-flow sampling pumps, surface soil sampling trowel, water level meters, etc. will be decontaminated between sample location using an alconox solution. Consumables including gloves, tubing, bailers, string, etc. will be dedicated to one sample location and will not be reused.

11.0 SAMPLE CONTAINERS

The containers required for sampling activities are pre-washed and ordered directly from a laboratory, which has the containers prepared in accordance with USEPA bottle washing procedures. The following tables detail sample volumes, containers, preservation and holding time for typical analytes.

Table 11-1
Groundwater Samples

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Holding Time Until Extraction/ Analysis
VOCs	40-ml glass vial with Teflon-backed septum	Two (2); fill completely, no headspace	Cool to 4° C (ice in cooler), Hydrochloric acid to pH <2	14 days
Semi-volatile Organic Compounds (SVOCs)	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Pesticides	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Polychlorinated biphenyls (PCBs)	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Metals	250-ml HDPE	One (1); fill completely	Cool to 4° C (ice in cooler) Nitric acid to pH <2	180 days (28 for mercury)
Cyanide	1,000-mL HDPE		Cool to 4° C (ice in cooler) Nitric acid to pH <2	14 days
1,4-Dioxane	40-ml glass vial with Teflon-backed septum	Three (3); fill completely, no headspace	Cool to 4° C (ice in cooler), Hydrochloric acid to pH <2	14 days
PFAS	250-mL HDPE, no Teflon	Two (2); fill completely	Cool to 4° C (ice in cooler), Trizma	14 days

Note:
All sample bottles will be prepared in accordance with USEPA bottle washing procedures.
Consult with laboratory as bottleware may vary by laboratory.
Holding time begins at the time of sample collection.

TABLE 11-2
Soil Samples

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Holding Time Until Extraction/ Analysis
VOCs	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	14 days
VOCs via EPA 5035	40 mL vials with sodium bisulfate, methanol, and/or DI water	Three (3), 5 grams each	Cool to 4° C (ice in cooler)	2 days*
SVOCs	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	7/40 days
PCBs	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	7/40 days
Pesticides	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	14/40 days
Metals	4-oz. glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	180 days (28 for mercury)
Cyanide	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	14 days
1,4-Dioxane	40 mL vials with sodium bisulfate, methanol, and/or DI water	Three (3), 5 grams each	Cool to 4° C (ice in cooler)	2 days*
PFAS	8-oz HDPE, no Teflon	One (1); fill as completely as possible	Cool to 4° C (ice in cooler)	28 days

Note:
**Or freeze within holding time.*
All sample bottles will be prepared in accordance with USEPA bottle washing procedures.
Consult with laboratory as bottleware may vary by laboratory.
Holding time begins at the time of sample collection.

Table 11-3
Air Samples

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Holding Time Until Extraction/ Analysis
VOCs	1 – Liter Summa® Canister	One (1) 1-Liter 1.4- Liter for MS/MSD	N/A	14 days

Note:
All sample bottles will be prepared in accordance with USEPA bottle washing procedures.
Consult with laboratory as bottleware may vary by laboratory.
Holding time begins at the time of sample collection.

12.0 SAMPLE CUSTODY AND SHIPMENT

12.1 Sample Identification

All containers of samples collected from the project will be identified using the following format on a label or tag fixed to the sample container:

AA-BB-CC-DD-EE

AA: This set of initials indicates an abbreviation for the Site from which the sample was collected.
BB This set of initials represents the type of sample (e.g., SB for soil boring and MW for monitoring well)
CC: These initials identify the unique sample location number.
DD: These initials identify the sample start depth (if soil sample)
EE These initials identify the sample end depth (if soil sample)

Each sample will be labeled, chemically preserved (if required) and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection when possible. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers. The sample label will give the following information:

- Date and time of collection
- Sample identification
- Analysis required
- Project name/number
- Preservation

Sample tags attached to or affixed around the sample container must be used to properly identify all samples collected in the field. The sample tags are to be placed on the bottles so as not to obscure any QC lot numbers on the bottles; sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross-reference with the logbook. For chain-of-custody purposes, all QC samples are subject to exactly the same custodial procedures and documentation as "real" samples.

12.2 Chain of Custody

This section describes standard operating procedures for sample identification and chain-of-custody to be utilized for all field activities. The purpose of these procedures is to ensure that the quality of the samples is maintained during their collection, transportation, and storage through analysis. All chain-of-custody requirements comply with standard operating procedures indicated in USEPA sample handling protocol.

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field notebooks;
- Sample label; and
- Chain-of-custody records.

The primary objective of the chain-of-custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of all required analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

As few persons as possible should handle samples. Sample bottles will be obtained pre-cleaned from the a laboratory. Sample containers should only be opened immediately prior to sample collection. The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules. The sample collector will record sample data in the field notebook and/or field logs.

The chain-of-custody record must be fully completed in duplicate, using black carbon paper where possible, by the field technician who has been designated by the project manager as responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints on the chain of custody.

12.3 Transfer of Custody and Shipment

The coolers in which the samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the chain-of-custody record. This record documents sample custody transfer.

Shipping containers must be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are entered on the chain-of-custody.

All shipments must be accompanied by the chain-of-custody record identifying their contents. The original record accompanies the shipment. The other copies are distributed appropriately to the site manager.

12.4 Custody Seals

Custody seals are preprinted adhesive-backed seals. Sample shipping containers (coolers, cardboard boxes, etc., as appropriate) are sealed in as many places as necessary to ensure security.

Seals must be signed and dated before shipment. On receipt at the laboratory, the custodian must check (and certify, by completing the package receipt log and LABMIS entries) that seals on boxes and bottles are intact. Strapping tape should be placed over the seals to ensure that seals are not accidentally broken during shipment.

12.5 Sample Packaging

Samples must be packaged carefully to avoid breakage or contamination and must be shipped to the laboratory at proper temperatures. The following sample packaging requirements will be followed:

- Sample bottle lids must never be mixed. All sample lids must stay with the original containers.
- The label should not cover any bottle preparation QC lot numbers.
- All sample bottles are placed in a plastic bag and/or individual bubble wrap sleeves to minimize the potential for cross-contamination and breaking.
- Shipping coolers must be partially filled with packing materials and ice when required, to prevent the bottles from moving during shipment.
- The sample bottles must be placed in the cooler in such a way as to ensure that they do not directly come in contact with other samples. Ice will be added to the cooler to ensure that the samples reach the laboratory at temperatures no greater than 4°C.
- Any remaining space in the cooler should be filled with inert packing material. Under no circumstances should material such as sawdust, sand, etc., be used.
- A chain of custody record must be placed in a plastic bag inside the cooler. Custody seals must be affixed to the sample cooler.

12.6 Sample Shipment

Shipping containers are to be custody-sealed for shipment as appropriate. The container custody seal will consist of tape wrapped around the package and custody seals affixed in such a way that access to the container can be gained only by cutting the filament tape and breaking the seal. Chain of custody seals shall be placed on the container, signed, and dated prior to taping the container to ensure the chain of custody seals will not be destroyed during shipment. In addition, the coolers must also be labeled and placarded in accordance with DOT regulations if shipping medium and high hazard samples.

Field personnel will make arrangements for transportation of samples to the lab. The lab must be notified as early as possible regarding samples intended for Saturday delivery. The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States DOT in the Code of Federal Regulation, 49 CFR 171 through 177. All samples will be delivered to the laboratory and analyzed within the holding times specified by the analytical method for that particular analyte.

All chain-of-custody requirements must comply with standard operating procedures in the USEPA sample handling protocol.

12.7 Laboratory Custody Procedures

A designated sample custodian accepts custody of the shipped samples and verifies that the sample identification number matches that on the chain-of-custody record and traffic reports, if required. Pertinent information as to shipment, pickup, and courier is entered on the chain of custody or attached forms.

13.0 DELIVERABLES

This section will describe laboratory requirement and procedures to be followed for laboratory analysis. Samples collected in New York State will be analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory. When required, analyses will be conducted in accordance with the most current NYSDEC Analytical Services Protocol (ASP). For example, ASP Category B reports will be completed by the laboratory for samples representing the final delineation of the Remedial Investigation, confirmation samples, samples to determine closure of a system, and correlation samples taken using field testing technologies analyzed by an ELAP-certified laboratory to determine correlation to field results. Data Usability Summary Reports will be completed by a third party for samples requiring ASP Category B format reports. Electronic data deliverables (EDDs) will also be generated by the laboratory in EQUIS format for samples requiring ASP Category B format reports.

NYSDEC DER-10 DUSR requirements are as follows:

a) Background. The Data Usability Summary Report (DUSR) provides a thorough evaluation of analytical data with the primary objective to determine whether or not the data, as presented, meets the site/project specific criteria for data quality and data use.

    1. The development of the DUSR must be carried out by an experienced environmental scientists, such as the project Quality Assurance Officer, who is fully capable of conducting a full data validation. The DUSR is developed from:

        i. A DEC ASP Category B Data Deliverable; or
        ii. The *USEPA Contract Laboratory Program National Functional Data Validation Standard Operating Procedures for Data Evaluation and Validation.*

    2. The DUSR and the data deliverables package will be reviewed by DER staff. If full third party data validation is found to be necessary (e.g. pending litigation) this can be carried out at a later data on the same data package used for the development of the DUSR.

b) Personnel Requirements. The person preparing the DUSR must be pre-approved by DER. The person must submit their qualifications to DER documenting experience in analysis and data validation. Data validator qualifications are available on DEC's website identified in the table of contents.
c) Preparation of a DUSR. The DUSR is developed by reviewing and evaluating the analytical data package. In order for the DUSR to be acceptable, during the course of this review the following questions applicable to the analysis being reviewed must be answered in the affirmative.

        1. Is the data package complete as defined under the requirements for the most current DEC ASP Category B or USEPA CLP data deliverables?

2. Have all holding times been met?
3. Do all the QC data; blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?
4. Have all of the data been generated using established and agreed upon analytical protocols?
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?
6. Have the correct data qualifiers been used and are they consistent with the most current DEC ASP?
7. Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?

d) Documenting the validation process in the DUSR. Once the data package has been reviewed and the above questions asked and answered the DUSR proceeds to describe the samples and the analytical parameters, including data deficiencies, analytical protocol deviations and quality control problems are identified and their effect on the data is discussed.

14.0 EQUIPMENT CALIBRATION

All instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set forth in the applicable analytical methodology references. Operation, calibration, and maintenance will be performed by personnel properly trained in these procedures. Section 11 lists the major instruments to be used for sampling and analysis. In addition, brief descriptions of calibration procedures for major field and laboratory instruments follow.

14.1 Photovac/MiniRae Photoionization Detector (PID)

Standard operating procedures for the PID require that routine maintenance and calibration be performed every six months. Field calibration will be performed on a daily basis. The packages used for calibration are non-toxic analyzed gas mixtures available in pressurized containers. All calibration procedures will follow the manufacturer recommendations.

14.2 Conductance, Temperature, and pH Tester

Temperature and conductance instruments are factory calibrated. Temperature accuracy can be checked against an NBS certified thermometer prior to field use if necessary. Conductance accuracy may be checked with a solution of known conductance and recalibration can be instituted, if necessary.

14.3 O_2/Explosimeter

The specific meter used at the time of work shall be calibrated in accordance with manufacturer recommendations. The model 260 O_2/ Explosimeter is described below.

The primary maintenance item of the Model 260 is the rechargeable 2.4 volt (V) nickel cadmium battery. The battery is recharged by removing the screw cap covering receptacle and connecting one end of the charging cable to the instrument and the other end to a 115V AC outlet.

The battery can also be recharged using a 12V DC source. An accessory battery charging cable is available, one end of which plugs into the Model 260 while the other end is fitted with an automobile cigarette lighter plug.

Recommended charging time is 16 hours.

Before the calibration of the combustible gas indicator can be checked, the Model 260 must be in operating condition. Calibration check-adjustment is made as follows:

1. Attach the flow control to the recommended calibration gas tank.
2. Connect the adapter-hose to the flow control.
3. Open flow control valve.
4. Connect the adapter-hose fitting to the inlet of the instrument; after about 15 seconds the LEL meter pointer should be stable and within the range specified on the calibration sheet accompanying the calibration equipment. If the meter pointer is not in the correct range, stop the flow; remove the right hand side cover. Turn on the flow and adjust the "S" control with a small screwdriver to obtain a reading as specified on the calibration sheet.
5. Disconnect the adapter-hose fitting from the instrument.
6. Close the flow control valve.
7. Remove the adapter-hose from the flow control.
8. Remove the flow control from the calibration gas tank.
9. Replace the side cover on the Model 260.

CAUTION: Calibration gas tank contents are under pressure. Use no oil, grease, or flammable solvents on the flow control or the calibration gas tank. Do not store calibration gas tank near heat or fire or in rooms used for habitation. Do not throw in fire, incinerate, or puncture. Keep out of reach of children. It is illegal and hazardous to refill this tank. Do not attach the calibration gas tank to any other apparatus than described above. Do not attach any gas tank other than MSA calibration tanks to the regulator.

14.4 Nephelometer (Turbidity Meter)

LaMotte 2020WE Turbidity Meter is calibrated before each use. The default units are set to NTU and the default calibration curve is formazin. A 0 NTU Standard (Code 1480) is included with the meter. To calibrate, rinse a clean tube three times with the blank. Fill the tube to the fill line with the blank. Insert the tube into the chamber, close the lid, and select “scan blank”.

TABLE 14-4
List of Major Instruments
for Sampling and Analysis

- MSA 360 0_2 /Explosimeter
- Geotech Geopump II AC/DC Peristaltic Pump
- QED MP50 Controller and QED Sample Pro MicroPurge Bladder Pimp
- Horiba U-53 Multi-Parameter Water Quality Meter
- LaMotte 2020WE Turbidity Meter
- EM-31 Geomics Electromagnetic Induction Device
- Mini Rae Photoionization Detectors (3,000, ppbRAE, etc.)

15.0 INTERNAL QUALITY CONTROL CHECKS

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of field equipment. Field-based QC will comprise at least 10% of each data set generated and will consist of standards, replicates, spikes, and blanks. Field duplicates and field blanks will be analyzed by the laboratory as samples and will not necessarily be identified to the laboratory as duplicates or blanks. For each matrix, field duplicates will be provided at a rate of one per 10 samples collected or one per shipment, whichever is greater. Field blanks which may consist of trip, routine field, and/or rinsate blanks will be provided at a rate of one per 20 samples collected for each media, or one per shipment, whichever is greater. Frequency of QC data may vary from project to project; refer to the project-specific work plan for QC requirements.

Calculations will be performed for recoveries and standard deviations along with review of retention times, response factors, chromatograms, calibration, tuning, and all other QC information generated. All QC data, including split samples, will be documented in the site logbook and/or appropriate field logs. QC records will be retained and results reported with sample data.

15.1 Field Blanks

Various types of blanks are used to check the cleanliness of field handling methods. The following types of blanks may be used: the trip blank, the routine field blank, and the field equipment blank. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination. Field staff may add blanks if field circumstances are such that they consider normal procedures are not sufficient to prevent or control sample contamination, or at the direction of the project manager. Rigorous documentation of all blanks in the site logbooks is mandatory.

- **Routine Field Blanks** or bottle blanks are blank samples prepared in the field to access ambient field conditions. They will be prepared by filling empty sample containers with deionized water and any necessary preservatives. They will be handled like a sample

and shipped to the laboratory for analysis.

- **Trip Blanks** are similar to routine field blanks with the exception that they are **not** exposed to field conditions. Their analytical results give the overall level of contamination from everything except ambient field conditions. For the RI/FS, one trip blank will be collected with every shipment of water samples for VOC analysis. Each trip blank will be prepared by filling a 40-ml vial with deionized water prior to the sampling trip, transported to the site, handled like a sample, and returned to the laboratory for analysis without being opened in the field. Trip blanks may be provided by the laboratory, shipped with the bottleware, and kept with the sampling containers until analysis.
- **Field Equipment Blanks** are blank samples (sometimes called transfer blanks or rinsate blanks) designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use, and that cleaning procedures between samples are sufficient to minimize cross contamination. If a sampling team is familiar with a particular site, they may be able to predict which areas or samples are likely to have the highest concentration of contaminants. Unless other constraints apply, these samples should be taken last to avoid excessive contamination of sampling equipment.

15.2 Duplicates

Duplicate samples are collected to check the consistency of sampling and analysis procedures. The following types of duplicates may be collected.

- **Blind duplicate** samples consist of a set of two samples collected independently at a sampling location during a single sampling event. Blind duplicates are designed to assess the consistency of the overall sampling and analytical system. Blind duplicate samples should not be distinguishable by the person performing the analysis.
- **Matrix Spike and Matrix Spike Duplicates (MS/MSDs)** consist of a set of three samples collected independently at a sampling location during a single sampling event. These samples are for laboratory quality control checks.

APPENDIX G – HEALTH AND SAFETY PLAN

Health and Safety Plan

Rochester Community Sports Complex (RCSC)
(Former Erie Canal Industrial Park (ECIP))
NYSDEC Site # V00099

Location:

900 West Broad Street, 524, 565, and 559 Oak Street, and 488 Smith Street
Rochester, New York

LaBella Project No. 2210038

September 3, 2023

LaBella
Powered by partnership.

300 State Street, Suite 201 | Rochester, NY 14614 | p 585-454-6110 | f 585-454-3066

Table of Contents

SITE HEALTH AND SAFETY PLAN

Project Title:	Rochester Community Sports Complex (RCSC) (Former Erie Canal Industrial Park (ECIP)
Project Number:	2233413
Project Location (Site):	900 West Broad Street, 524, 565, and 559 Oak Street, and 488 Smith Street, City of Rochester, Monroe County, New York
Environmental Director:	Gregory Senecal, CHMM
Project Manager:	Michael F. Pelychaty, P.G.
Plan Review Date:	_____
Plan Approval Date:	_____
Plan Approved By:	_____
Site Safety Supervisor:	To Be Determined
Site Contact:	To Be Determined
Safety Director:	Catherine Monian
Proposed Date(s) of Field Activities:	To Be Determined
Site Conditions:	Approximately 18 acres including a sports stadium with associated structures and parking lots
Site Environmental Information Provided By:	Various previous reports (see SMP)
Air Monitoring Provided By:	LaBella Associates, D.P.C.
Site Control Provided By:	To Be Determined

EMERGENCY CONTACTS

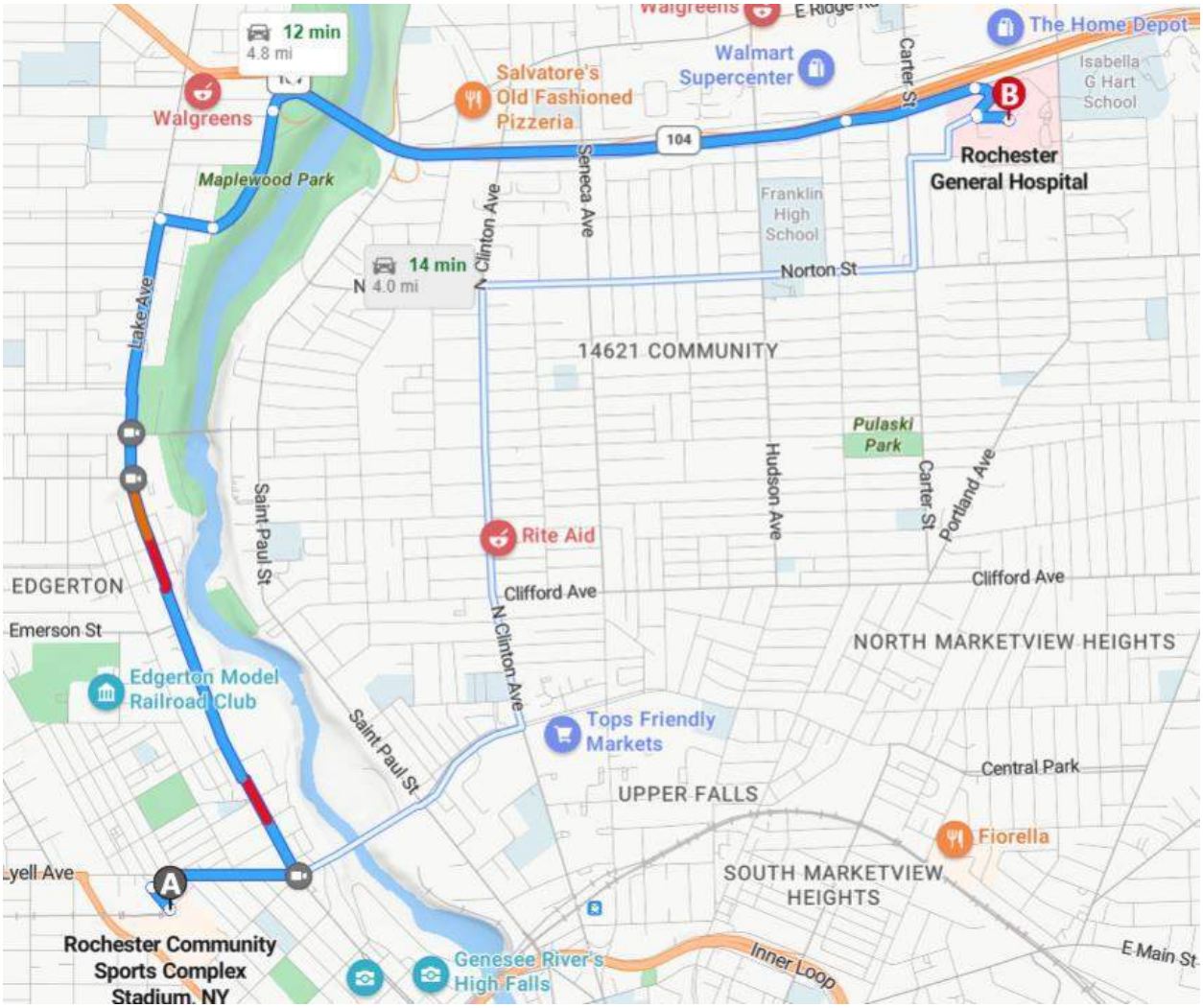
	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	Rochester General Hospital	585-922-4000
Poison Control Center:	Finger Lakes Poison Control	585-273-4621
Police (local, state):	City of Rochester	911
Fire Department:	City of Rochester	911
Site Contact:	To Be determined	
Agency Contact:	To be Determined	
Environmental Director:	Greg Senecal, CHMM	585-295-6243
Project Manager:	Michael F. Pelychaty, P.G.	585-295-6253
Site Safety Supervisor:	To Be Determined	
Safety Director	Catherine Monian	845-486-1557

MAP AND DIRECTIONS TO THE MEDICAL FACILITY - ROCHESTER GENERAL HOSPITAL

Estimated Total Time: 12 minutes
Estimated Total Distance: 4.8 miles

1. Head Northwest on Oak Street
2. Turn right onto Lyell Ave
3. Turn left onto Lake Ave
4. Turn right onto Seneca Pkwy
5. Take ramp on right onto NY-104 East
6. Take ramp on right for State Highway 104 and head toward Carter St/ Portland Ave
7. Bear right, then turn right onto Rochester General Hospital Dr
8. Turn left and arrive at 1425 Portland Ave

End: ROCHESTER GENERAL HOSPITAL, 1425 PORTLAND AVE, ROCHESTER, NY



1.0 INTRODUCTION

The purpose of this Health and Safety Plan (HASP) it to provide guidelines for responding to potential health and safety issues that may be encountered during the implementation of the Site Management Plan (SMP) at the Rochester Community Sports Complex (RCSC) (Former Erie Canal Industrial Park (ECIP)) located at 900 West Broad Street, 524, 565, and 559 Oak Street, and 488 Smith Street in Rochester, NY herein after referred to as the "Site." This HASP only reflects the policies of LaBella Associates D.P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications and the Community Air Monitoring Plan (CAMP) are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP were developed in general accordance with 29 CFR 1910 and 29 CFR 1926 and do not replace or supersede any regulatory requirements of the USEPA, NYSDEC, OSHA or and other regulatory body.

2.0 RESPONSIBILITIES

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

3.0 ACTIVITIES COVERED

The activities covered under this HASP are limited to the following:

- Environmental Monitoring
- Collection of samples
- Management of excavated soil and fill
- Periodic Site inspections

4.0 WORK AREA ACCESS AND SITE CONTROL

The contractor(s) will have primary responsibility for work area access and site control. However, a minimum requirement for work area designation and control will consist of:

- Drilling (Geoprobe/Rotary) – Orange cones to establish at least a 10-foot by 10-foot work area
- Test Pitting – Orange cones and orange temporary fencing to establish at least 10-feet of distance between test pit and fencing.
- Surface soil and soil gas sampling - Orange cones to establish at least a 10-foot by 10-foot work area

5.0 POTENTIAL HEALTH AND SAFETY HAZARDS

This section lists some potential health and safety hazards that project personnel may encounter at the project site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and his or her instructions must be followed.

5.1 Hazards Due to Heavy Machinery

Potential Hazard:
Heavy machinery including trucks, excavators, backhoes, etc. will be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery.

Protective Action:
Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses and steel toe shoes are required.

5.2 Excavation Hazards

Potential Hazard:
Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

Protective Action:
Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable. All excavations will be backfilled by the end of each day. Additionally, no test pit will be left unattended during the day.

Fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

5.3 *Cuts, Punctures and Other Injuries*

Potential Hazard:
In any excavation or construction, work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

Protective Action:
The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment in not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer

5.4 *Injury Due to Exposure of Chemical Hazards*

Potential Hazards:
Volatile organic vapors from petroleum products, chlorinated solvents or other chemicals may be encountered during excavation activities at the project work site. Inhalation of high concentrations of organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis.

Protective Action:
The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0) of the work area will be performed at least every 60 minutes or more often using a Photoionization Detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 ppm consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm is encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

5.5 *Injuries Due to Extreme Hot or Cold Weather Conditions*

Potential Hazards:
Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

Protective Action:
Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

5.6 Potential Exposure to Asbestos

Potential Hazards:
During ground intrusive activities (e.g., test pitting or drilling) soil containing asbestos may be encountered. Asbestos is friable when dry and can be inhaled when exposed to air.

Protective Action:
The presence of asbestos can be identified through visual observation of a white magnesium silicate material. If encountered, work should be halted and a sample of the suspected asbestos should be collected and placed in a plastic sealable bag. This sample should be sent to the asbestos laboratory at LaBella Associates for analysis.

6.0 WORK ZONES

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.4), the following work zones should be established:

Exclusion Zone (EZ):
The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

Contaminant Reduction Zone (CRZ):
The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

7.0 DECONTAMINATION PROCEDRUES

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on site.

Personnel will use the contractor's disposal container for disposal of PPE.

8.0 PERSONAL PROTECTECTIVE EQUIPMENT (PPE)

Generally, site conditions at this work site require level of protection of Level D or modified Level D. However, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

Level D:
Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

Level C:
Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [*Note: Organic vapor cartridges are to be changed after each 8-hours of use or more frequently.*]

9.0 AIR MONITORING

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring identified in this HASP is only intended to monitor air for workers involved with the RI. Please refer to the Site Specific CAMP for further details on air monitoring at the Site required for protection of the Site occupants and neighboring properties.

The Air Monitor will utilize a photoionization Detector (PID) to screen the ambient air in the work areas for total Volatile Organic Compounds (VOCs), a DustTrak tm Model 8520 aerosol monitor or equivalent for measuring particulates. [*Note: Radiation monitoring requirements are identified in 5.7 above.*] Air monitoring of the work areas will be performed at least every 15 minutes or more often using a PID, and the DustTrak meter.

If sustained PID readings of greater than 10 ppm are recorded in the breathing zone, then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hours of use or more frequently, if necessary. If PID readings are sustained, in the work area, at levels above 10 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B).

If dust concentrations exceed the upwind concentration by 150 µg/m^3 (0.15 mg/m^3) consistently for a 10 minute period within the work area or at the downwind location, then LaBella personnel may not re-enter the work area until dust concentrations in the work area decrease below 150 µg/m^3 (0.15 mg/m^3), which may be accomplished by the construction manager implementing dust control or suppression measures.

10.0 EMERGENCY ACTION PLAN

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible and wait at the assigned 'safe area'. Follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

11.0 MEDICAL SURVEILLANCE

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

12.0 EMPLOYEE TRAINING

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

Individuals involved with the remedial investigation must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

Table
Exposure Limits and Recognition Qualities

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL	LEL (%)(e)	UEL (%)(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential	^{232}Thorium Action Level
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69	NA
Anthracene	0.2	0.2	NA	NA	NA	NA	Faint aromatic	NA	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24	NA
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	NA	700	NA	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88	NA
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong garlic type	0.096	10.07	NA
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07	NA
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65	NA
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07	NA
Ethylbenzene	100	100	NA	1	6.7	2,000	Ether	2.3	8.76	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35	NA
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12	NA
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82	NA
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45	NA
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56	NA
Metals										
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	Almond	NA	NA	NA
Cadmium	0.2	0.5	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	1	0.5	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.05	0.15	NA	NA	NA	700	NA	NA	NA	NA
Mercury	0.05	0.05	NA	NA	NA	28	Odorless	NA	NA	NA
Selenium	0.2	0.02	NA	NA	NA	Unknown	NA	NA	NA	NA
Other										
Asbestos	0.1 (f/cc)	NA	1.0 (f/cc)	NA	NA	NA	NA	NA	NA	NA

(a) Skin = Skin Absorption
(b) OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990
(c) ACGIH – 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003.
(e) Lower Exposure Limit (%)
(f) Upper Exposure Limit (%)
(g) Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990.

Notes:
1. All values are given in parts per million (PPM) unless otherwise indicated.
2. Ca = Possible Human Carcinogen, no IDLH information.

APPENDIX H - COMMUNITY AIR MONITORING PLAN

APPENDIX 1A

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

APPENDIX I - SITE MANAGEMENT FORMS

COVER SYSTEM INSPECTION FORM

PROJECT NAME: _____

LOCTION: _____

PROJECT NO.: _____

INSPECTED BY: _____

DATE: _____

WEATHER: _____

COVER TYPE	OVERALL CONDITION (GOOD, FAIR, POOR)	ANY LOCATIONS REQUIRE REPAIR OR MAINTENANCE?	ANY CHANGES MADE TO COVER/ CAP SINCE PREVIOUS INSPECTION?	COMMENTS
SOIL COVER		YES / NO	YES / NO	
ASPHALT		YES / NO	YES / NO	
TURF		YES / NO	YES / NO	
GRAVEL		YES / NO	YES / NO	
BUILDING SLABS		YES / NO	YES / NO	
CONCRETE		YES / NO	YES / NO	

Additional Notes:

NON-ROUTINE MAINTENANCE FORM

PROJECT NAME: _____

LOCTION: _____

ENGINEERING CONTROL REQUIRING NON-ROUTINE MAINTENANCE: ☐ COVER SYSTEM ☐ VAPOR SUPPRESSION SYSTEM

NAME/ COMPANY/ POSITION OF PERSON CONDUCTING MAINTENANCE: _____

DATE OF MAINTENANCE: _____

WEATHER: _____

SUMMARY OF MAINTENANCE ACTIVITIES PERFORMED: _____

_____

MODIFICATIONS MADE TO ENGINEERING CONTROL: _____

_____

ADDITIONAL NOTES: _____

_____

Attach relevant sketches showing location(s) of any problems or incidents noted.
Attach relevant documentation such as copies of invoices for maintenance work, receipts of replacement equipment, etc..

ROUTINE MAINTENANCE FORM

PROJECT NAME: _____

LOCTION: _____

ENGINEERING CONTROL REQUIRING ROUTINE MAINTENANCE: ☐ COVER SYSTEM ☐ VAPOR SUPPRESSION SYSTEM

NAME/ COMPANY/ POSITION OF PERSON CONDUCTING MAINTENANCE: _____

DATE OF MAINTENANCE: _____

WEATHER: _____

SUMMARY OF MAINTENANCE ACTIVITIES PERFORMED: _____

_____

MODIFICATIONS MADE TO ENGINEERING CONTROL: _____

_____

ADDITIONAL NOTES: _____

_____

Attach relevant sketches showing location(s) of any problems or incidents noted.
Attach relevant documentation such as copies of invoices for maintenance work, receipts of replacement equipment, etc..

Summary of Green Remediation Metrics for Site Management

Site Name: _____ Site Code: _____
Address: _____ City: _____
State: _____ Zip Code: _____ County: _____

Initial Report Period (Start Date of period covered by the Initial Report submittal)
Start Date: _____

Current Reporting Period
Reporting Period From: _____ To: _____

Contact Information
Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____

I. **Energy Usage:** Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	Total to Date
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal (Btu))		

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

II. **Solid Waste Generation:** Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	Total to Date (tons)
Total waste generated on-site		
OM&M generated waste		
Of that total amount, provide quantity:		
Transported off-site to landfills		
Transported off-site to other disposal facilities		
Transported off-site for recycling/reuse		
Reused on-site		

Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.

III. **Transportation/Shipping:** Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	Total to Date (miles)
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.

IV. **Water Usage:** Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	Total to Date (gallons)
Total quantity of water used on-site		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.

V. **Land Use and Ecosystems:** Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	Total to Date (acres)
Land disturbed		
Land restored		

Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Other:

CONTRACTOR CERTIFICATION
I, _____ (**Name**) do hereby certify that I am _____ (**Title**) of _____ (**Contractor Name**), which is responsible for the work documented on this form. According to my knowledge and belief, all of the information provided in this form is accurate and the site management program complies with the DER-10, DER-31, and CP-49 policies. _____ **Date** **Contractor**

APPENDIX J - REQUEST TO IMPORT/REUSE FILL MATERIAL FORM

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

_____ _____

Signature Date

_____

Print Name

_____

Firm

Revised August 2014

~~APPENDIX J - REMEDIAL SYSTEM OPTIMIZATION TABLE OF CONTENTS~~

~~REMEDIAL SYSTEM OPTIMIZATION FOR ROCHESTER COMMUNITY SPORTS COMPLEX (RCSC), FORMER ERIE CANAL INDUSTRIAL PARK (ECIP)~~

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~~APPENDIX [x]~~

~~PERMITS AND/OR PERMIT EQUIVALENT~~