

SOIL MANAGEMENT PLAN

**CORN HILL LANDING
EXCHANGE BOULEVARD
ROCHESTER, NEW YORK**

OCTOBER 1999

Prepared For:

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1.0 Introduction

1.1 Purpose

This Soil Management Plan has been developed at the request of the City of Rochester and pertains to the Corn Hill Landing site located on Exchange Boulevard in the City of Rochester, New York (Drawing EN1). It has been developed to assist the City, its developers and designers in planning for development, monitoring, management and characterization of fill materials that will be excavated during site development activities at the subject property.

The subject property (approximately 6 acres) is located adjacent to the west bank of the Genesee River and the east side of Exchange Boulevard in the City of Rochester, New York. The subject property was historically used as a railroad yard and depot for a period of about 100 years. A variety of industrial uses were historically situated adjacent to, or partially on, the subject property. Available records indicate that various industrial buildings, rail lines and petroleum tanks were located adjacent to, or on, the subject property. Historical features have been removed from the subject property. Currently, the northern portion of the property is improved with a municipal parking lot. Immediately south of this parking lot is the Sam Patch Boat Tours parking lot and associated ticket booth. The southern portion of the subject property is improved with a paved pedestrian walkway.

The subject property is proposed for redevelopment with a mixture of commercial and high end residential apartment buildings (Drawings EN2A and EN2B). Four of the six buildings will contain parking areas that will be partially underground (estimated 4 ft). The remaining two buildings are proposed to be slab on grade structures. In addition, recreational amenities involving boating and outdoor activities are proposed. The proposed developer of the site, Mark IV, will retain ownership and complete control over the management of the property. Development will require that some soil/fill materials present on the subject property be excavated and properly managed. In addition, because of the proposed residential use, clean fill will be required to be placed over the proposed landscaped areas in order to minimize the potential for direct exposure to the fill.

New York State Department of Environmental Conservation (DEC) regulations require management of hazardous and non-hazardous solid waste as contained in 6 NYCRR Parts 371-376 and 6 NYCRR Part 360, respectively. Proper management will require that care be taken in planning, monitoring and characterizing the soil/fill materials to confirm their non-hazardous status and allow for proper off-site disposal or relocation on site. This Soil Management Plan provides guidance for planning and performing such monitoring, testing, and management of excavated soil fill materials at the Corn Hill Landing site.

1.2 *Background*

Sear-Brown conducted a Phase I Environmental Site Assessment (ESA) of the subject property which was summarized in a report dated May 1999. The Phase I ESA identified several potential environmental concerns associated with the historic uses of the subject property which are summarized in the attached Corrective Action Plan. The potential environmental concerns identified during the Phase I ESA warranted the completion of a Phase II Environmental Investigation on the property. Sear-Brown completed the Phase II Investigation between April and June 1999. The program included the installation of 28 soil gas probes, excavation of 59 test pits, and the installation of 10 monitoring wells and 7 small diameter soil and groundwater monitoring points.

Based on these previous investigations, the following site specific issues were identified:

- *Petroleum-affected Soil and Groundwater:* An area of petroleum-impacted soil and groundwater located near the Sam Patch Boat Tours site. The source was identified as a spill that occurred in 1991 when a backhoe ruptured an abandoned 4,000-gallon fuel oil UST.

Corrective actions with regards to the petroleum-affected soil and groundwater near the Sam Patch Boat Tours site are presented in the attached Corrective Action Plan (CAP). The proposed activities include excavation and off-site disposal of petroleum affected soil, pumping and off-site disposal of petroleum affected groundwater, and the implementation of possible engineering controls and long term monitoring.

- *Site-Wide Fill and Surficial Materials:* Approximately 4 to 6 feet of fill material, consisting of black, cinder-rich fill, with varying amounts of slag, coal dust, sand and gravel were observed across the subject property. These fill materials on various portions of the site exceed DEC recommended soil cleanup objectives for certain metals, and semi-volatile organic compounds (SVOCs). In addition, lubricating oil has been reported in various soil samples although a specific guidance value has not been established by the DEC. The SVOCs reported were generally polycyclic aromatic hydrocarbons (PAHs) that are commonly formed during the incomplete combustion of coal, petroleum products and other organic substances. These types of analytical findings (metals, PAHs and lubricating oil) are typical of former railroad yards. These compounds are relatively insoluble in water and do not generally leach into, or migrate via, groundwater in any appreciable concentrations. However, metals and SVOCs in soils can present inhalation and ingestion concerns via wind-blown dust or direct contact exposure pathways.

Given these findings and the proposed mixed-use redevelopment of the site, this Soil Management Plan was developed to aid the property developers in properly handling and managing the impacted fill materials.

2.0 Development and Pre-Excavation Planning

2.1 Existing Information – Site Wide Fill Materials

Site development and excavation planning will need to incorporate information from the previous investigation and the intended location of proposed development. Drawings EN2A & EN2B present the locations of investigation points performed during the Phase II program. These drawings also present an outline of the conceptual development plans and proposed use of buildings. Those areas that are expected to be landscaped are shaded. The following is a summary of the findings from the past investigation.

Chemical Data

In general, samples of the black cinder-rich fill from a number of test pit and soil boring locations on the subject property contain reported concentrations of various semi-volatile organic compounds, RCRA metals and lubricating oil. A total of 24 soil samples were submitted and analyzed. In addition, low levels of volatile organic compounds were reported (see Tables 1 through 4).

Review of volatile organic soil data (see Tables 1 and 2) revealed the presence of several low-level petroleum based compounds: ethylbenzene, cumene, n-butylbenzene, n-propylbenzene, sec-butylbenzene and naphthalene. The occurrence of these constituents was primarily in the central portion of the site (TP-37, 38, 54 and GP-106). Exceedance of DEC soil guidance values for petroleum compounds were found only at GP-106 in the area of the petroleum spill described in Section 1.2. Three other non-petroleum based volatile organic compounds (VOCs) were also detected at low concentrations, however each of them were below their respective recommended soil cleanup objectives.

Review of SVOC soil data revealed the presence of 15 compounds. Five SVOCs were reported at TP-10, TP-27, TP-45, TP-47 and 48 and MW-7 at concentrations that exceed their respective DEC recommended soil cleanup objectives (see Table 3). The SVOCs reported were primarily polycyclic aromatic hydrocarbons (PAHs) that are commonly formed during the incomplete combustion of coal, petroleum products and other organic substances. Historically, the site had considerable coal storage and coal fragments were observed in fill materials on site.

Lubricating oil was reported in soil at 11 locations and fuel oil #2 was reported at three locations. The estimated concentrations of lubricating oil and fuel oil ranged from 33 to 230 mg/kg and 420 to 970 mg/kg, respectively. There are no soil guidance values that have been published by DEC for lubricating oil or fuel oil concentrations in soil. However, the three locations containing fuel oil, TP-54, MW-8 and GP-106 are proposed for remediation as part of the attached Corrective Action Plan.

Review of RCRA metals data (see Table 4) revealed four metals (arsenic, lead, mercury and selenium) reported at concentrations that exceed DEC recommended soil cleanup objectives and their naturally occurring Eastern USA background range (see Table 4). The exceedance of one or more metals occurred at a total of 16 locations. It is not unusual to find elevated metals concentrations in cinder-rich fill at former rail yards. In order to further evaluate the potential significance of the elevated metals data, two soil samples (TP-52E and TP-57) were submitted for supplemental analysis involving the Toxicity Characteristic Leaching Procedure (TCLP) for RCRA metals. In particular, the sample from TP-57 was selected due to its proximity to the former Rochester Lead Works and its 2100 mg/kg total lead concentration. Results of the TCLP analyses revealed none of the elevated metals were present in the TCLP extract and, therefore, they did not exceed their respective hazardous waste thresholds. As such, these four metals do not appear to present a hazardous waste site contamination concern.

Soil-Fill Data/Hydrogeology

The site contains a thick layer of relatively permeable but largely unsaturated coarse-textured fill which is underlain by a silt-dominated, low permeability river alluvium. The fill consists of brown to black silty sand with abundant slag, gravel, metal, brick, coal, cinders and ash, and limited wood. The total thickness of fill materials varies widely across the site from 2.5 ft to 16 ft. The estimates of fill thickness are based upon logging of test borings and test pits (see Appendices A and B). As observed in test pits, groundwater typically occurred as seeps at the base of the fill interval. These seeps were more abundant in the northerly portions of the site, especially in gravelly fill deposits (TP-22 and TP-23). Conversely, groundwater infiltration in test pits at the southerly portion of the site occurred more slowly and was more commonly noted at the top of rock. The site is consequently characterized by variable depths to water and apparent variation in hydraulic conductivities.

2.2 Construction/Design Considerations

Past investigations and laboratory analyses at the Corn Hill Landing site have shown that the fill materials present at the site consist of non-hazardous solid waste. However, the possibility that hazardous materials exist on site cannot be ruled out. Any waste material that is excavated during construction or site development must therefore be properly managed. The development process can be simplified by pre-planning how the fill will be handled during necessary excavation and construction.

If hazardous waste is encountered as part of the excavation program, it cannot be replaced on the site and must be properly characterized, managed and disposed of off-site at a permitted facility.

Based on a concept plan prepared by The Cavendish Partnership dated June 8, 1999, a preliminary grading plan was prepared by Sear-Brown on September 28, 1999, in conjunction with the adjacent Genesee River wall design which is scheduled to be reconstructed by the NYS Canal Corporation during the year 2000. Working with the dimensioned building footprints provided by Barkstrom & LaCroix Architects dated July 27, 1999 and the site layout, finished grade elevations were established for the buildings and incorporated into the design with the river wall final grading plan. The plans were reviewed with the developer, Mark IV Construction, on September 23, 1999 and were found to be substantially complete for this stage of the project. Site cross sections were then generated along the project work area to ensure the necessary cut and fill areas would be represented in the earthwork quantity.

At the time the preliminary earthwork analysis was prepared, the following assumptions were included:

- the top 6 inches of existing material would be removed to account for uncontaminated topsoil, gravel and pavement material;
- the existing soil may be re-distributed on-site with a combined 8" clean subsoil and 4" topsoil cap or a pavement cap;
- Based on the Phase II Environmental Investigation report, the off-site removal of 300 cubic yards of petroleum impacted soil has been accounted for;
- over-excavation of 3 feet on the building limits, 1 foot for building slab and 15 inches for road pavement and sub-base was accounted for;
- substantial over-excavation of the existing soil was not anticipated; and
- 15% compaction from in situ condition to an in-place fill condition has been incorporated.

Based on the foregoing, the total amount of earthwork for the site work is expected to generate 9,550 cubic yards of cut (including excess cut from the River Wall project) and 5,950 cubic yards of fill. The 5,950 cubic yards of fill material are proposed to be relocated from other portions of the site requiring cuts. Therefore, by subtracting out the 5,950 yards of fill required for the site work from the total cut quantity, it is estimated that 3,600 cubic yards of excess cut may need to be hauled off-site. It should be noted, however, that the final design of the project may affect these earthwork quantities.

As the project progresses, developers and design engineers for the planned development will need to continue to consider that the following construction elements may be affected by soil/fill management and waste characterization:

- Schedules: Scheduling of construction will need to allow for management of waste fill material that is excavated during the course of construction. Should unanticipated materials or conditions be observed during excavation work, sampling may be required. Sampling will entail laboratory analysis which typically takes from several days to several weeks to be completed. Therefore, construction

schedules and design plans should allow for adequate flexibility for sampling, segregation, and temporary stockpiling of unanticipated materials on-site.

- **Fill and Subsurface Variability:** Construction schedules should also provide both contingency time and measures to address variability in fill conditions and the presence of shallow groundwater. For example if hazardous conditions are encountered, additional safety measures and use of personal protection gear may be required. Excavation dewatering and work stoppage would also affect construction schedules and costs.

Measures designed to address these situations are described in further detail in Sections 3.0, 4.0 and 5.0.

3.0 Soil-Fill Characterization

3.1 Pre-Construction Sampling

Sufficient data is available at this time that it does not appear necessary to perform additional sampling prior to construction activities. Test pits and soil borings have been performed throughout the property and appear to provide sufficient coverage in anticipation of planned development.

3.2 Pre-Construction Excavation Sampling

As indicated previously, prior to the beginning of construction activities, the petroleum impacted soil/fill in a portion of the property near the Sam Patch Boat Tours will be excavated and the materials will be disposed of off-site. This area has been targeted because of elevated petroleum related VOC and TPH concentrations detected during previous investigations and is discussed in further detail in the CAP. Soil sampling will be conducted during the excavation of this area and samples will be submitted for analysis as specified in the CAP.

3.3 Construction Sampling

Sampling of excavated fill or subsurface materials during construction efforts should be considered if either of the following conditions are encountered:

- If conditions during construction are significantly different than those observed during pre-construction exploration, including unusual odors, or visual observations such as stained soils, drums, containers, etc.
- If concerns such as odors, sheens, or free-product are identified within soil or groundwater.

In these situations, sampling frequency and analyses would vary based on the types and quantities of material encountered. Typical analyses may include ignitability, corrosivity, reactivity, PCBs, and the toxicity characteristic leaching procedure (TCLP).

4.0 Monitoring During Excavation

Monitoring of materials being excavated during construction is generally needed for three purposes:

- Protection of health and safety of site workers during construction;
- To determine that soil-fill materials are consistent with pre-construction characterization; or
- If no pre-construction characterization was performed.

4.1 *Health and Safety Monitoring*

Past investigations have shown that fill materials will be encountered during construction activities. Based on the historical uses of the subject property, hazardous materials may potentially be encountered. These include materials that could be associated with the fill as well as materials that may be present in groundwater. General groups of chemicals that are associated with the fill and are considered as potentially hazardous materials subject to health and safety planning include:

- Volatile organic compounds - these include petroleum derived constituents;
- Semi-volatile organic compounds - these include polycyclic aromatic hydrocarbons (PAHs) which commonly result from incomplete combustion or organic matter including fossil fuels, such as coal or fuel oil, and are often found in ash, cinders, soot and coal tar pitch; and
- Heavy Metals - four heavy metals including arsenic, lead, mercury, and selenium are present in elevated concentrations in the fill materials.

Health and safety planning should also give consideration to other construction related issues, such as use of heavy equipment, weather conditions, confined space entry, excavation safety, and other construction-related OSHA regulations.

Health and safety planning should be performed prior to construction activities. This should include the preparation of a written Health and Safety Plan (HSP) for construction activities. The HSP would be based on the results of the previous chemical analyses, information specific to the proposed development, specific construction tasks to be completed, and the potential of exposure for site workers.

The use of OSHA-trained hazardous waste site workers during earthwork activities should be considered. Previous investigations show that overall, the potential for worker exposure exists, but is relatively low. However, all contractors and developers involved in earth moving and excavation activities should consider the need for health and safety planning relative to their specific tasks, and planned activities.

4.2 *Fill Monitoring*

Monitoring of fill and soil excavated during construction should be performed for two reasons:

- To determine that the soil/fill excavated during construction is consistent with the fill encountered during previous investigations; and
- to allow characterization of the non-hazardous or hazardous nature of solid waste excavated in the event that no previous investigation results are available for a specific area.

Monitoring should generally consist of documentation of visible characteristics of the soil/fill excavated including obvious staining, sheens, odors, or other indicators of contamination such as oils, tars or containers. It is recommended that construction monitoring by a trained individual such as an environmental engineer, scientist or geologist, be performed during all earth moving and excavation work.

Several portable monitoring instruments are available to assist in field monitoring of excavated materials. Such instruments are primarily used for detection of volatile organic compounds. Since volatile organics have been detected in the past at the subject property, this instrumentation is appropriate for construction excavation monitoring. Types of instruments available for this purpose include:

- Photoionization detector instruments (PID) - these instruments operate by pumping a sample of ambient air into a chamber where the air is ionized using a light source of specific energy (either 10.2, 10.7, or 11.7 eV). Such instruments include HNu's and Microtips.
- Flame ionization detector instruments (FID) - these instruments operate on a similar principle as the PIDs, however, ionization is caused by a flame produced by combusting hydrogen. The OVA manufactured by Foxboro is such an instrument.
- Colorimetric tubes - these are small glass tubes which contain chemical salts formulated to react with specific volatile and some non-volatile compounds such as heavy metals. A sample of air is drawn through a tube with the use of a hand pump. The presence of the target chemical causes a reaction and a color change to the chemical salts in the tube. The Draeger Tube system is such an instrument.
- Combustible gas meters/gas monitors – these instruments are capable of measuring combustible gases such as methane and hydrogen sulfide and would be used during construction activities if large amounts of organic materials such as railroad timbers are encountered and are to remain in place.

These types of instruments are readily available in the Rochester area and can be rented or purchased from several sources. However, these instruments should be operated by individuals trained and experienced in their use, limitations and capability for data generation. Readings generated from monitoring instruments should be recorded in the field along with visual observations. As long as excavation monitoring shows soil/fill material to be consistent with previous investigations, then the fill should be manageable as determined prior to construction. If conditions are different from those anticipated, then sampling and additional characterization may be necessary.

5.0 Management of Excavated Material

At this time, there is no preferred method for the management of soil/fill excavated during construction activities. In general, it is recommended that non-hazardous soil/fill excavated during foundation work, utility trenching work and other earth moving activities be either managed on-site or hauled off-site for disposal. However, if hazardous wastes are encountered, they cannot be reused on-site and will need to be disposed properly at an off-site location.

5.1 *On-Site Management of Excavated Materials*

At this time, the conceptual plans for the subject property identify structures, landscaped areas and areas that will be paved with impervious surfaces (Drawings EN2A and EN2B). Based on the preliminary earthwork calculations, it is estimated that 5,950[±] cubic yards of non-hazardous soil-fill materials excavated as part of the construction and development of the subject property can be reused on-site for fill. It will be the responsibility of the site developer/owner to prepare site development plans and grading plans that allow for safe placement of the material as backfill or as landscaping fill material.

Wherever the material is ultimately placed, it will have to be covered with soil and vegetation or a structure (driveway, sidewalk, parking area). The objective of placing cover over the excavated material is to prevent routine contact with the soil-fill. Coverage should consist of a minimum of 12 inches of clean soil (8" clean sub soil and 4" topsoil) cover and vegetation, or a substantial barrier consisting of asphalt, concrete or building slab.

Appropriate measures for on-site management of excavated materials will need to include temporarily stockpiling excavated soils and solids, and measures to prevent them from contaminating other materials or migrating off-site. Measures that will need to be incorporated into such plans include:

- Stockpile locations away from storm sewers, downwind property boundaries, and drainage courses;
- Dust suppression techniques, as necessary;
- Placement of stockpiles of petroleum contaminated soils or hazardous materials (e.g. drums, containers, odiferous fill) on 6-mil polyethylene (poly) with perimeter berms; and
- Covering stockpiles of petroleum contaminated soils or hazardous materials (e.g. drums, containers, odiferous fill) with weighted down poly at the end of each day of placement to prevent migration by wind-blown dust or stormwater runoff until final placement and final cover is established.

5.2 *Off-Site Disposal of Excavated Materials*

Based on preliminary grading plans, an excess 3,600[±] cubic yards of soil/fill will be generated during site wide grading activities. Management of these materials will need to include characterization (sampling and laboratory analysis as required by the chosen landfill), management, and off-site transportation and disposal at an approved landfill. If the materials will need to be stockpiled while awaiting off-site hauling, measures similar to the ones presented for on-site soil management should be implemented including stockpiling on plastic and covering the stock pile with weighted down plastic to prevent stormwater runoff and wind-blown dust.

5.3 *Flagging System*

The City of Rochester has established a procedure for “flagging” property tax account numbers of properties that require special environmental reviews as a result of hazardous waste or substance contamination. The reviews are conducted as referrals to the City’s Environmental Quality unit for any permit applications for properties where soil management plans or environmental contingency plans need to be established and followed during construction activities.

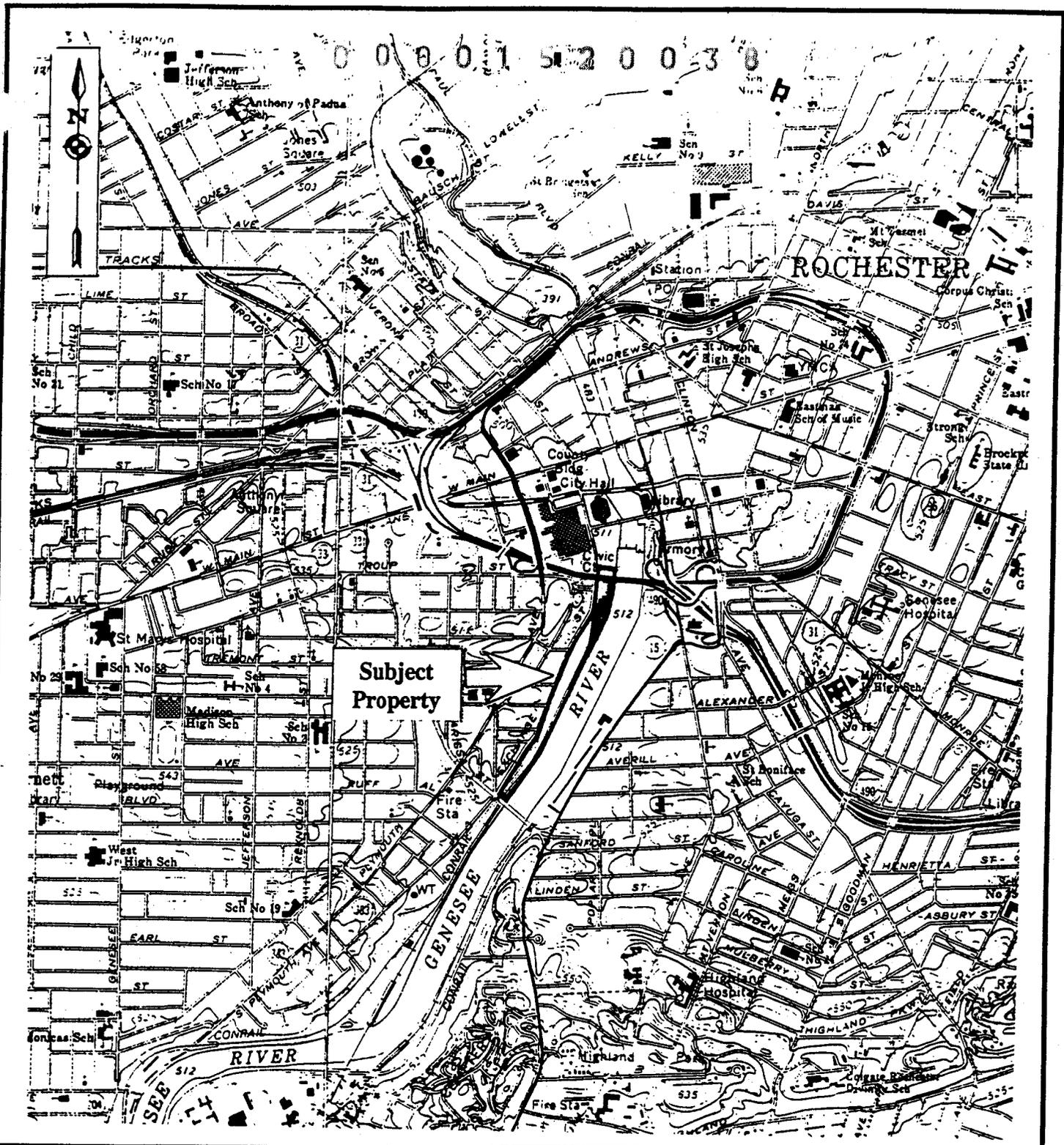
The City will “flag” the parcels of the Corn Hill Landing site that will be subject to such restrictive use. A special notation will be added to the City’s mainframe computer database of property information for the following tax account numbers:

121.39-01-005
121.39-01-008
121.47-01-014.1
121.47-01-015
121.47-01-017
121.47-01-019
121.47-01-020
121.47-01-040
121.47-01-041

The notation will appear as a “flag” to City staff that receive various building and site preparation permit applications. The flag will require a referral to the City’s Division of Environmental Quality (DEQ) before the application can be processed for approval. DEQ staff will review the permit application for consistency with the Soil Management Plan, limited-use areas and land-use restrictions. IF DEC wishes, a notification to the DEC can be included at the time the permit is reviewed. This system is currently in use for other City hazardous waste sites including the former Emerson Street Landfill.

0 0 0 0 1 5 2 0 0 3 7

DRAWINGS




THE SEAR-BROWN GROUP

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Drawing EN1
Corn Hill Landing

Exchange Street
 City of Rochester, Monroe County, NY

Site Location Map

Scale: 1 in. = 2,000 ft.

0 0 0 0 1 5 2 0 0 3 9

TABLES

0 0 0 0 1 5 2 0 0 4 1

TABLE 1
SUMMARY OF TCL
VOLATILE ORGANIC COMPOUNDS IN SOIL (ug/kg)

Corn Hill Landing
 Rochester, NY

TCL Volatile Organic Compounds	RECOMMENDED SOIL CLEANUP OBJECTIVE*	SOIL SAMPLES																		
		TP-8 (3')	TP-9 (2')	TP-10 (4')	TP-14, 15 & 16 (composite)	TP-19 & 20 (composite)	TP-24 5.0'	TP-27 2.0'	TP-32 & 33 (composite)	TP-35 & 36 (composite)	TP-37 & 38 (composite)	TP-40 & 46 (composite)	TP-43 8.0'	TP-47 & 48 (composite)	TP-49 2.0'	TP-54 4.5'	TP-54 10.0'	MW-7 10 - 12'	MW-8 4 - 6'	GP-106 6.5 - 7'
1,1,1-Trichloroethane	800	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	600	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
1,1,2-Trichloroethane	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
1,1-Dichloroethane	200	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
1,1-Dichloroethene	400	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
1,2-Dichloroethane	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
1,2-Dichloroethene, Total	300	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
1,2-Dichloropropane	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
2-Butanone (MEK)	300	<40	<40	<40	<40	<40	<10	<40	<40	<40	<40	<40	<10	<40	<40	<40	34	<5	<5	<5
2-Hexanone	NS	<40	<40	<40	<40	<40	<10	<40	<40	<40	<40	<40	<10	<40	<40	<40	<10	<10	<10	<10
4-Methyl-2-pentanone (MIBK)	1,000	<40	<40	<40	<40	<40	<10	<40	<40	<40	<40	<40	<10	<40	<40	<40	<10	<10	<10	<10
Acetone	200	<40	<40	<40	<40	<40	<10	<40	<40	<40	<40	<40	<10	<40	<40	<40	100	40	80	<40
Benzene	60	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Bromodichloromethane	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Bromoform	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Bromomethane	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Carbon disulfide	2,700	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Carbon tetrachloride	600	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Chlorobenzene	1,700	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Chloroethane	1,900	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Chloroform	300	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Chloromethane	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
cis-1,3-Dichloropropene	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Dibromochloromethane	N/A	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Ethyl benzene	5,500	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	110
Methylene chloride	100	<40	<40	<40	<40	<40	<10	<40	<40	<40	<40	<40	<10	<40	<40	<40	<10	<10	<10	<10
Styrene	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Tetrachloroethene	1,400	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	8.9	<5	<5	<5
Toluene	1,500	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
trans-1,3-Dichloropropene	NS	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Trichloroethene	700	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Vinyl chloride	200	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5
Xylenes (Total)	1,200	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<5	<5	<5

- * = NYSDEC. January 24, 1994. Determination of Soil Cleanup Objectives and Cleanup Levels, Division of Hazardous Waste Remediation, Technical and Administrative Guidance Memorandum, HWR 94-4046 (Revised).
- ug/kg = all values expressed in micrograms per kilogram (equivalent to parts per billion).
- N/A = not available
- NS = specific cleanup objective not specified by DEC. However, a general cleanup objective of total VOCs < 10,000 ppm is given in TAGM 4046.
- BOLD** = reported concentration is above detection limits.

0 7 0 0 2 5 1 0 0 0 0

0 0 0 0 1 5 2 0 0 4 3

TABLE 2
SUMMARY OF STARS VOLATILE ORGANIC COMPOUNDS IN SOIL (ug/kg)
 Corn Hill Landing
 Rochester, NY

STARS Volatile Organic Compounds	RECOMMENDED SOIL CLEANUP OBJECTIVE*	SOIL SAMPLES																		
		TP-8 (3')	TP-9 (2')	TP-10 (4')	TP-14, 15 & 16 (composite)	TP-19 & 20 (composite)	TP-24 5.0'	TP-27 2.0'	TP-32 & 33 (composite)	TP-35 & 36 (composite)	TP-37 & 38 (composite)	TP-40 & 46 (composite)	TP-43 8.0'	TP-47 & 48 (composite)	TP-49 2.0'	TP-54 4.5'	TP-54 10.0'	MW-7 10 - 12'	MW-8 4 - 6'	GP -106 6.5 - 7'
1,2,4-Trimethylbenzene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20
1,3,5-Trimethylbenzene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20
4-Isopropyl toluene (Cymene)	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20
Benzene	14	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20
Ethyl benzene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	110
Isopropylbenzene (Cumene)	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	260
MTBE	1000	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20
n-Butylbenzene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	28	<5	<20	<20	410
N-Propylbenzene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	330
Naphthalene	200	<20	<20	<20	<20	<20	<5	<20	<20	<20	45	<20	<5	<20	<20	<20	<5	<20	<20	1900
sec-Butylbenzene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	61	<5	<20	77	460
tert-Butylbenzene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20
Toluene	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20
Xylenes (Total)	100	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<5	<20	<20	<20

- * = NYSDEC. December 1992. Petroleum Contaminated Soil Guidance Policy: STARS Memo #1. Div. Of Construction Management, Bureau of Spill Prevention and Response.
- ** = estimated values
- ug/kg = all values expressed in micrograms per kilogram (equivalent to parts per billion).
- BOLD** = reported concentration is above detection limits.
- BOLD** = reported concentration is above cleanup objectives.

2 0 0 0 2 5 1 0 0 0 0

0 0 0 0 1 5 2 0 0 4 5

TABLE 3
SUMMARY OF TCL SEMI-VOLATILE
ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS IN SOIL (mg/kg)

Corn Hill Landing
 Rochester, NY

TCL Semi-Volatile Organic Compounds	RECOMMENDED SOIL CLEANUP OBJECTIVE*	SOIL SAMPLES																					
		TP-8 (3')	TP-9 (2')	TP-10 (4')	TP-14, 15 & 16 (composite)	TP-19 & 20 (composite)	TP-24 5.0'	TP-27 2.0'	TP-32 & 33 (composite)	TP-35 & 36 (composite)	TP-37 & 38 (composite)	TP-40 & 46 (composite)	TP-43 8.0'	TP-45 2.0'	TP-45 3.0'	TP-47 & 48 (composite)	TP-49 2.0'	TP-54 4.5'	TP-54 10.0'	TP-57 2.0'	MW-7 10 - 12'	MW-8 4 - 6'	GP-106 6.5 - 7'
1,2,4-Trichlorobenzene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
1,2-Dichlorobenzene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
1,3-Dichlorobenzene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.3	
1,4-Dichlorobenzene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.4	
2,4,5-Trichlorophenol	0.1	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
2,4,6-Trichlorophenol	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
2,4-Dichlorophenol	0.4	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
2,4-Dimethylphenol	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
2,4-Dinitrophenol	0.200 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
2,4-Dinitrotoluene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
2,6-Dinitrotoluene	1.0	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
2-Chloronaphthalene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
2-Chlorophenol	0.8	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
2-Methyl-4,6-dinitrophenol	NS	<0.4	<0.4	<4	<0.4	<0.4	<0.4	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<4	<2	<2	
2-Methylnaphthalene	36.4	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.86	<0.5	<0.5	<2	<1	5.5
2-Methylphenol (o-Cresol)	0.100 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
2-Nitroaniline	0.430 or MDL	<0.4	<0.4	<4	<0.4	<0.4	<0.4	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<4	<2	<0.4	
2-Nitrophenol (o-Nitrophenol)	0.330 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
3,3'-Dichlorobenzidine	N/A	<0.4	<0.4	<4	<0.4	<0.4	<0.4	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<4	<2	<0.4	
3-Nitroaniline	0.500 or MDL	<0.4	<0.4	<4	<0.4	<0.4	<0.4	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<4	<2	<0.4	
4-Bromophenyl-phenylether	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
4-Chloro-3-methylphenol	0.240 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
4-Chloroaniline	0.220 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
4-Chlorophenyl-phenylether	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
4-Methylphenol (p-Cresol)	0.9	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
4-Nitroaniline	NS	<0.4	<0.4	<4	<0.4	<0.4	<0.4	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<4	<2	<2	
4-Nitrophenol	0.100 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
Acenaphthene	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	0.90	<0.5	<0.5	<2	<1	0.46
Acenaphthylene	41.0	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
Anthracene	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	4.1	<0.5	<0.5	<0.5	0.75	<0.5	<0.5	<2	<1	0.49
Benzo(a)anthracene	0.224 or MDL	<0.2	<0.2	2.5	<0.2	<0.2	<0.2	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	7.3	<0.5	2.2	<0.5	<0.5	<0.5	<2	<1	<0.2	
Benzo(a)pyrene	0.061 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	4.7	<0.5	1.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
Benzo(b)fluoranthene	1.1	<0.2	<0.2	3.3	<0.2	<0.2	<0.2	0.96	<0.5	<0.5	<0.5	<0.5	<0.5	4.9	<0.5	2.6	<0.5	<0.5	<0.5	<2	<1	<0.2	
Benzo(ghi)perylene	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
Benzo(k)fluoranthene	1.1	<0.2	<0.2	<2	<0.2	<0.2	<0.2	0.79	<0.5	<0.5	<0.5	<0.5	<0.5	5.5	<0.5	1.3	<0.5	<0.5	<0.5	<2	<1	<0.2	
bis(2-Chloroethoxy)methane	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
bis(2-Chloroethyl)ether	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2	
bis(2-Chloroisopropyl)ether	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
bis(2-Ethylhexyl)phthalate	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
Butylbenzylphthalate	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
Carbazole	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1	
Chrysene	0.4	<0.2	<0.2	2.4	<0.2	<0.2	<0.2	1.3	<0.5	<0.5	0.64	<0.5	<0.5	5.4	<0.5	2.1	<0.5	<0.5	<0.5	2.4	<1	<1	

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TABLE 3
SUMMARY OF TCL SEMI-VOLATILE
ORGANIC COMPOUNDS AND TOTAL PETROLEUM HYDROCARBONS IN SOIL (mg/kg)

Corn Hill Landing
 Rochester, NY

TCL Semi-Volatile Organic Compounds	RECOMMENDED SOIL CLEANUP OBJECTIVE*	SOIL SAMPLES																				
		TP-8 (3')	TP-9 (2')	TP-10 (4')	TP-14, 15 & 16 (composite)	TP-19 & 20 (composite)	TP-24 5.0'	TP-27 2.0'	TP-32 & 33 (composite)	TP-35 & 36 (composite)	TP-37 & 38 (composite)	TP-40 & 46 (composite)	TP-43 8.0'	TP-45 2.0'	TP-45 3.0'	TP-47 & 48 (composite)	TP-49 2.0'	TP-54 4.5'	TP-54 10.0'	TP-57 2.0'	MW-7 10-12'	MW-8 4-6'
Di-n-butylphthalate	8.1	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Di-n-octylphthalate	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Dibenzo(a,h)anthracene	0.014 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1
Dibenzofuran	6.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Diethylphthalate	7.1	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Dimethylphthalate	2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Fluoranthene	50	<0.2	0.24	3.5	<0.2	0.24	<0.2	1.8	<0.5	<0.5	0.65	<0.5	<0.5	12	<0.5	3.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Fluorene	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	1.8	<0.5	<2	<1	1.1
Hexachlorobenzene	0.41	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Hexachlorobutadiene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Hexachlorocyclopentadiene	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Hexachloroethane	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Indeno(1,2,3-c,d)pyrene	3.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Isophorone	4.40	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
N-Nitroso-di-n-propylamine	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
N-Nitrosodiphenylamine	NS	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Naphthalene	13.0	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.64	<0.5	<2	<1	1.9
Nitrobenzene	0.200 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<0.2
Pentachlorophenol	1.0 or MDL	<0.4	<0.4	<4	<0.4	<0.4	<0.4	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<4	<2	<2
Phenanthrene	50	<0.2	<0.2	<2	<0.2	<0.2	<0.2	0.76	<0.5	<0.5	0.55	0.68	<0.5	16	<0.5	2.2	<0.5	2.6	<0.5	<2	<1	1.7
Phenol	0.03 or MDL	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<1	<1
Pyrene	50	<0.2	0.23	3.4	<0.2	0.22	<0.2	1.6	<0.5	0.51	0.60	0.62	<0.5	13	<0.5	4.0	<0.5	0.67	<0.5	<2	<1	<0.2
TPH (mg/l)																						
Kerosene	NS	<20	<20	<200	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Lubricating oil	NS	85	NP	230	33	NP	NP	130	68	66	68	110	NP	110	NP	140	NP	NP	NP	34	NP	NP
Fuel oil #2	NS	<20	<20	<200	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	970	<20	<20	<20	420	570
Gasoline	NS	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP

- * = NYSDEC. January 24, 1994. Determination of Soil Cleanup Objectives and Cleanup Levels, Division of Hazardous Waste Remediation, Technical and Administrative Guidance Memorandum, HWR 94-4046 (Revised).
- mg/kg = all values expressed in milligrams per kilogram (equivalent to parts per million).
- NS = specific cleanup objective not specified by DEC.
- MDL = method detection limit.
- BOLD** = reported concentration is above detection limits.
- BOLD** = reported concentration is above soil guidance values.
- NA = samples from MW-7 and MW-8 not analyzed for acid extractables.

7 6 0 0 2 5 1 0 0 0 0

0 0 0 0 1 5 2 0 0 4 9

TABLE 4
SUMMARY OF RCRA METALS IN SOIL (mg/kg)

RCRA METALS	DEC RECOMMENDED SOIL CLEANUP OBJECTIVE ⁽¹⁾	EASTERN USA BACKGROUND RANGE ⁽¹⁾	EPA SOIL SCREENING GUIDANCE VALUE ⁽²⁾		SAMPLES																
			Ingestion	Inhalation	TP-8	TP-9	TP-10	TP-14,15 & 16	TP-19 & 20	TP-24	TP-27	TP-32,33	TP-35,36	TP-37,38	TP-40,46	TP-45	TP-45	TP-47,48	TP-52 E	TP-52 W	TP-57
					3'	2'	4'	(composite)	(composite)	5.0'	2.0'	(composite)	(composite)	(composite)	(composite)	(composite)	2.0'	3.0'	(composite)		
Arsenic	7.5 or SB	3 - 12	0	750	9.4	18	38	25	2.2	7.6	18	5.2	26	23	19	22	8.2	20	18	14	19
Barium	300 or SB	15 - 600	5,500	690,000	27	140	100	72	51	48	57	52	69	57	80	110	44	59	82	85	73
Cadmium	1 / 10 *	0.1 - 1	78	1800	<1	<0.9	<0.9	<0.8	<0.8	<0.9	<0.9	<0.6	<1	<0.6	<1	<1	<0.8	<1	<0.9	<0.9	4.1
Chromium	10 / 50 *	1.5 - 40	390	270	39	7.7	21	9.5	6.0	8.7	8.2	4.7	9.2	7.4	10	10	5.0	8.3	9.1	8.2	19
Lead	SB	200 - 500 (urban)	400	400	25	82	590	190	140	34	100	120	160	140	220	300	15	170	230	100	2100
Mercury	0.1	0.001 - 0.2	23	10	<0.1	<0.1	<0.1	0.33	0.79	<0.1	<0.1	0.21	0.16	0.63	0.16	0.23	<0.1	0.49	<0.1	0.16	<0.1
Selenium	2 or SB	0.1 - 3.9	390	NA	12	8.6	8.4	11	8.4	<0.9	5.5	3.0	9.3	4.1	6.8	7.4	4.1	7.9	6.3	5.9	8.0
Silver	SB	NA	390	NA	<1	<0.9	<0.9	<0.8	<0.8	<0.9	<0.9	<0.6	<1	56	<1	<1	<0.8	<1	<0.9	<0.9	<1

Notes:

1. NYSDEC. January 24, 1994. Determination of Soil Cleanup Objectives and Cleanup Levels, Division of Hazardous Waste Remediation, Technical and Administrative Guidance Memorandum HWR 94-4046 (Revised).
2. USEPA. July 1996. Soil Screening Guidance: Fact Sheet. Office of Solid Waste and Emergency Response. Publication 9355.4-14FSA, EPA/540/F-95/041, PB96-963501.
3. mg/kg = all values expressed in milligrams per kilogram (equivalent to parts per million).
4. SB = site background.
5. NA = not available.
6. * = existing and proposed guidance values.
7. **BOLD** = reported concentration is above DEC soil cleanup objective and eastern USA background range.

RBCA - Tier 2 - Surface Soil

Residential - As = 10 ppm
Commercial - As = 28 ppm

Se > Res for all

8 7 0 0 2 5 1 0 0 0 0

0 0 0 0 1 5 2 0 0 5 0

APPENDIX A

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-1 Inspected By: P. Smith, J. Ignaszak Weather/Temp: Sunny, 50°
 Location/Station: Corn Hill Landing N: _____ E: _____ Elev.: _____
 Equipment Used: PC-150LC Contractor: Nothnagle Operator: Jim
 Start Time: 09:35 Stop Time: 10:20 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 8.5 Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 8.5 Ft.
- 50 % Fill _____ % MSW
- _____ % C&D 25% Native (USCS)

LOCATION SKETCH:

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
J - 1.5 ft.	SLAG, coarse gravel, metal, wood debris	0.4	0.4	0.4	Topsoil (0-.6")
1.5 - 4 ft.	Coarse gravel, brown, sandy silt	0.4	0.4	0.4	
4 - 6 ft.	Dark brown-black, silty sand gravel	0.6	0.6	0.6	NATIVE
6 - 8 ft.	Brown silty sand, some coarse gravel (wet)	0.4	0.4	0.4	
					Bedrock at approx. 8.5 ft. bgs
					Water on top of bedrock
					Sample TP-1 at 0 - 1.5 ft. bgs
8.5 ft.	Testpit terminated at approx. 8.5 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-2 Inspected By: P. Smith Weather/Temp: Sunny, 55°
 Location/Station: Corn Hill Landing N: _____ E: _____ Elev.: _____
 Equipment Used: Komatsu PC150LC Contractor: Nothnagle Operator: Jim
 Start Time: 10:40 Stop Time: 11:10 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 15 Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 15 Ft.
- 50 % Fill % MSW
- % C&D 50% Native (USCS)

LOCATION SKETCH:



DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 1.5 ft.	Metal SLAG/gravel	0.4	0.4	0.4	Topsoil (0 - .6")
1.5 - 3 ft.	Brown silt/sand gravel	0.4	0.4	0.4	[FILL]
3 - 4 ft.	SLAG/gravel, black sand (FILL) metal	-	-	0.4	
4 - 6 ft.	Brown silty sand (MOIST) some coarse gravel	0.4	0.4	0.4	[NATIVE]
6 - 8 ft.	Brown silty sand (MOIST) some coarse gravel	0.4	0.4	0.4	
8 - 10 ft.	Brown silty sand (MOIST) some coarse gravel				
10 - 12 ft.	Gray, silty clay (Wet) (Mottled)				Sample
12 - 15 ft.	Gray, silty clay (Wet) (Mottled)				TP-2 (0-1.5ft.)
					Rock at approx. 15 ft., water on top of rock
15 ft.	Test pit terminated at 15 ft.				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-3 Inspected By: P. Smith Weather/Temp: Sunny, 55°
 Location/Station: Corn Hill Landing N: _____ E: _____ Elev.: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: 11:30 Stop Time: 12:00 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 15.0 Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 15 Ft.
- 30 % Fill % MSW
- % C&D 70% Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - .6 ft.	Topsoil				Sample at 0 - 1.5 ft.
0.5 - 1.5 ft.	SLAG/metal debris, brick fragments	0.4	0.4	0.4	[FILL]
1.5 - 3 ft.	Brown silty sand, some coarse gravel	0.4	0.4	0.4	This testpit excavated in area of
3 - 4 ft.	SLAG - fill material, some coarse gravel, brick fragments	0.4	0.4	0.4	anomaly at 500E 400N, nothing observed in testpit
4 - 8 ft.	Brown silty sand, some gravel	0.4	0.4	0.4	
8 - 12 ft.	Brown silty sand, some gravel				
12 - 15.5 ft.	Brown and gray silty clay - wet	0.4	0.4	0.4	(NATIVE)
					Bedrock at approx. 15 ft. bgs
					Water on top of bedrock
15.5 ft.	Test pit terminated at 15.5 bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No:	TP-5	Inspected By:	P. Smith	Weather/Temp:	Sunny, 60°
Location/Station:	Corn Hill Landing	N:	E:	Elev.:	
Equipment Used:	Komatsu PC 150LC	Contractor:	Nothnagle	Operator:	Jim
Start Time:	14:00	Stop Time:	14:30	Agency Rep:	
Comments:					

- No Rock Encountered.
- Rock Encountered At 15 Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 15 Ft.
- 30 % Fill % MSW
- % C&D 70% Native (USCS)

LOCATION SKETCH:

DEPTH	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 2 ft.	SLAG/Railroad ties/coarse gravel wood debris, coal fragments	0.2	0.2	0.2	[FILL]
2 - 3 ft.	Brown silty sand, some coarse gravel	0.2	0.2	0.2	Sample TP-5 at 0 - 2 ft.
3 - 4 ft.	SLAG/Coarse gravel	0.2	0.2	0.2	
4 - 6 ft.	Brown silty sand	0.2	0.2	0.2	(NATIVE)
6 - 8 ft.	Brown silty sand	0.2	0.2	0.2	
8 - 10 ft.	Brown silty sand				
10 - 14 ft.	Brown silty sand, some gray silty clay				
14 - 15 ft.	Gray silty clay wet - saturated	0.2	0.2	0.2	
15 ft.	Test pit terminated at 15 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-6 Inspected By: P. Smith Weather/Temp: Sunny, 60°
 Location/Station: Corn Hill Landing N: _____ E: _____ Elev.: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: 14:40 Stop Time: 15:30 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 16 Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 15 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 3 ft.	SLAG - coal fragments, brick, large gravel	0.2	0.2	0.2	[FILL]
3 - 4 ft.	Silty sand, coarse gravel	0.2	0.2	0.2	
4 - 7 ft.	Silty sand, coarse gravel	0.2	0.2	0.2	
7 - 9.5 ft.	Silty sand, coarse gravel, tip of bucket wood cinders and ash - wet	0.2	0.2	0.2	
9.5 - 12 ft.	Light gray silty sand, wet				(NATIVE)
12 - 16 ft.	Mottled clay, gray, brown, wet Light gray silty sand, wet	0.2	0.2	0.2	
16 ft.	Test pit terminated at 16 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-15 Inspected By: P. Smith Weather/Temp: Sunny, 65°
 Location/Station: Corn Hill Landing 16 ft. SW of 4000 Elev.: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: 11:20 Stop Time: 11:40 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 14.9 Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 5 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 5 ft.	Light brown gravel fill to dark brown gravel fill w/wood, bricks, cobbles, moist	0.2	0.2	0.2	[FILL] Water infiltrated at 5 ft.
5 - 7 ft.	Light brown sandy silt w/wood, bricks, cobbles Moist	0.2	0.2	0.2	one 2" pipe at 6.5 ft.
7 - 8 ft.	Light brown sandy silt moist	0.2	0.2	0.2	[NATIVE]
8 - 10 ft.	Gray sandy silt moist	0.2	0.2	0.2	
14 ft. 10"	Test pit terminated at 14 ft. 10 inches bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-16 Inspected By: P. Smith Weather/Temp: Sunny, 65°
 Location/Station: Corn Hill Landing 25 ft. NW of SG-19 Elev.: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: 11:45 Stop Time: 12:05 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 4 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 8 ft.	Dark brown gravel w/bricks, wood, cobbles	0.2	0.2	0.2	[FILL]
	Moist				Groundwater at 4 ft.
					Foundation - footer at 2 ft. -
	3:00pm W/L = 5.5 ft. bgs				broke through w/excavation
8.0 ft.	Test pit terminated at 8.0 ft. bgs				No light brown sandy silt
					layer at this location

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-19 Inspected By: P. Smith Weather/Temp: Sunny, 60s°
 Location/Station: Corn Hill Landing Elev.: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: _____ Stop Time: _____ Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At ___ Ft.
- 40% Fill % MSW
- % C&D 60% Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6"	Asphalt/gravel base				
6" - 2 ft.	Brown and gray silt, some coarse to find gravel				(FILL)
2 - 2.5 ft.	Black, white soft fill/ash	0.1	0.1	0.1	Sample taken at 2.0 ft.
2.5 - 6 ft.	Brown fine sand, some silt and gravel				
6 - 8.5 ft.	Gray silt, some fine sand, moist	0.1	0.1	0.1	(NATIVE)
8.5 ft.	Test pit terminated at 8.5 ft.				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-25 Inspected By: P. Smith Weather/Temp: Sunny, 60s°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: _____ Stop Time: _____ Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered At 4 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 1.5 ft.	Brown sandy silt, dry				
1.5 - 3.5 ft	Black cinders - rock fill	0.1	0.1	0.1	(FILL)
3.5 - 8.0	Coarse to fine sand and silt, some gravel and cobbles	0.1	0.1	0.1	
8.0 ft.	Test pit terminated at 5.5 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-26 Inspected By: P. Smith Weather/Temp: Sunny, 60s°
 Location/Station: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: _____ Stop Time: _____ Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 14.8 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at base of fill (5').
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 0.5 ft.	Gravel road material				
0.5 - 1.5 ft.	Brown fine sand, some silt				
1.5 - 3.0 ft.	Black sand, some cinders and gravel	0.1	0.1	0.1	(FILL)
3 - 5 ft.	Gray brown cobbles, sand gravel - pipe running				
	N-S at 4 ft. (FILL)				
5 - 14.8 ft.	Gray silt, some fine sand, moist to wet, some	0.1	0.1	0.1	(NATIVE)
	cobbles in upper foot (NATIVE)				
14.8 ft.	Test pit terminated at 14.8 ft. bgs				

0 0 0 0 1 5 2 0 0 7 9
0 0 0 0 1 5 2 0 0 7 9

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-29 Inspected By: P. Smith Weather/Temp: Sunny, 60s°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: _____ Stop Time: _____ Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 16.5 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at top of rock.
- 90% Fill % MSW
- % C&D 10% Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 1 ft.	Gravel parking surface				
1 - 2 ft.	Black sand, cinders, dry	0.1	0.1	0.1	(FILL)
2 - 16.5 ft.	Coarse to fine sand, some wood, building stones, dry				
12.5 ft.	Wood plants at 12 ft. - flat lying N-S orientation				
16.0 ft.	Gray silt	0.1	0.1	0.1	(NATIVE)
16.5 ft.	Top of rock - bucket refusal				
	Test pit terminated at 16.5 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-32 Inspected By: P. Smith Weather/Temp: Overcast, 50°

Location/Station: _____

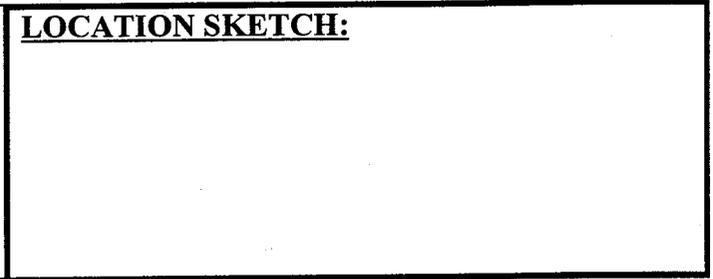
Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: _____ Stop Time: _____ Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 11.5 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ____ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:



DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 1 ft.	Gravel parking lot				
1 - 2.8 ft.	Black cinders, sand, gravel	0.1	0.1	0.1	(FILL)
2.8 - 4.8 ft.	Gray brown sand, some silt and gravel, occasional cobble				
4.8 - 10.5 ft.	Gray silt, some fine sand, trace clay, moist	0.1	0.1	0.1	(NATIVE)
11.5 ft.	Test pit terminated at 11.5 ft. bgs				Top of rock

0 0 0 0 1 5 2 0 0 8 3
0 0 0 0 1 5 2 0 0 8 3

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-33 Inspected By: P. Smith Weather/Temp: Overcast, 50°
 Location/Station: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: 9:45 Stop Time: 10:10 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 5 Ft.
(bottom of fill)
- 50% Fill % MSW
- % C&D 50% Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gravel parking lot				
6 in. - 3 ft.	Black cinders, some sand, interbedded brown sandy silt	0.1	0.1	0.1	(FILL)
3 - 5 ft.	Gray brown sand and silt, graney brick from 3-4 ft.				inc. 2 ft. square concrete pillar
5 - 8 ft.	Gray mottled silt, some fine sand, trace clay, moist	0.1	0.1	0.1	(NATIVE)
8.0 ft.	Test pit terminated at 8.0 ft. bgs				

0 0 0 0 1 5 2 0 0 8 4

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-34 Inspected By: P. Smith Weather/Temp: Overcast, 50°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 10:20 Stop Time: _____ Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 13.3 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 6 Ft. (base of fill)
- % Fill % MSW
- % C&D 50% Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 1 ft.	Gravel parking lot				
1 - 3.5 ft.	Black interbedded fill, cinders, sand, strong sulfur odor (sewer?)	0.1	0.1	0.1	(FILL)
3.5 - 6 ft.	Gray brown coarse to fine sand and gravel some cobbles, moist to wet				
6 - 12.3 ft.	Gray, silt, some fine sand and clay moist	0.1	0.1	0.1	(NATIVE)
13.3 ft.	Test pit terminated at 13.3 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-35 Inspected By: P. Smith Weather/Temp: Overcast, 60°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 11:05 Stop Time: _____ Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
	Concrete foundation 0 - 38 in. bgs				West side of test pits
	Railroad ties just below surface				East side of test pits
0 - 6 in.	Gravel parking lot				
6 in. - 1 ft.	Brown sandy silt				
1 - 3 ft.	Black cinders, brick	0.1	0.1	0.1	(FILL)
3 - 4 ft.	Gray brown sand, gravel, cobbles				
4 - 6 ft.	Black cinders, some slag, ash				
6 - 7.5 ft.	Gray fine sand, some silt, NATIVE	0.1	0.1	0.1	(NATIVE)
7.5 ft.	Test pit terminated at 7.5 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-36 Inspected By: P. Smith Weather/Temp: Overcast, 50°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 11:36 Stop Time: _____ Agency Rep: _____

Comments: _____

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 6 Ft.
- 60% Fill % MSW
- % C&D 40% Native (USCS)

LOCATION SKETCH:

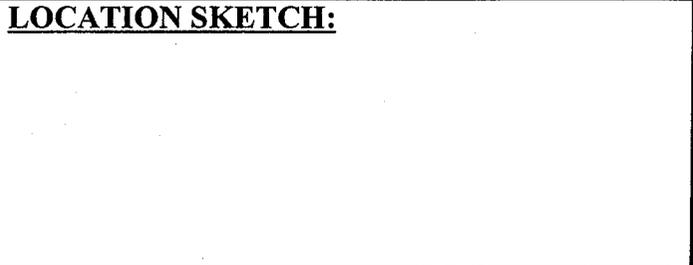
DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
	Stone pavers, floor/pavement				
0 - 5.0 ft.	Black cinder - rich fill some coarse to fine sand and gravel, moist	0.2	0.1	0.1	(FILL)
@ 32 in.	Bottom of stone floor				
5 - 8 ft.	Brown fine sand, some silt, some coarse to fine gravel (FILL?)				
8 - 9 ft.	Gray SILT, some fine sand	0.2	0.1	0.1	(NATIVE)
9.0 ft.	Test pit terminated at 9.0 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-37 Inspected By: P. Smith Weather/Temp: Overcast, 50°
 Location/Station: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: _____ Stop Time: _____ Agency Rep: _____
 Comments: 12:45

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 5 Ft.
- 60% Fill % MSW
- % C&D 40% Native (USCS)

LOCATION SKETCH:



DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gravel parking lot				
6 in. - 30 in.	Black fill: cinders, brick, cobbles, wood, boulders, plastic alternating layers				(FILL)
30 in. - 42 in.	Stone floor (12 in. thick)				
0 - 5 ft.	Black fill: cinders, brick, cobbles, wood, boulders, plastic alternating layers	0.4	0.3	0.2	
5 - 6 ft.	Gray brown coarse to fine sand and gravel, some trace cobbles, silt				
6 - 8 ft.	Gray, fine sand, some silt, trace clay	0.1	0.1	0.1	(NATIVE)
8.0 ft.	Test pit terminated at 8.0 ft. bgs				

0 0 0 0 1 5 2 0 0 8 8

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-38 Inspected By: P. Smith Weather/Temp: Overcast, 50°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 2:00 Stop Time: 2:40 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 13.3 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at seepage at base of wall.
- 40% Fill % MSW
- % C&D 60% Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gravel parking lot				
0 - 36 in.	Concrete wall on east side of test pit				
6 in. - 8.5 ft.	Interbedded black cinder-rich fill, some coal, gravel sand, wood	0.1	0.1	0.1	(FILL)
6.5 - 8.5 ft.	gray brown sand, some silt and cobble, moist				
8.5 - 13.3 ft.	Gray silty alluvial material, moist	0.1	0.1	0.1	(NATIVE)
13.3 ft.	Test pit terminated at 13.3 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-39 Inspected By: P. Smith Weather/Temp: Overcast, 50°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 3:00 Stop Time: 3:15 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 15.2 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at fill.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gravel				
6 in. - 8 ft.	Interbedded, black cinders, slag, coal with gray brown coarse to fine sand and gravel, silt, moist to wet	0.1	0.1	0.1	(FILL) Mild petroleum odor in test pit Sheen on water
8 - 15 ft.	Gray silty alluvial deposits	0.1	0.1	0.1	(NATIVE)
15.2 ft.	Test pit terminated at 15.2 ft. bgs				Top of rock

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-40 Inspected By: M. Gorman Weather/Temp: Sunny, 70°

Location/Station: _____

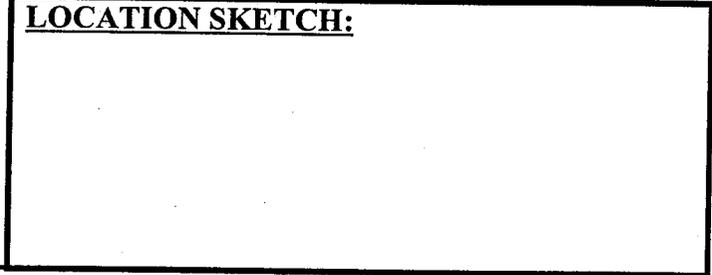
Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 8:50 Stop Time: 9:30 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 3.5 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:



DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	asphalt/gravel				
2 ft.		0.1	0.1	0.1	Samples taken at 2 ft.
6 in. - 6.5 ft.	Black/gray/rust cinders, slag, coal				4 railroad ties, creosote noted on lumber (FILL)
6.5 - 7.5 ft.	Gray silt, some fine sand				(NATIVE)
7.5 ft.	Test pit terminated at 7.5 ft. bgs	0.2	0.1	0.1	

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-41 Inspected By: M. Gorman Weather/Temp: Sun, 74°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 9:45 Stop Time: 10:15 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 11.5 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 3 ft..	Cobbles, gray silt, black cinders, coal				(FILL)
3 - 4 ft.	Reddish brown sandy silt				
4 ft.		0.1	0.1	0.1	
11 ft.		0.1	0.1	0.1	
4 - 11.5 ft.	Gray silt				(NATIVE)
11.5 ft.	Test pit terminated at 11.5 ft. bgs				Bedrock/bucket refusal
					No analytical collected

0 0 0 0 1 5 2 0 0 9 3

Project: Corn Hill Landing
Project No.: 15155.06
Date: May 5, 1999

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-43 Inspected By: M. Gorman Weather/Temp: Sun, 76°
 Location/Station: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: _____ Stop Time: _____ Agency Rep: _____
 Comments: 11:00 11:40

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 10 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gravel, asphalt, silt gray				
6 in. - 7 ft.	Black silt, cinders, coal				Petro odor at approx. 6 ft. (FILL)
2 ft.		0.0	0.0	0.0	
6 ft.		6.2	5.0	0.0	
7 - 10 ft.	Gray silt, stained, black, petro odor & staining				(NATIVE)
8 ft.		15.0	6.0	0.0	
10 ft.		2.2	1.3	0.0	
10 ft.	Test pit terminated at 10.0 ft. bgs				Groundwater at 10 ft., petro sheen

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-45 Inspected By: M. Gorman Weather/Temp: Sun, 80°

Location/Station: _____

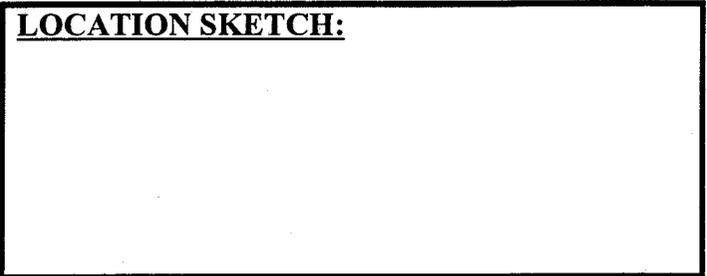
Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 12:40 Stop Time: 1:20 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 14.5 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 6.5 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:



DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Asphalt, gravel				
6 in. - 2 ft.	Black cinder, coal, silt				Sampled (FILL)
2 - 6.5 ft.	Lighter brown-gray cinder, ash, silt				Sampled
2 ft.		2.2	2.2	2.2	
6.5 - 14.5 ft.	Gray silt, some fine sand				(NATIVE)
10 ft.		2.2	2.2	2.2	
14.5 ft.	Test pit terminated at 14.5 ft. bgs				Top of rock

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-46 Inspected By: M. Gorman Weather/Temp: Sun, 80°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 13:25 Stop Time: 13:40 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gray silt, gravel, asphalt				
6 in. - 7 ft.	Dark black cinder and silt, coal				(FILL)
2 ft.		2.1	2.1	2.1	
7 - 8 ft.	Brown and gray SILT, some fine sand	2.1	2.1	2.1	(NATIVE)
8 ft.	Test pit terminated at 8.0 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-47 Inspected By: M. Gorman Weather/Temp: Sun, 76°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 13:45 Stop Time: 14:00 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 13 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gray silt, gravel, asphalt				
6 in. - 6 ft.	Black cinder, coal				(FILL)
4 ft.		2.0	2.0	2.0	
6 - 7 ft.	Brown sandy silt				
8 ft.		2.3	2.1	2.0	
7 - 13 ft.	Gray silt, some fine sand				(NATIVE)
13 ft.	Test pit terminated at 13.0 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-48 Inspected By: M. Gorman Weather/Temp: Sun, 76°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 14:05 Stop Time: 14:40 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 13.5 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Asphalt gravel, silty sand				
6 in. - 6 ft.	Dark black cinder, coal				Sample at 2 ft. (FILL)
2 ft.		1.7	1.7	1.7	
6 - 7 ft.	Brown sandy fill				
7 - 13.5 ft.	Gray silt, some fine sand				(NATIVE)
8 ft.		1.7	1.7	1.7	
13.5 ft.	Test pit terminated at 13.5 ft. bgs				Bedrock/bucket refusal

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-49 Inspected By: M. Gorman Weather/Temp: Sun, 76°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 14:45 Stop Time: 15:20 Agency Rep: _____

Comments: _____

- No Rock Encountered.
- Rock Encountered At ____ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ____ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Gravel				
6 in. - 4 ft.	Black cinder, coal				(FILL)
2 ft.		1.7	1.7	1.7	
4 ft.	Concrete slab				
	Building foundation. 1 ft. thick at end: thick fill				
	and brick, creosote soaked railroad timbers,				
	brown sandy fill				
0 - 6 in.	Gravel (next to foundation)				
6 in. - 8 ft.	Brick, timbers, coal, black cinders				
8 ft.	Brown gray silt, some fine sand				(NATIVE)
8 ft.	Test pit terminated at 8.0 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-51 Inspected By: M. Gorman Weather/Temp: Hazy, 70°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 10:00 Stop Time: 10:50 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ____ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 4 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Asphalt and gravel				
6 in. - 1.5 ft.	Cobble and fine black silts				(FILL)
1.5 - 2.5 ft.	Cobble floor				Sewer odor at groundwater level
2.5 - 4 ft.	Brown silty clay				(NATIVE)
3 ft.		2.0	1.9	1.7	
4 ft.	Test pit terminated at 4.0 ft. bgs				Groundwater
					End (Corner NE) of 3 ft. building
					foundation, SLAB measures 3 ft.
					thickness. Foundation ends 37 ft.
					due north of fenceline

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-52 Inspected By: M. Gorman Weather/Temp: Sun, 74°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 11:05 Stop Time: 11:55 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ____ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ____ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
	<u>WEST</u>				
0 - 6 in.	Asphalt and gravel				Sample at 2 ft. west
6 in. - 1.5 ft.	Gray and black silt				(FILL)
2 ft.		1.7	1.7	1.7	Sample at 2 ft. east
1.5 - 2.5 ft.	Brown sandy silt and cobble				
2.5 - 6 ft.	Brick, cobble, black silt & cinder				
6 - 8 ft.	Gray silt, some fine sand				(NATIVE)
	<u>EAST</u>				
0 - 6 in.	Asphalt and gravel				
6 in. - 4.5 ft.	Black cinder, coal, silt				(FILL)
2 ft.		1.7	1.7	1.7	
4.5 - 6 ft.	Brown fine sand				
6 - 8 ft.	Gray silt, some fine sand				(NATIVE)
8 ft.	Test trench terminated at 8.0 ft. bgs				

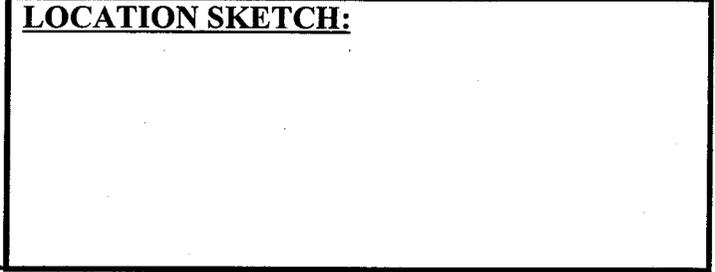
TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-54 Inspected By: M. Gorman Weather/Temp: Sun, 76°
 Location/Station: _____
 Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim
 Start Time: 12:35 Stop Time: 16:00 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at 6 Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:



DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Asphalt and gravel				
6 in. - 3.5 ft.	Light brown fill and dark black fill layers				(FILL)
3 ft.		34.7	29.2	1.9	
3.5 - 4 ft.	Rust colored silty sand				
4 - 8 ft.	Petroleum impacted black cinder				Strong odor
4.5 ft.		68.7	65.0	1.9	
8 - 10 ft.	Dark gray silt, some fine sand	6.3	5.7	1.9	(NATIVE)
10 ft.	Test pit terminated at 10.0 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-57 Inspected By: Gorman/Smith Weather/Temp: Sun, 78°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 14:10 Stop Time: 14:30 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 4 in..	Grass, topsoil				
4 in. - 6 ft.	Black cinders and coal, black silt				(FILL)
2 ft.		1.8	1.8	1.8	Sample at 2 ft.
6 - 9 ft.	Brown sandy silt				(NATIVE)
9 ft.	Test pit terminated at 9.0 ft. bgs				

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-58 Inspected By: M. Gorman Weather/Temp: Sun, 76°

Location/Station: _____

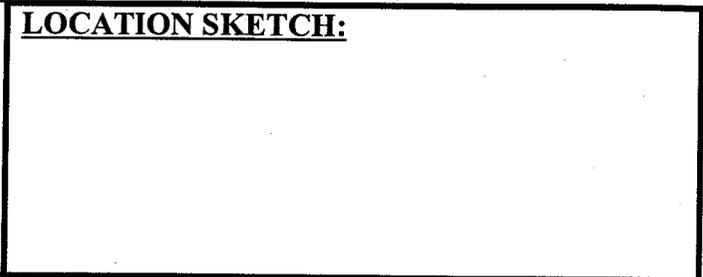
Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 14:30 Stop Time: 15:00 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At 15.2 Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:



DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Grass, topsoil				
6 in. - 2.5 ft.	Brown gray cinder, sand cobbles				
2.5 - 6.5 ft.	Dark black cinder silt				(FILL)
4 ft.		1.9	1.9	1.9	Sample at 4 ft.
6.5 - 8 ft.	Rusty brown sandy silt				
8 - 15.2 ft.	Gray silt, some fine sand				(NATIVE)
15.2 ft.	Test pit terminated at 15.2 ft. bgs				

0 0 0 0 1 5 2 0 1 0 9

TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-59 Inspected By: M. Gorman Weather/Temp: Sun, 76°

Location/Station: _____

Equipment Used: Komatsu PC 150LC Contractor: Nothnagle Operator: Jim

Start Time: 15:00 Stop Time: 15:30 Agency Rep: _____

Comments:

- No Rock Encountered.
- Rock Encountered At ___ Ft.
- No Ground Water Encountered.
- Ground Water Encountered at ___ Ft.
- % Fill % MSW
- % C&D % Native (USCS)

LOCATION SKETCH:

DEPTH (ft. BGS)	CLASSIFICATION	PID READINGS			NOTES/SAMPLES
		MAX	SUST	BKGD	
0 - 6 in.	Grass and topsoil				
6 in. - 3 ft.	Black and brown coarse cinder and silt				(FILL)
2 ft.		1.7	1.7	1.7	Sample at 2 ft.
3 - 9 ft.	Gray-brown silty sand, cobble and cinder blocks				
9 ft.	Test pit terminated at 9.0 ft. bgs				

0 0 0 0 1 5 2 0 1 1 0

APPENDIX B

THE
SEAR-BROWN
GROUP

85 METRO PARK
ROCHESTER, NEW YORK
14621
716-475-1440
FAX: 716-272-1814

Test Boring No. MW-1

Page 1 of 1

Project Corn Hill Landing, Rochester, NY
 Client City of Rochester, Rochester, NY
 Elevation _____ Start 5/11/99 Completed 5/11/99 Driller Target Drilling Co.
 Water Level - During Drilling _____ Inspector P. Smith
 Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler				Sample			Depth	Soil and Rock Information Remarks
		0° 6°	6° 12°	12° 18°	18° 24°	N	Rec.	No		
		2				12		1	0'-2'	(TOPSOIL) Brown silty fine SAND, trace roots 0.5 Gray to Black silt, tr. cinders 0.5
			6							
				6						
					9					
		9				15		2	2'-4'	Block cinders, some sand and slag, trace brick, dry - same, except moist
			8							
				7						
					6					
5		1				5		3	4'-6'	(FILL)
			3							
				2						
		2				9		4	6'-8'	- same
			1							
				8						
		2				12		5	8'-10'	Gray brown fine SAND, some silt, trace fine gravel, wet
			4							
				8						
10		1				12		6	10'-12'	Dark gray SILT, some f. sand, trace wood, wet
			3							
				9						
		3				4		7	12'-14'	- same with tr. clay, gravel lens @ 13.8'
			1							
				3						
		6			15					
15			6			56/8		8	14'-15-2'	- same
				50/2						
20										Auger refusal/top of rock

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Ea. Blow
 C-No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow

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Test Boring No. MW-2
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Project Corn Hill Landing, Rochester, NY
Client City of Rochester, Rochester, NY
Elevation _____ Start 5/11/99 Completed 5/11/99 Driller Target Drilling Co.
Water Level - During Drilling _____ Inspector P. Smith
Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler				Sample			Depth	Soil and Rock Information Remarks
		0° 6"	6° 12"	12° 18"	18° 24"	N	Rec.	No		
		12				20		1	0-2'	Gravel packing 0.5
			10							Black sand and silt, some
				10						cinders, brick, wood, moist
					21					
		12				13		2	2-4'	(FILL) 3.5
			6							
				7						
					9					
5		5				11		3	4-6'	Brown fine SAND, some silt, trace cinders, ash, moist
			5							(FILL)
				6						
					7					
		5				10		4	6-8'	Gray brown c-f SAND and gravel, dry
			5							- coal chips, wood @ 7.5' 8.0
				5						
					25					
		2				5		5	8-10'	Gray brown fine sand, some silt, moist
			2							
				3						
10					3					
		1				3		6	10-12'	- same with trace clay
			2							(NATIVE)
				1						
					2					
		1				25		7	12-13.6'	- same
			2							
				23						
					50/1					13.6
15										Spoon refusal / top of rock
20										

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Ea. Blow
C-No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow

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Test Boring No. MW-3

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01520113

Project Corn Hill Landing, Rochester, NY
 Client City of Rochester, Rochester, NY
 Elevation _____ Start 5/12/99 Completed 5/12/99 Driller Target Drilling Co.
 Water Level - During Drilling _____ Inspector P. Smith
 Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

C	Blows on Sampler					Sample				Soil and Rock Information Remarks
	0° 6°	6° 12°	12° 18°	18° 24°	N	Rec.	No	Depth		
0	11	4	7	7	11		1	0-2'	gravel parking Black coal and cinders, dry	
	5	50/3			50/3		2	2-2.8'	(FILL)	
5	8	6	5	7	11		3	4-6'	- same, except layered	
	4	2	4	5	6		4	6-8'	6.5 Gray brown SILT, some fine sand, tr. gravel, moist	
	1	1	1	1	2		5	8-10'	- no recovery	
10	1	1	1	1	2		6	10-12'	(NATIVE) - no recovery	
	1	2	9	50/1	11		7	12-13.6'	Gray brown fine sand SILT, wet	
15									13.6 Auger refusal / top of rock	
20										

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Ea. Blow
 C-No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow

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Test Boring No. MW-4

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Project Corn Hill Landing, Rochester, NY

Client City of Rochester, Rochester, NY

Elevation _____ Start 5/12/99 Completed 5/12/99 Driller Target Drilling Co.

Water Level - During Drilling _____ Inspector P. Smith

Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler				Sample			Soil and Rock Information Remarks
		0° 6°	6° 12°	12° 18°	18° 24°	N	Rec.	No	
									Asphalt w/ gravel base <u>1.0</u>
		7	4			8		1	1-2.5'
				4					Black silt sand and gravel, some ash, cinders, coal, clay
		5	4			8		2	2.5-4'
				4					- same (Fill)
5		4	3			7		3	4-6'
				4					- same w/ trace brick, wood
		1				8		4	6-8'
			4						- no recovery
				4					8.0
		2	2			4		5	8-10'
				2					Gray silt, some fine sand, wet
10		1	2			4		6	10-12'
				2					- same
		2				50/3		7	12-12.8'
			50/3						- same 12.8'
									Spoon refusal / top of rock
15									
20									

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Ea. Blow
C-No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow

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Test Boring No. MW-7

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Project Corn Hill Landing, Rochester, NY

Client City of Rochester, Rochester, NY

Elevation _____ Start 5/13/99 Completed 5/13/99 Driller Target Drilling Co.

Water Level - During Drilling _____ Inspector J. Esposito

Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler					Sample				Soil and Rock Information Remarks
		0" 6"	6" 12"	12" 18"	18" 24"	N	Rec.	No	Depth		
		22				20		1	0-2'	Brown to dark gray SAND, some gravel, trace slag, dry	
			12								
				8						- same	
		22			10	68/9		2	2-4'		
			18							- same	
				50/3							
5		9				23		3	4-6'	Black slag, some sand and gravel	
			7								
				16						- no recovery	
		3			5	4		4	6-8'		
			3							- no recovery	
				1							
		3			2	2		5	8-10'	gray rounded gravel some silty sand, strong color	
			1								
10				1						- same	
		1			1	1		6	10-12'		
			1							- same	
				W04							
		1				4		7	12-14'	12.5	
			2							Light to dark gray silty SAND (NATIVE)	
				2							
		6			3					- same, except wet	
15			50/2			50/2		8	14-14.8'		14.8'
20											

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Ea. Blow
C-No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow

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Test Boring No. MW-8

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Project Corn Hill Landing, Rochester, NY
Client City of Rochester, Rochester, NY
Elevation _____ Start 5/13/99 Completed 5/13/99 Driller Target Drilling Co.
Water Level - During Drilling _____ Inspector J. Ignaszak
Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler				Sample				Soil and Rock Information Remarks
		0° 6"	6° 12"	12° 18"	18° 24"	N	Rec.	No	Depth	
		10				21		1	0-2'	Dark gray silty SAND, some coal, brick, gravel
			11							
				10						- same (FILL)
		5			6		2	2-4'		
			4							D. gray silty sand, wet strong pet. odor 6.0
5		3		2		18	3	4-6'		
			10							Light to dark gray silty sand, slight odor
				8	2					
		3				5	4	6-8'		- same
			3							
		2			2	3	5	8-10'		- same
			1							
10		2		2						- same
					2	5	6	10-12'		
			3							- no recovery
				2		2	7	12-13'		
		2								13.0' Auger refusal at 13.0 ft
			2							
				50/0						
15										
20										

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Es. Blow
C-No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Es. Blow

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Test Boring No. MW-9

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Project Corn Hill Landing, Rochester, NY

Client City of Rochester, Rochester, NY

Elevation _____ Start 5/14/99 Completed 5/14/99 Driller Target Drilling Co.

Water Level - During Drilling _____ Inspector J. Ignuszak

Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler					Sample				Soil and Rock Information Remarks
		0" 6"	6" 12"	12" 18"	18" 24"		N	Rec.	No	Depth	
		15					23		1	0-2'	Light to dark brown silt, some clay at coarse sand, moist
			14	9							
		6					12		2	2-4'	- same
			6	6							
				6							
5		5					9		3	4-6'	- no recovery (Fill)
			4								
				5							
		2					8		4	6-8'	Dark gray silty sand, coarse gravel and clay, trace glass, wet
			2								
		2					4		5	8-10'	- no recovery
			2								
10				2							
		1					2		6	10-12'	Light gray silty sand, wet
			1								
				1							
		2					4		7	12-14'	- no recovery (NATIVE)
			2								
				2							
					2						
15											14.0
											Auger refusal at 14.0'
20											

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Ea. Blow
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Test Boring No. MW-10

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Project Corn Hill Landing, Rochester, NY
Client City of Rochester, Rochester, NY
Elevation _____ Start 5/14/99 Completed 5/14/99 Driller Target Drilling Co.
Water Level - During Drilling _____ Inspector J. Ignaszak
Water Level - At Completion _____

Seasonal and climatic changes may alter observed water levels.

0	C	Blows on Sampler				Sample				Soil and Rock Information Remarks
		0" 6"	6" 12"	12" 18"	18" 24"	N	Rec.	No	Depth	
		14	12			29		1	0-2'	Dark brown sand, some coarse gravel and concrete
				17						
		22				40		2	2-4'	- same
			20							
				20						
		17			17	22		3	4-6'	(FILL)
5			10							- same
				12						
		3			5	3		4	6-8'	- same
			1							
				2						
		1			3	4		5	8-10'	8.0 D. gray silty sand, wet
			2							
10				2						
		wott			1	wott		6	10-12'	- same (NATIVE)
			wott							
				wott						
		wott			wott	wott		7	12-12.4	- no recovery 12.4 ft Auger refusal @ 12.4 ft
			50/0							
15										
20										

N-No. of Blows to Drive 2" Spoon 12" with 130 lb. wt. 30" Ea. Blow
C-No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow