

**General Motors Corporation  
Former General Motors Assembly  
Plant Site  
Sleepy Hollow, New York**

**Interim Remedial Measure  
Construction Completion Report  
Volume I of II**

September 2008

**Certification Statement**

I, Margaret A. Carrillo-Sheridan, P.E. as a Professional Engineer registered in the State of New York, to the best of my knowledge, and based on my inquiry of the persons involved in preparing this document under my direction, certify that this *Interim Remedial Measure Construction Completion Report* was completed in general accordance with the Brownfield Cleanup Agreement (BCA) No. A3-05 14-0305 (BCA for West Lot), effective March 31, 2005 between General Motors Corporation and the New York State Department of Environmental Conservation.



 Date 3-Sept-2008

Margaret A. Carrillo-Sheridan, P.E.  
NYS PE License No. 082251  
ARCADIS of New York, Inc.  
6723 Towpath Road, PO Box 66

**IRM Construction Completion  
Report**

Former General Motors Assembly  
Plant Site

Prepared for:  
General Motors Corporation  
Detroit, Michigan

Prepared by:  
ARCADIS  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

Our Ref.:  
B0064462 #11

Date:  
September 2008

**Volume I of I**

<b>Acronyms and Abbreviations</b>	<b>i</b>
<b>1. Introduction</b>	<b>1</b>
1.1 General	1
1.2 Background Information	2
1.2.1 Site Location	2
1.2.2 Physical Characteristics and Land Use	3
1.2.3 Previous Investigations and Remedial Measures	3
1.2.4 IRM Decision Document Remedy Summary	4
1.3 Organization of IRM Construction Completion Report	8
<b>2. IRM Soil Removal Summary</b>	<b>9</b>
2.1 General	9
2.2 IRM Work Plan Modifications	9
2.2.1 Modification No. 1	10
2.2.2 Modification No. 2	10
2.2.3 Modification No. 3	10
2.3 Mobilization/Site Preparation	11
2.3.1 Erosion and Sediment Control Measures	12
2.3.2 Temporary Water Treatment System	12
2.3.3 Materials Staging Area	14
2.3.4 Permitting Requirements and Approvals	14
2.4 Soil Removal Activities	15
2.4.1 General	15
2.4.1.1 Soil Stabilization	16
2.4.1.2 Water Management	16
2.4.2 PAOC 29 Excavation Activities	17

2.4.3	PAOC 47 Excavation Activities	19
2.4.4	PAOC 7 Excavation Activities	21
2.4.5	Former UST Area Excavation Activities	23
2.4.6	Excavation Summary	25
2.5	Site Restoration/Demobilization	26
2.5.1	Demarcation Barrier	26
2.5.2	Backfill Activities	27
2.5.2.1	PAOC 29	27
2.5.2.2	PAOC 47	28
2.5.2.3	PAOC 7	28
2.5.2.4	Former UST Area	28
2.5.3	Demobilization of Equipment and Materials	29
2.5.3.1	Materials/Structures Left On Site	31
2.5.3.2	Post-IRM Meeting	31
2.6	Air Monitoring	32
2.6.1	Work Area Perimeter Monitoring	32
2.6.2	Work Area Monitoring	33
2.6.3	Dust Control	33
2.6.4	Air Monitoring Exceedances	33
2.7	Handling, Transportation and Offsite Disposition of Waste Materials	34
2.7.1	Waste Characterization	34
2.7.2	Waste Handling	36
2.7.3	Waste Transportation and Disposition	36
<b>3.</b>	<b>Construction Quality Control</b>	<b>38</b>
3.1	General	38
3.2	Quality Control Meetings/Inspections/Reviews	38
3.2.1	Pre-IRM Meeting	39



3.2.2	Project Progress Meetings	39
3.2.3	Daily Site Reviews	40
3.2.4	Pre-IRM Inspection	40
3.2.5	Post-IRM Meeting	40
3.3	Quality Control Testing	41
3.3.1	Physical Analyses	41
3.3.1.1	Backfill Gradation	41
3.3.1.2	Backfill Compaction	41
3.3.2	Chemical Analyses	42
3.3.2.1	Imported Backfill Analysis	42
3.3.2.2	Waste Characterization	42
3.4	Reporting	44
3.4.1	Daily Construction Reports	44
3.4.2	Meeting Minutes	45
3.4.3	Photographic Documentation	45
<b>4.</b>	<b>Record Drawings</b>	<b>46</b>
<b>5.</b>	<b>References</b>	<b>47</b>

## Tables

Table 1	Waste Characterization Sample Summary
---------	---------------------------------------

## Figures

Figure 1	Site Location Map
Figure 2	Pre-IRM Features Map
Figure 3	Post-IRM Temporary Features Map

**Record Drawings**

Sheet 1	Post –IRM Site Features
Sheet 2	UST Excavation Area
Sheet 3	PAOC 47 Excavation Area
Sheet 4	PAOC 29 Excavation Area
Sheet 4	PAOC 7 Excavation Area

**Appendices**

A	Pre-Excavation Verification Sampling Results (IRM Work Plan Appendix K)
B	Waste Characterization Data
C	Meeting Minutes
D	Photograph Documentation
E	Backfill Analyses

**Volume II of II**

F	Backfill Weight Tickets
G	Compaction Reports
H	CAMP Summary Reports
I	Nonhazardous Waste Manifests

## Acronyms and Abbreviations

ASTM	American Society for Testing and Materials
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
bgs	below ground surface
CO <sub>2</sub>	carbon dioxide
CQA	construction quality assurance
CQAP	<i>Construction Quality Assurance Plan</i>
CQC	construction quality control
C.T. Male	C.T. Male Associates, P.C.
Decision Document	<i>NYSDEC Decision Document - Interim Remedial Measure, Former General Motors North Tarrytown Assembly Plant</i>
ERS	Environmental Rail Solutions
GM	General Motors Corporation
H <sub>2</sub> S	hydrogen sulfide
HDPE	high-density polyethylene
IRM	Interim Remedial Measure
IRM Work Plan	<i>Interim Remedial Measure Work Plan</i>
ISCO	in-situ chemical oxidation
LEL	lower explosive limit

NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety and Health Administration
PID	photoionization detector
POTW	publicly owned treatment works
QC	quality control
RCRA	Resource Conservation and Recovery Act
RI	remedial investigation
Sevenson	Sevenson Environmental Services, Inc.
site	Former GM North Tarrytown Assembly Plant Site
TCE	trichloroethylene
TCLP	toxicity characteristic leaching procedure
Tilcon	Tilcon New York, Inc.
UST	underground storage tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program
VOC	volatile organic compound

## 1. Introduction

### 1.1 General

This *Interim Remedial Measure (IRM) Construction Completion Report* (report) has been prepared on behalf of General Motors Corporation (GM), who entered into two Brownfield Cleanup Agreements (BCAs) with the New York State Department of Environmental Conservation (NYSDEC) for the investigation and remediation of the Former GM North Tarrytown Assembly Plant Site located at 199 Beekman Avenue, Village of Sleepy Hollow, New York (site). Figure 1 presents a site location map. The IRM activities described in this report were performed pursuant to the NYSDEC-approved *Interim Remedial Measure Work Plan* (IRM Work Plan; ARCADIS BBL, 2007a), which provided the scope of work and implementation plan for the removal and offsite disposal of soil from four contaminant source areas.

This report addresses the soil excavation portion of the IRM activities described in the NYSDEC's *Decision Document - Interim Remedial Measure, Former General Motors North Tarrytown Assembly Plant* (Decision Document; NYSDEC, 2007). Additional NYSDEC-selected IRM activities described in the Decision Document will be presented in the following documents as they are developed:

- In-Situ Chemical Oxidation Completion Report
- Site Management Plan
- Environmental Easement

The above-listed documents will be submitted to the NYSDEC at a later date.

GM initiated formal NYSDEC review of site environmental conditions as a Volunteer in a Voluntary Cleanup Agreement (VCA) No. A3-0468-0902 signed in December 2002. The VCA applies to the entire site and includes investigation of the Hudson River adjacent to the West Parcel. In June 2004, the Volunteers expressed their interest in transitioning from the Voluntary Cleanup Program (VCP) to the Brownfield Cleanup Program (BCP). During the transition, separate BCAs were signed for the East and West Parcels. The BCA (Index No. A3-05 13-0305) for the East Parcel includes approximately 28.3 acres east of a railroad corridor that bisects the site. The BCA (Index No. A3-05 14-0305) for the West Parcel includes approximately 66.2 acres west

of the railroad corridor (West and South Parcels) and the Hudson River as the identified offsite area of interest.

## 1.2 Background Information

Relevant site history and background information used to develop the strategy for implementing the IRM activities were previously presented in the IRM Work Plan and are not reiterated in this report. Brief summaries of the site location, physical characteristics and land use, previous investigations, and remedy summary are presented below.

### 1.2.1 Site Location

The site is situated on the eastern shore of the Hudson River and occupies an area of approximately 94.5 acres within the Village of Sleepy Hollow (Figure 1). The site comprises of three, noncontiguous parcels listed below:

- main assembly plant area referred to as the West Parcel (approximately 64.5 acres)
- eastern parking lot referred to as the East Parcel (approximately 28.3 acres)
- former salaried employee parking lot referred to as the South Parcel (approximately 1.7 acres)

The West and East Parcels are shown on Figure 2. The activities described in this report were conducted within the West Parcel.

GM initially purchased properties that comprise the West Parcel in 1914. Prior to that purchase, the West Parcel was partially developed with urban fill consisting largely of coal cinders and various aggregate mixtures to extend the waterfront into a portion of the former Pocantico Bay. Industrial operations prior to GM's purchase included a brickyard, a percussion rock drill factory and two facilities where gasoline and steam-powered automobiles were manufactured and assembled. GM demolished most of the early industrial buildings during the 1920s, filled in the remainder of Pocantico Bay with dredge spoils and constructed an automotive assembly complex that continued to expand and operate for more than 70 years. The North Tarrytown Assembly Plant ceased automobile assembly operations during summer 1996 and commenced an organized process of facility decommissioning. The Village of North Tarrytown was

renamed Sleepy Hollow in 1997. All references to North Tarrytown in this report and previous documents apply to the Village of Sleepy Hollow.

#### 1.2.2 Physical Characteristics and Land Use

At the time of facility closure in 1996, the main assembly plant property (West Parcel) contained two manufacturing buildings (the Body Plant and the Chassis Plant) and support operations consisting of a powerhouse, petroleum bulk storage tanks, a wastewater pretreatment facility, a water storage tank, and miscellaneous day shelters for equipment and personnel. These buildings and structures have been demolished and removed, except for large portions of the ground-level building slabs from the former Body and Chassis Plants.

Groundwater in the site vicinity is not used as a potable water supply. The area is serviced by the local municipal system. Easements associated with the proposed site redevelopment will preclude any future use of site groundwater.

Public parklands surround the northern borders of the site. Kingsland Point Park of Westchester County abuts the northwest border of the site. The Tarrytown Lighthouse, which is listed on the National Register of Historic Places, is located immediately west of the site (in the Hudson River) and is accessible to the public through Kingsland Point Park. DeVries Park of Sleepy Hollow abuts the northern border of the site. Philipsburg Manor, a restored early 18<sup>th</sup>-century farm with public access, adjoins DeVries Park and the northeast corner of the site. Active freight and passenger rail services run through the site within a common corridor.

The Village of Sleepy Hollow is currently using the West Parcel under agreement with GM to access the Tarrytown Lighthouse and Kingsland Point Park, and to park vehicles and equipment owned by the Village. In addition, a fenced pathway along the waterfront is accessible to the public.

#### 1.2.3 Previous Investigations and Remedial Measures

Several due diligence investigations and interim corrective measures were conducted at the site between 1996 and 2002. A remedial investigation (RI) was also conducted in 2003. The investigations and interim corrective measures, and associated documents are summarized in the IRM Work Plan (ARCADIS BBL, 2007a).

#### 1.2.4 IRM Decision Document Remedy Summary

The IRM remedial goals approved by NYSDEC, as presented in the Decision Document (NYSDEC, 2007), are as follows:

1. Remove, to the extent practicable, the grossly contaminated soil present in the site
2. Eliminate, to the extent practicable, the potential for exposure to soils and historic fill materials that exceed the NYSDEC *Technical and Administrative Guidance Memorandum 4046: Determination of Soil Cleanup Objectives and Cleanup Levels* (TAGM 4046; NYSDEC, 1994) or applicable BCP soil cleanup objective values. The soil cleanup objectives for removal of source-area soil are listed in Table 4 of the Decision Document (NYSDEC, 2007)
3. Eliminate, to the extent practicable, the potential for offsite migration of residual contamination
4. Eliminate, to the extent practicable, the potential for exposure to residual contamination in groundwater
5. Eliminate, to the extent practicable, the potential for intrusion of volatile organic compound (VOC) soil vapors and methane into indoor air spaces in future buildings

As stated in the IRM Decision Document, the major elements of the IRM include:

- Excavation and offsite disposal of grossly contaminated soil, containing elevated concentrations of lead, at Potential Area of Concern (PAOC) 7 (southern part of former Body Plant) and PAOC 29 (northern area of site adjacent to Kingsland Point Park); soils with concentrations greater than (>) 5000 parts per million (ppm) for lead will be removed above the water table at both PAOC 7 and PAOC 29, and >10,000 ppm for lead at targeted depths below the water table at PAOC 7 and at all affected depths below the water table at PAOC 29
- Excavation and offsite disposal of grossly contaminated soil, containing elevated concentrations of chromium and trichloroethene, at PAOC 47 (along the western edge, near the mid-point of the Site adjacent to the southern area of Kingsland



Point Park); excavation limits in this area will be set at background/TAGM #4046 cleanup goals, or applicable BCP Soil Cleanup Objectives

- Excavation and offsite disposal of petroleum impacted soil from the area of a former 10,000 gallon underground storage tank (near the northwest corner of the former chassis plant)
- Chemical oxidants delivered through injection wells, to treat residual groundwater contamination in the area of PAOC 47 and the former 10,000 gallon underground storage tank
- Site-wide remedial action plan for the implementation of engineering and institutional controls(EC/IC) to prevent public contact with soils and historic fill materials that exceed soil screening values, prevent runoff of contaminated soil, minimize precipitation from infiltrating through residual contamination, mitigate intrusion of soil vapors and methane into indoor air spaces in future buildings, monitor groundwater in natural attenuation zones, and provide a mechanism to manage and mitigate short term exposure to subsurface materials during construction activities

The IRM remedies implemented in 2007 and summarized in this *IRM Completion Report* accomplished the first goal of removing grossly contaminated soil and contributed to the second goal of eliminating the potential for future exposure for the areas addressed. Specifically, these actions included:

- Excavation and offsite disposal of grossly contaminated soil containing elevated concentrations of lead at PAOC 7 and PAOC 29 (soils with concentrations greater than 5,000 ppm for lead above the water table in PAOCs 7 and 29, soils greater than 10,000 ppm for lead at targeted depths below the water table in PAOC 7, and all affected depths below the water table in PAOC 29)
- Excavation and offsite disposal of grossly contaminated soil containing elevated concentrations (above applicable BCP soil cleanup objectives) of chromium and trichloroethene in PAOC 47
- Excavation and offsite disposal of petroleum-impacted soil from the Former 10,000-gallon Underground Storage Tank (UST) Area

- As indicated in the Decision Document (NYSDEC, 2007), removal of all material that is present at concentrations that exceed TAGM 4046 values or applicable BCP Soil Cleanup Objectives for PAOCs 7 and 29 is not feasible. Several alternatives were evaluated to determine what removal activity would be feasible. Results of this evaluation, which supported the derivation of removal boundaries for this IRM, are presented in the Proposed IRM Scope of Work (ARCADIS BBL, 2007b) and Appendix K of the IRM Work Plan (ARCADIS BBL, 2007a)

The remaining goals will be met with the combination of:

- In-situ oxidation for saturated-zone soils and groundwater in the PAOC 47 area and UST area
- EC/IC measures for the entire Site
- Environmental Easement

Design and implementation of in-situ oxidation will follow the completion of the removal actions summarized in this *IRM Completion Report*. The EC/IC components of the Site-wide plan, as outlined in the Decision Document (NYSDEC, 2007), will consist of the following:

- A demarcation barrier consisting of a geotextile fabric or a structural surface (e.g., concrete or asphalt) over soil or fill that does not meet TAGM 4046 generic cleanup guidance, or applicable BCP Soil Cleanup Objectives
- A final barrier cap system throughout the entire Site consisting of either:
  - A 2-foot thick surface soil cover for landscaped or naturally-vegetated areas meeting applicable BCP Soil Cleanup Objectives for restricted-residential or active recreational uses; if necessary, based upon additional testing, steps will be taken to minimize infiltration through unsaturated soil exhibiting potential to leach lead to groundwater
  - Pavement (or similar hard surfaces) over non-vegetated areas
  - Permanent buildings or similar structures

- Mitigation measures, as necessary, to address potential for intrusion of methane into future indoor air space within the East Parcel and in the northern corner of the West Parcel
- Mitigation measures, as necessary, to address potential intrusion of volatile organic vapors into future indoor air space within the East and West Parcels
- Installation of additional monitoring wells, where necessary, and post-IRM groundwater monitoring to document that remedial action objectives are being achieved onsite and offsite
- Institutional controls implemented during and/or following Site development, including but not limited to:
  - A soil management plan and associated Site-specific health and safety plan (HASp) for potential future ground intrusive activities that may breach the demarcation barrier or extend beneath future permanent buildings/structures. The soil management plan will also address the handling and re-use of excavated soil or fill during Site development (e.g., onsite reuse of soil from excavation of building foundations and utility trenches), and reuse of the concrete millings as a subsurface fill material on site
  - Requirement that any historic fill excavated during underground utility construction be replaced by clean backfill (meeting TAGM 4046 generic cleanup guidance or applicable BCP Soil Cleanup Objectives for the intended use)
  - Requirement for post-construction monitoring and/or sampling as necessary to evaluate the potential for soil vapor intrusion prior to building occupancy
  - Performance specifications for maintenance of the Site-wide barrier cap system
  - Requirement for periodic inspection and evaluation by a qualified individual to confirm that EC/ICs are in-place and reliable
  - Requirement that site groundwater not be used

The site-wide EC/ICs, to be put in place as a part of this IRM, will be completed by incorporating these requirements into an environmental easement.

The components of the IRM to be implemented subsequent to the soil removal actions described in this *IRM Completion Report* will be addressed in separate documents listed in Section 1.1, which will be submitted to the NYSDEC at a later date. These reports will be submitted to the NYSDEC prior to completion of the IRM process.

### 1.3 Organization of IRM Construction Completion Report

This report is organized into the sections described below.

Section	Description
1 — Introduction	Presents an introduction to the project and provides a basis for the soil excavation IRM activities.
2 — IRM Summary	Summarizes the IRM activities conducted at the site.
3 — Construction Quality Control	Summarizes the procedures for implementing the Construction Quality Assurance Plan during the IRM activities.
4 — Record Drawings	Discusses the record drawings for final construction after completion of the IRM activities.
5 — Acronyms and Abbreviations	Summarizes the acronyms and abbreviations referenced in this report.
6 — References	Lists the references cited in this report.

## **2. IRM Soil Removal Summary**

### **2.1 General**

The soil removal portion of the IRM activities was conducted in accordance with the NYSDEC-approved IRM Work Plan (ARCADIS BBL, 2007a). The IRM Work Plan was conditionally approved by the NYSDEC in a letter to Blasland, Bouck & Lee, Inc. (known as ARCADIS BBL at that time) dated July 5, 2007. The IRM Work Plan (ARCADIS BBL, 2007a) was revised to incorporate changes requested by the NYSDEC in their conditional approval letter. The final IRM Work Plan was distributed on July 13, 2007. GM's Contractor, Severson Environmental Services, Inc. (Severson), conducted the soil removal activities. ARCADIS BBL (now known as ARCADIS) conducted onsite observation of the soil removal activities on GM's behalf.

Non-intrusive mobilization and site preparation began on April 17, 2007. Intrusive activities began July 27, 2007 after receiving the Building Permit from the Village of Sleepy Hollow (July 27, 2007).

Soil removal activities were conducted in accordance with the NYSDEC-approved IRM Work Plan (ARCADIS BBL, 2007a), with the exception of three modifications further described in Section 2.2. Sections following Section 2.2 describe in detail the activities included in the soil removal portion of the IRM.

Final confirmation sample results (collected as pre-excavation samples) used as the basis for the limits of excavation for the four excavation areas were previously provided as Appendix K to the IRM Work Plan (ARCADIS BBL, 2007a). The IRM Work Plan Appendix K is presented as Appendix A to this IRM Construction Completion Report for convenience.

### **2.2 IRM Work Plan Modifications**

On behalf of GM, ARCADIS BBL made requests to the NYSDEC for modifications to the IRM Work Plan (ARCADIS BBL, 2007a). Each modification was discussed with the NYSDEC prior to implementation. Below is a description of each modification to the IRM Work Plan (ARCADIS BBL, 2007a).

#### 2.2.1 Modification No. 1

Figure 4 of the IRM Work Plan (ARCADIS BBL, 2007a) indicated that the largest excavation area in PAOC 29 would be excavated to 10 feet below grade. On behalf of GM, ARCADIS BBL submitted a letter to the NYSDEC via electronic mail on August 16, 2007 presenting a revised Figure 4 that indicated the largest excavation area in PAOC 29 would be excavated to the top of the native (peat) layer, to be consistent with the text of the IRM Work Plan (ARCADIS BBL, 2007a). The NYSDEC approval of Modification No. 1 was received via electronic mail by ARCADIS BBL on August 16, 2007.

#### 2.2.2 Modification No. 2

The IRM Work Plan (ARCADIS BBL, 2007a) provided for a single contaminated materials (e.g., soil) staging area. However, GM accelerated the implementation schedule, which resulted in the need for one additional materials staging area. On behalf of GM, ARCADIS BBL submitted a letter to the NYSDEC requesting a second materials staging area be installed to accommodate an increase in soil staging capacity due to the accelerated project schedule. The Modification No. 2 request to the NYSDEC by ARCADIS BBL was sent via electronic mail on August 23, 2007. A conditional approval from the NYSDEC was received by ARCADIS BBL on August 23, 2007, pending a resubmittal of Modification No. 2 to depict the second materials staging area offset approximately 30 feet from the site boundary. ARCADIS BBL complied with the requested revision and submitted the revised Modification No. 2 on August 23, 2007 to the NYSDEC via electronic mail for their records.

#### 2.2.3 Modification No. 3

The IRM Work Plan (ARCADIS BBL, 2007a) did not provide any contingency procedures for handling drums that could be encountered during soil removal activities. On behalf of GM, ARCADIS BBL submitted a letter requesting the addition of a contingency procedure for handling waste-containing drums in the event any were encountered during IRM excavations. The Modification No. 3 request was submitted to the NYSDEC by ARCADIS BBL via electronic mail on August 28, 2007. This contingency procedure was not used during IRM activities because intact drums were not encountered (drum fragments were encountered as described in Section 2.4.2).

### 2.3 Mobilization/Site Preparation

Mobilization and site preparation activities commenced at the site on April 17, 2007. Severson and their subcontractors mobilized manpower, equipment and materials to the site to conduct non-intrusive mobilization and site preparation activities until GM received NYSDEC approval of the IRM Work Plan (ARCADIS BBL, 2007a). ARCADIS BBL provided visual review of the materials brought to the site for conformance with the IRM Work Plan (ARCADIS BBL, 2007a).

Pre-IRM site features are presented on Figure 2.

Severson initiated site preparation shortly after the associated mobilization activities occurred and began with clearing and grubbing of the appropriate areas of the site (e.g., site entrance, trailer area, along rail road track). The haul road used for trucks carrying backfill material was graded as necessary.

An electrical service was installed by Severson's electrical subcontractor, Eastern Electric. The electrical service included two electrical poles, a distribution panel and one transformer, installed from Hudson Street to service electric to the site trailers and the temporary water treatment plant.

The site perimeter fencing was repaired and construction gates were installed by Severson to allow for two controlled entrance/exit pathways to the IRM construction operations area. The fencing maintained site security during the IRM activities. Severson also temporarily installed black filter fabric on the fence adjacent to PAOCs 29 and 47 to limit visibility of the site from offsite locations.

Various repairs and inspections were completed on the existing railroad spurs servicing the site. The railroad tracks and switches were inspected by CSX and Metro-North. Repairs to siding tracks and ties were completed by Metro North. Severson cleared brush from the siding areas outside the site fence and removed soil from the flush-mounted tracks inside the site fence. Prior to mobilization of rail cars to the site by Environmental Rail Solutions (ERS), the rail spurs on site and in the area servicing the site, were inspected by CSX and determined to be functioning as required for the planned IRM operations.

Other miscellaneous site preparation activities conducted by Severson are listed below:

- installation of erosion and sedimentation controls for construction activities
- assembly of the temporary wastewater treatment system, including a staging pad beneath the treatment system for support and spill containment
- sample collection and analysis of imported backfill material (2" minus stone) from Tilcon New York, Inc. (Tilcon)
- installation of a materials staging area for staging of excavated material prior to rail car loading
- stockpiling of the imported backfill material after receiving approval from the NYSDEC and the Village of Sleepy Hollow

The Sections 2.3.1 through 2.3.3 describe the site preparation activities listed above.

#### 2.3.1 Erosion and Sediment Control Measures

Sevenson set up the erosion and sediment control measures in each excavation area prior to excavation/intrusive activities. The primary erosion and sediment control consisted of a berm made from recycled concrete (from the existing onsite concrete millings stockpile) and a layer of geotextile fabric. Sevenson also placed a layer of geotextile fabric over storm sewer and drywell inlets, with straw bales around the perimeter of these inlets for additional erosion and sediment control.

#### 2.3.2 Temporary Water Treatment System

Sevenson designed and constructed a temporary 100,000-gallon-capacity water treatment system adjacent to the trailers located on site, to treat water generated during IRM activities. The temporary water treatment system was designed to treat water collected in excavation areas from precipitation and/or groundwater infiltration, as well as decontamination water generated during decontamination of equipment and personnel, and water collected from materials located on the materials staging area.

A staging pad for the temporary water treatment system was first constructed using the concrete millings located on site to form the staging pad berms and access ramps. A geotextile cushion layer, a 40-mil polyethylene liner and a layer of crushed stone (approximately 600 tons imported from Tilcon) comprise the staging pad, which was designed to support the temporary water treatment system and act as secondary



containment in case of system leaks. The temporary water treatment system components and construction were completed in accordance with the IRM Work Plan (ARCADIS BBL, 2007a). Water generated during the IRM activities was conveyed through the components of the temporary water treatment plant in the following order:

- 100,00-gallon modutank for influent storage
- Oil/water separator
- Static mixer (after acid injection)
- Two acid reaction tanks
- Static mixer (after iron sulfate injection)
- Two iron sulfate reaction tanks
- Static mixer (after caustic injections)
- Two caustic reaction tanks
- Static mixer (after polymer injection)
- Flocculation tank
- Inclined plate clarifier (sludge collection)
- Pump tank with weirs
- Bag filters
- Organo clay vessel
- Three granular activated carbon units
- Bag filter
- Four 20,000-gallon frac tanks

### 2.3.3 Materials Staging Area

Two materials staging areas were constructed on site. The first and second materials staging areas share a common berm, as the second area was constructed adjacent to the first after initiating the IRM activities pursuant to IRM Work Plan Modification No. 2. As indicated in Section 2.2, the second materials staging area was completed to accommodate an increase in soil staging capacity due to the accelerated project schedule.

Each staging area was constructed on top of the existing concrete slab that is located adjacent to the site boundary along Kingsland Point Park. The materials staging areas consisted of a base and approximately 18-inch-high berms constructed from concrete millings. The staging pads were sloped to one corner that contained a sump to collect and pump water to the onsite temporary water treatment system. The staging pads and berms were covered by a continuously welded, 40-mil high-density polyethylene (HDPE) geomembrane. The geomembrane was covered on both sides with a nonwoven geotextile fabric, followed by a layer of stone that covered the entire staging area. The materials staging area components and construction were completed in accordance with the IRM Work Plan (ARCADIS BBL, 2007a).

The above-described mobilization and site preparation activities were conducted in accordance with the IRM Work Plan (ARCADIS BBL, 2007a) and Modification No. 2.

As part of the mobilization activities, several permits and approvals were obtained by Severson, as discussed in Section 2.3.4.

### 2.3.4 Permitting Requirements and Approvals

Prior to implementing the IRM activities outlined in the IRM Work Plan, Severson obtained the following applicable permits:

- electrical permit from Village of Sleepy Hollow
- wastewater discharge permit from Westchester County
- building permit from the Village of Sleepy Hollow

The building permit from the Village of Sleepy Hollow was finalized after NYSDEC approval of the IRM Work Plan (ARCADIS BBL, 2007a). Severson obtained the permit from the Village of Sleepy Hollow on July 27, 2007.

In addition, an electric meter from Consolidated Edison at the electric service connection and approval from CSX that the rail lines meet their standards for use, were required and obtained prior to initiating the IRM activities.

## **2.4 Soil Removal Activities**

### **2.4.1 General**

Soil removal IRM activities were conducted in four areas: PAOC 7, PAOC 29, PAOC 47 and the former 10,000-gallon UST area. The activities described below were conducted in accordance with the IRM Work Plan (ARCADIS BBL, 2007a), including several modifications discussed in Section 2.2.

In general, Severson used an excavator equipped with a vibratory hoe-ram attachment to demolish surface concrete slabs prior to excavation of soil in each excavation area. The surface concrete was removed from the general limits of the excavation areas and processed to the extent possible to meet the maximum 24-inch size requirement specified in the IRM Work Plan (ARCADIS BBL, 2007a) for temporary onsite stockpiling. The demolished concrete was temporarily staged and covered in an area on top of the existing concrete slab located adjacent to PAOC 47. The demolished concrete material was subsequently moved and consolidated into the PAOC 7 area following completion of the IRM at PAOC 7 as described in Section 2.5.3.

Soil excavation was completed by Severson using an excavator for soil removal within the four excavation areas. After stabilization and/or excavation, Severson loaded and transported the soil materials to the materials staging area by dump trucks. Soil stabilization is further described in Section 2.4.1.1. After soil and concrete were staged on the materials staging areas, front-end loaders transported the soil to the proper rail cars after determining that each batch of soil was nonhazardous following the appropriate waste characterization sampling.

Excavation limits and depths were confirmed by Severson's surveyor licensed in the State of New York (C.T. Male Associates, P.C. [C.T. Male]) as necessary during the IRM activities. After verification of the depths and limits of an excavation, restoration activities were initiated in the associated excavation area as described in Section 2.5.

In addition, during excavation support activities, Severson spilled approximately three gallons of diesel fuel on a non-impervious portion of the ground when moving their diesel fuel tank to secondary storage. Severson cleaned up the fuel by immediately removing all oil-stained soil. Soil was placed in the materials staging area for disposal with the petroleum-impacted former UST area soils. The spill was reported to the NYSDEC by Severson on September 13, 2007. The NYSDEC assigned a spill report number (0706598) and closed out the spill report on September 13, 2007.

#### *2.4.1.1 Soil Stabilization*

Soils located in PAOCs 29 and 7 were stabilized prior to excavation. These soils were stabilized in 500-ton segments with MAECTITE<sup>®</sup>, a liquid reagent used to stabilize soil into a waste that exhibits nonhazardous characteristics. The MAECTITE<sup>®</sup> and water were added to and mixed with the soil in-situ using an excavator. The stabilized materials were then excavated and transported to the materials staging area. Waste characterization samples were collected from the stabilized soil. Waste characterization composite samples were collected for each 500-ton segment of soil stabilized, in accordance with the IRM Work Plan (ARCADIS BBL, 2007a).

Stabilized soils were staged in the staging area prior to transportation and offsite disposal.

#### *2.4.1.2 Water Management*

The sediment and erosion control berms surrounding the excavation areas prohibited stormwater run-on from entering the open excavations. Rainfall collection in the shallow excavations (i.e., above the groundwater table) was negligible and did not result in the generation of free liquids in these areas. Rainfall and groundwater infiltration contributed to accumulation of water within the larger, deeper (i.e., below the groundwater table) excavation areas. The water in these areas was managed by a 4-inch diesel pump and flexible conveyance piping that pumped the water to temporary storage tanks for storage until the water could be pumped to the temporary water treatment system. A maximum of 7 frac tanks (21,000 gallons each) were used throughout the IRM activities to temporarily store the IRM-generated water prior to treatment. The water was conveyed to and passed through the water treatment system prior to discharge to the Westchester County Publicly-Owned Treatment Works (POTW). Confirmatory effluent samples were collected to verify that the treatment system was functioning properly to meet the Westchester County POTW discharge

requirements. Confirmatory samples and sample results are further discussed in Section 3 and presented in Appendix B.

#### 2.4.2 PAOC 29 Excavation Activities

This subsection provides specific details regarding the excavation of soils located in PAOC 29.

PAOC 29 excavation activities included excavation of grossly contaminated (lead) soil, excavation support, stabilization, water management and backfill of two separate excavations within PAOC 29. These consisted of one small and narrow “box” excavation and one larger excavation with three contiguous sub-areas based on depth of excavation.

Prior to the excavation activities in PAOC 29, the concrete slabs overlying the excavation areas (which were largely underlain by visibly clean drainage stone) and the surface layer of asphalt overlying much of the larger excavation area were demolished and temporarily staged near PAOC 47. Demolished asphalt that was separated from underlying contaminated fill by a base stone layer was initially staged adjacent to the PAOC 29 excavation until it was relocated near PAOC 47 (for potential reuse on site at a later date). Concrete slab sections and asphalt found to be in direct contact with historic fill (rather than visibly clean drainage stone) were stockpiled in the material staging area for offsite disposal with the PAOC 29 soils.

In general, soil excavation was completed from the top of ground surface to the top of the native (peat) layer where lead had been previously delineated to levels >10,000 ppm or to a targeted depth of approximately 3 feet below ground surface (pre-established depth to top of water table), where lead had been delineated to levels >5,000 ppm above the water table. The top of the groundwater table was determined based on groundwater elevation data collected from two site-wide monitoring events during May 1997 and May 2004 as presented in the Draft Preliminary RIR (BBL, 2006). The lowest groundwater elevation measured in the nearest monitoring well (elevation of +3.79 ft in OW-11, May 1997) was used as the pre-established elevation of the top of the groundwater table.

Sheet 4 of the Record Drawings presents the final details of the excavations, including excavation depths and limits. The area was dewatered toward the end of the excavation activities to visually observe the native peat layer. Water management was conducted as described in Section 2.4.1. Excavation of soil above the groundwater

table was completed in the dry. Excavation below the groundwater table was completed as the excavation was dewatered in order to visually document complete removal of fill to the native peat layer or gray sediment layer (for areas where the peat layer was thin or not present). Severson could not maintain the excavation area in a constant dewatered state, due to the rate of groundwater recharge. Therefore, excavation in this corner was completed in the wet until visual verification of the excavation depths was obtained. Once the depth had been achieved, based on recovery of gray sediment and peat material in the excavator bucket rather than fill, Severson further dewatered the excavation to allow ARCADIS to visually observe the presence of the native peat and/or sediment layer.

The soils in PAOC 29 were stabilized within the excavation, prior to removal and transfer to the material staging area. The stabilization of soils is discussed in Section 2.4.1. Approximately 1,900 gallons of MAECTITE<sup>®</sup> were added during stabilization of PAOC 29. Four waste characterization samples of the stabilized soil in PAOC 29 were collected; the samples indicated that the soil did not exhibit the characteristics of a hazardous waste for toxicity characteristic leaching procedure (TCLP) lead. In addition, one composite waste characterization sample was collected from the surface concrete that was in direct contact with historic fill. The sample results indicated the concrete did not exhibit characteristics of a hazardous waste and was subsequently crushed for offsite disposal. Waste characterization sampling is further described in Sections 2.7 and Section 3. Waste characterization results are presented in Appendix B.

Excavation support was not required in PAOC 29 in the areas where the excavation extended to the top of the groundwater table (approximately 3 feet below ground surface [bgs]). The area that was excavated to the top of the native layer (deep excavation area) was supported during excavation activities by sloping the excavation sidewalls in accordance with Occupational Safety and Health Administration (OSHA) standards. Soil removed from outside the excavation area as part of the sloping was placed in the material staging area with soils that were excavated from inside the excavation area. During the stabilization and excavation of the deep excavation area (down to native peat), nonintact, corroded metal drums, buckets and other metallic debris were encountered. The excavation area was dewatered to the extent possible to confirm that all metallic debris and other historic fill was removed down to the peat layer. Pieces of nonintact 55-gallon drums and 5-gallon buckets were encountered, though no intact containers were observed. Metallic debris included some scrap iron and steel. Soil in this area was determined to be nonhazardous based on the waste characterization sample results, and the nonintact drums and buckets were loaded out with other nonhazardous soil.

In the smaller southernmost excavation area in PAOC 29, a 4-inch cast iron pipe was encountered during excavation activities. The pipe transected the excavation area and was encountered at approximately 2 feet bgs. The pipe was left in place. Excavation and backfill occurred in this excavation area such that the cast iron pipe was not damaged. The approximate location of the pipe is included on Sheet 4 of the Record Drawings.

Sevenson dewatered the excavation areas in PAOC 29 as necessary to verify the excavation was completed to the native layer and to obtain survey measurements. This was completed prior to installing the demarcation barrier.

Sevenson excavated a total of approximately 1,100 in-place cubic yards (as measured by C.T. Male) of soil and concrete from PAOC 29. The soil and concrete (that was in direct contact with historic fill) were handled, transported and disposed off site as described in Section 2.7.

Following excavation, a demarcation barrier was placed and the area was backfilled. These restoration activities are discussed in Section 2.5.

#### 2.4.3 PAOC 47 Excavation Activities

This subsection provides specific details regarding the excavation of soils located in PAOC 47.

PAOC 47 excavation activities included excavation of grossly contaminated (chromium and trichloroethylene- [TCE-] impacted) soil, excavation support, water management and backfill of one area.

Prior to excavation, the concrete slab located at the surface and within the limits of the excavation area was demolished as described above in Section 2.4.1. The demolished concrete was staged adjacent to PAOC 47 until samples could be collected for characterization due to adhered soil from within the excavation limits. Ten waste characterization samples of the soil adhered to the former concrete slab were collected. The results indicated that the concentrations were below the restricted residential use cleanup objectives listed in Title 6 of the New York State Codes, Rules, and Regulations (NYCRR) Part 375. Therefore, removal of soil residue from the demolished surface concrete was not required. This un-impacted concrete from PAOC 47 was subsequently staged above grade in PAOC 7, as described in Section 2.7. The

subsurface concrete removed from within the excavation area was placed in the materials staging area and disposed with the soils excavated from PAOC 47.

In general, soil excavation was completed from the top of the ground surface (top of concrete slab) to approximately 13 feet below the ground surface. The excavation limits are presented on Sheet 3 of the Record Drawings. Excavation of soil in this area was conducted without significant dewatering due to the low rate of groundwater recharge. The excavation was dewatered prior to placement of the demarcation barrier to document the excavation depth through survey controls.

Previous samples collected from PAOC 47 did not indicate the presence of chromium at levels that would require stabilization prior to excavation; therefore, one sample from each 500-ton segment scheduled to be excavated was collected to determine if stabilization was required. These waste characterization samples indicated that the soil in PAOC 47 did not exhibit characteristics of a hazardous waste, which allowed Severson to excavate and stage the soils as necessary without stabilization. A total of 12 composite waste characterization samples were collected for soil in PAOC 47; these samples confirmed that each segment did not exhibit the characteristics of a hazardous waste. Waste characterization sampling is further described in Sections 2.7 and Section 3. Waste characterization results are presented in Appendix B.

The PAOC 47 excavation area required excavation support due to excavation depth. The excavation support included steel sheetpile along the west excavation wall, which extended approximately 10 feet beyond the excavation limits on each end. Due to obstructions encountered during installation of the steel sheetpile, a pretrenching method down to approximately 10 feet bgs was employed to attempt to remove and/or loosen obstructions to allow sheetpile installation to the required depth. Soil removed from above and below the groundwater table during pretrenching was disposed with the contaminated soil excavated from PAOC 47, and replaced with imported backfill material. Sheetpile was not used along the north, south and east excavation walls for excavation support. Excavation support was conducted in accordance with OSHA standards.

During excavation activities, additional concrete structures (e.g., walls and chambers) were encountered, demolished in place, removed with the soil and stockpiled within the materials staging area pending offsite disposal. A composite waste characterization sample was collected of this concrete, which indicated the concrete did not exhibit characteristics of hazardous waste. Waste characterization sampling is further



described in Sections 2.7 and Section 3. Waste characterization results are presented in Appendix B.

Sevenson excavated approximately 3,700 in-place cubic yards (as measured by C.T. Male) of soil and subsurface concrete from the excavation area in PAOC 47; this material was handled, transported and disposed off site as described in Section 2.7.

Following excavation, a demarcation barrier was placed and the area was backfilled. These restoration activities are discussed in Section 2.5.

#### 2.4.4 PAOC 7 Excavation Activities

This subsection provides specific details regarding the excavation of soils located in PAOC 7.

PAOC 7 excavation activities included excavation of grossly contaminated (lead) soil, stabilization, excavation support, water management and backfill of three areas.

Prior to excavation, the concrete slab within the limits of the excavation area was demolished and staged as described in Section 2.4.1. The existing concrete slab over PAOC 7 was elevated so that there was an approximate 8-foot void space between the reinforced concrete slab and the ground level beneath the slab. The demolished concrete was staged adjacent to PAOC 47 as demolition continued, though some pieces of the demolished concrete fell through the steel reinforcement down to the ground surface below. The fallen concrete was segregated from the underlying historic fill to the extent practical, leaving only the remaining smaller sized concrete materials that were in direct contact with historic fill for offsite disposal along with the underlying fill containing elevated lead concentrations. The steel re-bar used as reinforcement in the elevated concrete slab was removed from the concrete, transported and disposed off site at Brookfield Metal Company, a metal recycler located in Elmsford, New York. A portion of the concrete that was demolished was temporarily used as a clean base for excavator operations between the areas of excavation within PAOC 7. The larger clean demolished concrete was staged on site during the excavation activities near PAOC 47 with the clean concrete demolished from the other areas of concern. The concrete was subsequently staged above grade in PAOC 7, as described in Section 2.5.3. Waste handling, transportation and disposition are further described in Section 2.7.

In general, soil excavation was completed from the top of the sub-slab ground surface to the top of the groundwater table (pre-established at approximately 4 feet below sub-

slab grade) where lead had been delineated to levels >5,000 ppm above the water table, or to targeted depths (8 to 12 feet bgs) where lead had been delineated to levels >10,000 ppm. The top of the groundwater table was determined based on groundwater elevation data collected from two site-wide monitoring events during May 1997 and May 2004 as presented in the Draft Preliminary RIR (BBL 2006). The lowest groundwater elevation measured in the nearest monitoring wells (elevation +1.33 ft in OW-48, May 2004) was used as the pre-established elevation of the top of the groundwater table to set the shallow target excavation depth at 4 feet below the sub-slab grade. The elevation established for placement of clean backfill was the highest groundwater elevation measured from the nearest wells (elevation +1.67 ft in OW-45, May 2004).

The final excavation depths and limits for PAOC 7 are presented on Sheet 5 of the Record Drawings. Excavation of soil was completed with partial dewatering. Dewatering of the targeted depth areas became impractical at depths greater than 6 to 8 feet, resulting in extensive sidewall collapse. The deeper portions of these targeted depth excavations were therefore performed in the wet to achieve the required removal depths. C.T. Male personnel confirmed excavation depths by using a survey rod held from a manlift that extended out over the excavation area to verify the four corners of the deeper excavations.

As previously determined, PAOC 7 required stabilization prior to removal, which was conducted as described in Section 2.4.1. The soils were stabilized within the excavations prior to their transfer to the materials staging areas. Approximately 6,700 gallons of MAECTITE<sup>®</sup> were added to stabilize the soil of PAOC 7. Ten waste characterization samples were collected from the stabilized soil in PAOC 7. The samples indicated that each segment did not exhibit the characteristics of a hazardous waste (TCLP lead). Waste characterization sampling is further described in Sections 2.7 and Section 3. Waste characterization results are presented in Appendix B.

The PAOC 7 excavation did not require sheeting. The excavation support included sidewall sloping, as necessary. Excavation support was conducted in accordance with OSHA standards.

During excavation activities, several large concrete structures were encountered near the bottom of an excavation area in PAOC 7. These structures extended beyond the limits of excavation or had minimal quantities of soil located between the bottom of the structure and the bottom of the excavation. These structures and soil located below the structures remained in place, as agreed to by the NYSDEC, and as documented in the

minutes from the September 20, 2007 weekly meeting. The final features of PAOC 7, including the concrete structures, are presented on Sheets 1 and 5 of the Record Drawings.

Sevenson generated the following wastes during IRM activities in PAOC 7:

- approximately 3,700 in-place cubic yards (as measured by C.T. Male) of soil and concrete (that was in direct contact with the excavated soil) from the excavation areas
- approximately 130 tons of steel re-bar from demolition of the concrete slab

The waste listed above was handled, transported and disposed off site as described in Section 2.7.

Following excavation, a demarcation barrier was placed and the area was backfilled. These restoration activities are discussed in Section 2.5.

#### 2.4.5 Former UST Area Excavation Activities

This subsection provides specific details regarding the excavation of soils located in the former UST area.

Excavation activities in the petroleum-impacted former UST area included excavation of grossly contaminated soil, excavation support, water management and backfill of one area.

Prior to excavation, a portion of the former chassis plant concrete foundation was demolished to allow for excavation in all necessary areas of the former UST area. The demolished concrete foundation located above the ground surface was staged near PAOC 47 and subsequently placed above grade in PAOC 7.

In general, soil excavation was completed from the top of the ground surface to below the groundwater table to the final depths and limits presented on Sheet 2 of the Record Drawings, based on visual observation of the clean native (peat) layer. Overburden soil located above the petroleum-impacted soil (the first 4 feet) was excavated and stockpiled separately for reuse as backfill above the water table. Soil located deeper than approximately 4 feet bgs down to the clean native peat layer within the pre-confirmed removal boundary was assumed to be petroleum contaminated and was

excavated, staged and transported for offsite disposal. Water management within the excavation area was completed as described in Section 2.4.1.

Soil located in the former UST area did not require stabilization during or following excavation. The impacted materials to be excavated were previously profiled as nonhazardous petroleum-contaminated soil.

The former UST area excavation required excavation support due to the excavation depth. The excavation support included a steel sheetpile system (designed by Severson's licensed professional engineer) and benching of soil around the perimeter of the excavation. Sheets were driven to depths typically within the range of 30 to 50 feet below ground surface. Due to obstructions encountered during installation of the steel sheetpile, a pretrenching method was employed down to approximately 16 feet bgs to attempt to remove and/or loosen obstructions to allow sheetpile installation to the required depth. Soil removed from the area below the groundwater table during pretrenching was disposed of with the remaining soil excavated from the former UST area and replaced with imported backfill material. Soil removed from above the groundwater table during pretrenching (including soil removed outside the limits of excavation) was temporarily staged adjacent to the excavation and then replaced (after imported backfill material was placed up to the groundwater table). Excavation support was conducted in accordance with OSHA standards.

During excavation activities, the remaining portion of a UST (that was partially removed in 1998) and two additional USTs were encountered within the excavation area.

In 1998, a portion of the original 10,000-gallon UST was removed and the remaining portion of this UST was encountered during excavation activities. The original 10,000-gallon UST was constructed of riveted steel with an approximate 9-foot diameter.

The two additional USTs encountered were neither intact (heavily corroded, rusted and damaged from prior historical construction) nor known to have existed in this area. Based on the metal excavated during these activities, the size and original contents of the USTs are unknown. However, the recovered ends of both USTs measured 9 feet in diameter and were constructed of riveted steel. The apparent length of the USTs would have been no more than 20 feet based on the approximate size of the debris field. Based on appearance and prior soil sampling in their immediate vicinity, these USTs likely also stored petroleum product.

Based on discussions with the NYSDEC and as documented in the weekly meeting minutes for October 18, 2007 (Appendix C), the UST removal was completed under the BCP and required no additional reporting or sampling.

Photographs presented in Appendix D depict these three USTs as they were uncovered and excavated from the former UST area.

During the soil excavation, concrete structures were encountered. The subsurface concrete structures were placed in the material staging area with the excavated soil.

The soil excavation was considered complete when the historic fill and oil-stained native soils were removed from the excavation area, based on visual observation by ARCADIS BBL, with periodic oversight by the NYSDEC. The excavation removed impacted fill materials and soil down to the visibly clean native peat layer, beneath the general area where three USTs had been encountered, and down to a visibly clean native grey sand on the western edges of the excavation. Variation in required depth of excavation appeared to follow the natural slope of the underlying native horizon.

Sevenson excavated approximately 6,400 in-place cubic yards (as measured by C.T. Male) of soil and subsurface concrete from the former UST area excavation; the material was handled, transported and disposed off site as described in Section 2.7.

Following excavation, a demarcation barrier was placed, and the area was backfilled. Clean imported backfill was placed from the base of the excavation up to the designated water table elevation for this area (as determined based on two separate groundwater monitoring events) and was subsequently covered by the original top 4 feet of soil material that had been set aside. The elevation established for placement of clean imported backfill was the highest groundwater elevation measured from the nearest monitoring wells (elevation +4.5 ft in OW-22, May 2004). The sheetpiles were also removed. These restoration activities are discussed in Section 2.5.

#### 2.4.6 Excavation Summary

The table below summarizes the approximate volume of soil excavated from each excavation area, including the corresponding soil cleanup levels for the removal of soil contamination from the associated area.

Excavation Area	PAOC 29	PAOC 47	PAOC 7	Former UST Area
Approximate Soil Volume Excavated (in-place cubic yards)	1,100	3,700	3,700	6,400
Constituent and associated Cleanup Level (in parts per million [ppm])	Lead: - 5,000 ppm above the groundwater table - 10,000 ppm below the groundwater table	Trivalent Chromium: 180 ppm Hexavalent Chromium: 19 ppm Trichloroethene: 0.47 ppm	Lead: - 5,000 ppm above the groundwater table - 10,000 ppm below the groundwater table	VOCs and SVOCs: - 6 NYCRR Part 375 Restricted Residential Soil Cleanup Objectives

Soils containing constituents at concentrations above the associated cleanup levels were removed as part of the IRM activities.

## 2.5 Site Restoration/Demobilization

Installation of the demarcation barrier, backfill activities and demobilization of equipment and materials were completed in each area following the completion of excavation in each area. Once all excavations were completed, all equipment and materials were demobilized as described in Sections 2.5.1, 2.5.2 and 2.5.3.

### 2.5.1 Demarcation Barrier

After C.T. Male confirmed that the vertical and horizontal limits of the excavation areas had been achieved, Severson installed a demarcation barrier. The demarcation barrier consisted of a black geotextile fabric and was placed at the base and sidewalls of the excavations. The demarcation barrier was installed at the completed depth and horizontal extent of the excavations. The horizontal and vertical limits of the excavations are shown on Sheets 2 through 5 of the Record Drawings.

## 2.5.2 Backfill Activities

Following placement of the demarcation barrier, Severson backfilled the excavation areas. As described below, Severson used either imported 2-inch minus stone or concrete millings as the backfill material.

Backfill material imported to the site by Severson consisted of a 2-inch minus stone obtained from Tilcon located in West Nyack, New York. The analytical data, indicating the 2-inch minus stone meets the 6 NYCRR Part 375 Soil Cleanup Objectives, is included in Appendix E with the backfill analyses. The imported backfill material was used in areas that were excavated above and below the groundwater table, except where otherwise noted below. Approximately 22,000 tons of backfill material were imported and used on site. Weight tickets of the imported backfill material are presented as Appendix F.

Backfill was placed in 1-foot lifts, except for the initial construction lift. In excavation areas that extended below the groundwater table, an initial construction lift was placed from the bottom of the excavation to the top of the groundwater table. The construction lifts were larger than the standard 1-foot lift. The size of the construction lift depended on the depth of the excavation area.

Each lift was compacted to a minimum of 95 percent of the Standard Proctor density following backfill placement. Advance Testing (Campbell Hall, New York) conducted in-place density testing to verify that the backfilled areas met the 95 percent compaction requirement. Backfill materials were dumped into the excavation, spread with a wide-track bulldozer and compacted with a vibratory drum roller in all excavation areas, unless otherwise noted below. Compaction reports are presented as Appendix G to this report.

The subsections below include summaries of the backfill activities specific to each excavation area.

### 2.5.2.1 PAOC 29

Imported backfill in PAOC 29 was placed up to the approximate top of the groundwater table. Thereafter, each open excavation area was backfilled with imported backfill in 1-foot lifts for compaction. The three contiguous excavation sub-areas within the large excavation were compacted as one area. Compaction testing in these three sub-areas was also conducted as one area once the areas were backfilled to the same level. This

area was compacted as described above. The separate smaller trench-like excavation in PAOC 29 was backfilled in 1-foot lifts and was compacted using a small, remote-controlled vibratory roller due to space limitation with the compaction equipment used elsewhere in PAOC 29.

#### 2.5.2.2 PAOC 47

Imported backfill in PAOC 47 was placed to the top of the groundwater table. Thereafter, the excavation area was backfilled with imported backfill in 1-foot lifts for compaction. PAOC 47 was backfilled and compacted as described above.

#### 2.5.2.3 PAOC 7

Imported backfill in PAOC 7 was placed from the bottom of each excavation area up to the top of the groundwater table (approximately 3 feet below the top of original grade), which included the first 1-foot lift to be compacted. The excavations above the groundwater table were backfilled with concrete millings (available from an existing processed stockpile) in 1-foot lifts for compaction. PAOC 7 was backfilled and compacted as described above.

#### 2.5.2.4 Former UST Area

The former UST area was restored as outlined below:

- Imported backfill was placed from the bottom of the excavation to the top of the groundwater table elevation before the steel sheeting was removed.
- From the top of the groundwater table to the approximate top of ground surface, the overburden soil that was originally removed from above the above the petroleum-impacted soil and stockpiled, was returned to the excavation area. This soil was placed in 1-foot lifts for compaction.
- On top of the replaced overburden soil, a nominal 1-foot layer of concrete millings was placed as a temporary cover and graded to transition into surrounding grades.
- A section of the concrete slab and foundation of the former Chassis Plant had been partially demolished and pre-trenched to allow for sheet pile installation in the former UST area. The trenched area adjacent to the sheeting, including an open concrete pit with a base elevation a few feet below the groundwater table, was



backfilled with imported backfill material (to the top of the groundwater table elevation). Concrete millings were placed and sloped from the top of the concrete Chassis Plant foundation to transition into the surrounding grade.

The former UST area was backfilled and compacted using the methods described above.

#### 2.5.3 Demobilization of Equipment and Materials

Following completion of the IRM activities, Severson demobilized all labor, equipment and materials from the site. The majority of the demobilization activities occurred in November 2007 in accordance with the IRM Work Plan, unless otherwise noted. The demobilization activities are described below.

Decontamination of onsite equipment used during excavation activities was completed prior to mobilization of the equipment to the next excavation area and/or use for backfill activities. Decontamination was conducted with a pressure washer after bulk soil was manually removed from the equipment. Equipment decontamination took place on crane mats within the materials staging area which allowed the decontaminated equipment to exit the materials staging area without passing through the materials staged on the pad. Equipment was visually reviewed by Severson and ARCADIS prior to leaving the materials staging area, and if necessary was decontaminated again to visually confirm that excavated materials were not adhered to the equipment. Liquids were collected via a submersible pump and sent through the onsite temporary water treatment system.

Decontamination of storage tanks that temporarily stored construction water prior to treatment in the temporary water treatment plant was completed using a high-pressure water wash. The tank rental company did not require wipe samples to confirm decontamination of the temporary tanks. Decontamination of the temporary water storage tanks was completed as the tanks were no longer needed and were demobilized from the site. Decontamination water generated during decontamination activities was collected and sent to the temporary water treatment plant.

Steel sheet piles were removed using a crane and vibratory hammer used to install the sheets. The sheet piles from PAOC 47 and the former UST area were removed after backfill activities in these areas were complete. Sheet piles were decontaminated on the material staging pads in accordance with the IRM Work Plan (ARCADIS BBL,

2007a). The decontaminated sheeting was then staged at a GM-designated location on site.

Equipment and materials decontaminated were visually reviewed prior to mobilization to other excavation areas and/or off site.

Backfill material was regraded and smoothed into place as necessary in areas in and adjacent to the PAOCs that were slightly disturbed during removal of the steel sheet piles. Severson was unable to remove four steel sheet piles (two pairs) located in the former UST area. Severson dug a trench to cut these sheet piles off at the approximate top of the water table and left the remaining portion in place that was wedged in the obstruction. Each pair of sheet piles is approximately 4 feet wide. The approximate location of the sheet piles that were left in place are shown on Sheet 2 of the Record Drawings.

The materials staging areas were dismantled and disposed off site by rail with the other nonhazardous materials generated during the IRM activities.

Severson dismantled and demobilized the temporary water treatment system by completing the following:

- de-energized the system and removed electrical components
- decontaminated the large tanks and sent offsite to a Severson storage yard
- vacuumed sediment/debris from various components of the water treatment system (sediment/debris handled and disposed as discussed in Section 2.7)
- disposed of conveyance piping (i.e., piping used to transport water from the excavation area to the storage tanks and/or treatment system) that came into contact with water generated from the excavation areas; the piping was disposed of as a nonhazardous waste
- dismantled remaining components and sent off site to a Severson storage yard
- nonhazardous wastes generated for disposal were combined with the nonhazardous soils being shipped for offsite disposal by rail

Soil and erosion control measures (i.e., hay bales, berms and geotextile fabric), were removed and disposed of with the nonhazardous soils. Severson replaced a missing manhole cover near the former UST area and removed the shrouding on the fence adjacent to PAOC 29 during site restoration and demobilization.

#### *2.5.3.1 Materials/Structures Left On Site*

After completing the soil excavation activities, Severson moved the piles of surface concrete that were staged adjacent to PAOC 47 and placed the concrete within the limits of PAOC 7. The concrete consolidation area in PAOC 7 is protected from erosion by the raised slab surrounding PAOC 7. During movement of the concrete for final placement prior to demobilization, Severson further processed any concrete not meeting the maximum 24-inch size limit on backfill material with the excavator.

Severson sloped the sides of the concrete millings pile to remove the shear faces. Severson also installed a temporary chain link fence across the existing slab near PAOC 7 and tied it into the existing fence to secure the entire open cut and slab from unauthorized pedestrian traffic. All gates providing access to the remediated areas were locked. A Village DPW master lock secures the front gate to the site. The concrete millings pile, temporary chain link fence and temporary water treatment plant staging pad will remain on site after completion of the in-situ chemical oxidation (ISCO) phase of the IRM. In addition, following items will remain onsite during the ISCO injection IRM:

- two of the existing trailers (one storage and one office)
- electrical connections
- shrouding on fence adjacent to PAOC 47

Post-IRM temporary site features are presented on Figure 3. Post-IRM site features are presented on Sheet 1 of the Record Drawings.

#### *2.5.3.2 Post-IRM Meeting*

The Post-IRM Meeting was held at the site on Tuesday, November 27, 2007 and was attended by GM, Severson, the NYSDEC, Village of Sleepy Hollow and ARCADIS BBL. The attendees generated a list of items to be completed by Severson to

ARCADIS BBL's satisfaction prior to complete demobilization from the site. Meeting minutes are included in Appendix C.

Sevenson completed the listed items and had demobilized all manpower, equipment and materials as of January 7, 2007.

## **2.6 Air Monitoring**

ARCADIS BBL and Sevenson conducted air monitoring in accordance with the NYSDEC-approved Community Air Monitoring Plan and associated Health and Safety Plans (Appendices H, A and I to the IRM Work Plan) during intrusive work activities. ARCADIS BBL performed perimeter air monitoring while Sevenson performed air monitoring within the immediate work areas to monitor worker health and safety. The constituents of concern that were monitored included airborne particulates and VOCs. In general, air monitoring was conducted whenever historic fill was exposed to wind, until it was under temporary or permanent cover. During excavation activities, Sevenson covered each active work area to meet this requirement, when personnel were not actively excavating. Details of the monitoring programs are described below.

### **2.6.1 Work Area Perimeter Monitoring**

Work area perimeter monitoring was conducted by ARCADIS BBL for each work area where intrusive activities took place to document that contaminants from the site did not migrate (via wind) to the surrounding community. In some instances, two or more work areas were connected by heavy equipment traffic (e.g., haul roads). On these occasions, the work areas were combined and monitored as one work area due to proximity to each other.

In each work area, one air monitoring station was placed upwind and two air monitoring stations were placed within 200 feet downwind of the outermost extent of the work area. Wind direction was determined by using two windsocks positioned at the north and south ends of the site.

Each monitoring station consisted of an environmental enclosure mounted on a surveyor's tripod. The environmental enclosure contained: DR4000 particulate air monitor, Mini Rae 2000 photoionization detector (PID) and radio alarm transmitter. The radio alarm alerted an ARCADIS technician (via hand-held radio) when air particulates or volatile organic compounds exceeded allowable limits, in accordance with the IRM

Work Plan (ARCADIS BBL, 2007a). If necessary, work was stopped and dust suppression techniques, as described below, were implemented immediately.

At the end of each work day, the air monitoring stations were collected and data from the particulate and volatile organic air monitors was downloaded. The air monitoring results were summarized in a daily CAMP Summary Report. Throughout the entire project, one instantaneous exceedance of the established limit for particulates was observed and is discussed below.

The CAMP Summary Reports are presented in Appendix H to this report.

#### 2.6.2 Work Area Monitoring

Work area monitoring was conducted by Severson within every work area where intrusive activities took place to determine appropriate PPE requirements and/or appropriate control measures for the work area.

A particulate monitor (Dustrack 8520) and a Multi-Rae Plus 5 Gas Air Monitor were placed within each work area. The monitors were placed in an environmental enclosure. These monitors sounded an alarm audible to the immediate area when one of the parameters of concern exceeded their allowable limit. Upon hearing an alarm, a worker would contact the Severson onsite Health and Safety Officer to immediately address the situation.

The air monitoring stations were collected at the end of each day and a summary report of all the parameters was printed and reviewed on the following day.

#### 2.6.3 Dust Control

Several methods of dust control were employed during IRM activities to keep visible dust levels to a minimum. Severson used both a water truck and garden hose to suppress dust generation.

#### 2.6.4 Air Monitoring Exceedances

One air monitoring exceedance occurred during the intrusive work activities. The exceedance that occurred on August 9, 2007 resulted from an airborne dust cloud leaving the work area in the vicinity of PAOC 47. ARCADIS BBL's onsite representative determined the dust cloud was not generated by the disturbance of

historic fill, but by transport of sheet piles to within the lay-down area near PAOC 47, which resulted in a burst of dust from the dry cover soil in this area. Dust alarms were triggered in two downwind dust monitors and a maximum instantaneous measurement of  $193 \text{ ug/m}^3$  was observed by the ARCADIS BBL onsite representative at one of the downwind monitors (onsite). However, the short duration of the event did not result in any 15 minute averages (which are automatically recorded) above the  $100 \text{ ug/m}^3$  limit established in the CAMP. The exceedance notification was sent to the NYSDEC and New York State Department of Health (NYSDOH) within 24 hours of occurrence, and is included with the CAMP Summary Reports presented as Appendix H. Dust suppression measures were implemented to prevent, as practicable, any further dust generation.

## 2.7 Handling, Transportation and Offsite Disposition of Waste Materials

This section describes the handling, transportation and offsite disposition of waste materials generated during the IRM activities. The handling, transportation and offsite disposition of the waste materials were conducted by Severson and Severson's subcontractors in accordance with the IRM Work Plan (ARCADIS BBL, 2007a). Severson segregated and placed the wastes in the appropriate containers, and coordinated with their subcontractors the transportation and disposal of the wastes generated during the IRM activities. ARCADIS BBL and Severson collected waste characterization samples as described in Section 2.7.1.

### 2.7.1 Waste Characterization

Analytical data collected from the RI and from the treatability studies (previously discussed in the IRM Work Plan [ARCADIS BBL, 2007a]) were used to characterize the soils. Additional waste characterization samples were collected from the soil and other waste streams generated during the soil excavation activities (i.e., treated water and concrete structures). The additional waste characterization samples were collected to comply with local, state and federal regulations as well as the disposal facility (Allied) requirements.

The treatability study conducted by Severson indicated that PAOC 47 would not require stabilization. The waste disposal facility (Allied) requested that additional waste characterization samples be collected from the soils excavated from PAOC 47.

Sevenson stabilized the soils located in PAOCs 7 and 29 prior to excavation. Waste characterization samples of the stabilized soils were collected prior to excavation of PAOCs 7 and 29.

Soils located in the former UST area did not require additional waste characterization (based on the analytical information collected during the RI).

Treated wastewater effluent samples were collected to determine that the water was meeting the Westchester County POTW discharge requirements.

Additional waste characterization samples were collected from the following materials for proper characterization for the waste disposal facility:

- soil adhered to surface concrete demolished from the limits of PAOC 47
- concrete encountered below grade during excavation of PAOC 47 and surface concrete in contact with historic fill in PAOC 29 (one composite sample)

Waste characterization sampling and results are further discussed in Section 3.3.2.2.

Results of the waste characterization samples listed above indicated the waste materials met the site criteria or was nonhazardous. Table 1 summarizes the waste characterization samples collected during the excavation activities. Results of the waste characterization sampling are presented in Appendix B. Wastes generated during IRM activities were either transported and disposed off site or were staged and left on site for potential future use.

The wastes generated during the IRM soil removal activities were characterized as nonhazardous wastes (based on the waste characterization sampling). The following waste streams were transported off site for disposal unless otherwise noted:

- soil
- concrete
- generated water (treated water discharged to the local POTW)
- debris (including paper, plastic, tyvek, carbon, sediment and water treatment system piping)

- steel re-bar (transported offsite to a recycler for reuse)

The following items were staged on site for potential reuse:

- concrete (surface concrete from excavation areas not in contact with historic fill)
- asphalt (demolished from the surface of PAOC 29)

#### 2.7.2 Waste Handling

Sevenson segregated the waste materials based on the sampling conducted during the RI and the additional waste characterization samples collected prior to excavation and/or stabilization, demolition or discharge. Soils located in PAOCs 7 and 29 were stabilized prior to excavation. Soil stabilization is discussed in Section 2.4.1. Sevenson segregated soil and concrete on the materials staging area by each area of concern until rail cars were available for load out of the material. Concrete encountered below grade during excavation was placed on the staging area and processed, as necessary, to 24 inches or less using an excavator.

Water was collected and pumped from excavation areas and the materials staging area to temporary storage tanks until the temporary water treatment plant could allow a new batch of water through the treatment train prior to discharge. The sediment and carbon vacuumed from the temporary water treatment system was placed and mixed with the waste located in the materials staging area prior to placement in the rail cars.

Surface concrete demolished prior to excavation activities was staged on the existing concrete slab adjacent to PAOC 47, until restoration of PAOC 7 was completed. At the completion of the excavation and backfill activities, the surface concrete was staged in PAOC 7 at ground surface adjacent to the elevated slab for potential reuse on site at a later date.

#### 2.7.3 Waste Transportation and Disposition

Sevenson coordinated the offsite transportation and disposal of waste materials generated during the IRM activities. Waste profiles were completed and accepted by the disposition facility, and the waste manifests were completed (if required). Details on transportation and disposition of waste materials, followed by approximate quantity of that waste are listed below:



- soil/concrete/debris was transported by CSX/ERS via rail car to Niagara Falls Landfill located in Niagara Falls, New York — approximately 22,000 tons
- steel re-bar transported was transported by Brookfield Metal Company via tri-axle dump truck to Brookfield Metal Company — approximately 130 tons
- treated water was discharged to the Westchester County POTW — approximately 1,146,000 gallons

Nonhazardous waste manifests and other appropriate waste documentation are presented in Appendix I to this report.

### **3. Construction Quality Control**

#### **3.1 General**

This section describes the construction quality control (CQC) procedures implemented during the IRM activities conducted at the site. CQC measures were implemented in accordance with the IRM Work Plan (ARCADIS BBL, 2007a) and were used to gauge conformance of the IRM activities with the requirements of the IRM Work Plan (ARCADIS BBL, 2007a).

CQC measures performed by ARCADIS BBL at the site during the IRM activities included the following:

- quality control (QC) meetings/inspections/reviews
- QC testing
- Reporting

Implementation of the CQC procedures is discussed in Sections 3.2, 3.3 and 3.4.

#### **3.2 Quality Control Meetings/Inspections/Reviews**

QC meetings/inspections/reviews were conducted by ARCADIS BBL prior to, during and after completing the IRM activities and consisted of the following:

- pre-IRM meeting
- pre-IRM inspection
- project progress meetings
- daily site reviews
- post-IRM meeting

### 3.2.1 Pre-IRM Meeting

Prior to the start of construction, a pre-IRM meeting was held among representatives of GM, ARCADIS BBL and Severson. The topics covered at the meeting included:

- procedures and timing for each organization to receive relevant construction
- quality assurance (CQA) documents and supporting information
- responsibilities of each organization
- lines of authority and communication for each organization
- established procedures or protocol for ascertaining construction deficiencies, repairs and retesting
- methods of documenting and reporting construction observation data
- methods for distributing and storing documents and reports
- work area security and safety protocol
- procedures for the location and protection of construction materials, and for preventing damage to materials from inclement weather or other adverse conditions
- site walk-through to review site conditions as well as staging and storage locations
- Severson's proposed construction schedule

The pre-IRM meeting was documented by ARCADIS BBL and minutes were transmitted to the attending parties.

### 3.2.2 Project Progress Meetings

A progress meeting was held weekly at the site and via conference call. The meeting was attended by GM, Severson, the NYSDEC, ARCADIS BBL and the Village of Sleepy Hollow onsite representative, as appropriate. The purpose of the meetings was to address the following items:

- review the work activity for the week
- discuss Severson's personnel and equipment assignments for the week
- review the previous week's activities and accomplishments
- review the upcoming work schedule and overall project schedule
- discuss problems encountered
- review new test data
- discuss outstanding issues and action items

The project progress meetings were documented by ARCADIS BBL and minutes were transmitted to the attending parties as described below.

#### 3.2.3 Daily Site Reviews

Daily site reviews were conducted by ARCADIS BBL during the IRM activities to observe day-to-day operations, document that the activities were conducted in conformance with the IRM Work Plan (ARCADIS BBL, 2007a) and review site-related health and safety issues. The daily site reviews were documented by ARCADIS BBL in a daily construction report.

#### 3.2.4 Pre-IRM Inspection

The pre-IRM inspection was completed by Severson and the ARCADIS BBL on the first day of mobilization to verify existing site conditions. Documentation of the existing site conditions was conducted before commencement of the work.

#### 3.2.5 Post-IRM Meeting

The post-IRM meeting was held at the site on November 27, 2007 and was attended by GM, Severson, the NYSDEC, ARCADIS BBL and representatives from the Village of Sleepy Hollow to determine that all work has been completed in accordance with the IRM Work Plan (ARCADIS BBL, 2007a) and associated documents. Deficiencies and work not completed were included in a list of items, described in Section 2.5.3.2 to be

completed by Severson to the satisfaction of ARCADIS BBL. Meeting minutes documenting the Post-IRM Meeting are included in Appendix C.

### **3.3 Quality Control Testing**

ARCADIS BBL performed QC testing in accordance with the IRM Work Plan (ARCADIS BBL, 2007a). The testing included physical and chemical analyses, as described in Sections 3.3.1 and 3.3.2.

#### **3.3.1 Physical Analyses**

Physical analyses were conducted on the backfill materials that were placed in the excavation areas in accordance with the IRM Work Plan (ARCADIS BBL, 2007a). The physical analyses included a sieve analysis and modified proctor compaction testing. Results of the physical analyses indicated that the backfill materials conformed to the requirements specified in the IRM Work Plan (ARCADIS BBL, 2007a).

##### **3.3.1.1 Backfill Gradation**

Prior to importing backfill to the site, Severson collected samples for sieve analysis to provide that the backfill met gradation requirements specified in the IRM Work Plan (ARCADIS BBL, 2007a). This mechanical testing was performed in accordance with American Society of Testing and Materials (ASTM) D422. Backfill analyses of the 2-inch minus stone are presented as Appendix E.

##### **3.3.1.2 Backfill Compaction**

The backfill materials were compacted in place to a minimum of 95 percent of the Standard Proctor density by use of vibratory compaction equipment, in accordance with the IRM Work Plan (ARCADIS BBL, 2007a) and as described in Section 2. Severson contracted an independent geotechnical testing firm (Advance Testing of Campbell Hall, New York) to document that the proper compaction had been achieved prior to placing the overlying 1-foot lifts. Compaction testing was performed at a frequency of at least one test per 5,000 square feet of backfill placed or a minimum of one test per 12-inch lift, depending on which frequency was greater. In the event that an area did not meet the 95 percent compaction requirement, Severson recompacted the area and had the area retested to document that the compaction requirements had been met. Backfill material compacted in the excavation areas met the requirements

established in the IRM Work Plan (ARCADIS BBL, 2007a). The compaction reports are presented as Appendix G.

### 3.3.2 Chemical Analyses

#### 3.3.2.1 *Imported Backfill Analysis*

Samples of the imported backfill material (Tilcon 2-inch minus stone) were collected prior to import on site to determine that the material was clean by meeting site requirements (BCP restricted residential criteria listed in 6 NYCRR Part 375).

#### 3.3.2.2 *Waste Characterization*

As described in Section 2.7.1, the generated wastes were characterized using analytical data collected during the RI and the treatability study conducted by Severson. Additional waste characterization samples were also collected during the soil removal activities. Waste characterization samples were collected from the soils excavated from PAOCs 7, 29 and 47 prior to disposal.

Additional material (e.g., concrete structures) encountered during excavation also required samples for waste characterization. The samples collected were analyzed for Resource Conservation and Recovery Act (RCRA) toxicity compliance using the TCLP associated with constituents related to the associated sample area. Upon confirmation that the concrete waste material did not leach constituents that exceeded of the applicable RCRA toxicity limit, the material was staged and loaded for offsite disposition. The concrete waste materials were managed as nonhazardous wastes and were disposed of in a RCRA Subtitle D nonhazardous waste landfill. Waste characterization samples collected for TCLP or other analyses are discussed below. Waste characterization samples collected are summarized in Table 1.

Pre-stabilization (in PAOC 47) and post-stabilization (in PAOCs 7 and 29) soil samples were collected using the same sampling methodology. Ten random grab samples were collected per 500-ton lot of soil (before or after treatment). The soil was divided into an imaginary grid which assigned a series of consecutive number to the units of the grid. The 10 grab samples were collected from grid numbers randomly selected through use of a random numbers table. The 10 grab samples were then composited into 1 final composite sample for that 500-ton lot of soil. These composite samples for PAOCs 7, 29, and 47 are included in Table 1. Post-stabilization soil samples were collected from PAOC 29 to support the requirements of the waste disposal facility.

Three soil waste characterization samples were collected from PAOC 29 soil within the materials staging area and analyzed for TCLP lead. None of the TCLP lead results indicated the soils exhibited characteristics of a hazardous waste.

Pre-stabilization soil samples were collected in PAOC 47 to support the requirements of the waste disposal facility. Twelve soil waste characterization samples were collected from PAOC 47 in-place soil and analyzed for TCLP chromium and TCLP TCE. Total chromium was analyzed for in the first sample set only, to be used for treatability purposes, if required. Based on TCLP results for chromium, the soil excavated from PAOC 47 did not require stabilization. Ten waste characterization samples of soil adhered to surface concrete in PAOC 47 were also collected and analyzed for total chromium. The results of the total chromium analyses were compared to chromium cleanup objectives for restricted residential use to determine if this concrete could be staged in PAOC 7 and left uncovered. None of the TCLP chromium or TCLP TCE results indicated the soils exhibited characteristics of a hazardous waste. The total chromium results were less than the restricted residential use criteria listed in 6 NYCRR Part 375.

Post-stabilization soil samples were collected from PAOC 7 soils within the materials staging area to support the requirements of the waste disposal facility. Ten soil waste characterization samples were collected and analyzed for TCLP lead criteria. None of the TCLP lead results indicated the soils exhibited characteristics of a hazardous waste.

In addition, one composite concrete waste characterization sample was collected from below grade concrete encountered in PAOC 47 and surficial concrete encountered in PAOC 29. The waste characterization sample was collected and analyzed for TCLP chromium, TCLP TCE and TCLP lead criteria. None of the TCLP chromium, TCLP TCE or TCLP lead results indicated the concrete exhibited characteristics of a hazardous waste.

Water generated during the IRM activities was sent through the temporary water treatment plant and sampled. The effluent sample results of the treated water indicated that the constituents were below the discharge criteria for the Westchester County POTW. Severson submitted the effluent results to Monika Wieleba, the Assistant Environmental Chemist for the Department of Environmental Facilities at the Westchester County POTW. Effluent samples were collected, in general accordance with the IRM Work Plan (ARCADIS BBL, 2007a), on the following dates:

- 8/20/2007
- 8/21/2007
- 8/22/2007
- 8/23/2007
- 8/27/2007
- 8/29/2007
- 9/25/2007

Results of the waste characterization samples collected from PAOC 29, PAOC 47, PAOC 7, and the water treatment effluent listed (above) in this section, indicated that the wastes sampled were nonhazardous. Table 1 summarizes the waste characterization samples collected during excavation activities. Results of the waste characterization sampling are presented in Appendix B.

### **3.4 Reporting**

#### **3.4.1 Daily Construction Reports**

ARCADIS BBL completed a daily summary report of each day's construction activities. The daily construction report contained the following information:

- date, project name, location and number and names of ARCADIS BBL personnel on site
- time work started and ended, in addition to the time of work stoppages related to unforeseen conditions, inclement weather or insufficient equipment or personnel
- general information on weather conditions
- contractor's work force, equipment and materials delivered to or removed from the job site — referenced in Severson's daily report



- chronological description of work in progress, including notices to or requests from the Contractor
- results of testing
- problem/deficiency identification and documentation describing corrective actions taken for field problems and nonconformance with the IRM Work Plan (ARCADIS BBL, 2007a)
- list of any samples collected, marked and delivered to the CQA laboratory
- record of communications with other onsite parties, outside companies or regulatory agencies regarding the day's construction activities

Daily construction reports were made available to the NYSDEC during the project and will be maintained with the project files.

#### 3.4.2 Meeting Minutes

ARCADIS BBL prepared meeting minutes that documented each weekly and milestone project progress meeting. The meeting minutes were distributed weekly, and otherwise as necessary, to the meeting attendees. The weekly minutes documented the work completed during the previous week, issues associated with the work activities, work to be completed during the next week, additional information and action items. The weekly meeting minutes are presented as Appendix C.

#### 3.4.3 Photographic Documentation

Color photographs were taken to document observations, problems, deficiencies and work in progress. The photographs were date stamped and filed in chronological order.

Select photographs that provide a documentation summary of the IRM activities were included in Appendix D — Photographic Documentation. The photographs presented in Appendix D include the date and time the photograph was taken, and a brief description of the subject matter.

#### **4. Record Drawings**

The required record drawings (Sheets 1 through 5) are included following the figures.

## 5. References

ARCADIS BBL. 2007a. *Interim Remedial Measure Work Plan, Former General Motors Assembly Plant Site*. 2007.

ARCADIS BBL. 2007b. *Proposed Interim Remedial Measure, Former General Motors Assembly Plant Site Scope of Work*. 2007.

BBL 2006. *Preliminary Draft Remedial Investigation Report for Brownfield Cleanup Agreements, Former General Motors Assembly Plant Site, Sleepy Hollow, NY*. December 2006

New York State Department of Environmental Conservation. 2007. *Decision Document, Former General Motors North Tarrytown Assembly Plant*. 2007.

New York State Department of Environmental Conservation. 1994. *Technical Administrative Guidance Memorandum 4046: Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046)*. January 1994.

**Table 1**

Waste Characterization Sample  
Summary

**TABLE 1**  
**WASTE CHARACTERIZATION SAMPLE SUMMARY**

**FORMER GENERAL MOTORS ASSEMBLY PLANT SITE -**  
**SLEEPY HOLLOW, NEW YORK**

Waste Stream	Sample ID	Date Collected	Analyses
Generated Water	Effluent 082007	8/20/2007	pH, Total suspended solids, Oil and grease, Total petroleum hydrocarbons, Total toxic organics, Volatile organic compounds, Semi-volatile organic compounds, Lead, Total and Hexavalent Chromium
	Effluent 082107	8/21/2007	
	Effluent 082207	8/22/2007	
	Effluent 082307	8/23/2007	
	Effluent 082707	8/27/2007	
	Effluent 082907	8/29/2007	
	Effluent 092507	9/25/2007	
PAOC 29 Stabilized Soil	TS-001	8/13/2007	TCLP Lead
	TS-002	8/15/2007	
	TS-003	8/24/2007	
PAOC 29 and PAOC 47 Composite Concrete	PAOC 29/47 TS004	8/29/2007	TCLP Chromium, TCLP Lead, TCLP Trichloroethene
PAOC 47 Soil Adhered to Surface Concrete	PAOC-47-1-00	10/18/2007	Total Chromium
	PAOC-47-2-00	10/18/2007	
	PAOC-47-3-00	10/18/2007	
	PAOC-47-4-00	10/18/2007	
	PAOC-47-5-00	10/18/2007	
	PAOC-47-6-00	10/18/2007	
	PAOC-47-7-00	10/18/2007	
	PAOC-47-8-00	10/18/2007	
	PAOC-47-9-00	10/18/2007	
PAOC 47 Soil	PAOC 47-1	8/10/2007	TCLP Chromium, Total Chromium, TCLP Trichloroethene
	PAOC 47-2	8/10/2007	
	PAOC 47-3	8/10/2007	
	PAOC 47-4	8/10/2007	
	PAOC 47-5	8/10/2007	
	PAOC 47-6	8/10/2007	
	PAOC-47, Area1 7.5'-13'	8/24/2007	TCLP Chromium, TCLP Trichloroethene
	PAOC-47, Area2 7.5'-13'	8/24/2007	
	PAOC-47, Area3 7.5'-13'	8/24/2007	
	PAOC-47, Area4 7.5'-13'	8/24/2007	
	PAOC-47, Area5 7.5'-13'	8/28/2007	
	PAOC-47, Area6 7.5'-13'	8/28/2007	
PAOC 7 Stabilized Soil	TS005	9/14/2007	TCLP Lead
	PAOC 7 TS006	9/17/2007	
	PAOC 7 TS007	9/18/2007	
	PAOC 7 TS008	9/20/2007	
	PAOC 7 TS009	9/24/2007	
	PAOC 7 TS010	9/24/2007	
	PAOC 7 TS011	9/25/2007	
	PAOC 7 TS012	9/26/2007	
	PAOC 7 TS013	9/27/2007	
	PAOC 7 TS014	9/27/2007	

**Notes:**

1. TCLP = Toxicity Characteristic Leaching Procedure
2. PAOC = Potential Area Of Concern
3. The composite concrete sample was collected from a stockpile of PAOC 29 surface concrete that was in contact with historic fill, and subsurface concrete structures encountered in PAOC 47.
4. Waste characterization sample results are included in Appendix B.

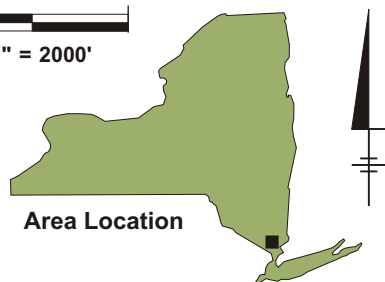
## Figures





REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., WHITE PLAINS, NY, 1967, PHOTOREVISED 1979.

2000' 0 2000'  
Approximate Scale: 1" = 2000'



FORMER GENERAL MOTORS ASSEMBLY PLANT SITE  
SLEEPY HOLLOW, NEW YORK  
IRM CONSTRUCTION COMPLETION REPORT

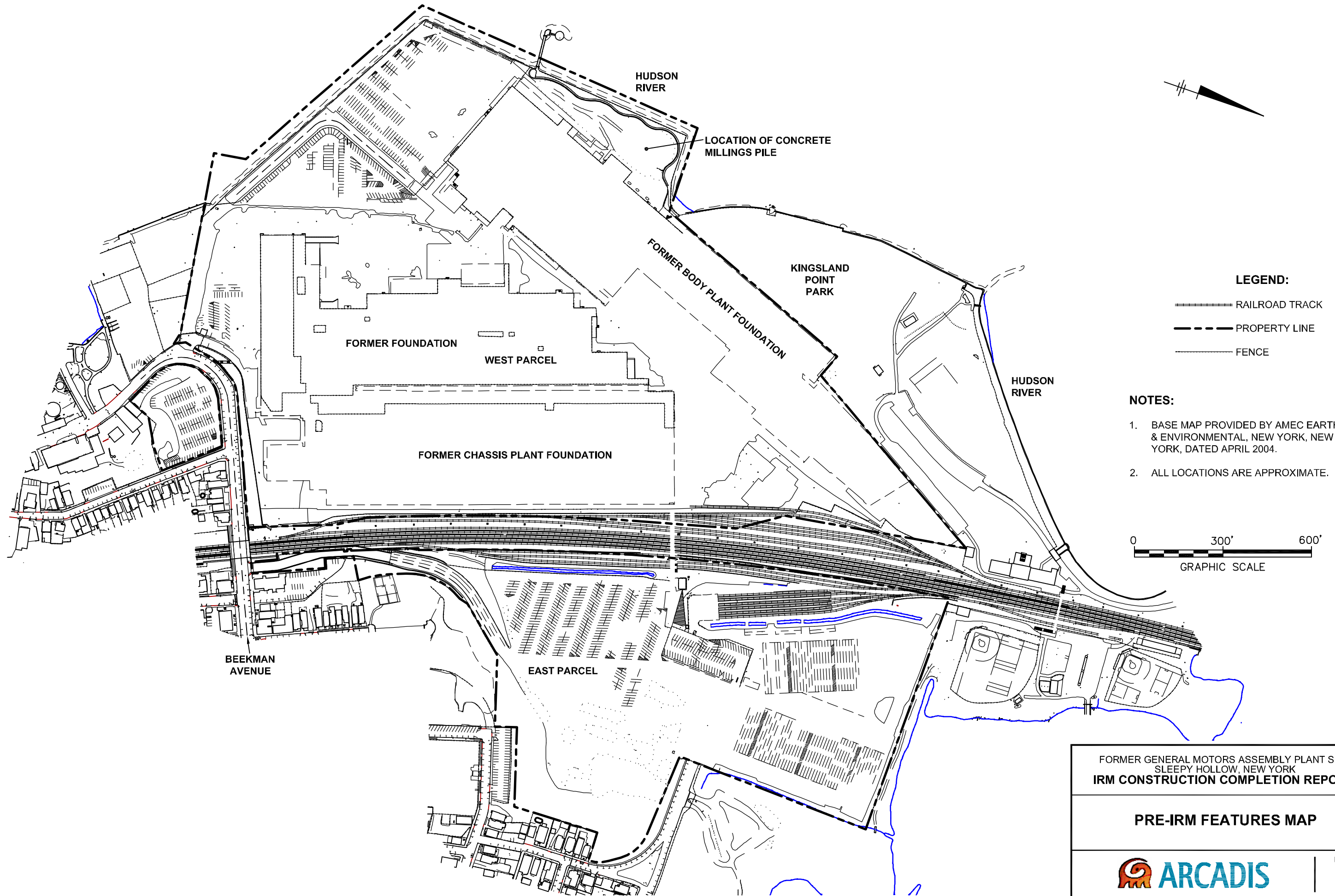
## SITE LOCATION MAP



FIGURE  
1



CITY:SYRACUSE DIV:GROUP:141 DB:PGL KEWLAF LD:PGL PIC: PMA:FAZARANO TM: LYR:ONE-OFF-REF  
G:\CADD\ACT\B0064462\000004\2\DWG\IRM\64462\G01.DWG LAYOUT: 2 SAVED: 8/13/2008 8:30 AM ACADVER: 17.05 (LMS TECH) PAGES: 2 PLOT: 1 PLOTSTYLETABLE: PLT\AUL\CTB PLOTTED: 9/23/2008 1:14 PM BY: SARTORI, KATHERINE  
XREFS: IMAGES: PROJECTNAME: --





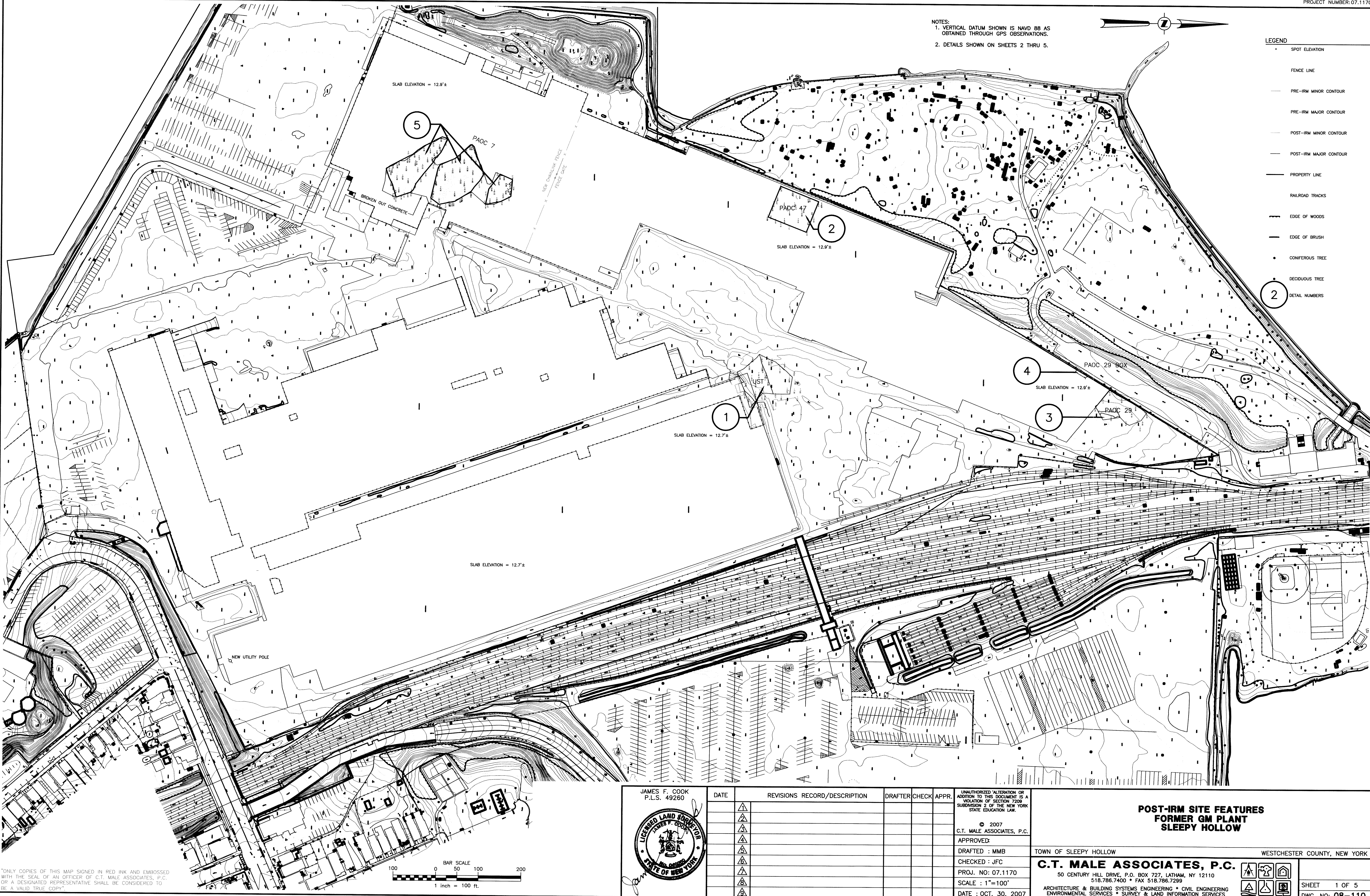




ARCADIS

**Record Drawings**



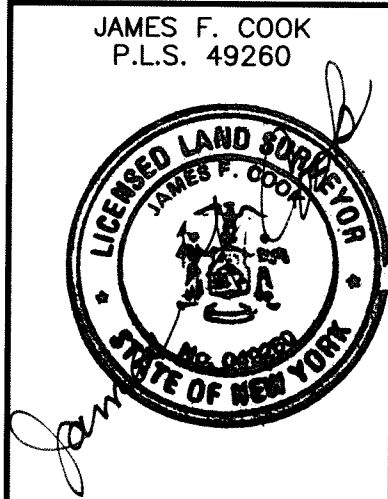
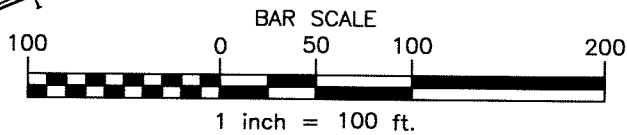


NOTES:  
1. VERTICAL DATUM SHOWN IS NAVD 88 AS OBTAINED THROUGH GPS OBSERVATIONS.  
2. DETAILS SHOWN ON SHEETS 2 THRU 5.

- LEGEND
- SPOT ELEVATION
  - FENCE LINE
  - PRE-IRM MINOR CONTOUR
  - PRE-IRM MAJOR CONTOUR
  - POST-IRM MINOR CONTOUR
  - POST-IRM MAJOR CONTOUR
  - PROPERTY LINE
  - RAILROAD TRACKS
  - EDGE OF WOODS
  - EDGE OF BRUSH
  - CONIFEROUS TREE
  - DECIDUOUS TREE
  - DETAIL NUMBERS

CAD DWG. FILE NAME: COMBINED.DWG

"ONLY COPIES OF THIS MAP SIGNED IN RED INK AND EMBOSSED WITH THE SEAL OF AN OFFICER OF C.T. MALE ASSOCIATES, P.C. OR A DESIGNATED REPRESENTATIVE SHALL BE CONSIDERED TO BE A VALID TRUE COPY."



DATE	REVISIONS	RECORD/DESCRIPTION	DRAFTER	CHECK	APPR.
	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.  
© 2007  
C.T. MALE ASSOCIATES, P.C.  
APPROVED:  
DRAFTED : MMB  
CHECKED : JFC  
PROJ. NO: 07.1170  
SCALE : 1"=100'  
DATE : OCT. 30, 2007

POST-IRM SITE FEATURES  
FORMER GM PLANT  
SLEEPY HOLLOW

TOWN OF SLEEPY HOLLOW		WESTCHESTER COUNTY, NEW YORK	
<b>C.T. MALE ASSOCIATES, P.C.</b> 50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110 518.786.7400 • FAX 518.786.7299			
ARCHITECTURE & BUILDING SYSTEMS ENGINEERING • CIVIL ENGINEERING ENVIRONMENTAL SERVICES • SURVEY & LAND INFORMATION SERVICES			
		SHEET 1 OF 5 DWG. NO: 08-110	



UNAUTHORIZED ALTERATION OR ADDITION TO  
THIS DOCUMENT IS A VIOLATION OF SECTION  
7209 SUBDIVISION 2 OF THE NEW YORK STATE  
EDUCATION LAW.

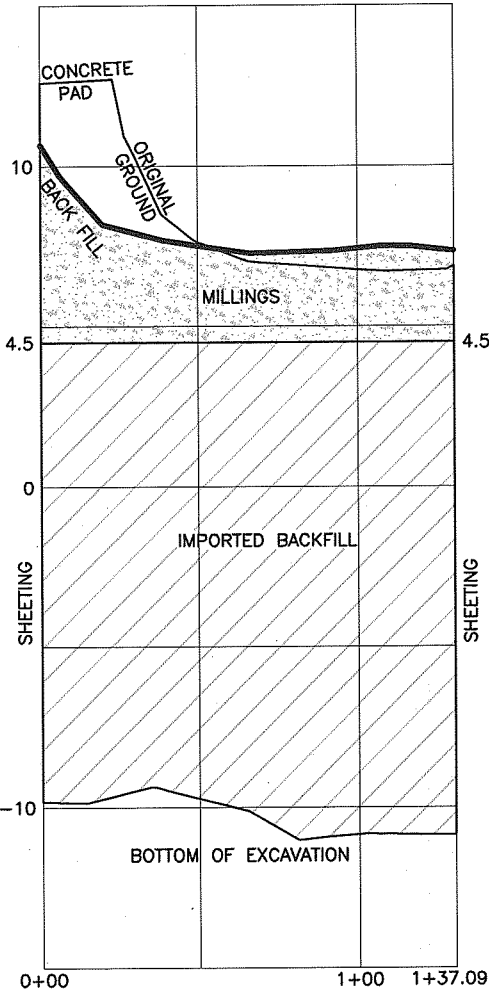
NOTES:

1. VERTICAL DATUM SHOWN IS NAVD 88  
AS OBTAINED THROUGH GPS  
OBSERVATIONS.
2. CONTOURS AND SPOT ELEVATIONS  
SHOWN REPRESENT THE LIMITS OF  
EXCAVATION.

1

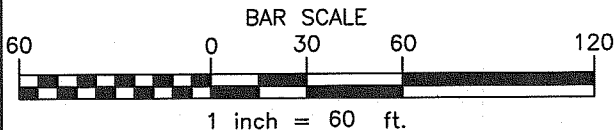
# UST EXCAVATION AREA

SCALE: HORZ. 1" = 60'  
VERT. 1" = 6'  
CROSS REFERENCE: NONE

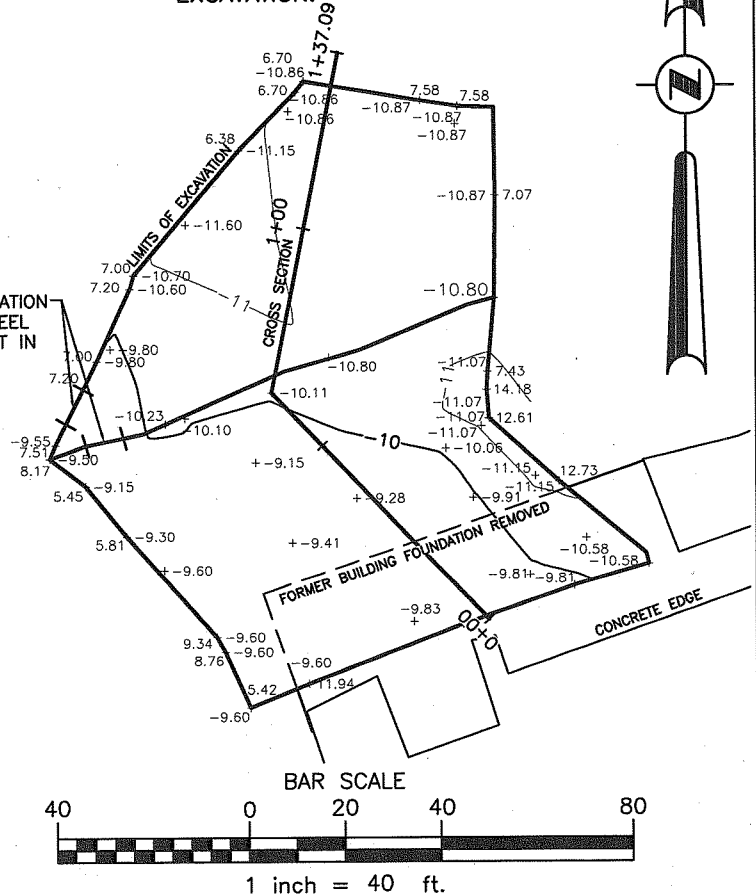


LEGEND

+9.15 SPOT ELEVATION



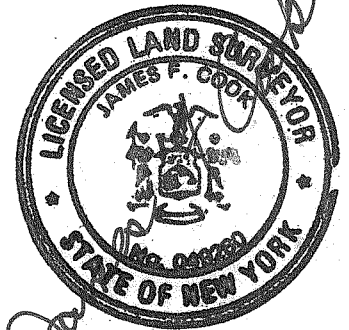
APPROXIMATE LOCATION  
OF 2 PAIR OF STEEL  
SHEET PILING LEFT IN  
PLACE



UST SITE
APPROXIMATE VOLUME OF EXCAVATION
6354 cu. yds. CUT
APPROXIMATE VOLUME OF IMPORTED BACKFILL
5035 cu. yds. FILL
APPROXIMATE VOLUME OF MILLINGS
1133 cu. yds. FILL
APPROXIMATE TOTAL VOLUME OF BACKFILL
6168 cu. yds. FILL

DWG. NO: 08-110  
SHEET 2 OF 5

JAMES F. COOK  
P.L.S. 49260



## UST EXCAVATION AREA FORMER GM PLANT SLEEPY HOLLOW

TOWN OF SLEEPY HOLLOW WESTCHESTER COUNTY, NEW YORK

### C.T. MALE ASSOCIATES, P.C.

50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110  
518.786.7400 \* FAX 518.786.7299

Architecture & Building Systems Engineering \* Civil Engineering  
Environmental Services \* Survey & Land Information Services



Date	RECORD OF WORK	Appr.

Drafter: MMB Checker:  
Appr. by: Proj. No. 07.1170

SCALE: 1"=40'

DATE: 10/19/07

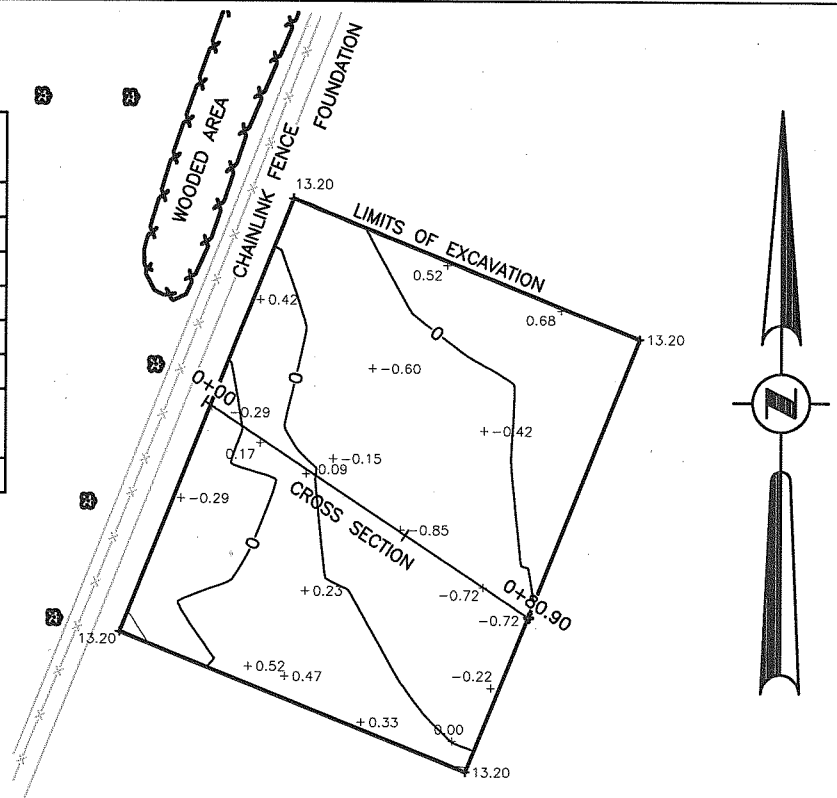
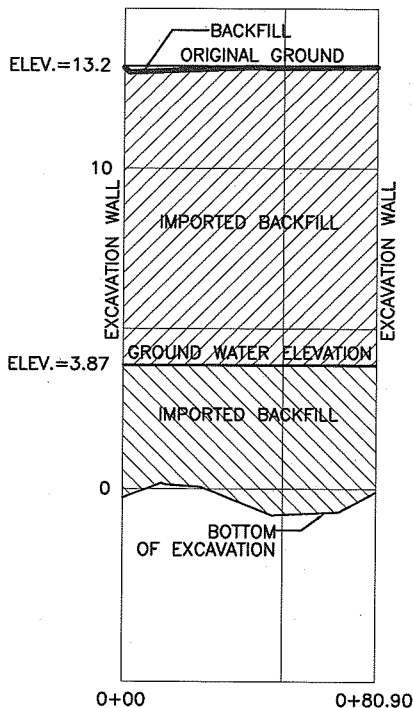
UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

APPROXIMATE VOLUME OF EXCAVATION	
TOP TO 3.87'	2687 cu.yds CUT
3.87' TO BOTTOM	1028 cu.yds CUT
TOP TO BOTTOM	3715 cu.yds CUT
APPROXIMATE VOLUME OF IMPORTED BACKFILL	
	3774 cu. yds. FILL

2

## PAOC 47

SCALE: HORZ. 1" = 60'  
VERT. 1" = 6'  
CROSS REFERENCE: NONE



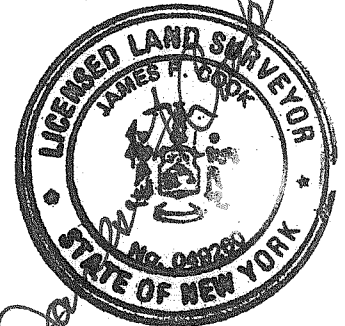
### NOTES:

1. VERTICAL DATUM SHOWN IS NAVD 88 AS OBTAINED THROUGH GPS OBSERVATIONS.
2. CONTOURS AND SPOT ELEVATIONS SHOWN REPRESENT THE LIMITS OF EXCAVATION.

### LEGEND

- DECIDUOUS TREE
- SPOT ELEVATION
- FENCE LINE
- PROPERTY LINE

JAMES F. COOK  
P.L.S. 49260



DWG. NO: 08-110  
SHEET 3 OF 5

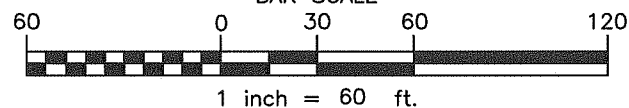
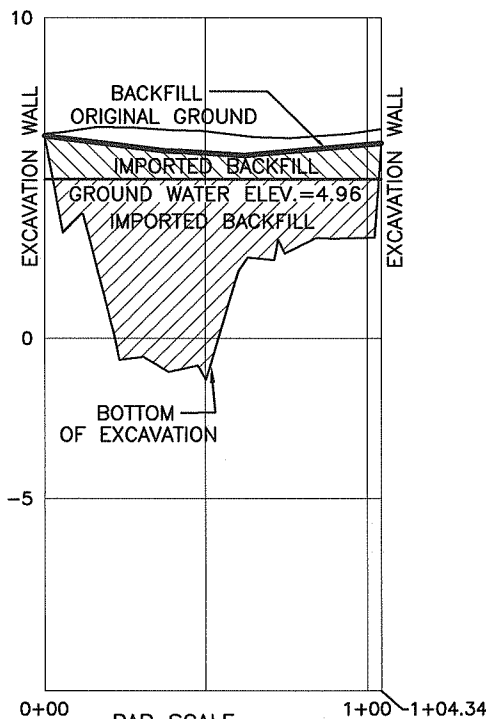
Date	RECORD OF WORK	Appr.	PAOC 47 EXCAVATION AREA FORMER GM PLANT SLEEPY HOLLOW
TOWN OF SLEEPY HOLLOW   WESTCHESTER COUNTY, NEW YORK			<b>C.T. MALE ASSOCIATES, P.C.</b> 50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110 518.786.7400 * FAX 518.786.7299 Architecture & Building Systems Engineering * Civil Engineering Environmental Services * Survey & Land Information Services
Drafter: MMB	Checker: JFC		
Appr. by: JFC	Proj. No. 07.1170	SCALE: AS NOTED	DATE: SEPTEMBER 8, 2007

PAOC 29	
APPROXIMATE VOLUME OF EXCAVATION	
TOP TO 4.96	259 cu.yds CUT
4.96' TO BOTTOM	809 cu.yds CUT
TOP TO BOTTOM	1068 cu.yds CUT
APPROXIMATE VOLUME OF IMPORTED BACKFILL	
974 cu. yds FILL	

3

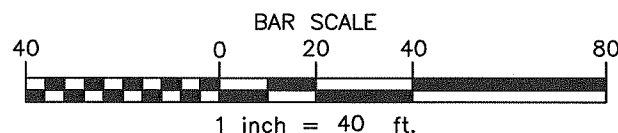
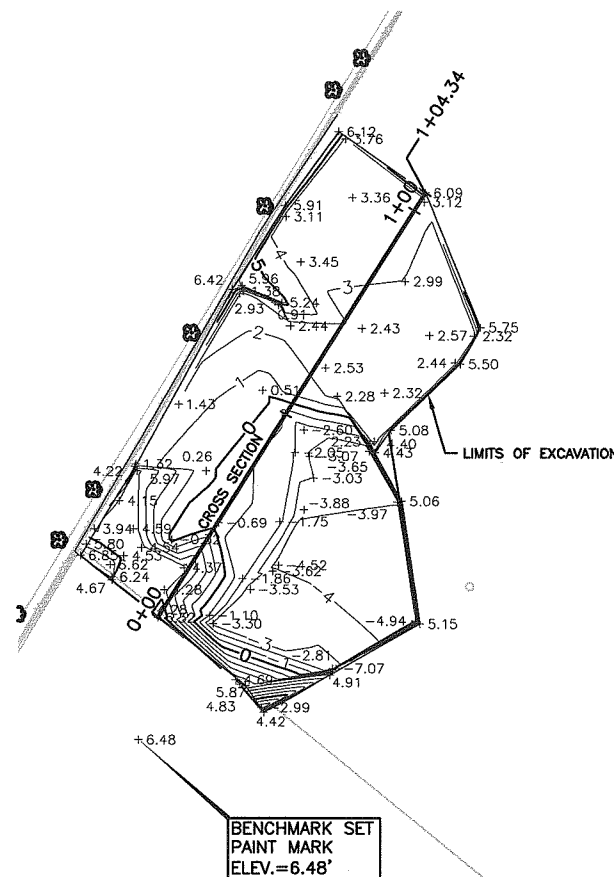
## PAOC 29

SCALE: HORZ. 1" = 60'  
VERT. 1" = 6'  
CROSS REFERENCE: NONE  
**CROSS SECTION**



"ONLY COPIES OF THIS MAP SIGNED IN RED INK AND EMBOSSED WITH THE SEAL OF AN OFFICER OF C.T. MALE ASSOCIATES, P.C. OR A DESIGNATED REPRESENTATIVE SHALL BE CONSIDERED TO BE A VALID TRUE COPY".

- NOTES:
1. VERTICAL DATUM SHOWN IS NAVD 88 AS OBTAINED THROUGH GPS OBSERVATIONS.
  2. CONTOURS AND SPOT ELEVATIONS SHOWN REPRESENT THE LIMITS OF EXCAVATION.

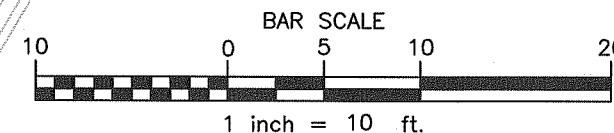
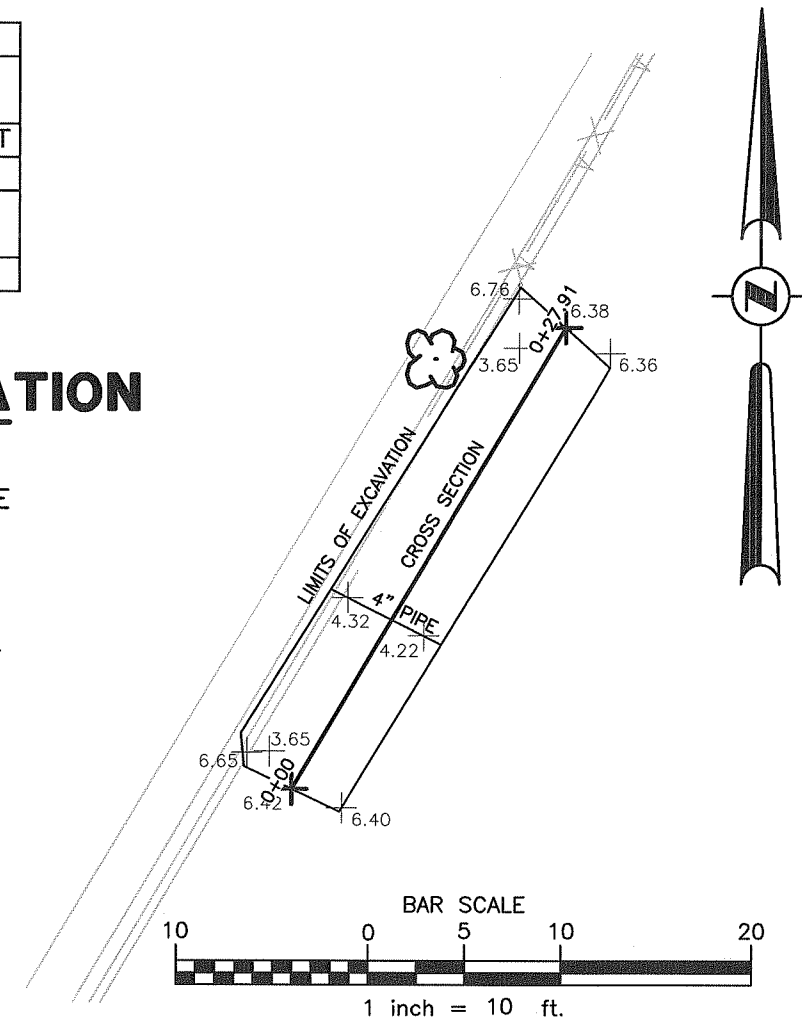
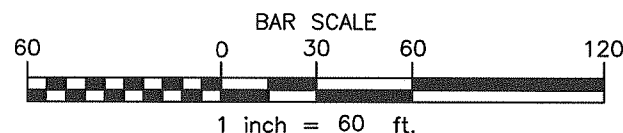
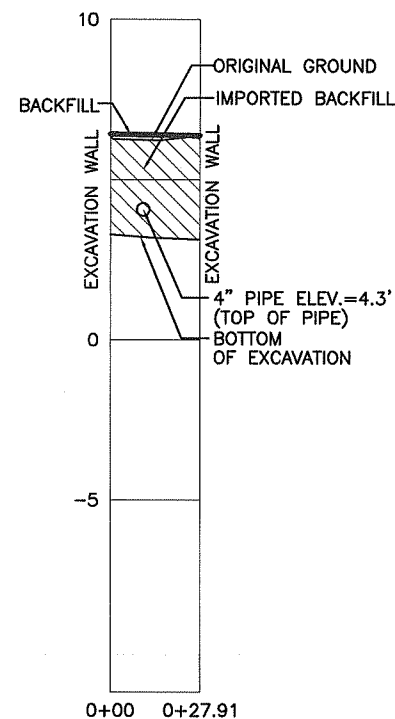


PAOC 29 BOX	
APPROXIMATE VOLUME OF EXCAVATION	
TOP TO BOTTOM	11 cu.yds CUT
APPROXIMATE VOLUME OF IMPORTED BACKFILL	
11 cu. yds. FILL	

4

## PAOC 29 BOX EXCAVATION

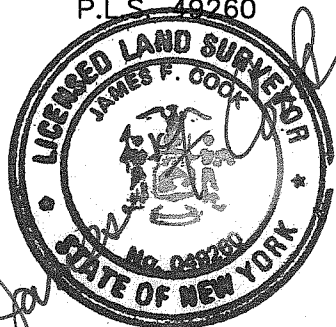
SCALE: HORZ. 1" = 60'  
VERT. 1" = 6'  
CROSS REFERENCE: NONE



### LEGEND

- DECIDUOUS TREE
- SPOT ELEVATION
- FENCE LINE
- PROPERTY LINE

JAMES F. COOK  
P.L.S. 49260



DATE	REVISIONS RECORD/DESCRIPTION	DRAFTED	CHECK	APPR.	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW. © 2007 C.T. MALE ASSOCIATES, P.C.
	1				APPROVED:
	2				DRAFTED : MMB
	3				CHECKED : JFC
	4				PROJ. NO: 07.1170
	5				SCALE : AS NOTED
	6				DATE : OCT. 2, 2007
	7				
	8				
	9				

## PAOC 29 EXCAVATION AREA FORMER GM PLANT SLEEPY HOLLOW

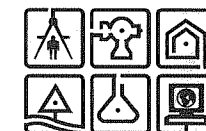
TOWN OF SLEEPY HOLLOW

WESTCHESTER COUNTY, NEW YORK

### C.T. MALE ASSOCIATES, P.C.

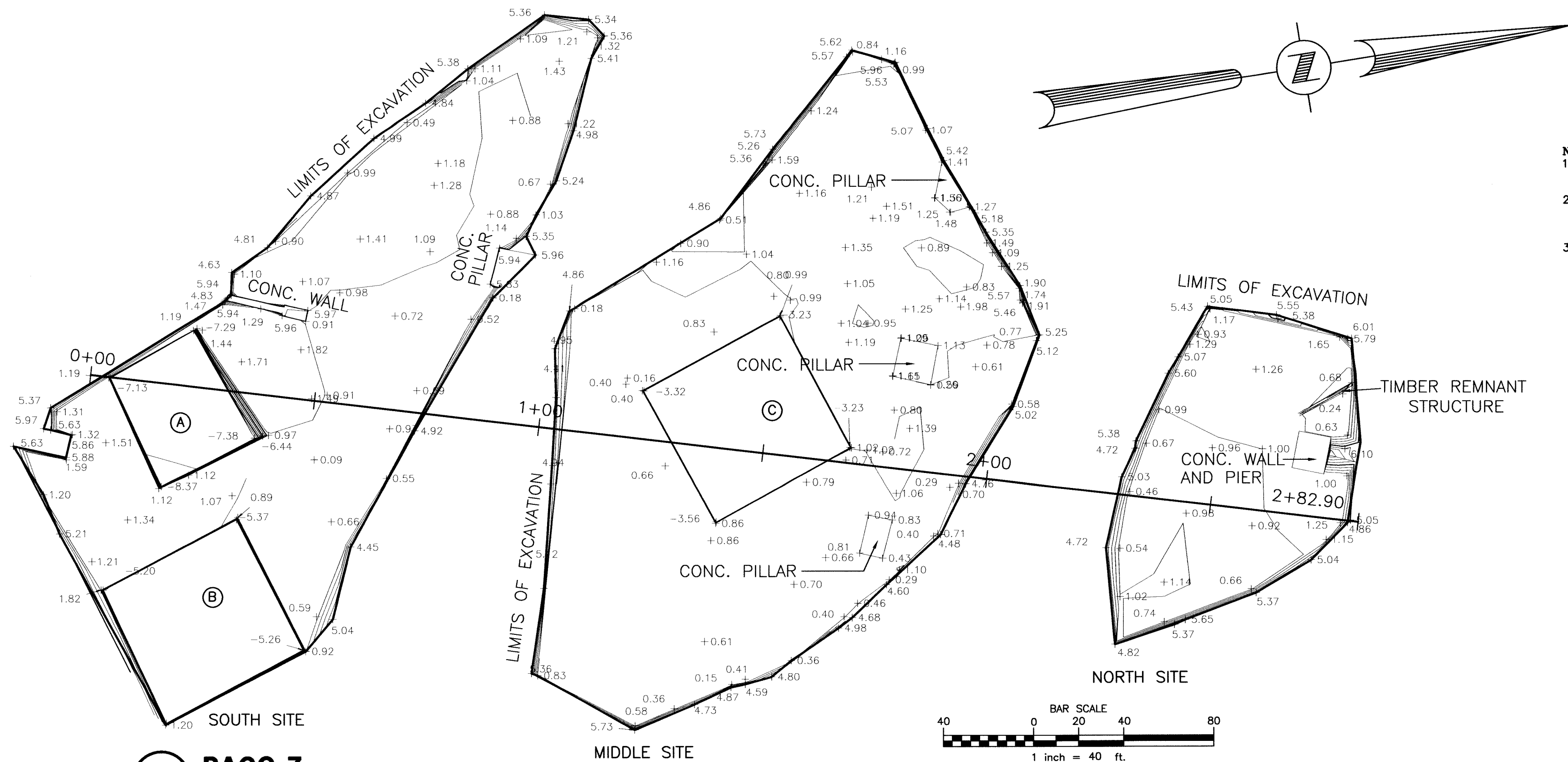
50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110  
518.786.7400 \* FAX 518.786.7299

ARCHITECTURE & BUILDING SYSTEMS ENGINEERING \* CIVIL ENGINEERING  
ENVIRONMENTAL SERVICES \* SURVEY & LAND INFORMATION SERVICES



SHEET 4 OF 5

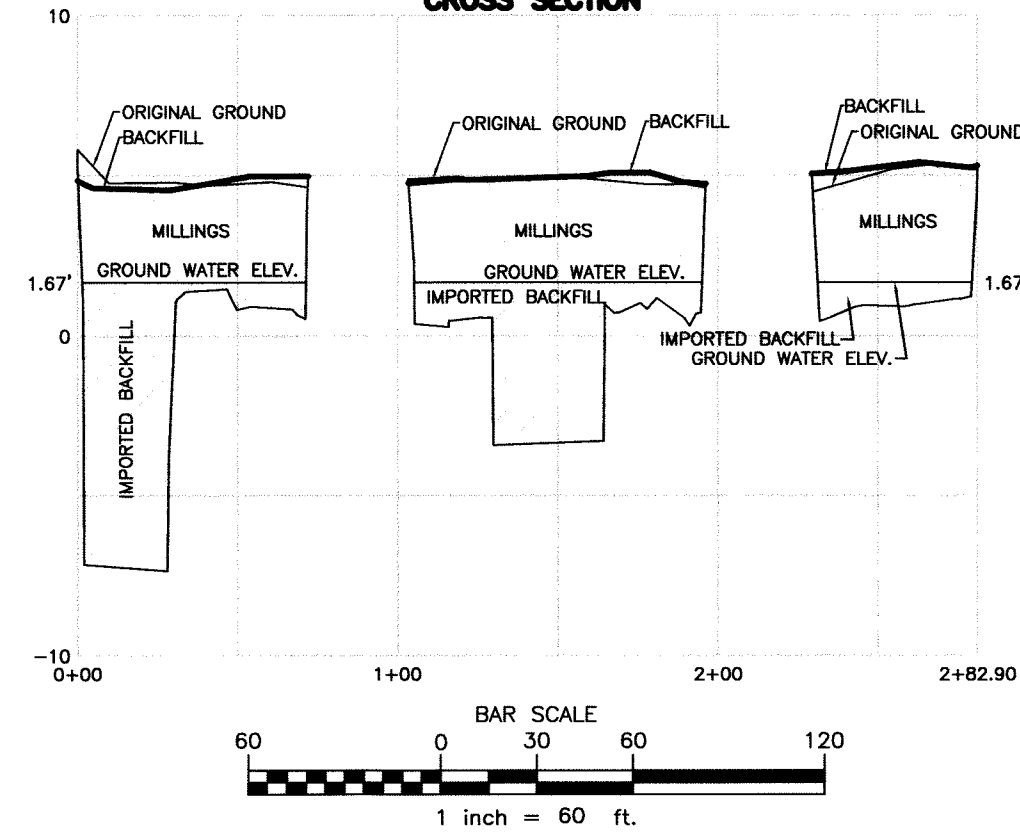
DWG. NO: 08-110



- NOTES:**
1. VERTICAL DATUM SHOWN IS NAVD 88 AS OBTAINED THROUGH GPS OBSERVATIONS.
  2. CONTOURS AND SPOT ELEVATIONS SHOWN REPRESENT THE LIMITS OF EXCAVATION.
  3. DEPTHS OF DEEP EXCAVATION AREAS (A), (B), AND (C) WERE VERIFIED ON EACH CORNER POINT USING STANDARD SURVEY METHODS. THE APPROXIMATE DEPTH OF THE DEEP EXCAVATIONS ARE:
    - (A) - APPROXIMATELY 12 FEET BELOW ORIGINAL GRADE
    - (B) - APPROXIMATELY 10 FEET BELOW ORIGINAL GRADE
    - (C) - APPROXIMATELY 8 FEET BELOW ORIGINAL GRADE
- EXCAVATION AREAS BEYOND DEEP EXCAVATIONS (A), (B), AND (C) WERE EXCAVATED TO APPROXIMATELY 4 FEET BELOW ORIGINAL GRADE.

**LEGEND**  
+ - 9.15 SPOT ELEVATION

**5 PAOC 7**  
SCALE: HORZ. 1" = 60'  
VERT. 1" = 6'  
CROSS REFERENCE: NONE  
**CROSS SECTION**



PAOC 7 SOUTH SITE	
APPROXIMATE VOLUME OF EXCAVATION	
1615 cu. yds. CUT	
APPROXIMATE VOLUME OF IMPORTED BACKFILL	
589 cu. yds. FILL	
APPROXIMATE VOLUME OF MILLINGS	
947 cu. yds. FILL	
APPROXIMATE TOTAL VOLUME OF BACKFILL	
1536 cu. yds. FILL	

PAOC 7 MIDDLE SITE	
APPROXIMATE VOLUME OF EXCAVATION	
1699 cu. yds. CUT	
APPROXIMATE VOLUME OF IMPORTED BACKFILL	
476 cu. yds. FILL	
APPROXIMATE VOLUME OF MILLINGS	
1192 cu. yds. FILL	
APPROXIMATE TOTAL VOLUME OF BACKFILL	
1668 cu. yds. FILL	

PAOC 7 NORTH SITE	
APPROXIMATE VOLUME OF EXCAVATION	
420 cu. yds. CUT	
APPROXIMATE VOLUME OF IMPORTED BACKFILL	
39 cu. yds. FILL	
APPROXIMATE VOLUME OF MILLINGS	
339 cu. yds. FILL	
APPROXIMATE TOTAL VOLUME OF BACKFILL	
378 cu. yds. FILL	

JAMES F. COOK  
P.L.S. 49260

DATE	REVISIONS RECORD/DESCRIPTION	DRAFTER	CHECK	APPR.
9/2/08	1 ADDED NOTE 3	CMR		
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

© 2007  
C.T. MALE ASSOCIATES, P.C.

APPROVED:

DRAFTED : MMB

CHECKED : JFC

PROJ. NO: 07.1170

SCALE : 1"=40'

DATE : DEC. 19, 2007

**PAOC 7 EXCAVATION AREA**  
**FORMER GM PLANT**  
SLEEPY HOLLOW

TOWN OF SLEEPY HOLLOW

WESTCHESTER COUNTY, NEW YORK

**C.T. MALE ASSOCIATES, P.C.**  
50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110  
518.786.7400 \* FAX 518.786.7299  
ARCHITECTURE & BUILDING SYSTEMS ENGINEERING \* CIVIL ENGINEERING  
ENVIRONMENTAL SERVICES \* SURVEY & LAND INFORMATION SERVICES

SHEET 5 OF 5  
DWG. NO: 08-110

CAD DWG. FILE NAME: PAOC-7.DWG

"ONLY COPIES OF THIS MAP SIGNED IN RED INK AND EMBOSSED WITH THE SEAL OF AN OFFICER OF C.T. MALE ASSOCIATES, P.C. OR A DESIGNATED REPRESENTATIVE SHALL BE CONSIDERED TO BE A VALID TRUE COPY".



## **Appendix A**

Pre-Excavation Verification Sampling  
Results (IRM Work Plan Appendix K)

TABLE K-1

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 7 BY XRF

Sample Name	Location ID	Depth Start (ft)	Depth End (ft)	RAO (PPM)	Oct 2006 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)
C-7-1(0-2)	C-07-01	0	2	5,000	29	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-1(2-4)	C-07-01	2	4	5,000	61	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-2(0-2)	C-07-02	0	2	5,000	46	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-2(2-4)	C-07-02	2	4	5,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-3(0-2)	C-07-03	0	2	5,000	14	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-3(2-4)	C-07-03	2	4	5,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-4(0-2)	C-07-04	0	2	5,000	48	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-4(2-4)	C-07-04	2	4	5,000	12 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-5(0-2)	C-07-05	0	2	5,000	14	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-5(2-4)	C-07-05	2	4	5,000	12 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-6(0-2)	C-07-06	0	2	5,000	172	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-6(2-4)	C-07-06	2	4	5,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-7(0-2)	C-07-07	0	2	5,000	15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-7(2-4)	C-07-07	2	4	5,000	14	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-8(0-2)	C-07-08	0	2	5,000	65	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-8(2-4)	C-07-08	2	4	5,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-9(0-2)	C-07-09	0	2	5,000	478	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-9(2-4)	C-07-09	2	4	5,000	25	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-10(0-2)	C-07-10	0	2	5,000	99	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-10(2-4)	C-07-10	2	4	5,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-11B(0-2)	C-7-11B	0	2	5,000	NS	326	302	33	376	656	NS	NS	NS	NS	NS
C-7-11B(2-4)	C-7-11B	2	4	5,000	NS	10 U	10 U	12	14	17	NS	NS	NS	NS	NS
C-7-12(0-2)	C-07-12	0	2	5,000	569	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-12(2-4)	C-07-12	2	4	5,000	336	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-13(0-2)	C-07-13	0	2	5,000	535	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-13(2-4)	C-07-13	2	4	5,000	933	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-14(0-2)	C-07-14	0	2	5,000	262	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-14(2-4)	C-07-14	2	4	5,000	2,010	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-15(0-2)	C-07-15	0	2	5,000	84	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-15(2-4)	C-07-15	2	4	5,000	57	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-16A(0-2)	C-07-16A	0	2	5,000	1,210	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-16A(2-4)	C-07-16A	2	4	5,000	1,160	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-17C(0-2)	C-07-17C	0	2	5,000	120	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-17C(2-4)	C-07-17C	2	4	5,000	105	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-18(0-2)	C-07-18	0	2	5,000	2,100	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-18(2-4)	C-07-18	2	4	5,000	1,260	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-19(0-2)	C-07-19	0	2	5,000	712	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-19(2-4)	C-07-19	2	4	5,000	1,420	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

TABLE K-1

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 7 BY XRF

Sample Name	Location ID	Depth Start (ft)	Depth End (ft)	RAO (PPM)	Oct 2006 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)
C-7-20A(0-2)	C-07-20A	0	2	5,000	27	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-20A(2-4)	C-07-20A	2	4	5,000	1,090	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-21D(0-2)	C-07-21D	0	2	5,000	NS	742	860	736	860	821	NR	NR	NR	NR	NR
C-7-21D(2-4)	C-07-21D	2	4	5,000	NS	945	497	546	510	526	NR	NR	NR	NR	NR
C-7-22C(0-2)	C-07-22C	0	2	5,000	965	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-22C(2-4)	C-07-22C	2	4	5,000	32	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-24(0-2)	C-07-24	0	2	5,000	1,400	3,770	4,068	3,491	2,417	5,667	4,708	2,652	3,097	3,524	4,186
C-7-24(2-4)	C-07-24	2	4	5,000	244	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-25A(0-2)	C-07-25A	0	2	5,000	138	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-25A(2-4)	C-07-25A	2	4	5,000	2,430	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-7-25B(0-2)	C-07-25B	0	2	5,000	NS	711	830	1,166	590	579	NS	NS	NS	NS	NS
C-7-25B(2-4)	C-07-25B	2	4	5,000	NS	4,416	3,772	4,663	4,479	4,219	NS	NS	NS	NS	NS
C-7-26B(0-2)	C-07-26B	0	2	5,000	NS	1,571	1,541	1,806	1,660	1,856	NS	NS	NS	NS	NS
C-7-26B(2-4)	C-07-26B	2	4	5,000	NS	1,252	1,531	1,062	1,572	1,273	NS	NS	NS	NS	NS
C-7-27(0-2)	C-07-27	0	2	5,000	NS	2,988	4,237	3,631	3,623	3,685	NS	NS	NS	NS	NS
C-7-27(2-4)	C-07-27	2	4	5,000	NS	1,072	1,077	932	902	1,142	NS	NS	NS	NS	NS
CD-7-1(4-5)	CD-07-01	4	5	10,000	302	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-1(5-6)	CD-07-01	5	6	10,000	193	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-1(8-9.2)	CD-07-01	8	9.2	10,000	3,800	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-1(9.2-10.4)	CD-07-01	9.2	10.4	10,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-2(4-5.1)	CD-07-02	4	5.1	10,000	18	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-2(5.1-6.2)	CD-07-02	5.1	6.2	10,000	14 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-2(8-9.6)	CD-07-02	8	9.6	10,000	2,890	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-2(9.6-11.2)	CD-07-02	9.6	11.2	10,000	1,220	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-3(4.4-4.8)	CD-07-03	4.4	4.8	10,000	5,680	7,772	8,257	7,065	7,406	8,387	NS	NS	NS	NS	NS
CD-7-3(4.4-4.4)	CD-07-03	4	4.4	10,000	1,840	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-4(4.7-5.4)	CD-07-04	4.7	5.4	10,000	2,830	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-4(4-4.7)	CD-07-04	4	4.7	10,000	1,050	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-5(4.6-5.2)	CD-07-05	4.6	5.2	10,000	33	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-5(4-4.6)	CD-07-05	4	4.6	10,000	98	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-6(4.4-4.8)	CD-07-06	4.4	4.8	10,000	6,540	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-6(4-4.4)	CD-07-06	4	4.4	10,000	6,970	9,641	7,616	9,506	7,231	8,115	NS	NS	NS	NS	NS
CD-7-6(8.5-9)	CD-07-06	8.5	9	10,000	252	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-6(8-8.5)	CD-07-06	8	8.5	10,000	2,700	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-7(4-5.5)	CD-07-07	4	5.5	10,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-7(5.5-7)	CD-07-07	5.5	7	10,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-7(8.3-8.6)	CD-07-07	8.3	8.6	10,000	2,540	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-7(8-8.3)	CD-07-07	8	8.3	10,000	913	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

TABLE K-1

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 7 BY XRF

Sample Name	Location ID	Depth Start (ft)	Depth End (ft)	RAO (PPM)	Oct 2006 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)
CD-7-8(4.5-5.1)	CD-07-08	4.5	5.1	10,000	18	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-8(5.1-6.2)	CD-07-08	5.1	6.2	10,000	13 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-8(8-9.4)	CD-07-08	8	9.4	10,000	17	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-8(9.4-10.8)	CD-07-08	9.4	10.8	10,000	12 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-9(4-5)	CD-07-09	4	5	10,000	3,890	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-10(4-5.2)	CD-07-10	4	5.2	10,000	3,610	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-11A(4-6)	CD-07-11A	4	6	10,000	74	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-12(4.3-4.6)	CD-07-12	4.3	4.6	10,000	5,510	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-12(8.5-9)	CD-07-12	8.5	9	10,000	3,830	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-12(8-8.5)	CD-07-12	8	8.5	10,000	5,760	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CD-7-12A(4-6)	CD-07-12A	4	6	10,000	3,130	9,300	7,339	8,461	8,857	8,959	NS	NS	NS	NS	NS

**Notes**

1. Use of XRF for Boundary Confirmation was supported by laboratory analysis of at least 10% of the October 2006 samples. Linear regression of the lab analysis vs. XRF analysis yielded an  $R^2$  of 0.74, confirming that the XRF data for lead at this site meet the USEPA classification of Quantitative Screening Level Data ( $R^2 > 0.70$ ).
2. Select sample from October 2006 were recovered from the laboratory archive, processed through a No.10 sieve, homogenized, and reanalyzed by XRF for confirmation by a minimum of 5 independent measurements in January 2007.
3. Boundary locations from the October 2006 sampling that did not meet the RAOs, were expanded and sampled in January 2007, processed through a No. 10 sieve, homogenized, and analyzed by XRF with a minimum of 5 independent measurements.
4. XRF - X-Ray Fluorescence
5. RAO - Remedial Action Objective
6. NR - Not reanalyzed in January 2007
7. NS - Not sampled
8. U - Undetected at specified detection limit

TABLE K-2

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 29 BY XRF

Sample Name	Location ID	Depth Start (ft)	Depth End (ft)	RAO (PPM)	Oct 2006 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)	Jan 2007 XRF Lead (PPM)
C-29-04(0.5-2.5)	C-29-04	0.5	2.5	5,000	1,110	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-04(4-6)	C-29-04	4	6	10,000	381	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-06	C-29-06	1.5	3	5,000	157	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-07	C-29-07	1.5	3	5,000	564	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-08	C-29-08	1.5	3	5,000	2,560	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-10	C-29-10	1.5	3	5,000	2,350	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-12	C-29-12	1.5	3	5,000	483	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-18	C-29-18	1.5	3	5,000	591	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-19	C-29-19	1.5	3	5,000	2,600	2,377	2,453	2,485	2,517	2,365	NS	NS	NS	NS	NS
C-29-21(4.7-5.4)	C-29-21	4.7	5.4	10,000	3,570	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-23(1.9-2.8)	C-29-23	1.9	2.8	5,000	2,020	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-24(1.3-2.8)	C-29-24	1.3	2.8	5,000	231	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-24(4-4.9)	C-29-24	4	4.9	10,000	2,840	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-24(4.9-5.8)	C-29-24	4.9	5.8	10,000	4,650	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-24(8-8.5)	C-29-24	8	8.5	10,000	6,340	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-24(8.5-9.0)	C-29-24	8.5	9	10,000	4,310	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-27(1-2.1)	C-29-27	1	2.1	5,000	170	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-27(2.1-3.2)	C-29-27	2.1	3.2	5,000	2,350	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-28(4.5-5)	C-29-28	4.5	5	10,000	636	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
C-29-30(3-5) *	C-29-30	3.5	5	10,000	NS	1,814	1,441	1,851	1,828	1,946	NS	NS	NS	NS	NS
C-29-31(1.5-3)	C-29-31	1.5	3	5,000	NS	2,412	1,758	1,955	1,732	1,721	NS	NS	NS	NS	NS
C-29-31(4-6)	C-29-31	4	6	10,000	NS	4,140	3,780	3,933	6,718	4,767	NS	NS	NS	NS	NS
C-29-32(2-4)	C-29-32	2	4	5,000	NS	501	408	310	304	419	NS	NS	NS	NS	NS
C-29-34(2-4)	C-29-34	2	4	5,000	NS	2,314	2,116	2,173	2,458	2,045	NS	NS	NS	NS	NS
C-29-35(2-4)	C-29-35	2	4	5,000	NS	4,363	2,193	2,941	3,453	2,950	NS	NS	NS	NS	NS
C-29-36(2-4)	C-29-36	2	4	5,000	NS	2,034	2,360	2,168	2,255	2,519	NS	NS	NS	NS	NS
C-29-36(4-6)	C-29-36	4	6	10,000	NS	9,218	9,074	8,325	8,329	9,332	9,605	9,332	9,664	9,331	NS

**Notes**

1. Use of XRF for Boundary Confirmation was supported by laboratory analysis of at least 10% of the October 2006 samples. Linear regression of the lab analysis vs. XRF analysis yielded an  $R^2$  of 0.74, confirming that the XRF data for lead at this site meet the USEPA classification of Quantitative Screening Level Data( $R^2 > 0.70$ ).
2. Select sample from October 2006 were recovered from the laboratory archive, processed through a No.10 sieve, homogenized, and reanalyzed by XRF for confirmation by a minimum of 5 independent measurements in January 2007.
3. Boundary locations from the October 2006 sampling that did not meet the RAOs, were expanded and sampled in January 2007, processed through a No. 10 sieve, homogenized, and analyzed by XRF with a minimum of 5 independent measurements.
4. XRF - X-Ray Fluorescence
5. RAO - Remedial Action Objective
6. NR - Not reanalyzed in January 2007
7. NS - Not sampled
8. \* C-29-30 (3-5) confirmed that lead concentration in fill beneath water table is <10,000 PPM

TABLE K-3

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

**IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 7 AND 29 FROM PREVIOUS LAB ANALYSIS**

Sample Name	Location ID	Depth Start (ft)	Depth End (ft)	RAO (mg/kg)	Preliminary Draft RIR 2006 (mg/kg)	EMCON Phase III Report 2001 (mg/kg)
<b>PAOC 7 Lead</b>						
SI-7-B27-A-1	SI-7-B27	0	1	5,000	26 J	NS
SI-7-B27-B-1	SI-7-B27	2	3	5,000	3,630 J	NS
SI-7-B27-C-1	SI-7-B27	4	5	5,000	2,090	NS
BP-8-2 in.	BP-8	0	0.2	5,000	NS	1,850
BP-8-8 in.	BP-8	0.3	0.7	5,000	NS	1,350
BP-8-16 in.	BP-8	1	1.3	5,000	NS	285
BP-8-30 in.	BP-8	2	2.5	5,000	NS	122
<b>PAOC 29 Lead</b>						
SI-29-B9-A-1	SI-29-B9	1	2	10,000	8,830 J	NS
SI-29-B9-B-1	SI-29-B9	3	4	10,000	70.6 J	NS
SI-29-B9-B-2	SI-29-B9	3	4	10,000	711 J	NS
SI-29-B9-C-1	SI-29-B9	5	6	10,000	3,600 J	NS
SI-29-B9-D-1	SI-29-B9	7	8	10,000	174 J	NS
SI-29-B16-A-1	SI-29-B16	1	2	5,000	1,070 J	NS
SI-29-B16-B-1	SI-29-B16	5	6	10,000	80.3 J	NS
SI-29-B16-C-1	SI-29-B16	5	6	10,000	176 J	NS
SI-29-B16-D-1	SI-29-B16	7	8	10,000	3,420 J	NS
SI-29-B16-E-1	SI-29-B16	9	10	10,000	143 J	NS
SI-29-B-22-A-1	SI-29-B22	1	2	5,000	83.8 J	NS
SI-29-B-22-B-1	SI-29-B22	3	4	5,000	62.4 J	NS
SI-29-B-22-C-1	SI-29-B22	5	6	10,000	7,180 J	NS
SI-29-B-22-D-1	SI-29-B22	10	11	10,000	9,740 J	NS
SI-29-B-22-E-1	SI-29-B22	13	14	10,000	605 J	NS
B4G,S1	4G	1	3	5,000	NS	34.4

**Notes**

1. J - Estimated
2. NS - Not Sampled

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-01 1.1 - 2.4 10/12/2006	C-47-01 9.8 - 11.4 10/12/2006	C-47-01 16 - 18 10/12/2006	C-47-02 5 - 7 10/12/2006	C-47-02 11 - 13 10/12/2006
<b>VOCs</b>							
1,1,1-Trichloroethane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,1,2,2-Tetrachloroethane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,1,2-Trichloroethane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,1-Dichloroethane	mg/kg	26	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,1-Dichloroethene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,2,4-Trichlorobenzene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,2,4-Trimethylbenzene	mg/kg	52	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,2-Dichlorobenzene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,2-Dichloroethane	mg/kg	3.1	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,2-Dichloropropane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,3,5-Trimethylbenzene	mg/kg	52	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,3-Dichlorobenzene	mg/kg	49	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,4-Dichlorobenzene	mg/kg	13	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
1,4-Dioxane	mg/kg	13	0.11 U	31 U	0.12 U	0.13 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	0.011 U	3.1 U	0.012 U	0.013 U	0.011 U
2-Hexanone	mg/kg	100	0.011 U	3.1 U	0.012 U	0.013 U	0.011 U
2-Phenylbutane (sec-Butylbenzene)	mg/kg	100	0.0057 U	3	0.0058 U	0.0063 U	0.0057 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Acetone	mg/kg	100	0.023 U	6.2 U	0.023 U	0.025 U	0.023 U
Benzene	mg/kg	4.8	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Bromodichloromethane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Bromoform	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Bromomethane (Methyl Bromide)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Carbon disulfide	mg/kg	100	0.011 U	3.1 U	0.012 U	0.013 U	0.011 U
Carbon tetrachloride	mg/kg	2.4	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Chlorobenzene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Chloroethane	mg/kg	100	0.0057 U	1.5 J	0.0058 U	0.0063 U	0.0057 U
Chloroform (Trichloromethane)	mg/kg	49	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Chloromethane (Methyl Chloride)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
cis-1,2-Dichloroethene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
cis-1,3-Dichloropropene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Cyclohexane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Dibromochloromethane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Dichlorodifluoromethane (CFC-12)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Ethylbenzene	mg/kg	41	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Isopropylbenzene	mg/kg	100	0.0057 U	0.67 J	0.0058 U	0.0063 U	0.0057 U
m&p-Xylene	mg/kg	100(total)	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Methyl acetate	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Methyl cyclohexane	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Methyl Tert Butyl Ether	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Methylene chloride	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
n-Butylbenzene	mg/kg	100	0.0057 U	1.4 J	0.0058 U	0.0063 U	0.0057 U
n-Propylbenzene	mg/kg	100	0.0057 U	0.83 J	0.0058 U	0.0063 U	0.0057 U
o-Xylene	mg/kg	100(total)	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Styrene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
tert-Butylbenzene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Tetrachloroethene	mg/kg	19	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Toluene	mg/kg	100	0.0057 U	0.17 J	0.0058 U	0.0063 U	0.0057 U
Total 1,3 Dichloropropenes	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
trans-1,2-Dichloroethene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
trans-1,3-Dichloropropene	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Trichloroethene	mg/kg	21	0.002 J	1.6 U	0.00037 J	0.0063 U	0.0057 U
Trichlorofluoromethane (CFC-11)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Trifluorotrichloroethane (Freon 113)	mg/kg	100	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Vinyl chloride	mg/kg	0.9	0.0057 U	1.6 U	0.0058 U	0.0063 U	0.0057 U
Xylene (total)	mg/kg	100	ND	ND	ND	ND	ND

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-01 1.1 - 2.4 10/12/2006	C-47-01 9.8 - 11.4 10/12/2006	C-47-01 16 - 18 10/12/2006	C-47-02 5 - 7 10/12/2006	C-47-02 11 - 13 10/12/2006
<b>Inorganics</b>							
Chromium (Total)	mg/kg	180 <sup>(3)</sup>	17.4 J	NA	27.4 J	33.4 J	23.4 J
Chromium VI (Hexavalent)	mg/kg	110	1.14	NA	3.57	0.709	1.17

**Notes**

(1) RAO - Remedial Action Objective - Restricted Residential Use Soil Cleanup Objectives, Protection of Public Health - 6NYCRR Part 375-6.8, Table 375-6.8 (b). Maximum individual VOC limit is 100 mg/kg.

(2) C-47-08 and C-47-09 samples are for depth confirmation within PAOC 47 excavation boundary

(3) RAO is for trivalent chromium. RAO can be met with total chromium

U - Not detected at specified reporting limit

J - Estimated

NA - Not analyzed due to insufficient sample volume

ND - Not detected (sum of xylenes)



TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-02 20 - 22 10/12/2006	C-47-02-DUP 20 - 22 10/12/2006	C-47-03 5 - 7 10/12/2006	C-47-03 10 - 12 10/12/2006	C-47-04 1.2 - 2.4 10/16/2006
<b>VOCs</b>							
1,1,1-Trichloroethane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,1,2,2-Tetrachloroethane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,1,2-Trichloroethane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,1-Dichloroethane	mg/kg	26	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,1-Dichloroethene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,2,4-Trichlorobenzene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,2,4-Trimethylbenzene	mg/kg	52	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,2-Dichlorobenzene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,2-Dichloroethane	mg/kg	3.1	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,2-Dichloropropane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,3,5-Trimethylbenzene	mg/kg	52	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,3-Dichlorobenzene	mg/kg	49	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,4-Dichlorobenzene	mg/kg	13	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
1,4-Dioxane	mg/kg	13	0.11 U	0.12 U	0.13 U	0.13 U	0.12 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	0.011 U	0.012 U	0.013 U	0.013 U	0.012 U
2-Hexanone	mg/kg	100	0.011 U	0.012 U	0.013 U	0.013 U	0.012 U
2-Phenylbutane (sec-Butylbenzene)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Acetone	mg/kg	100	0.023 U	0.023 U	0.026 U	0.025 U	0.0026 J
Benzene	mg/kg	4.8	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Bromodichloromethane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Bromoform	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Bromomethane (Methyl Bromide)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Carbon disulfide	mg/kg	100	0.011 U	0.012 U	0.013 U	0.013 U	0.012 U
Carbon tetrachloride	mg/kg	2.4	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Chlorobenzene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Chloroethane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Chloroform (Trichloromethane)	mg/kg	49	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.00095 J
Chloromethane (Methyl Chloride)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
cis-1,2-Dichloroethene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
cis-1,3-Dichloropropene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Cyclohexane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Dibromochloromethane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Dichlorodifluoromethane (CFC-12)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Ethylbenzene	mg/kg	41	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Isopropylbenzene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
m&p-Xylene	mg/kg	100(total)	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Methyl acetate	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Methyl cyclohexane	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Methyl Tert Butyl Ether	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Methylene chloride	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
n-Butylbenzene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
n-Propylbenzene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
o-Xylene	mg/kg	100(total)	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Styrene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
tert-Butylbenzene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Tetrachloroethene	mg/kg	19	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Toluene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Total 1,3 Dichloropropenes	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
trans-1,2-Dichloroethene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
trans-1,3-Dichloropropene	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Trichloroethene	mg/kg	21	0.0025 J	0.0011 J	0.0064 U	0.0064 U	0.0031 J
Trichlorofluoromethane (CFC-11)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Trifluorotrichloroethane (Freon 113)	mg/kg	100	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Vinyl chloride	mg/kg	0.9	0.0057 U	0.0058 U	0.0064 U	0.0064 U	0.0058 U
Xylene (total)	mg/kg	100	ND	ND	ND	ND	ND

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-02 20 - 22 10/12/2006	C-47-02-DUP 20 - 22 10/12/2006	C-47-03 5 - 7 10/12/2006	C-47-03 10 - 12 10/12/2006	C-47-04 1.2 - 2.4 10/16/2006
<b>Inorganics</b>							
Chromium (Total)	mg/kg	180 <sup>(3)</sup>	10.1 J	13 J	36.9 J	94.6 J	18.8
Chromium VI (Hexavalent)	mg/kg	110	0.762	0.84	0.848	5.26	0.856 J

**Notes**

- (1) RAO - Remedial Action Objective - Restricted Residential Use Soil Cleanup Objectives, Protection of Public Health - 6NYCRR Part 375-6.8, Table 375-6.8 (b). Maximum individual VOC limit is 100 mg/kg.
- (2) C-47-08 and C-47-09 samples are for depth confirmation within PAOC 47 excavation boundary
- (3) RAO is for trivalent chromium. RAO can be met with total chromium
- U - Not detected at specified reporting limit
- J - Estimated
- NA - Not analyzed due to insufficient sample volume
- ND - Not detected (sum of xylenes)

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-04 9.2 - 10.4 10/16/2006	C-47-04 16 - 16.8 10/16/2006	C-47-05 5 - 6.4 10/12/2006	C-47-05 8 - 10 10/12/2006	C-47-06 5.4 - 6.7 10/12/2006
<b>VOCs</b>							
1,1,1-Trichloroethane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,1,2,2-Tetrachloroethane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,1,2-Trichloroethane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,1-Dichloroethane	mg/kg	26	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,1-Dichloroethene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,2,4-Trichlorobenzene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,2,4-Trimethylbenzene	mg/kg	52	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,2-Dichlorobenzene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,2-Dichloroethane	mg/kg	3.1	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,2-Dichloropropane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,3,5-Trimethylbenzene	mg/kg	52	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,3-Dichlorobenzene	mg/kg	49	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,4-Dichlorobenzene	mg/kg	13	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
1,4-Dioxane	mg/kg	13	0.11 U	0.11 U	0.11 U	0.12 U	0.13 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	0.011 U	0.011 U	0.011 U	0.012 U	0.013 U
2-Hexanone	mg/kg	100	0.011 U	0.011 U	0.011 U	0.012 U	0.013 U
2-Phenylbutane (sec-Butylbenzene)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Acetone	mg/kg	100	0.003 J	0.023 U	0.023 U	0.025 U	0.025 U
Benzene	mg/kg	4.8	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Bromodichloromethane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Bromoform	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Bromomethane (Methyl Bromide)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Carbon disulfide	mg/kg	100	0.011 U	0.011 U	0.011 U	0.012 U	0.013 U
Carbon tetrachloride	mg/kg	2.4	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Chlorobenzene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Chloroethane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Chloroform (Trichloromethane)	mg/kg	49	0.0011 J	0.00091 J	0.0057 U	0.0011 J	0.0063 U
Chloromethane (Methyl Chloride)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
cis-1,2-Dichloroethene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
cis-1,3-Dichloropropene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Cyclohexane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Dibromochloromethane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Dichlorodifluoromethane (CFC-12)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Ethylbenzene	mg/kg	41	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Isopropylbenzene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
m&p-Xylene	mg/kg	100(total)	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Methyl acetate	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Methyl cyclohexane	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Methyl Tert Butyl Ether	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Methylene chloride	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
n-Butylbenzene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
n-Propylbenzene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
o-Xylene	mg/kg	100(total)	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Styrene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
tert-Butylbenzene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Tetrachloroethene	mg/kg	19	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Toluene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Total 1,3 Dichloropropenes	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
trans-1,2-Dichloroethene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
trans-1,3-Dichloropropene	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Trichloroethene	mg/kg	21	0.0055 U	0.00078 J	0.0057 U	0.0012 J	0.0063 U
Trichlorofluoromethane (CFC-11)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Trifluorotrichloroethane (Freon 113)	mg/kg	100	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Vinyl chloride	mg/kg	0.9	0.0055 U	0.0057 U	0.0057 U	0.0061 U	0.0063 U
Xylene (total)	mg/kg	100	ND	ND	ND	ND	ND

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-04 9.2 - 10.4 10/16/2006	C-47-04 16 - 16.8 10/16/2006	C-47-05 5 - 6.4 10/12/2006	C-47-05 8 - 10 10/12/2006	C-47-06 5.4 - 6.7 10/12/2006
<b>Inorganics</b>							
Chromium (Total)	mg/kg	180 <sup>(3)</sup>	21.1	13	69.8 J	68.1 J	31.6 J
Chromium VI (Hexavalent)	mg/kg	110	0.86 J	0.46 J	12	6.23	1.02

**Notes**

(1) RAO - Remedial Action Objective - Restricted Residential Use Soil Cleanup Objectives, Protection of Public Health - 6NYCRR Part 375-6.8, Table 375-6.8 (b). Maximum individual VOC limit is 100 mg/kg.

(2) C-47-08 and C-47-09 samples are for depth confirmation within PAOC 47 excavation boundary

(3) RAO is for trivalent chromium. RAO can be met with total chromium

U - Not detected at specified reporting limit

J - Estimated

NA - Not analyzed due to insufficient sample volume

ND - Not detected (sum of xylenes)

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-06 10 - 12 10/12/2006	C-47-06 20 - 24 10/12/2006	C-47-07 5.5 - 6.7 10/10/2006	C-47-07 12.7 - 12.9 10/10/2006	C-47-07 20 - 21.5 10/10/2006
<b>VOCs</b>							
1,1,1-Trichloroethane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,1,2,2-Tetrachloroethane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,1,2-Trichloroethane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,1-Dichloroethane	mg/kg	26	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,1-Dichloroethene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,2,4-Trichlorobenzene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,2,4-Trimethylbenzene	mg/kg	52	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,2-Dichlorobenzene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,2-Dichloroethane	mg/kg	3.1	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,2-Dichloropropane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,3,5-Trimethylbenzene	mg/kg	52	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,3-Dichlorobenzene	mg/kg	49	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,4-Dichlorobenzene	mg/kg	13	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
1,4-Dioxane	mg/kg	13	0.12 U	0.11 U	0.11 U	0.58 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	0.012 U	0.011 U	0.011 U	0.058 U	0.011 U
2-Hexanone	mg/kg	100	0.012 U	0.011 U	0.011 U	0.058 U	0.011 U
2-Phenylbutane (sec-Butylbenzene)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Acetone	mg/kg	100	0.023 U	0.0068 J	0.023 U	0.022 J	0.023 U
Benzene	mg/kg	4.8	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Bromodichloromethane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Bromoform	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Bromomethane (Methyl Bromide)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Carbon disulfide	mg/kg	100	0.012 U	0.011 U	0.011 U	0.058 U	0.011 U
Carbon tetrachloride	mg/kg	2.4	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Chlorobenzene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Chloroethane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Chloroform (Trichloromethane)	mg/kg	49	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Chloromethane (Methyl Chloride)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
cis-1,2-Dichloroethene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
cis-1,3-Dichloropropene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Cyclohexane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Dibromochloromethane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Dichlorodifluoromethane (CFC-12)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Ethylbenzene	mg/kg	41	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Isopropylbenzene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
m&p-Xylene	mg/kg	100(total)	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Methyl acetate	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Methyl cyclohexane	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.006 J	0.0057 U
Methyl Tert Butyl Ether	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Methylene chloride	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
n-Butylbenzene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
n-Propylbenzene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
o-Xylene	mg/kg	100(total)	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Styrene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
tert-Butylbenzene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Tetrachloroethene	mg/kg	19	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Toluene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Total 1,3 Dichloropropenes	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
trans-1,2-Dichloroethene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
trans-1,3-Dichloropropene	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Trichloroethene	mg/kg	21	0.012	0.00036 J	0.0056 U	0.029 U	0.00082 J
Trichlorofluoromethane (CFC-11)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Trifluorotrichloroethane (Freon 113)	mg/kg	100	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Vinyl chloride	mg/kg	0.9	0.0058 U	0.0055 U	0.0056 U	0.029 U	0.0057 U
Xylene (total)	mg/kg	100	ND	ND	ND	ND	ND

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-06 10 - 12 10/12/2006	C-47-06 20 - 24 10/12/2006	C-47-07 5.5 - 6.7 10/10/2006	C-47-07 12.7 - 12.9 10/10/2006	C-47-07 20 - 21.5 10/10/2006
<b>Inorganics</b>							
Chromium (Total)	mg/kg	180 <sup>(3)</sup>	21.5 J	17.5 J	37.7	NA	19.1
Chromium VI (Hexavalent)	mg/kg	110	1.34	1.84	2.22	NA	1.1

**Notes**

(1) RAO - Remedial Action Objective - Restricted Residential Use Soil Cleanup Objectives, Protection of Public Health - 6NYCRR Part 375-6.8, Table 375-6.8 (b). Maximum individual VOC limit is 100 mg/kg.

(2) C-47-08 and C-47-09 samples are for depth confirmation within PAOC 47 excavation boundary

(3) RAO is for trivalent chromium. RAO can be met with total chromium

U - Not detected at specified reporting limit

J - Estimated

NA - Not analyzed due to insufficient sample volume

ND - Not detected (sum of xylenes)

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-08 <sup>(2)</sup> 7 - 9 10/10/2006	C-47-08 <sup>(2)</sup> 12 - 14 10/10/2006	C-47-08 <sup>(2)</sup> 18 - 20 10/10/2006	C-47-09 <sup>(2)</sup> 8.8 - 10 10/10/2006	C-47-09 <sup>(2)</sup> 12 - 14 10/10/2006
<b>VOCs</b>							
1,1,1-Trichloroethane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,1,2,2-Tetrachloroethane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,1,2-Trichloroethane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,1-Dichloroethane	mg/kg	26	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,1-Dichloroethene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,2,4-Trichlorobenzene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,2,4-Trimethylbenzene	mg/kg	52	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,2-Dichlorobenzene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,2-Dichloroethane	mg/kg	3.1	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,2-Dichloropropane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,3,5-Trimethylbenzene	mg/kg	52	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,3-Dichlorobenzene	mg/kg	49	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,4-Dichlorobenzene	mg/kg	13	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
1,4-Dioxane	mg/kg	13	0.11 U	0.11 U	0.11 U	0.12 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	0.011 U	0.011 U	0.011 U	0.012 U	0.011 U
2-Hexanone	mg/kg	100	0.011 U	0.011 U	0.011 U	0.012 U	0.011 U
2-Phenylbutane (sec-Butylbenzene)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Acetone	mg/kg	100	0.023 U	0.023 U	0.022 U	0.024 U	0.023 U
Benzene	mg/kg	4.8	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Bromodichloromethane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Bromoform	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Bromomethane (Methyl Bromide)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Carbon disulfide	mg/kg	100	0.011 U	0.011 U	0.011 U	0.012 U	0.011 U
Carbon tetrachloride	mg/kg	2.4	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Chlorobenzene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Chloroethane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Chloroform (Trichloromethane)	mg/kg	49	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Chloromethane (Methyl Chloride)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
cis-1,2-Dichloroethene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
cis-1,3-Dichloropropene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Cyclohexane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Dibromochloromethane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Dichlorodifluoromethane (CFC-12)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Ethylbenzene	mg/kg	41	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Isopropylbenzene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
m&p-Xylene	mg/kg	100(total)	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Methyl acetate	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Methyl cyclohexane	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Methyl Tert Butyl Ether	mg/kg	100	0.0057 U	0.0057 U	0.00035 J	0.006 U	0.0057 U
Methylene chloride	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
n-Butylbenzene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
n-Propylbenzene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
o-Xylene	mg/kg	100(total)	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Styrene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
tert-Butylbenzene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Tetrachloroethene	mg/kg	19	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Toluene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Total 1,3 Dichloropropenes	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
trans-1,2-Dichloroethene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
trans-1,3-Dichloropropene	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Trichloroethene	mg/kg	21	0.00064 J	0.0057 U	0.00044 J	0.0011 J	0.00039 J
Trichlorofluoromethane (CFC-11)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Trifluorotrichloroethane (Freon 113)	mg/kg	100	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Vinyl chloride	mg/kg	0.9	0.0057 U	0.0057 U	0.0056 U	0.006 U	0.0057 U
Xylene (total)	mg/kg	100	ND	ND	ND	ND	ND

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-08 <sup>(2)</sup> 7 - 9 10/10/2006	C-47-08 <sup>(2)</sup> 12 - 14 10/10/2006	C-47-08 <sup>(2)</sup> 18 - 20 10/10/2006	C-47-09 <sup>(2)</sup> 8.8 - 10 10/10/2006	C-47-09 <sup>(2)</sup> 12 - 14 10/10/2006
<b>Inorganics</b>							
Chromium (Total)	mg/kg	180 <sup>(3)</sup>	41.6	37.4	33.6	33.3	94.3
Chromium VI (Hexavalent)	mg/kg	110	2.43	11.8	1.7	26.3	9.32

**Notes**

(1) RAO - Remedial Action Objective - Restricted Residential Use Soil Cleanup Objectives, Protection of Public Health - 6NYCRR Part 375-6.8, Table 375-6.8 (b). Maximum individual VOC limit is 100 mg/kg.

(2) C-47-08 and C-47-09 samples are for depth confirmation within PAOC 47 excavation boundary

(3) RAO is for trivalent chromium. RAO can be met with total chromium

U - Not detected at specified reporting limit

J - Estimated

NA - Not analyzed due to insufficient sample volume

ND - Not detected (sum of xylenes)



TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-09 <sup>(2)</sup> 18 - 20 10/10/2006	C-47-09-DUP <sup>(2)</sup> 18 - 20 10/10/2006
<b>VOCs</b>				
1,1,1-Trichloroethane	mg/kg	100	0.0058 U	0.0057 U
1,1,2,2-Tetrachloroethane	mg/kg	100	0.0058 U	0.0057 U
1,1,2-Trichloroethane	mg/kg	100	0.0058 U	0.0057 U
1,1-Dichloroethane	mg/kg	26	0.0058 U	0.0057 U
1,1-Dichloroethene	mg/kg	100	0.0058 U	0.0057 U
1,2,4-Trichlorobenzene	mg/kg	100	0.0058 U	0.0057 U
1,2,4-Trimethylbenzene	mg/kg	52	0.0058 U	0.0057 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	100	0.0058 U	0.0057 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	100	0.0058 U	0.0057 U
1,2-Dichlorobenzene	mg/kg	100	0.0058 U	0.0057 U
1,2-Dichloroethane	mg/kg	3.1	0.0058 U	0.0057 U
1,2-Dichloropropane	mg/kg	100	0.0058 U	0.0057 U
1,3,5-Trimethylbenzene	mg/kg	52	0.0058 U	0.0057 U
1,3-Dichlorobenzene	mg/kg	49	0.0058 U	0.0057 U
1,4-Dichlorobenzene	mg/kg	13	0.0058 U	0.0057 U
1,4-Dioxane	mg/kg	13	0.12 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	0.012 U	0.011 U
2-Hexanone	mg/kg	100	0.012 U	0.011 U
2-Phenylbutane (sec-Butylbenzene)	mg/kg	100	0.0058 U	0.0057 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	0.0058 U	0.0057 U
Acetone	mg/kg	100	0.023 U	0.023 U
Benzene	mg/kg	4.8	0.0058 U	0.0057 U
Bromodichloromethane	mg/kg	100	0.0058 U	0.0057 U
Bromoform	mg/kg	100	0.0058 U	0.0057 U
Bromomethane (Methyl Bromide)	mg/kg	100	0.0058 U	0.0057 U
Carbon disulfide	mg/kg	100	0.012 U	0.011 U
Carbon tetrachloride	mg/kg	2.4	0.0058 U	0.0057 U
Chlorobenzene	mg/kg	100	0.0058 U	0.0057 U
Chloroethane	mg/kg	100	0.0058 U	0.0057 U
Chloroform (Trichloromethane)	mg/kg	49	0.0058 U	0.0057 U
Chloromethane (Methyl Chloride)	mg/kg	100	0.0058 U	0.0057 U
cis-1,2-Dichloroethene	mg/kg	100	0.0058 U	0.0057 U
cis-1,3-Dichloropropene	mg/kg	100	0.0058 U	0.0057 U
Cyclohexane	mg/kg	100	0.0058 U	0.0057 U
Dibromochloromethane	mg/kg	100	0.0058 U	0.0057 U
Dichlorodifluoromethane (CFC-12)	mg/kg	100	0.0058 U	0.0057 U
Ethylbenzene	mg/kg	41	0.0058 U	0.0057 U
Isopropylbenzene	mg/kg	100	0.0058 U	0.0057 U
m&p-Xylene	mg/kg	100(total)	0.0058 U	0.0057 U
Methyl acetate	mg/kg	100	0.0058 U	0.0057 U
Methyl cyclohexane	mg/kg	100	0.0058 U	0.0057 U
Methyl Tert Butyl Ether	mg/kg	100	0.0058 U	0.0057 U
Methylene chloride	mg/kg	100	0.0058 U	0.0057 U
n-Butylbenzene	mg/kg	100	0.0058 U	0.0057 U
n-Propylbenzene	mg/kg	100	0.0058 U	0.0057 U
o-Xylene	mg/kg	100(total)	0.0058 U	0.0057 U
Styrene	mg/kg	100	0.0058 U	0.0057 U
tert-Butylbenzene	mg/kg	100	0.0058 U	0.0057 U
Tetrachloroethene	mg/kg	19	0.0058 U	0.0057 U
Toluene	mg/kg	100	0.0058 U	0.0057 U
Total 1,3 Dichloropropenes	mg/kg	100	0.0058 U	0.0057 U
trans-1,2-Dichloroethene	mg/kg	100	0.0058 U	0.0057 U
trans-1,3-Dichloropropene	mg/kg	100	0.0058 U	0.0057 U
Trichloroethene	mg/kg	21	0.0021 J	0.0011 J
Trichlorofluoromethane (CFC-11)	mg/kg	100	0.0058 U	0.0057 U
Trifluorotrichloroethane (Freon 113)	mg/kg	100	0.0058 U	0.0057 U
Vinyl chloride	mg/kg	0.9	0.0058 U	0.0057 U
Xylene (total)	mg/kg	100	ND	ND

TABLE K-4

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 - OCTOBER 2006

Sample ID: Sample Depth (ft BGS): Date Collected:	Units	RAO <sup>(1)</sup> (mg/kg)	C-47-09 <sup>(2)</sup> 18 - 20 10/10/2006	C-47-09-DUP <sup>(2)</sup> 18 - 20 10/10/2006
<b>Inorganics</b>				
Chromium (Total)	mg/kg	180 <sup>(3)</sup>	16.4	15.7
Chromium VI (Hexavalent)	mg/kg	110	1.27	1.08

**Notes**

- (1) RAO - Remedial Action Objective - Restricted Residential Use Soil Cleanup Objectives, Protection of Public Health - 6NYCRR Part 375-6.8, Table 375-6.8 (b). Maximum individual VOC limit is 100 mg/kg.
- (2) C-47-08 and C-47-09 samples are for depth confirmation within PAOC 47 excavation boundary
- (3) RAO is for trivalent chromium. RAO can be met with total chromium
- U - Not detected at specified reporting limit
- J - Estimated
- NA - Not analyzed due to insufficient sample volume
- ND - Not detected (sum of xylenes)

**TABLE K-5****FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE****IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR PAOC 47 FROM PREVIOUS LAB ANALYSIS**

<b>Sample Name</b>	<b>Location ID</b>	<b>Depth Start (ft)</b>	<b>Depth End (ft)</b>	<b>RAO<sup>(1)</sup> (mg/kg)</b>	<b>PAOC 47 Chromium (total) mg/kg</b>
SI-47-B1-A1	SI-47-B1	3	4	180	25.6
SI-47-B1-A2	SI-47-B1	3	4	180	29
SI-47-B1-B1	SI-47-B1	6	7	180	33
SI-47-B3-A1	SI-47-B3	4	4.5	180	38
SI-47-B3-B1	SI-47-B3	9	9.5	180	11.3
SI-47-B5-A1	SI-47-B5	4	4.6	180	17.4
SI-47-B5-B1	SI-47-B5	11.2	12.0	180	21.3
SI-47-B5-B2	SI-47-B5	11.2	12.0	180	22.5
SI-47-B7-A1	SI-47-B7	6	6.5	180	12.2
SI-47-B7-B1	SI-47-B7	12.4	13	180	42.4
SI-47-B9-A1	SI-47-B9	6	6.5	180	28.7

**Note**

1. RAO - Remedial Action Objective - Restricted Residential Use Soil Cleanup Objectives, Protection of Public Health - 6NYCRR Part 375-6.8, Table 375-6.8 (b). RAO is for trivalent chromium, which can be met with total chromium.

Source: Data from Draft Preliminary Remedial Investigation Report (BBL 2006)

TABLE K-6

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

## IRM EXCAVATION BOUNDARY CONFIRMATION RESULTS FOR UST AREA - SEMI-VOLATILE ORGANIC COMPOUNDS

IWP Sample Area Description	PAOC - UST									
Field Sample ID	S1-UST-B47-A-1	S1-UST-B47-A-2	S1-UST-B48-A-1	S1-UST-B49-A-1	S1-UST-B50-A-1	S1-UST-B51-A-1	S1-UST-B52-A-1	S1-UST-B52-A-2	S1-UST-B57-A-1	S1-UST-B58-A-1
Depth Interval (ft)	9.0 - 11.0	9.0 - 11.0	10.0 - 12.0	9.0 - 11.0	9.0 - 11.0	12.0 - 14.0	9.0 - 11.0	9.0 - 11.0	10.0 - 11.0	10.0 - 12.0
<b>SVOCs (mg/Kg)</b>										
ACENAPHTHENE	1.9 J	2.4	4.4 J	1.9 J	1.6 J	ND	1.7 J	0.87 J	3.1 J	1.4 J
ANTHRACENE	1.2 J	2.1	ND	ND	0.57 J	ND	0.84 J	ND	2.8 J	0.79 J
BENZO(A)ANTHRACENE	0.88 J	1.8 J	ND	ND	ND	ND	0.3 J	ND	3.7 J	1.3 J
BENZO(A)PYRENE	0.59 J	1.1 J	ND	ND	ND	ND	ND	ND	3.6 J	1.2 J
BENZO(B)FLUORANTHENE	0.47 J	1.1 J	ND	ND	ND	ND	ND	ND	3 J	0.87 J
BENZO(G,H,I)PERYLENE	0.32 J	0.71 J	ND	ND	ND	ND	ND	ND	2.8 J	0.9 J
BENZO(K)FLUORANTHENE	0.46 J	0.96 J	ND	ND	ND	ND	ND	ND	2.7 J	0.84 J
CHRYSENE	1.1 J	2.3	ND	ND	0.33 J	ND	0.55 J	0.22 J	4.1 J	1.4 J
DIBENZO(A,H)ANTHRACENE	ND	ND	ND	ND	ND	ND	ND	ND	1 J	ND
FLUORANTHENE	2	4.5	ND	1.2 J	0.48 J	ND	0.79 J	0.39 J	7.2	2.3 J
FLUORENE	1.9 J	3	3.2 J	2.2 J	1.5 J	ND	1.2 J	0.55 J	3.7 J	0.76 J
INDENO(1,2,3-CD)PYRENE	0.3 J	0.66 J	ND	ND	ND	ND	ND	ND	2.5 J	0.72 J
NAPHTHALENE	ND	1.1 J	ND	ND	ND	ND	1.7 J	ND	ND	0.5 J
PHENANTHRENE	4.7	8.8	1.9 J	6 J	1.8 J	ND	0.73 J	ND	9.3	1 J
PYRENE	2.5	5.2	1.7 J	2.2 J	0.74 J	ND	1.2 J	0.45 J	6.7	2.8 J
Total C-PAHs	3.8	7.92	ND	ND	0.33	ND	0.85	ND	20.6	6.33
Total Semi-Volatile	18.42	35.73	11.2	13.5	7.02	ND	9.01	2.48	56.2	16.78

**Notes:**

1. ND = Not Detected
2. J = Estimated value

TABLE K-7

## FORMER GENERAL MOTORS NORTH TARRYTOWN ASSEMBLY PLANT SITE

IRM EXCAVATION BOUNDARY CONFIRMATION FOR UST AREA - VOLATILE ORGANIC COMPOUNDS

IWP Sample Area Description	PAOC - UST									
Field Sample ID	S1-UST-B47-A-1	S1-UST-B47-A-2	S1-UST-B48-A-1	S1-UST-B49-A-1	S1-UST-B50-A-1	SI-UST-B51-A-1	S1-UST-B52-A-1	S1-UST-B52-A-2	SI-UST-B57-A-1	SI-UST-B58-A-1
Depth Interval (ft)	9.0 - 11.0	9.0 - 11.0	10.0 - 12.0	9.0 - 11.0	9.0 - 11.0	12.0 - 14.0	9.0 - 11.0	9.0 - 11.0	9.0 - 9.5	10.0 - 12.0
<b>VOCs (mg/Kg)</b>										
1,2,4-TRIMETHYLBENZENE	0.18 J	0.85 J	0.81 J	0.49 J	0.62 J	ND	0.39 J	0.53 J	0.5 J	0.0031 J
1,3,5-TRIMETHYLBENZENE	ND	ND	ND	ND	0.21 J	ND	ND	ND	ND	ND
4-ISOPROPYLTOLUENE	0.2 J	0.37 J	ND	0.28 J	0.18 J	ND	ND	ND	ND	ND
BENZENE	0.53 J	3.4	0.42 J	1.1	ND	ND	ND	ND	0.2 J	ND
ETHYLBENZENE	ND	0.36 J	0.87 J	0.59 J	0.37 J	ND	0.25 J	ND	ND	ND
ISOPROPYLBENZENE	3.8	8.6	ND	7.1	1.8	ND	0.34 J	0.91 J	3.8	0.012 J
METHYL TERT-BUTYL ETHER	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	1.1 J	ND	ND	ND	ND	1.7 J	ND	ND	0.5 J
N-BUTYLBENZENE	2.5	4.5	2.7	0.32	1.5	ND	ND	0.67 J	2.8	ND
N-PROPYLBENZENE	4.9	11	2.3	9.2	2.1	ND	0.59 J	0.78 J	4.2	0.0041 J
M,P-XYLENES	0.77	3.1	2.1	1.4	0.49 J	ND	0.71 J	0.64 J	0.73 J	0.0041 J
O-XYLENE	ND	0.37 J	ND	0.18 J	ND	ND	ND	ND	0.18 J	ND
SEC-BUTYLBENZENE	1.5	3.2	3.9	2.5	2.1	ND	1.6	5.4	2.5	0.013
TERT-BUTYLBENZENE	ND	0.42 J	ND	0.35 J	0.31 J	ND	0.22 J	0.64 J	0.32 J	0.0062 J
TOLUENE	ND	0.47 J	1.2 J	0.44 J	ND	ND	0.25 J	ND	ND	ND

**Notes:**

1. ND = Not Detected
2. J = Estimated value

## **Appendix B**

Waste Characterization Data

**Generated Water**

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/30/07  
Work Order Number: 7H21008

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

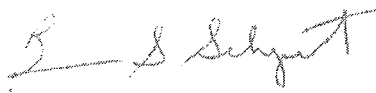
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/21/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent 082007	7H21008-01	Waste Water	08/20/07 16:10	08/21/07 09:40

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: GM Sleepy Hollow Waters Project Number: GM Sleepy Hollow E-944 Project Manager: Jim Pazderski	Reported: 08/30/07 16:56
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	-----------------------------

**Metals by EPA 200 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Analyst	Notes
<b>Effluent 082007 (7H21008-01) Waste Water    Sampled: 08/20/07 16:10    Received: 08/21/07 09:40</b>									
Silver	ND	0.005	mg/L	1	08/24/07	08/24/07 17:25	EPA 200.7	P.Arm	
Arsenic	0.0325	0.0090	"	"	"	"	"	P.Arm	
Barium	0.518	0.005	"	"	"	"	"	P.Arm	
Cadmium	ND	0.001	"	"	"	"	"	P.Arm	
Chromium	ND	0.005	"	"	"	"	"	P.Arm	
Copper	ND	0.009	"	"	"	"	"	P.Arm	
Mercury	ND	0.0002	"	"	08/23/07	08/23/07 16:04	EPA 245.1	JP	
Nickel	0.012	0.005	"	"	08/24/07	08/24/07 17:25	EPA 200.7	P.Arm	
Lead	0.017	0.015	"	"	"	"	"	P.Arm	
Selenium	ND	0.019	"	"	"	"	"	P.Arm	
Zinc	0.013	0.013	"	"	"	"	"	P.Arm	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

### Purgeables by EPA Method 624

### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Analyst	Notes
Effluent 082007 (7H21008-01) Waste Water Sampled: 08/20/07 16:10 Received: 08/21/07 09:40									
chloromethane	ND	2.0	ug/l	1	08/21/07	08/21/07 20:27	624	DWW	U
vinyl chloride	ND	1.0	"	"	"	"	"	DWW	U
bromomethane	ND	2.0	"	"	"	"	"	DWW	U
chloroethane	ND	2.0	"	"	"	"	"	DWW	U
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
<b>methylene chloride</b>	<b>3.6</b>	2.0	"	"	"	"	"	DWW	
trans-1,2-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
chloroform	ND	1.0	"	"	"	"	"	DWW	U
1,1,1-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
carbon tetrachloride	ND	1.0	"	"	"	"	"	DWW	U
benzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
trichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloropropane	ND	1.0	"	"	"	"	"	DWW	U
bromodichloromethane	ND	1.0	"	"	"	"	"	DWW	U
2-chloroethylvinyl ether	ND	10.0	"	"	"	"	"	DWW	U
cis-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
toluene	ND	1.0	"	"	"	"	"	DWW	U
trans-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
1,1,2-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
tetrachloroethene	ND	1.0	"	"	"	"	"	DWW	U
dibromochloromethane	ND	1.0	"	"	"	"	"	DWW	U
chlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
ethylbenzene	ND	1.0	"	"	"	"	"	DWW	U
bromoform	ND	1.0	"	"	"	"	"	DWW	U
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"	DWW	U
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,4-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
Surrogate: 1,2-Dichloroethane-d4		99.0 %		74-117	"	"	"	DWW	
Surrogate: Toluene-d8		99.0 %		82-123	"	"	"	DWW	
Surrogate: Bromofluorobenzene		105 %		85-123	"	"	"	DWW	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

### Acid and Base/Neutral Extractables by EPA Method 625

#### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Analyst	Notes
<b>Effluent 082007 (7H21008-01) Waste Water</b> <b>Sampled: 08/20/07 16:10</b> <b>Received: 08/21/07 09:40</b>									
n-nitrosodimethylamine	ND	2.0	ug/l	1	08/27/07	08/29/07 14:32	625	RS	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	RS	U
phenol	ND	4.0	"	"	"	"	"	RS	U
2-chlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	RS	U
hexachloroethane	ND	2.0	"	"	"	"	"	RS	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	RS	U
nitrobenzene	ND	2.0	"	"	"	"	"	RS	U
isophorone	ND	2.0	"	"	"	"	"	RS	U
2-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	RS	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	RS	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
naphthalene	ND	2.0	"	"	"	"	"	RS	U
hexachlorobutadiene	ND	2.0	"	"	"	"	"	RS	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	RS	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	RS	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	RS	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	RS	U
acenaphthylene	ND	2.0	"	"	"	"	"	RS	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
acenaphthene	ND	2.0	"	"	"	"	"	RS	U
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
4-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
fluorene	ND	2.0	"	"	"	"	"	RS	U
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	RS	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	RS	U
n-nitrosodiphenylamine	ND	2.0	"	"	"	"	"	RS	U
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	RS	U
hexachlorobenzene	ND	2.0	"	"	"	"	"	RS	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082007 (7H21008-01) Waste Water    Sampled: 08/20/07 16:10    Received: 08/21/07 09:40									
pentachlorophenol	ND	4.0	ug/l	1	"	08/29/07 14:32	625	RS	U
phenanthrene	ND	2.0	"	"	"	"	"	RS	U
anthracene	ND	2.0	"	"	"	"	"	RS	U
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	RS	U
benzidine	ND	10.0	"	"	"	"	"	RS	U
fluoranthene	ND	2.0	"	"	"	"	"	RS	U
pyrene	ND	2.0	"	"	"	"	"	RS	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	RS	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	RS	U
chrysene	ND	2.0	"	"	"	"	"	RS	U
bis(2-ethylhexyl)phthalate	ND	2.0	"	"	"	"	"	RS	U
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	RS	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	RS	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	RS	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	RS	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	RS	U
Surrogate: 2-Fluorophenol		41.2 %		19-54	"	"	"	RS	
Surrogate: Phenol-d6		30.2 %		13-35	"	"	"	RS	
Surrogate: Nitrobenzene-d5		76.2 %		47-106	"	"	"	RS	
Surrogate: 2-Fluorobiphenyl		72.3 %		46-106	"	"	"	RS	
Surrogate: 2,4,6-Tribromophenol		56.3 %		62-114	"	"	"	RS	
Surrogate: Terphenyl-d14		89.6 %		34-119	"	"	"	RS	L

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

### Conventional Chemistry Parameters by EPA Methods

#### Waste Stream Technology Inc.

Waste Stream Technology Inc.									
Analyte	Result	Reporting			Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units	Dilution					
Effluent 082007 (7H21008-01) Waste Water    Sampled: 08/20/07 16:10    Received: 08/21/07 09:40									
Hexavalent Chromium	ND	0.040	mg/L	1	08/21/07	08/21/07 15:10	EPA 7196A	ME	
Cyanide (total)	ND	0.010	"	"	08/26/07	08/27/07 15:39	EPA 335.2	ME	
Oil & Grease	ND	5.0	"	"	08/22/07	08/23/07 08:35	EPA 1664A	ME	
pH	8.53	0.01	pH Units	"	08/23/07	08/23/07 12:59	EPA 150.1	AY	E-04
Phenols	ND	0.005	mg/L	"	08/27/07	08/28/07 11:57	EPA 420.1	ME	
Total Suspended Solids	ND	4.0	"	"	08/21/07	08/22/07 08:05	EPA 160.2	ME	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 16:56

### Notes and Definitions

U        Analyte included in the analysis, but not detected

L        L denotes analyte recovery is less than the lower quality control limit.

E-04    According to NELAP, pH analyses not performed within 15 minutes need to be reported as "over-aged."

DET     Analyte DETECTED

ND      Analyte NOT DETECTED at or above the reporting limit

NR      Not Reported

dry      Sample results reported on a dry weight basis

RPD     Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**

Report Date: 08/30/07  
Work Order Number: 7H22015

**Prepared For**

Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road


Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/22/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 16:41

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent 082107	7H22015-01	Water	08/21/07 15:40	08/22/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:41

**Metals by EPA 200 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 082107 (7H22015-01) Water</b> Sampled: 08/21/07 15:40    Received: 08/22/07 09:30									
Silver	ND	0.005	mg/L	1	AH72402	08/24/07	08/24/07	EPA 200.7	
Arsenic	ND	0.0090	"	"	"	"	08/24/07	"	
<b>Barium</b>	<b>2.12</b>	0.005	"	"	"	"	08/24/07	"	
Cadmium	ND	0.001	"	"	"	"	08/24/07	"	
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.009	"	"	"	"	08/24/07	"	
Mercury	ND	0.0002	"	"	AH72308	08/23/07	08/23/07	EPA 245.1	
<b>Nickel</b>	<b>0.005</b>	0.005	"	"	AH72402	08/24/07	08/24/07	EPA 200.7	
Lead	ND	0.015	"	"	"	"	"	"	
Selenium	ND	0.019	"	"	"	"	"	"	
Zinc	ND	0.013	"	"	"	"	"	"	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:41

**Purgeables by EPA Method 624**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 082107 (7H22015-01) Water</b> <b>Sampled: 08/21/07 15:40</b> <b>Received: 08/22/07 09:30</b>									
chloromethane	ND	2.0	ug/l	1	AH72704	08/27/07	08/27/07	624	U
vinyl chloride	ND	1.0	"	"	"	"	"	"	U
bromomethane	ND	2.0	"	"	"	"	"	"	U
chloroethane	ND	2.0	"	"	"	"	"	"	U
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	U
1,1-dichloroethene	ND	1.0	"	"	"	"	"	"	U
methylene chloride	ND	2.0	"	"	"	"	"	"	U
trans-1,2-dichloroethene	ND	1.0	"	"	"	"	"	"	U
1,1-dichloroethane	ND	1.0	"	"	"	"	"	"	U
chloroform	ND	1.0	"	"	"	"	"	"	U
1,1,1-trichloroethane	ND	1.0	"	"	"	"	"	"	U
carbon tetrachloride	ND	1.0	"	"	"	"	"	"	U
benzene	ND	1.0	"	"	"	"	"	"	U
1,2-dichloroethane	ND	1.0	"	"	"	"	"	"	U
trichloroethene	ND	1.0	"	"	"	"	"	"	U
1,2-dichloropropane	ND	1.0	"	"	"	"	"	"	U
bromodichloromethane	ND	1.0	"	"	"	"	"	"	U
2-chloroethylvinyl ether	ND	10.0	"	"	"	"	"	"	U
cis-1,3-dichloropropene	ND	1.0	"	"	"	"	"	"	U
toluene	ND	1.0	"	"	"	"	"	"	U
trans-1,3-dichloropropene	ND	1.0	"	"	"	"	"	"	U
1,1,2-trichloroethane	ND	1.0	"	"	"	"	"	"	U
tetrachloroethene	ND	1.0	"	"	"	"	"	"	U
dibromochloromethane	ND	1.0	"	"	"	"	"	"	U
chlorobenzene	ND	1.0	"	"	"	"	"	"	U
ethylbenzene	ND	1.0	"	"	"	"	"	"	U
bromoform	ND	1.0	"	"	"	"	"	"	U
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"	"	U
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	1.0	"	"	"	"	"	"	U
1,2-dichlorobenzene	ND	1.0	"	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4		103 %	74-117		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	82-123		"	"	"	"	
Surrogate: Bromofluorobenzene		98.7 %	85-123		"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:41

### Acid and Base/Neutral Extractables by EPA Method 625

#### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 082107 (7H22015-01) Water</b> <b>Sampled: 08/21/07 15:40</b> <b>Received: 08/22/07 09:30</b>									
n-nitrosodimethylamine	ND	2.0	ug/l	1	AH72708	08/27/07	08/29/07	625	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	"	U
phenol	ND	4.0	"	"	"	"	"	"	U
2-chlorophenol	ND	4.0	"	"	"	"	"	"	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	"	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	"	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	"	U
hexachloroethane	ND	2.0	"	"	"	"	"	"	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	"	U
nitrobenzene	ND	2.0	"	"	"	"	"	"	U
isophorone	ND	2.0	"	"	"	"	"	"	U
2-nitrophenol	ND	4.0	"	"	"	"	"	"	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	"	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	"	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	"	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	"	U
naphthalene	ND	2.0	"	"	"	"	"	"	U
hexachlorobutadiene	ND	2.0	"	"	"	"	"	"	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	"	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	"	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	"	U
acenaphthylene	ND	2.0	"	"	"	"	"	"	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	"	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	"	U
acenaphthene	ND	2.0	"	"	"	"	"	"	U
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	"	U
4-nitrophenol	ND	4.0	"	"	"	"	"	"	U
fluorene	ND	2.0	"	"	"	"	"	"	U
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	"	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	"	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	"	U
n-nitrosodiphenylamine	ND	2.0	"	"	"	"	"	"	U
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	"	U
hexachlorobenzene	ND	2.0	"	"	"	"	"	"	U
pentachlorophenol	ND	4.0	"	"	"	"	"	"	U
phenanthrene	ND	2.0	"	"	"	"	"	"	U
anthracene	ND	2.0	"	"	"	"	"	"	U
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	"	U
benzidine	ND	10.0	"	"	"	"	"	"	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:41

### Acid and Base/Neutral Extractables by EPA Method 625

#### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 082107 (7H22015-01) Water</b> Sampled: 08/21/07 15:40 Received: 08/22/07 09:30									
fluoranthene	ND	2.0	ug/l	1	AH72708	08/27/07	08/29/07	625	U
pyrene	ND	2.0	"	"	"	"	"	"	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	"	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	"	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	"	U
chrysene	ND	2.0	"	"	"	"	"	"	U
bis(2-ethylhexyl)phthalate	ND	2.0	"	"	"	"	"	"	U
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	"	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	"	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	"	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	"	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	"	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	"	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol		29.9 %		19-54	"	"	"	"	
Surrogate: Phenol-d6		22.3 %		13-35	"	"	"	"	
Surrogate: Nitrobenzene-d5		67.1 %		47-106	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		69.5 %		46-106	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		54.5 %		62-114	"	"	"	"	
Surrogate: Terphenyl-d14		89.2 %		34-119	"	"	"	"	L

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:41

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Effluent 082107 (7H22015-01) Water    Sampled: 08/21/07 15:40    Received: 08/22/07 09:30										
Hexavalent Chromium	ND	0.040	mg/L	I	AH72303	08/22/07	08/22/07	EPA 7196A		
Cyanide (total)	ND	0.010	"	"	AH72724	08/26/07	08/27/07	EPA 335.2		
Oil & Grease	ND	5.0	"	"	AH72730	08/27/07	08/28/07	EPA 1664A		
pH	8.70	0.01	pH Units	"	AH72325	08/23/07	08/23/07	EPA 150.1		E-04
Phenols	ND	0.005	mg/L	"	AH72814	08/28/07	08/28/07	EPA 420.1		
Total Suspended Solids	ND	4.0	"	"	AH72717	08/27/07	08/28/07	EPA 160.2		

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 16:41

### Notes and Definitions

U Analyte included in the analysis, but not detected

L L denotes analyte recovery is less than the lower quality control limit.

E-04 According to NELAP, pH analyses not performed within 15 minutes need to be reported as "over-aged."

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**

Report Date: 08/30/07  
Work Order Number: 7H23008

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

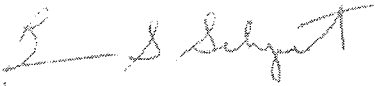
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/23/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 17:01

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent 082207	7H23008-01	Waste Water	08/22/07 14:45	08/23/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 17:01

### Metals by EPA 200 Series Methods

### Waste Stream Technology Inc.

Waste Stream Technology Inc.									
Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082207 (7H23008-01) Waste Water    Sampled: 08/22/07 14:45    Received: 08/23/07 09:30									
Silver	ND	0.005	mg/L	1	08/24/07	08/24/07 17:38	EPA 200.7	P.Arm	
Arsenic	0.0094	0.0090	"	"	"	"	"	P.Arm	
Barium	2.02	0.005	"	"	"	"	"	P.Arm	
Cadmium	ND	0.001	"	"	"	"	"	P.Arm	
Chromium	ND	0.005	"	"	"	"	"	P.Arm	
Copper	ND	0.009	"	"	"	"	"	P.Arm	
Mercury	ND	0.0002	"	"	08/28/07	08/28/07 16:44	EPA 245.1	JP	
Nickel	ND	0.005	"	"	08/24/07	08/24/07 17:38	EPA 200.7	P.Arm	
Lead	0.018	0.015	"	"	"	"	"	P.Arm	
Selenium	ND	0.019	"	"	"	"	"	P.Arm	
Zinc	ND	0.013	"	"	"	"	"	P.Arm	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 17:01

**Purgeables by EPA Method 624**  
**Waste Stream Technology Inc.**

Analyte	Result	Limit	Units	Dilution	Prepared	Analyzed	Method	Analyst	Notes
<b>Effluent 082207 (7H23008-01) Waste Water</b> <b>Sampled: 08/22/07 14:45</b> <b>Received: 08/23/07 09:30</b>									
chloromethane	ND	2.0	ug/l	1	08/27/07	08/27/07 12:29	624	DWW	U
vinyl chloride	ND	1.0	"	"	"	"	"	DWW	U
bromomethane	ND	2.0	"	"	"	"	"	DWW	U
chloroethane	ND	2.0	"	"	"	"	"	DWW	U
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
methylene chloride	ND	2.0	"	"	"	"	"	DWW	U
trans-1,2-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
chloroform	ND	1.0	"	"	"	"	"	DWW	U
1,1,1-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
carbon tetrachloride	ND	1.0	"	"	"	"	"	DWW	U
benzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
trichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloropropane	ND	1.0	"	"	"	"	"	DWW	U
bromodichloromethane	ND	1.0	"	"	"	"	"	DWW	U
2-chloroethylvinyl ether	ND	10.0	"	"	"	"	"	DWW	U
cis-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
toluene	ND	1.0	"	"	"	"	"	DWW	U
trans-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
1,1,2-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
tetrachloroethene	ND	1.0	"	"	"	"	"	DWW	U
dibromochloromethane	ND	1.0	"	"	"	"	"	DWW	U
chlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
ethylbenzene	ND	1.0	"	"	"	"	"	DWW	U
bromoform	ND	1.0	"	"	"	"	"	DWW	U
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"	DWW	U
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,4-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
Surrogate: 1,2-Dichloroethane-d4		102 %		74-117	"	"	"	DWW	
Surrogate: Toluene-d8		99.7 %		82-123	"	"	"	DWW	
Surrogate: Bromofluorobenzene		99.0 %		85-123	"	"	"	DWW	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 17:01

### Acid and Base/Neutral Extractables by EPA Method 625

### Waste Stream Technology Inc.

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082207 (7H23008-01) Waste Water    Sampled: 08/22/07 14:45    Received: 08/23/07 09:30									
n-nitrosodimethylamine	ND	2.0	ug/l	1	08/27/07	08/29/07 18:51	625	RS	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	RS	U
phenol	ND	4.0	"	"	"	"	"	RS	U
2-chlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	RS	U
hexachloroethane	ND	2.0	"	"	"	"	"	RS	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	RS	U
nitrobenzene	ND	2.0	"	"	"	"	"	RS	U
isophorone	ND	2.0	"	"	"	"	"	RS	U
2-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	RS	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	RS	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
naphthalene	ND	2.0	"	"	"	"	"	RS	U
hexachlorobutadiene	ND	2.0	"	"	"	"	"	RS	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	RS	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	RS	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	RS	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	RS	U
acenaphthylene	ND	2.0	"	"	"	"	"	RS	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
acenaphthene	ND	2.0	"	"	"	"	"	RS	U
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
4-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
fluorene	ND	2.0	"	"	"	"	"	RS	U
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	RS	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	RS	U
n-nitrosodiphenylamine	ND	2.0	"	"	"	"	"	RS	U
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	RS	U
hexachlorobenzene	ND	2.0	"	"	"	"	"	RS	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 17:01

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082207 (7H23008-01) Waste Water    Sampled: 08/22/07 14:45    Received: 08/23/07 09:30									
pentachlorophenol	ND	4.0	ug/l	1	"	08/29/07 18:51	625	RS	U
phenanthrene	ND	2.0	"	"	"	"	"	RS	U
anthracene	ND	2.0	"	"	"	"	"	RS	U
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	RS	U
benzidine	ND	10.0	"	"	"	"	"	RS	U
fluoranthene	ND	2.0	"	"	"	"	"	RS	U
pyrene	ND	2.0	"	"	"	"	"	RS	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	RS	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	RS	U
chrysene	ND	2.0	"	"	"	"	"	RS	U
bis(2-ethylhexyl)phthalate	2.6	2.0	"	"	"	"	"	RS	
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	RS	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	RS	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	RS	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	RS	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	RS	U
Surrogate: 2-Fluorophenol		38.4 %		19-54	"	"	"	RS	
Surrogate: Phenol-d6		27.8 %		13-35	"	"	"	RS	
Surrogate: Nitrobenzene-d5		80.3 %		47-106	"	"	"	RS	
Surrogate: 2-Fluorobiphenyl		75.8 %		46-106	"	"	"	RS	
Surrogate: 2,4,6-Tribromophenol		59.6 %		62-114	"	"	"	RS	L
Surrogate: Terphenyl-d14		91.7 %		34-119	"	"	"	RS	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 17:01

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Reporting								
	Result	Limit	Units	Dilution	Prepared	Analyzed	Method	Analyst	Notes
<b>Effluent 082207 (7H23008-01) Waste Water</b> <b>Sampled: 08/22/07 14:45</b> <b>Received: 08/23/07 09:30</b>									
Hexavalent Chromium	ND	0.040	mg/L	1	08/23/07	08/23/07 12:18	EPA 7196A	ME	
Cyanide (total)	ND	0.010	"	"	08/26/07	08/27/07 15:39	EPA 335.2	ME	
Oil & Grease	ND	5.0	"	"	08/27/07	08/28/07 08:26	EPA 1664A	CB	
<b>pH</b>	<b>8.12</b>	0.01	pH Units	"	08/27/07	08/27/07 17:22	EPA 150.1	ME	E-04
<b>Phenols</b>	<b>0.005</b>	0.005	mg/L	"	08/27/07	08/28/07 11:57	EPA 420.1	ME	
Total Suspended Solids	ND	4.0	"	"	08/27/07	08/28/07 16:38	EPA 160.2	ME	U

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 17:01

### Notes and Definitions

U        Analyte included in the analysis, but not detected

L        L denotes analyte recovery is less than the lower quality control limit.

E-04    According to NELAP, pH analyses not performed within 15 minutes need to be reported as "over-aged."

DET     Analyte DETECTED

ND     Analyte NOT DETECTED at or above the reporting limit

NR     Not Reported

dry     Sample results reported on a dry weight basis

RPD     Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/30/07  
Work Order Number: 7H24011

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/24/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



---

Waste Stream Technology Inc.

---

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 16:56

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent 082307	7H24011-01	Waste Water	08/23/07 15:20	08/24/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

**Metals by EPA 200 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082307 (7H24011-01) Waste Water	Sampled: 08/23/07 15:20	Received: 08/24/07 09:30							
Silver	ND	0.005	mg/L	1	08/24/07	08/24/07 17:44	EPA 200.7	P.Arm	
Arsenic	ND	0.0090	"	"	"	"	"	P.Arm	
Barium	2.03	0.005	"	"	"	"	"	P.Arm	
Cadmium	ND	0.001	"	"	"	"	"	P.Arm	
Chromium	ND	0.005	"	"	"	"	"	P.Arm	
Copper	ND	0.009	"	"	"	"	"	P.Arm	
Mercury	ND	0.0002	"	"	08/28/07	08/28/07 16:44	EPA 245.1	JP	
Nickel	0.007	0.005	"	"	08/24/07	08/24/07 17:44	EPA 200.7	P.Arm	
Lead	ND	0.015	"	"	"	"	"	P.Arm	
Selenium	ND	0.019	"	"	"	"	"	P.Arm	
Zinc	ND	0.013	"	"	"	"	"	P.Arm	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

**Purgeables by EPA Method 624**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting			Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units	Dilution					
Effluent 082307 (7H24011-01) Waste Water    Sampled: 08/23/07 15:20    Received: 08/24/07 09:30									
chloromethane	ND	2.0	ug/l	1	08/27/07	08/27/07 13:00	624	DWW	U
vinyl chloride	ND	1.0	"	"	"	"	"	DWW	U
bromomethane	ND	2.0	"	"	"	"	"	DWW	U
chloroethane	ND	2.0	"	"	"	"	"	DWW	U
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
<b>methylene chloride</b>	<b>3.4</b>	2.0	"	"	"	"	"	DWW	
trans-1,2-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
chloroform	ND	1.0	"	"	"	"	"	DWW	U
1,1,1-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
carbon tetrachloride	ND	1.0	"	"	"	"	"	DWW	U
benzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
trichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloropropane	ND	1.0	"	"	"	"	"	DWW	U
bromodichloromethane	ND	1.0	"	"	"	"	"	DWW	U
2-chloroethylvinyl ether	ND	10.0	"	"	"	"	"	DWW	U
cis-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
toluene	ND	1.0	"	"	"	"	"	DWW	U
trans-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
1,1,2-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
tetrachloroethene	ND	1.0	"	"	"	"	"	DWW	U
dibromochloromethane	ND	1.0	"	"	"	"	"	DWW	U
chlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
ethylbenzene	ND	1.0	"	"	"	"	"	DWW	U
bromoform	ND	1.0	"	"	"	"	"	DWW	U
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"	DWW	U
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,4-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
Surrogate: 1,2-Dichloroethane-d4		105 %	74-117		"	"	"	DWW	
Surrogate: Toluene-d8		97.3 %	82-123		"	"	"	DWW	
Surrogate: Bromofluorobenzene		99.3 %	85-123		"	"	"	DWW	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082307 (7H24011-01) Waste Water    Sampled: 08/23/07 15:20    Received: 08/24/07 09:30									
n-nitrosodimethylamine	ND	2.0	ug/l	1	08/27/07	08/29/07 19:43	625	RS	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	RS	U
phenol	ND	4.0	"	"	"	"	"	RS	U
2-chlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	RS	U
hexachloroethane	ND	2.0	"	"	"	"	"	RS	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	RS	U
nitrobenzene	ND	2.0	"	"	"	"	"	RS	U
isophorone	ND	2.0	"	"	"	"	"	RS	U
2-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	RS	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	RS	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
naphthalene	ND	2.0	"	"	"	"	"	RS	U
hexachlorobutadiene	ND	2.0	"	"	"	"	"	RS	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	RS	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	RS	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	RS	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	RS	U
acenaphthylene	ND	2.0	"	"	"	"	"	RS	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
acenaphthene	ND	2.0	"	"	"	"	"	RS	U
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
4-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
fluorene	ND	2.0	"	"	"	"	"	RS	U
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	RS	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	RS	U
n-nitrosodiphenylamine	ND	2.0	"	"	"	"	"	RS	U
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	RS	U
hexachlorobenzene	ND	2.0	"	"	"	"	"	RS	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082307 (7H24011-01) Waste Water    Sampled: 08/23/07 15:20    Received: 08/24/07 09:30									
pentachlorophenol	ND	4.0	ug/l	1	"	08/29/07 19:43	625	RS	U
phenanthrene	ND	2.0	"	"	"	"	"	RS	U
anthracene	ND	2.0	"	"	"	"	"	RS	U
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	RS	U
benzidine	ND	10.0	"	"	"	"	"	RS	U
fluoranthene	ND	2.0	"	"	"	"	"	RS	U
pyrene	ND	2.0	"	"	"	"	"	RS	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	RS	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	RS	U
chrysene	ND	2.0	"	"	"	"	"	RS	U
bis(2-ethylhexyl)phthalate	3.7	2.0	"	"	"	"	"	RS	
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	RS	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	RS	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	RS	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	RS	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	RS	U
Surrogate: 2-Fluorophenol		36.9 %		19-54	"	"	"	RS	
Surrogate: Phenol-d6		25.5 %		13-35	"	"	"	RS	
Surrogate: Nitrobenzene-d5		75.3 %		47-106	"	"	"	RS	
Surrogate: 2-Fluorobiphenyl		72.9 %		46-106	"	"	"	RS	
Surrogate: 2,4,6-Tribromophenol		50.2 %		62-114	"	"	"	RS	L
Surrogate: Terphenyl-d14		92.3 %		34-119	"	"	"	RS	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 16:56

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082307 (7H24011-01) Waste Water    Sampled: 08/23/07 15:20    Received: 08/24/07 09:30									
Hexavalent Chromium	ND	0.040	mg/L	1	08/24/07	08/24/07 14:00	EPA 7196A	ME	E-04
Cyanide (total)	ND	0.010	"	"	08/26/07	08/27/07 15:39	EPA 335.2	ME	
Oil & Grease	ND	9.8	"	"	08/27/07	08/28/07 08:26	EPA 1664A	CB	
pH	8.09	0.01	pH Units	"	08/27/07	08/27/07 17:22	EPA 150.1	ME	
Phenols	ND	0.005	mg/L	"	08/27/07	08/28/07 11:57	EPA 420.1	ME	
Total Suspended Solids	ND	4.0	"	"	08/27/07	08/28/07 16:38	EPA 160.2	ME	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 16:56

### Notes and Definitions

U Analyte included in the analysis, but not detected

L L denotes analyte recovery is less than the lower quality control limit.

E-04 According to NELAP, pH analyses not performed within 15 minutes need to be reported as "over-aged."

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**

Report Date: 09/06/07  
Work Order Number: 7H28003

**Prepared For**

Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/28/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/06/07 16:47

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent 082707	7H28003-01	Water	08/27/07 14:45	08/28/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/06/07 16:47

**Metals by EPA 200 Series Methods**  
**Waste Stream Technology Inc.**

Reporting									
Analyte	Result	Limit	Units	Dilution	Prepared	Analyzed	Method	Analyst	Notes
Effluent 082707 (7H28003-01) Water    Sampled: 08/27/07 14:45    Received: 08/28/07 09:30									
Silver	ND	0.002	mg/L	1	08/31/07	09/06/07 14:32	EPA 200.7	T.Por	
Arsenic	0.0108	0.0045	"	"	"	08/31/07 17:30	"	P.Arm	
Barium	1.73	0.002	"	"	"	08/31/07 17:29	"	P.Arm	
Cadmium	ND	0.0005	"	"	"	08/31/07 17:30	"	P.Arm	
Chromium	ND	0.002	"	"	"	"	"	P.Arm	
Copper	ND	0.004	"	"	"	08/31/07 17:29	"	P.Arm	
Mercury	ND	0.0002	"	"	09/05/07	09/05/07 15:41	EPA 245.1	JP	
Nickel	0.007	0.002	"	"	08/31/07	08/31/07 17:30	EPA 200.7	P.Arm	B
Lead	ND	0.008	"	"	"	"	"	P.Arm	
Selenium	ND	0.010	"	"	"	"	"	P.Arm	
Zinc	ND	0.006	"	"	"	"	"	P.Arm	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/06/07 16:47

**Purgeables by EPA Method 624**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082707 (7H28003-01) Water    Sampled: 08/27/07 14:45    Received: 08/28/07 09:30									
chloromethane	ND	2.0	ug/l	1	08/30/07	08/30/07 18:05	624	DWW	U
vinyl chloride	ND	1.0	"	"	"	"	"	DWW	U
bromomethane	ND	2.0	"	"	"	"	"	DWW	U
chloroethane	ND	2.0	"	"	"	"	"	DWW	U
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
<b>methylene chloride</b>	<b>3.9</b>	2.0	"	"	"	"	"	DWW	B
trans-1,2-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
chloroform	ND	1.0	"	"	"	"	"	DWW	U
1,1,1-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
carbon tetrachloride	ND	1.0	"	"	"	"	"	DWW	U
benzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
trichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloropropane	ND	1.0	"	"	"	"	"	DWW	U
bromodichloromethane	ND	1.0	"	"	"	"	"	DWW	U
2-chloroethylvinyl ether	ND	10.0	"	"	"	"	"	DWW	U
cis-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
toluene	ND	1.0	"	"	"	"	"	DWW	U
trans-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
1,1,2-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
tetrachloroethene	ND	1.0	"	"	"	"	"	DWW	U
dibromochloromethane	ND	1.0	"	"	"	"	"	DWW	U
chlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
ethylbenzene	ND	1.0	"	"	"	"	"	DWW	U
bromoform	ND	1.0	"	"	"	"	"	DWW	U
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"	DWW	U
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,4-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
Surrogate: 1,2-Dichloroethane-d4		102 %	74-117		"	"	"	DWW	
Surrogate: Toluene-d8		101 %	82-123		"	"	"	DWW	
Surrogate: Bromofluorobenzene		101 %	85-123		"	"	"	DWW	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/06/07 16:47

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082707 (7H28003-01) Water    Sampled: 08/27/07 14:45    Received: 08/28/07 09:30									
n-nitrosodimethylamine	ND	2.0	ug/l	1	09/02/07	09/05/07 20:14	625	RS	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	RS	U
phenol	ND	4.0	"	"	"	"	"	RS	U
2-chlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	RS	U
hexachloroethane	ND	2.0	"	"	"	"	"	RS	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	RS	U
nitrobenzene	ND	2.0	"	"	"	"	"	RS	U
isophorone	ND	2.0	"	"	"	"	"	RS	U
2-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	RS	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	RS	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
naphthalene	ND	2.0	"	"	"	"	"	RS	U
hexachlorobutadiene	ND	2.0	"	"	"	"	"	RS	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	RS	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	RS	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	RS	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	RS	U
acenaphthylene	ND	2.0	"	"	"	"	"	RS	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
acenaphthene	ND	2.0	"	"	"	"	"	RS	U
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
4-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
fluorene	ND	2.0	"	"	"	"	"	RS	U
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	RS	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	RS	U
n-nitrosodiphenylamine	ND	2.0	"	"	"	"	"	RS	U
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	RS	U
hexachlorobenzene	ND	2.0	"	"	"	"	"	RS	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/06/07 16:47

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082707 (7H28003-01) Water    Sampled: 08/27/07 14:45    Received: 08/28/07 09:30									
pentachlorophenol	ND	4.0	ug/l	1	"	09/05/07 20:14	625	RS	U
phenanthrene	ND	2.0	"	"	"	"	"	RS	U
anthracene	ND	2.0	"	"	"	"	"	RS	U
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	RS	U
benzidine	ND	10.0	"	"	"	"	"	RS	U
fluoranthene	ND	2.0	"	"	"	"	"	RS	U
pyrene	ND	2.0	"	"	"	"	"	RS	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	RS	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	RS	U
chrysene	ND	2.0	"	"	"	"	"	RS	U
bis(2-ethylhexyl)phthalate	ND	2.0	"	"	"	"	"	RS	U
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	RS	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	RS	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	RS	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	RS	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	RS	U
Surrogate: 2-Fluorophenol		32.1 %		19-54	"	"	"	RS	
Surrogate: Phenol-d6		18.9 %		13-35	"	"	"	RS	
Surrogate: Nitrobenzene-d5		76.5 %		47-106	"	"	"	RS	
Surrogate: 2-Fluorobiphenyl		77.5 %		46-106	"	"	"	RS	
Surrogate: 2,4,6-Tribromophenol		75.6 %		62-114	"	"	"	RS	
Surrogate: Terphenyl-d14		87.4 %		34-119	"	"	"	RS	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: GM Sleepy Hollow Waters Project Number: GM Sleepy Hollow E-944 Project Manager: Jim Pazderski	Reported: 09/06/07 16:47
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	-----------------------------

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082707 (7H28003-01) Water    Sampled: 08/27/07 14:45    Received: 08/28/07 09:30									
Hexavalent Chromium	ND	0.040	mg/L	1	08/28/07	08/28/07 12:15	EPA 7196A	ME	
Cyanide (total)	ND	0.010	"	"	08/30/07	08/31/07 08:59	EPA 335.2	ME	
Oil & Grease	ND	5.0	"	"	09/04/07	09/05/07 09:43	EPA 1664A	CB	
pH	7.69	0.01	pH Units	"	09/05/07	09/05/07 17:59	EPA 150.1	AY	E-04
Phenols	0.005	0.005	mg/L	"	09/05/07	09/05/07 13:33	EPA 420.1	ME	
Total Suspended Solids	ND	4.0	"	"	08/30/07	09/02/07 08:34	EPA 160.2	ME	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/06/07 16:47

### Notes and Definitions

U        Analyte included in the analysis, but not detected

E-04     According to NELAP, pH analyses not performed within 15 minutes need to be reported as "over-aged."

B        Analyte is found in the associated blank as well as in the sample (CLP B-flag).

DET     Analyte DETECTED

ND     Analyte NOT DETECTED at or above the reporting limit

NR     Not Reported

dry     Sample results reported on a dry weight basis

RPD     Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/14/07  
Work Order Number: 7H30019

**Prepared For**  
Jim Pazderski

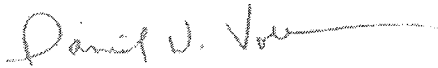
Sevenson Environmental Services

2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/30/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/14/07 16:23

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent 082907	7H30019-01	Waste Water	08/29/07 11:45	08/30/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/14/07 16:23

**Metals by EPA 200 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting		Dilution	Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units						
Effluent 082907 (7H30019-01) Waste Water	Sampled: 08/29/07 11:45	Received: 08/30/07 09:30							
Chromium	ND	0.005	mg/L	1	09/04/07	09/05/07 16:50	EPA 200.7	T.Por	
Lead	ND	0.015	"	"	"	"	"	T.Por	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/14/07 16:23

### Purgeables by EPA Method 624

### Waste Stream Technology Inc.

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082907 (7H30019-01) Waste Water    Sampled: 08/29/07 11:45    Received: 08/30/07 09:30									
chloromethane	ND	2.0	ug/l	1	09/06/07	09/06/07 15:25	624	DWW	U
vinyl chloride	ND	1.0	"	"	"	"	"	DWW	U
bromomethane	ND	2.0	"	"	"	"	"	DWW	U
chloroethane	ND	2.0	"	"	"	"	"	DWW	U
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
methylene chloride	ND	2.0	"	"	"	"	"	DWW	U
trans-1,2-dichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,1-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
chloroform	ND	1.0	"	"	"	"	"	DWW	U
1,1,1-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
carbon tetrachloride	ND	1.0	"	"	"	"	"	DWW	U
benzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloroethane	ND	1.0	"	"	"	"	"	DWW	U
trichloroethene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichloropropane	ND	1.0	"	"	"	"	"	DWW	U
bromodichloromethane	ND	1.0	"	"	"	"	"	DWW	U
2-chloroethylvinyl ether	ND	10.0	"	"	"	"	"	DWW	U
cis-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
toluene	ND	1.0	"	"	"	"	"	DWW	U
trans-1,3-dichloropropene	ND	1.0	"	"	"	"	"	DWW	U
1,1,2-trichloroethane	ND	1.0	"	"	"	"	"	DWW	U
tetrachloroethene	ND	1.0	"	"	"	"	"	DWW	U
dibromochloromethane	ND	1.0	"	"	"	"	"	DWW	U
chlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
ethylbenzene	ND	1.0	"	"	"	"	"	DWW	U
bromoform	ND	1.0	"	"	"	"	"	DWW	U
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"	DWW	U
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,4-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
1,2-dichlorobenzene	ND	1.0	"	"	"	"	"	DWW	U
Surrogate: 1,2-Dichloroethane-d4		105 %	74-117		"	"	"	DWW	
Surrogate: Toluene-d8		100 %	82-123		"	"	"	DWW	
Surrogate: Bromofluorobenzene		100 %	85-123		"	"	"	DWW	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/14/07 16:23

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Reporting			Dilution	Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units						
Effluent 082907 (7H30019-01) Waste Water    Sampled: 08/29/07 11:45    Received: 08/30/07 09:30									
n-nitrosodimethylamine	ND	2.0	ug/l	1	09/05/07	09/05/07 22:24	625	RS	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	RS	U
phenol	ND	4.0	"	"	"	"	"	RS	U
2-chlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	RS	U
hexachloroethane	ND	2.0	"	"	"	"	"	RS	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	RS	U
nitrobenzene	ND	2.0	"	"	"	"	"	RS	U
isophorone	ND	2.0	"	"	"	"	"	RS	U
2-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	RS	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	RS	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	RS	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	RS	U
naphthalene	ND	2.0	"	"	"	"	"	RS	U
hexachlorobutadiene	ND	2.0	"	"	"	"	"	RS	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	RS	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	RS	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	RS	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	RS	U
acenaphthylene	ND	2.0	"	"	"	"	"	RS	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
acenaphthene	ND	2.0	"	"	"	"	"	RS	U
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	RS	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	RS	U
4-nitrophenol	ND	4.0	"	"	"	"	"	RS	U
fluorene	ND	2.0	"	"	"	"	"	RS	U
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	RS	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	RS	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	RS	U
n-nitrosodiphenylamine	ND	2.0	"	"	"	"	"	RS	U
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	RS	U
hexachlorobenzene	ND	2.0	"	"	"	"	"	RS	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/14/07 16:23

### Acid and Base/Neutral Extractables by EPA Method 625

#### Waste Stream Technology Inc.

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082907 (7H30019-01) Waste Water    Sampled: 08/29/07 11:45    Received: 08/30/07 09:30									
pentachlorophenol	ND	4.0	ug/l	1	"	09/05/07 22:24	625	RS	U
phenanthrene	ND	2.0	"	"	"	"	"	RS	U
anthracene	ND	2.0	"	"	"	"	"	RS	U
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	RS	U
benzidine	ND	10.0	"	"	"	"	"	RS	U
fluoranthene	ND	2.0	"	"	"	"	"	RS	U
pyrene	ND	2.0	"	"	"	"	"	RS	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	RS	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	RS	U
chrysene	ND	2.0	"	"	"	"	"	RS	U
bis(2-ethylhexyl)phthalate	ND	2.0	"	"	"	"	"	RS	U
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	RS	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	RS	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	RS	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	RS	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	RS	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	RS	U
<hr/>									
Surrogate: 2-Fluorophenol		24.4 %		19-54	"	"	"	RS	
Surrogate: Phenol-d6		68.7 %		13-35	"	"	"	RS	
Surrogate: Nitrobenzene-d5		65.0 %		47-106	"	"	"	RS	G
Surrogate: 2-Fluorobiphenyl		80.5 %		46-106	"	"	"	RS	
Surrogate: 2,4,6-Tribromophenol		71.1 %		62-114	"	"	"	RS	
Surrogate: Terphenyl-d14		85.6 %		34-119	"	"	"	RS	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/14/07 16:23

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Prepared	Analyzed	Method	Analyst	Notes
	Result	Limit	Units	Dilution					
Effluent 082907 (7H30019-01) Waste Water	Sampled: 08/29/07 11:45	Received: 08/30/07 09:30							
Hexavalent Chromium	ND	0.040	mg/L	1	08/30/07	08/30/07 10:15	EPA 7196A	ME	E-04
Oil & Grease	ND	5.0	"	"	09/06/07	09/07/07 09:07	EPA 1664A	CB	
pH	7.69	0.01	pH Units	"	09/11/07	09/11/07 12:06	EPA 150.1	AY	
Total Suspended Solids	ND	4.0	mg/L	"	09/02/07	09/06/07 10:29	EPA 160.2	ME	
Total Extractable Hydrocarbons	ND	5.0	"	"	09/07/07	09/10/07 14:41	EPA 1664A	RS	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/14/07 16:23

### Notes and Definitions

U	Analyte included in the analysis, but not detected
G	G denotes analyte recovery is greater than the upper quality control limit.
E-04	According to NELAP, pH analyses not performed within 15 minutes need to be reported as "over-aged."
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 10/03/07  
Work Order Number: 7126011

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

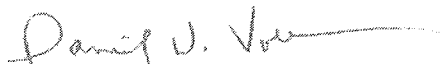
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/26/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
10/03/07 16:52

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent 092507	7I26011-01	Waste Water	09/25/07 14:00	09/26/07 10:00

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/03/07 16:52

**Metals by EPA 200 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 092507 (7I26011-01) Waste Water</b> <b>Sampled: 09/25/07 14:00</b> <b>Received: 09/26/07 10:00</b>									
Silver	ND	0.005	mg/L	1	AJ70204	10/02/07	10/03/07	EPA 200.7	J-02
Arsenic	0.015	0.009	"	"	"	"	10/03/07	"	
Barium	0.498	0.005	"	"	"	"	10/03/07	"	
Cadmium	0.004	0.001	"	"	"	"	10/03/07	"	B
Chromium	ND	0.005	"	"	"	"	"	"	
Copper	ND	0.009	"	"	"	"	10/03/07	"	
Mercury	ND	0.0002	"	"	AI72706	09/27/07	09/27/07	EPA 245.1	
Nickel	0.006	0.005	"	"	AJ70204	10/02/07	10/03/07	EPA 200.7	
Lead	ND	0.015	"	"	"	"	"	"	
Selenium	ND	0.019	"	"	"	"	"	"	
Zinc	0.014	0.013	"	"	"	"	"	"	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/03/07 16:52

### Purgeables by EPA Method 624

### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 092507 (7126011-01) Waste Water</b> <b>Sampled: 09/25/07 14:00</b> <b>Received: 09/26/07 10:00</b>									
chloromethane	ND	2.0	ug/l	1	A172622	09/26/07	09/26/07	624	U
vinyl chloride	ND	1.0	"	"	"	"	"	"	U
bromomethane	ND	2.0	"	"	"	"	"	"	U
chloroethane	ND	2.0	"	"	"	"	"	"	U
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	U
1,1-dichloroethene	ND	1.0	"	"	"	"	"	"	U
methylene chloride	ND	2.0	"	"	"	"	"	"	U
trans-1,2-dichloroethene	ND	1.0	"	"	"	"	"	"	U
1,1-dichloroethane	ND	1.0	"	"	"	"	"	"	U
chloroform	ND	1.0	"	"	"	"	"	"	U
1,1,1-trichloroethane	ND	1.0	"	"	"	"	"	"	U
carbon tetrachloride	ND	1.0	"	"	"	"	"	"	U
benzene	ND	1.0	"	"	"	"	"	"	U
1,2-dichloroethane	ND	1.0	"	"	"	"	"	"	U
trichloroethene	ND	1.0	"	"	"	"	"	"	U
1,2-dichloropropane	ND	1.0	"	"	"	"	"	"	U
bromodichloromethane	ND	1.0	"	"	"	"	"	"	U
2-chloroethylvinyl ether	ND	10.0	"	"	"	"	"	"	U
cis-1,3-dichloropropene	ND	1.0	"	"	"	"	"	"	U
toluene	ND	1.0	"	"	"	"	"	"	U
trans-1,3-dichloropropene	ND	1.0	"	"	"	"	"	"	U
1,1,2-trichloroethane	ND	1.0	"	"	"	"	"	"	U
tetrachloroethene	ND	1.0	"	"	"	"	"	"	U
dibromochloromethane	ND	1.0	"	"	"	"	"	"	U
chlorobenzene	ND	1.0	"	"	"	"	"	"	U
ethylbenzene	ND	1.0	"	"	"	"	"	"	U
bromoform	ND	1.0	"	"	"	"	"	"	U
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"	"	U
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	1.0	"	"	"	"	"	"	U
1,2-dichlorobenzene	ND	1.0	"	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4		104 %	74-117		"	"	"	"	
Surrogate: Toluene-d8		96.3 %	82-123		"	"	"	"	
Surrogate: Bromofluorobenzene		104 %	85-123		"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/03/07 16:52

**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 092507 (7I26011-01) Waste Water    Sampled: 09/25/07 14:00    Received: 09/26/07 10:00</b>									
n-nitrosodimethylamine	ND	2.0	ug/l	1	A172816	09/28/07	10/01/07	625	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	"	U
phenol	ND	4.0	"	"	"	"	"	"	U
2-chlorophenol	ND	4.0	"	"	"	"	"	"	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	"	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	"	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	"	U
hexachloroethane	ND	2.0	"	"	"	"	"	"	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	"	U
nitrobenzene	ND	2.0	"	"	"	"	"	"	U
isophorone	ND	2.0	"	"	"	"	"	"	U
2-nitrophenol	ND	4.0	"	"	"	"	"	"	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	"	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	"	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	"	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	"	U
naphthalene	ND	2.0	"	"	"	"	"	"	U
hexachlorobutadiene	ND	2.0	"	"	"	"	"	"	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	"	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	"	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	"	U
acenaphthylene	ND	2.0	"	"	"	"	"	"	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	"	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	"	U
acenaphthene	ND	2.0	"	"	"	"	"	"	U
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	"	U
4-nitrophenol	ND	4.0	"	"	"	"	"	"	U
fluorene	ND	2.0	"	"	"	"	"	"	U
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	"	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	"	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	"	U
n-nitrosodiphenylamine	ND	2.0	"	"	"	"	"	"	U
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	"	U
hexachlorobenzene	ND	2.0	"	"	"	"	"	"	U
pentachlorophenol	ND	4.0	"	"	"	"	"	"	U
phenanthrene	ND	2.0	"	"	"	"	"	"	U
anthracene	ND	2.0	"	"	"	"	"	"	U
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	"	U
benzidine	ND	10.0	"	"	"	"	"	"	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/03/07 16:52

### Acid and Base/Neutral Extractables by EPA Method 625

#### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 092507 (7126011-01) Waste Water</b> <b>Sampled: 09/25/07 14:00</b> <b>Received: 09/26/07 10:00</b>									
fluoranthene	ND	2.0	ug/l	1	A172816	09/28/07	10/01/07	625	U
pyrene	ND	2.0	"	"	"	"	"	"	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	"	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	"	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	"	U
chrysene	ND	2.0	"	"	"	"	"	"	U
bis(2-ethylhexyl)phthalate	ND	2.0	"	"	"	"	"	"	U
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	"	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	"	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	"	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	"	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	"	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	"	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol		18.2 %		19-54	"	"	"	"	L
Surrogate: Phenol-d6		18.7 %		13-35	"	"	"	"	
Surrogate: Nitrobenzene-d5		53.1 %		47-106	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		59.7 %		46-106	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		37.2 %		62-114	"	"	"	"	L
Surrogate: Terphenyl-d14		62.9 %		34-119	"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/03/07 16:52

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Effluent 092507 (7126011-01) Waste Water    Sampled: 09/25/07 14:00    Received: 09/26/07 10:00</b>									
Hexavalent Chromium	ND	0.040	mg/L	1	A172625	09/26/07	09/26/07	EPA 7196A	
Cyanide (total)	ND	0.010	"	"	AJ70226	10/02/07	10/02/07	EPA 335.2	
Oil & Grease	ND	5.0	"	"	A173006	09/30/07	10/01/07	EPA 1664A	
<b>pH</b>	<b>7.85</b>	0.01	pH Units	"	AJ70320	10/03/07	10/03/07	EPA 150.1	E-04
Phenols	ND	0.005	mg/L	"	AJ70311	10/03/07	10/03/07	EPA 420.1	
Total Suspended Solids	ND	4.0	"	"	A172603	09/26/07	09/28/07	EPA 160.2	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Waters  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/03/07 16:52

### Notes and Definitions

U	Analyte included in the analysis, but not detected
L	L denotes analyte recovery is less than the lower quality control limit.
J-02	The detection limit or result reported for the analyte is considered an estimated value due to a low analyte recovery in the associated LCS.
E-04	According to NELAP, pH analyses not performed within 15 minutes need to be reported as "over-aged."
B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**PAOC 29 Stabilized Soil**



**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/15/07  
Work Order Number: 7H14002

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/14/07. If you have any questions concerning this report, please feel free to contact me.

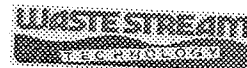
Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/15/07 14:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS-001	7H14002-01	Soil	08/13/07 14:40	08/14/07 09:20

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/15/07 14:44

**TCLP Metals by 6000/7000 Series Methods**

**Waste Stream Technology Inc.**

Waste Stream Technology Inc.									
Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							
TS-001 (7H14002-01) Soil    Sampled: 08/13/07 14:40    Received: 08/14/07 09:20									
Lead	0.102	0.075	mg/L	5	AH71524	08/15/07	08/15/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/15/07 14:44

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/17/07  
Work Order Number: 7H16004

**Prepared For**  
Jim Pazderski


Sevenson Environmental Services

2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/16/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/17/07 16:07

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS-002	7H16004-01	Soil	08/15/07 08:45	08/16/07 09:00

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/17/07 16:07

**TCLP Metals by 6000/7000 Series Methods**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
TS-002 (7H16004-01) Soil    Sampled: 08/15/07 08:45    Received: 08/16/07 09:00									
Lead	0.094	0.075	mg/L	5	AH71709	08/17/07	08/17/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/17/07 16:07

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/28/07  
Work Order Number: 7H27011

**Prepared For**  
Jim Pazderski

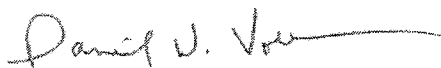
Sevenson Environmental Services

2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/27/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/28/07 17:00

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS-003	7H27011-01	Soil	08/24/07 17:00	08/27/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/28/07 17:00

**TCLP Metals by 6000/7000 Series Methods**

**Waste Stream Technology Inc.**

Analyte	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Result	Limit							
TS-003 (7H27011-01) Soil    Sampled: 08/24/07 17:00    Received: 08/27/07 09:30									
Lead	0.326	0.075	mg/L	5	AH72812	08/28/07	08/28/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/28/07 17:00

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**PAOC 29 and PAOC 47  
Composite Concrete**

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/31/07  
Work Order Number: 7H30011

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

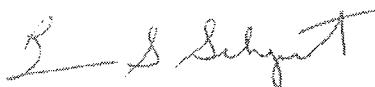
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/30/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/31/07 16:29

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC 29/47 TS004	7H30011-01	Soil	08/29/07 16:00	08/30/07 09:45

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: GM Sleepy Hollow Treated Soils Project Number: GM Sleepy Hollow E-944 Project Manager: Jim Pazderski	Reported: 08/31/07 16:29
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------	-----------------------------

**TCLP Metals by 6000/7000 Series Methods**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PAOC 29/47 TS004 (7H30011-01) Soil    Sampled: 08/29/07 16:00    Received: 08/30/07 09:45									
Chromium	0.045	0.025	mg/L	5	AH73112	08/31/07	08/31/07	EPA 6010B	
Lead	ND	0.075	"	"	"	"	"	"	



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/31/07 16:29

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
PAOC 29/47 TS004 (7H30011-01) Soil    Sampled: 08/29/07 16:00    Received: 08/30/07 09:45										
trichloroethene	ND	10	ug/l	1	AH73106	08/31/07	08/31/07	8260-TCLP		U
Surrogate: Dibromofluoromethane		95.3 %	75-125		"	"	"	"		
Surrogate: 1,2-Dichloroethane-d4		105 %	66-128		"	"	"	"		
Surrogate: Toluene-d8		100 %	81-118		"	"	"	"		
Surrogate: Bromofluorobenzene		96.3 %	85-123		"	"	"	"		

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/31/07 16:29

### Notes and Definitions

U	Analyte included in the analysis, but not detected
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**PAOC 47 Soil Adhered to  
Surface Concrete**

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-1-00(10-18-07)

Date Sampled : 10/18/07 12:30

Order #: 1046668

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<u>METALS</u>						
CHROMIUM	6010B	1.00	21.6	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-2-00(10-18-07)

Date Sampled : 10/18/07 12:35

Order #: 1046669

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<u>METALS</u>						
CHROMIUM	6010B	1.00	40.0	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-3-00(10-18-07)

---

Date Sampled : 10/18/07 12:40	Order #: 1046670	Sample Matrix: SOIL/SEDIMENT
Date Received: 10/19/07	Submission #: R2740341	

---

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<hr/>						
<u>METALS</u>						
CHROMIUM	6010B	1.00	33.1	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-4-00(10-18-07)

Date Sampled : 10/18/07 12:45

Order #: 1046671

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<u>METALS</u>						
CHROMIUM	6010B	1.00	30.0	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-5-00(10-18-07)

---

Date Sampled : 10/18/07 12:50	Order #: 1046672	Sample Matrix: SOIL/SEDIMENT
Date Received: 10/19/07	Submission #: R2740341	

---

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<hr/>						
<u>METALS</u>						
CHROMIUM	6010B	1.00	24.2	MG/KG	10/23/07	1.0



COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-6-00 (10-18-07)

Date Sampled : 10/18/07 12:55

Order #: 1046673

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<u>METALS</u>						
CHROMIUM	6010B	1.00	34.5	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-7-00(10-18-07)

Date Sampled : 10/18/07 13:00

Order #: 1046674

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<u>METALS</u>						
CHROMIUM	6010B	1.00	29.5	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-8-00(10-18-07)

Date Sampled : 10/18/07 13:05

Order #: 1046675

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<u>METALS</u>						
CHROMIUM	6010B	1.00	45.9	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-9-00(10-18-07)

Date Sampled : 10/18/07 13:10

Order #: 1046676

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<u>METALS</u>						
CHROMIUM	6010B	1.00	45.5	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-10-00(10-18-07)

---

Date Sampled : 10/18/07 13:15	Order #: 1046677	Sample Matrix: SOIL/SEDIMENT
Date Received: 10/19/07	Submission #: R2740341	

---

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
<hr/>						
<u>METALS</u>						
CHROMIUM	6010B	1.00	33.2	MG/KG	10/23/07	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-1-00(10-18-07)

Date Sampled : 10/18/07 12:30

Order #: 1046668

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	98.3	%	10/22/07	14:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-2-00(10-18-07)

Date Sampled : 10/18/07 12:35

Order #: 1046669

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	96.7	%	10/22/07	14:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-3-00(10-18-07)

---

Date Sampled : 10/18/07 12:40	Order #: 1046670	Sample Matrix: SOIL/SEDIMENT
Date Received: 10/19/07	Submission #: R2740341	

---

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
---------	--------	-----	--------	---------------------	------------------	------------------	----------

---

WET CHEMISTRY

PERCENT SOLIDS	160.3M	1.00	97.6	%	10/22/07	14:00	1.0
----------------	--------	------	------	---	----------	-------	-----



COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-4-00(10-18-07)

Date Sampled : 10/18/07 12:45

Order #: 1046671

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	95.6	%	10/22/07	14:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-5-00(10-18-07)

---

Date Sampled : 10/18/07 12:50	Order #: 1046672	Sample Matrix: SOIL/SEDIMENT
Date Received: 10/19/07	Submission #: R2740341	

---

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
---------	--------	-----	--------	---------------------	------------------	------------------	----------

---

WET CHEMISTRY

PERCENT SOLIDS	160.3M	1.00	93.8	%	10/22/07	14:00	1.0
----------------	--------	------	------	---	----------	-------	-----

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-6-00 (10-18-07)

Date Sampled : 10/18/07 12:55

Order #: 1046673

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	98.3	%	10/22/07	14:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-7-00(10-18-07)

Date Sampled : 10/18/07 13:00

Order #: 1046674

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	93.9	%	10/22/07	14:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-8-00(10-18-07)

Date Sampled : 10/18/07 13:05

Order #: 1046675

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	96.7	%	10/22/07	14:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-9-00(10-18-07)

Date Sampled : 10/18/07 13:10

Order #: 1046676

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	96.6	%	10/22/07	14:00	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 10/23/07

CRA Inc.

Project Reference: SSOW E097008 GM-TARRYTOWN B0064462.0000.00042

Client Sample ID : PAOC-47-10-00(10-18-07)

Date Sampled : 10/18/07 13:15

Order #: 1046677

Sample Matrix: SOIL/SEDIMENT

Date Received: 10/19/07

Submission #: R2740341

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
<u>WET CHEMISTRY</u>							
PERCENT SOLIDS	160.3M	1.00	95.7	%	10/22/07	14:00	1.0

ARCADIS BBL

PAOC 47 Soil



**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/14/07  
Work Order Number: 7H13005

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

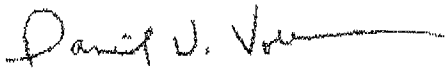
2749 Lockport Road  
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/13/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/14/07 16:45

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC 47-1	7H13005-01	Soil	08/10/07 17:00	08/13/07 09:45
PAOC 47-2	7H13005-02	Soil	08/10/07 17:20	08/13/07 09:45
PAOC 47-3	7H13005-03	Soil	08/10/07 17:40	08/13/07 09:45
PAOC 47-4	7H13005-04	Soil	08/10/07 18:00	08/13/07 09:45
PAOC 47-5	7H13005-05	Soil	08/10/07 18:20	08/13/07 09:45
PAOC 47-6	7H13005-06	Soil	08/10/07 18:40	08/13/07 09:45

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/14/07 16:45

**Metals by EPA 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC 47-1 (7H13005-01) Soil Sampled: 08/10/07 17:00 Received: 08/13/07 09:45</b>									
Chromium	23.2	1.00	mg/kg dry	1	AH71313	08/13/07	08/14/07	EPA 6010B	
<b>PAOC 47-2 (7H13005-02) Soil Sampled: 08/10/07 17:20 Received: 08/13/07 09:45</b>									
Chromium	26.3	1.00	mg/kg dry	1	AH71313	08/13/07	08/14/07	EPA 6010B	
<b>PAOC 47-3 (7H13005-03) Soil Sampled: 08/10/07 17:40 Received: 08/13/07 09:45</b>									
Chromium	19.1	1.00	mg/kg dry	1	AH71313	08/13/07	08/14/07	EPA 6010B	
<b>PAOC 47-4 (7H13005-04) Soil Sampled: 08/10/07 18:00 Received: 08/13/07 09:45</b>									
Chromium	27.4	1.00	mg/kg dry	1	AH71313	08/13/07	08/14/07	EPA 6010B	
<b>PAOC 47-5 (7H13005-05) Soil Sampled: 08/10/07 18:20 Received: 08/13/07 09:45</b>									
Chromium	11.2	1.00	mg/kg dry	1	AH71313	08/13/07	08/14/07	EPA 6010B	
<b>PAOC 47-6 (7H13005-06) Soil Sampled: 08/10/07 18:40 Received: 08/13/07 09:45</b>									
Chromium	13.6	1.00	mg/kg dry	1	AH71313	08/13/07	08/14/07	EPA 6010B	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/14/07 16:45

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC 47-1 (7H13005-01) Soil</b> Sampled: 08/10/07 17:00 Received: 08/13/07 09:45									
Chromium	0.027	0.025	mg/L	5	AH71402	08/14/07	08/14/07	EPA 6010B	
<b>PAOC 47-2 (7H13005-02) Soil</b> Sampled: 08/10/07 17:20 Received: 08/13/07 09:45									
Chromium	ND	0.025	mg/L	5	AH71402	08/14/07	08/14/07	EPA 6010B	
<b>PAOC 47-3 (7H13005-03) Soil</b> Sampled: 08/10/07 17:40 Received: 08/13/07 09:45									
Chromium	ND	0.025	mg/L	5	AH71402	08/14/07	08/14/07	EPA 6010B	
<b>PAOC 47-4 (7H13005-04) Soil</b> Sampled: 08/10/07 18:00 Received: 08/13/07 09:45									
Chromium	ND	0.025	mg/L	5	AH71402	08/14/07	08/14/07	EPA 6010B	
<b>PAOC 47-5 (7H13005-05) Soil</b> Sampled: 08/10/07 18:20 Received: 08/13/07 09:45									
Chromium	ND	0.025	mg/L	5	AH71402	08/14/07	08/14/07	EPA 6010B	
<b>PAOC 47-6 (7H13005-06) Soil</b> Sampled: 08/10/07 18:40 Received: 08/13/07 09:45									
Chromium	ND	0.025	mg/L	5	AH71402	08/14/07	08/14/07	EPA 6010B	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/14/07 16:45

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC 47-1 (7H13005-01) Soil</b> Sampled: 08/10/07 17:00 Received: 08/13/07 09:45									
trichloroethene	ND	10	ug/l	1	AH71414	08/14/07	08/14/07	8260-TCLP	U
Surrogate: Dibromofluoromethane	95.3 %	75-125			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	99.3 %	66-128			"	"	"	"	
Surrogate: Toluene-d8	96.0 %	81-118			"	"	"	"	
Surrogate: Bromofluorobenzene	99.0 %	85-123			"	"	"	"	
<b>PAOC 47-2 (7H13005-02) Soil</b> Sampled: 08/10/07 17:20 Received: 08/13/07 09:45									
trichloroethene	ND	10	ug/l	1	AH71414	08/14/07	08/14/07	8260-TCLP	U
Surrogate: Dibromofluoromethane	95.3 %	75-125			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	101 %	66-128			"	"	"	"	
Surrogate: Toluene-d8	95.3 %	81-118			"	"	"	"	
Surrogate: Bromofluorobenzene	94.3 %	85-123			"	"	"	"	
<b>PAOC 47-3 (7H13005-03) Soil</b> Sampled: 08/10/07 17:40 Received: 08/13/07 09:45									
trichloroethene	ND	10	ug/l	1	AH71414	08/14/07	08/14/07	8260-TCLP	U
Surrogate: Dibromofluoromethane	94.7 %	75-125			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	98.3 %	66-128			"	"	"	"	
Surrogate: Toluene-d8	97.3 %	81-118			"	"	"	"	
Surrogate: Bromofluorobenzene	101 %	85-123			"	"	"	"	
<b>PAOC 47-4 (7H13005-04) Soil</b> Sampled: 08/10/07 18:00 Received: 08/13/07 09:45									
trichloroethene	ND	10	ug/l	1	AH71414	08/14/07	08/14/07	8260-TCLP	U
Surrogate: Dibromofluoromethane	97.7 %	75-125			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	102 %	66-128			"	"	"	"	
Surrogate: Toluene-d8	98.0 %	81-118			"	"	"	"	
Surrogate: Bromofluorobenzene	98.0 %	85-123			"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/14/07 16:45

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC 47-5 (7H13005-05) Soil</b> Sampled: 08/10/07 18:20 Received: 08/13/07 09:45									
trichloroethene	ND	10	ug/l	1	AH71414	08/14/07	08/14/07	8260-TCLP	U
Surrogate: Dibromofluoromethane	94.7 %	75-125			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	98.3 %	66-128			"	"	"	"	
Surrogate: Toluene-d8	97.7 %	81-118			"	"	"	"	
Surrogate: Bromofluorobenzene	98.0 %	85-123			"	"	"	"	
<b>PAOC 47-6 (7H13005-06) Soil</b> Sampled: 08/10/07 18:40 Received: 08/13/07 09:45									
trichloroethene	ND	10	ug/l	1	AH71414	08/14/07	08/14/07	8260-TCLP	U
Surrogate: Dibromofluoromethane	93.3 %	75-125			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	102 %	66-128			"	"	"	"	
Surrogate: Toluene-d8	96.3 %	81-118			"	"	"	"	
Surrogate: Bromofluorobenzene	99.3 %	85-123			"	"	"	"	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/14/07 16:45

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC 47-1 (7H13005-01) Soil</b> Sampled: 08/10/07 17:00 Received: 08/13/07 09:45									
% Solids	90.9	0.1	%	1	AH71405	08/13/07	08/14/07	% calculation	
<b>PAOC 47-2 (7H13005-02) Soil</b> Sampled: 08/10/07 17:20 Received: 08/13/07 09:45									
% Solids	86.9	0.1	%	1	AH71405	08/13/07	08/14/07	% calculation	
<b>PAOC 47-3 (7H13005-03) Soil</b> Sampled: 08/10/07 17:40 Received: 08/13/07 09:45									
% Solids	87.0	0.1	%	1	AH71405	08/13/07	08/14/07	% calculation	
<b>PAOC 47-4 (7H13005-04) Soil</b> Sampled: 08/10/07 18:00 Received: 08/13/07 09:45									
% Solids	85.9	0.1	%	1	AH71405	08/13/07	08/14/07	% calculation	
<b>PAOC 47-5 (7H13005-05) Soil</b> Sampled: 08/10/07 18:20 Received: 08/13/07 09:45									
% Solids	88.2	0.1	%	1	AH71405	08/13/07	08/14/07	% calculation	
<b>PAOC 47-6 (7H13005-06) Soil</b> Sampled: 08/10/07 18:40 Received: 08/13/07 09:45									
% Solids	88.0	0.1	%	1	AH71405	08/13/07	08/14/07	% calculation	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/14/07 16:45

### Notes and Definitions

U Analyte included in the analysis, but not detected  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference



**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/29/07  
Work Order Number: 7H27010

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/27/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/29/07 13:19

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
POAC-47, Area1 7.5'-13'	7H27010-01	Soil	08/24/07 15:00	08/27/07 09:30
POAC-47, Area2 7.5'-13'	7H27010-02	Soil	08/24/07 15:10	08/27/07 09:30
POAC-47, Area3 7.5'-13'	7H27010-03	Soil	08/24/07 15:20	08/27/07 09:30
POAC-47, Area4 7.5'-13'	7H27010-04	Soil	08/24/07 15:30	08/27/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/29/07 13:19

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>POAC-47, Area1 7.5'-13' (7H27010-01) Soil Sampled: 08/24/07 15:00 Received: 08/27/07 09:30</b>									
Chromium	0.280	0.025	mg/L	5	AH72812	08/28/07	08/29/07	EPA 6010B	
<b>POAC-47, Area2 7.5'-13' (7H27010-02) Soil Sampled: 08/24/07 15:10 Received: 08/27/07 09:30</b>									
Chromium	0.947	0.025	mg/L	5	AH72812	08/28/07	08/29/07	EPA 6010B	
<b>POAC-47, Area3 7.5'-13' (7H27010-03) Soil Sampled: 08/24/07 15:20 Received: 08/27/07 09:30</b>									
Chromium	0.444	0.025	mg/L	5	AH72812	08/28/07	08/29/07	EPA 6010B	
<b>POAC-47, Area4 7.5'-13' (7H27010-04) Soil Sampled: 08/24/07 15:30 Received: 08/27/07 09:30</b>									
Chromium	ND	0.025	mg/L	5	AH72812	08/28/07	08/29/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/29/07 13:19

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>POAC-47, Area1 7.5'-13' (7H27010-01) Soil    Sampled: 08/24/07 15:00    Received: 08/27/07 09:30</b>									
trichloroethene	ND	10	ug/l	1	AH72807	08/28/07	08/28/07	8260-TCLP	U
Surrogate: Dibromofluoromethane		96.3 %	75-125		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		103 %	66-128		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	81-118		"	"	"	"	
Surrogate: Bromofluorobenzene		99.3 %	85-123		"	"	"	"	
<b>POAC-47, Area2 7.5'-13' (7H27010-02) Soil    Sampled: 08/24/07 15:10    Received: 08/27/07 09:30</b>									
trichloroethene	ND	10	ug/l	1	AH72807	08/28/07	08/28/07	8260-TCLP	U
Surrogate: Dibromofluoromethane		97.3 %	75-125		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		99.3 %	66-128		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	81-118		"	"	"	"	
Surrogate: Bromofluorobenzene		96.3 %	85-123		"	"	"	"	
<b>POAC-47, Area3 7.5'-13' (7H27010-03) Soil    Sampled: 08/24/07 15:20    Received: 08/27/07 09:30</b>									
trichloroethene	ND	10	ug/l	1	AH72807	08/28/07	08/28/07	8260-TCLP	U
Surrogate: Dibromofluoromethane		97.3 %	75-125		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		105 %	66-128		"	"	"	"	
Surrogate: Toluene-d8		102 %	81-118		"	"	"	"	
Surrogate: Bromofluorobenzene		99.3 %	85-123		"	"	"	"	
<b>POAC-47, Area4 7.5'-13' (7H27010-04) Soil    Sampled: 08/24/07 15:30    Received: 08/27/07 09:30</b>									
trichloroethene	ND	10	ug/l	1	AH72807	08/28/07	08/28/07	8260-TCLP	U
Surrogate: Dibromofluoromethane		96.7 %	75-125		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		103 %	66-128		"	"	"	"	
Surrogate: Toluene-d8		101 %	81-118		"	"	"	"	
Surrogate: Bromofluorobenzene		96.0 %	85-123		"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/29/07 13:19

#### Notes and Definitions

U	Analyte included in the analysis, but not detected
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 08/30/07  
Work Order Number: 7H29003

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

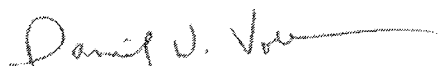
2749 Lockport Road  
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 08/29/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 14:47

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC47 Area 5 7.5'-13'	7H29003-01	Soil	08/28/07 14:30	08/29/07 09:30
PAOC47 Area 6 7.5'-13'	7H29003-02	Soil	08/28/07 14:45	08/29/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 14:47

**TCLP Metals by 6000/7000 Series Methods**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
PAOC47 Area 5 7.5'-13' (7H29003-01) Soil    Sampled: 08/28/07 14:30    Received: 08/29/07 09:30										
Chromium	ND	0.025	mg/L	5	AH73012	08/30/07	08/30/07	EPA 6010B		
PAOC47 Area 6 7.5'-13' (7H29003-02) Soil    Sampled: 08/28/07 14:45    Received: 08/29/07 09:30										
Chromium	ND	0.025	mg/L	5	AH73012	08/30/07	08/30/07	EPA 6010B		

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
08/30/07 14:47

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC47 Area 5 7.5'-13' (7H29003-01) Soil    Sampled: 08/28/07 14:30    Received: 08/29/07 09:30</b>									
trichloroethene	ND	10	ug/l	1	AH73018	08/30/07	08/30/07	8260-TCLP	U
Surrogate: Dibromofluoromethane		95.7 %	75-125		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		103 %	66-128		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	81-118		"	"	"	"	
Surrogate: Bromofluorobenzene		103 %	85-123		"	"	"	"	
<b>PAOC47 Area 6 7.5'-13' (7H29003-02) Soil    Sampled: 08/28/07 14:45    Received: 08/29/07 09:30</b>									
trichloroethene	ND	10	ug/l	1	AH73018	08/30/07	08/30/07	8260-TCLP	U
Surrogate: Dibromofluoromethane		101 %	75-125		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		103 %	66-128		"	"	"	"	
Surrogate: Toluene-d8		101 %	81-118		"	"	"	"	
Surrogate: Bromofluorobenzene		96.0 %	85-123		"	"	"	"	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
08/30/07 14:47

### Notes and Definitions

U	Analyte included in the analysis, but not detected
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**PAOC 7 Stabilized Soil**

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**

Report Date: 09/17/07  
Work Order Number: 7117002

**Prepared For**

Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/15/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/17/07 15:03

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS005	7I17002-01	Soil	09/14/07 15:10	09/15/07 13:00

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/17/07 15:03

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TS005 (7I17002-01) Soil    Sampled: 09/14/07 15:10    Received: 09/15/07 13:00</b>									
Lead	ND	0.075	mg/L	5	AI71718	09/17/07	09/17/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/17/07 15:03

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/19/07  
Work Order Number: 7118002

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/18/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/19/07 14:19

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC 7 TS006	7I18002-01	Soil	09/17/07 08:45	09/18/07 10:00

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/19/07 14:19

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PAOC 7 TS006 (7H18002-01) Soil    Sampled: 09/17/07 08:45    Received: 09/18/07 10:00									
Lead	ND	0.075	mg/L	5	AI71917	09/19/07	09/19/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/19/07 14:19

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

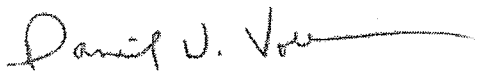
302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/20/07  
Work Order Number: 7119006

**Prepared For**  
Jim Pazderski  
Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201  
Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/19/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/20/07 14:37

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC 7 TS007	7I19006-01	Soil	09/18/07 16:21	09/19/07 10:00

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/20/07 14:37

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Waste Stream Technology Inc.										
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes	
PAOC 7 TS007 (7I19006-01) Soil    Sampled: 09/18/07 16:21    Received: 09/19/07 10:00										
Lead	0.359	0.075	mg/L	5	AI72011	09/20/07	09/20/07	EPA 6010B		

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/20/07 14:37

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/24/07  
Work Order Number: 7121003

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/21/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: GM Sleepy Hollow Treated Soils Project Number: GM Sleepy Hollow E-944 Project Manager: Jim Pazderski	Reported: 09/24/07 14:04
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------	-----------------------------

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC 7 TS008	7I21003-01	Soil	09/20/07 11:00	09/21/07 09:00

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/24/07 14:04

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
PAOC 7 TS008 (7I21003-01) Soil    Sampled: 09/20/07 11:00    Received: 09/21/07 09:00										
Lead	0.111	0.075	mg/L	5	AI72402	09/24/07	09/24/07	EPA 6010B		

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/24/07 14:04

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**


302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/26/07  
Work Order Number: 7125007

**Prepared For**  
Jim Pazderski  
Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201  
Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/25/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
\_\_\_\_\_  
Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



Waste Stream Technology Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/26/07 14:07

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC 7 TS009	7I25007-01	Soil	09/24/07 11:35	09/25/07 09:30
PAOC 7 TS010	7I25007-02	Soil	09/24/07 11:45	09/25/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/26/07 14:07

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC 7 TS009 (7I25007-01) Soil</b> Sampled: 09/24/07 11:35 Received: 09/25/07 09:30									
Lead	ND	0.075	mg/L	5	AI72617	09/26/07	09/26/07	EPA 6010B	
<b>PAOC 7 TS010 (7I25007-02) Soil</b> Sampled: 09/24/07 11:45 Received: 09/25/07 09:30									
Lead	0.175	0.075	mg/L	5	AI72617	09/26/07	09/26/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/26/07 14:07

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/27/07  
Work Order Number: 7126012

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road

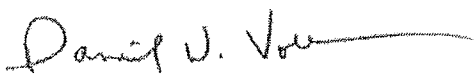
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/26/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: GM Sleepy Hollow Treated Soils Project Number: GM Sleepy Hollow E-944 Project Manager: Jim Pazderski	Reported: 09/27/07 14:46
----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------	-----------------------------

# ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC7 TS011	7126012-01	Soil	09/25/07 14:30	09/26/07 10:00

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/27/07 14:46

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC7 TS011 (7I26012-01) Soil</b> <b>Sampled: 09/25/07 14:30</b> <b>Received: 09/26/07 10:00</b>									
Lead	0.131	0.075	mg/L	5	AI72708	09/27/07	09/27/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/27/07 14:46

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 09/28/07  
Work Order Number: 7127006

**Prepared For**  
Jim Pazderski


Sevenson Environmental Services

2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/27/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/28/07 14:37

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC7 TS012	7127006-01	Soil	09/26/07 11:45	09/27/07 09:45

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
09/28/07 14:37

**TCLP Metals by 6000/7000 Series Methods**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PAOC7 TS012 (7I27006-01) Soil    Sampled: 09/26/07 11:45    Received: 09/27/07 09:45									
Lead	0.190	0.075	mg/L	5	AI72820	09/28/07	09/28/07	EPA 6010B	

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
09/28/07 14:37

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 10/01/07  
Work Order Number: 7128012

**Prepared For**  
Jim Pazderski

Sevenson Environmental Services

2749 Lockport Road


Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 09/28/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/01/07 15:50

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAOC 7 TS013	7I28012-01	Soil	09/27/07 00:00	09/28/07 09:30
PAOC 7 TS014	7I28012-02	Soil	09/27/07 00:00	09/28/07 09:30

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
10/01/07 15:50

**TCLP Metals by 6000/7000 Series Methods**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PAOC 7 TS013 (7I28012-01) Soil    Sampled: 09/27/07 00:00    Received: 09/28/07 09:30</b>									
Lead	0.090	0.075	mg/L	5	AJ70113	10/01/07	10/01/07	EPA 6010B	
<b>PAOC 7 TS014 (7I28012-02) Soil    Sampled: 09/27/07 00:00    Received: 09/28/07 09:30</b>									
Lead	ND	0.075	mg/L	5	AJ70113	10/01/07	10/01/07	EPA 6010B	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow Treated Soils  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
10/01/07 15:50

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

## **Appendix C**

Meeting Minutes



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
James Hartnett, General Motors

From:  
Maureen Hudson

Date:  
August 7, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

August 3, 2007 – 9:00 a.m., Pre IRM Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted (and preparation activities) that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Doug Reynolds – Severson  
Ray Kapp – ARCADIS BBL  
Margaret Carrillo-Sheridan, P.E. – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Lindsay Wilkins – ARCADIS BBL

**The following items were discussed:**

1. ARCADIS BBL noted that the New York State Department of Environmental Conservation (NYSDEC) was not attending this week's meeting, but will be invited to the weekly meetings in the future.

2. Work Completed 7/30/07 – 8/5/07

Sevenson indicated that the work activities completed at the time of the meeting include the following:

- Remobilization of equipment and manpower back to the site
- Preparation of the perimeter of the UST Area for sheeting
- Initiation of preparation of the perimeter of PAOC 29 for excavation
- Demolition of the concrete slab at PAOC 47
- Initiation of concrete slab demolition at PAOC 7
- Preparation (cutting, trimming, etc) of PAOC 47 sheeting
- Mobilization of operator for vibratory hammer to install sheeting
- Set up of operational zones
- Implementation of dust control measures
- Stockpiling of clean fill material
- First railcars expected to arrive today (8/3) to complete testing of rail spur

3. Work to be completed 8/6/07 – 8/10/07

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Surveyor to reconfirm excavation areas, set up offsets, and elevation hubs (Monday 8/6 and Thursday 8/9)
- Initiate the treatment of soils in PAOC 29
- Initiate concrete slab demolition in PAOC 7
- Initiate installation of sheeting in PAOC 47
- Construct the second materials staging area after activities in PAOC 29 are complete
- Initiate sampling and analysis of 500 ton aliquots to confirm that chromium-impacted material scheduled to be excavated requires treatment (stabilization)
- Onsite water treatment system will be tested by Sevenson to ensure functionality with POTW personnel

4. ARCADIS BBL presented the following information for the meeting attendees to note:

- IRM activities are scheduled to be conducted Monday through Saturday
- Jim Moras from NYSDEC is scheduled to be onsite Tuesday (8/7) and Wednesday (8/8)
- Jim Schrier from NYSDEC is scheduled to be onsite the week of 8/13
- Feedback from NYSDEC is required when there is a change in the IRM activities (e.g., a pool of oil is encountered during soil excavation in lead area, etc.) or when there is a deviance from the IRM Work Plan (e.g., change in material, execution of activities)

- Severson will provide ARCADIS BBL with the appropriate documentation as listed in the action items section below
- Village of Sleepy Hollow's (Village) Engineer (Roux Associates) will be onsite full time providing oversight for the Village
- Photographic record of demarcation barrier is needed

#### 5. Village of Sleepy Hollow Requirements

ARCADIS BBL noted that the following items are requirements from the Village:

- Any material going offsite via roadway needs prior notification to ARCADIS BBL and the Village
- Final boundary survey data needs to be provided to the Village in the form of GIS coordinates
- Village requires documentation on transportation and disposal – need to demonstrate approximately 85% of material went offsite via rail

#### **Action Items:**

ARCADIS BBL to provide Severson water table elevation information for surveyor to mark. Severson will use the markings to verify placement of clean backfill to the water table.

Severson will provide ARCADIS BBL with the following items:

- Legible copies of the waste profiles to ARCADIS BBL
- Sketch from Severson for the 2<sup>nd</sup> purposed staging area
- Advanced notice to ARCADIS BBL prior to discharge of water to POTW
- Jim Pazderski – post daily QA/QC report on Buzzsaw to include the following:
  - Copies of the weigh tickets for backfill
  - Copies of sign in sheets
  - Results of sampling
  - Dates and quantities of water discharged to the POTW
  - Any variation from the IRM Work Plan (to be approved by ARCADIS BBL)
  - Copies of manifests



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
Margaret A. Carrillo-Sheridan, P.E.,  
ARCADIS BBL  
Raymond Kapp, ARCADIS BBL  
Scott Morris, ARCADIS BBL  
Alan Elia, Jr., Severson  
Frank Amorosena, Roux Associates

From:  
Maureen M. Hudson

Date:  
August 10, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

August 10, 2007 – 9:00 a.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Jim Hartnett – General Motors Corporation (GM)  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Doug Reynolds – Severson  
Greg McDermott – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Lindsay Wilkins – ARCADIS BBL



**The following items were discussed:**

**1. Work Completed 8/6/07 – 8/10/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Completed removal of asphalt layer located above the excavation areas in PAOC 29
- Continue stabilization and excavation of soils (approximately 350 tons to date) in PAOC 29
- Sevenson's surveyor (CT Male) confirmed the boundaries of the excavation areas. CT Male also surveyed a 4" pipe encountered in one of the 3' excavation areas in PAOC 29 (the pipe was left in place and backfilled around).
- Continue concrete slab demolition at PAOC 7
- Initiated installation of PAOC 47 sheeting
- Stockpiling of clean fill material. Approximately 5 to 7 loads of clean fill arrive per day and approximately 3,000 tons of clean fill are currently stockpiled onsite.
- Six railcars were delivered to the site. The rail spurs and rail cars were visually reviewed by Environmental Rail Solutions. No problems were noted.
- Sampling of chromium-impacted material is scheduled for today (8/10) to prepare for offsite transportation and disposal in PAOC 47. Sevenson will grid PAOC 47 into six quadrants and 10-point composite samples will be collected with sample results expected back by Tuesday/Wednesday morning (8/14-8/15).
- The water treatment system will be tested by the end of the day

**2. Issues Associated With Work Activities**

- PAOC 47 sheeting installation was not progressing at the anticipated rate due to difficulty in advancing the sheeting (only five sheets were installed after two days of work). Sevenson proceeded to pre-dig a trench to loosen the material and observed boulders and a perched groundwater table. Based on this information Sevenson re-evaluated their excavation support methods and determined that the installation of sheeting in this area would not be practical.

Sevenson proposed to excavate using an open cut method with sheeting installed along the northern excavation sidewall. The method was reviewed with the ARCADIS BBL, NYSDEC, and GM.

Sevenson does not anticipate removal of additional soil located below the groundwater table as part of the sloping activities. The soil outside of the excavation limits from that will be removed as part of the sloping of the excavation area will be stockpiled and replaced.

- A water line and select fitting were replaced in the water treatment system after initial testing/observation by Severson. Following installation of the water line and select fittings, full scale testing is anticipated by the end of 8/10. To facilitate excavation of PAOC 29 in the dry, Severson will stage frac tanks adjacent to PAOC 29 until the water treatment system is up and running. At the time of the meeting, approximately 75,000 gallons of water storage capacity remained.
- The hoe point used for concrete demolition broke during demolition of the concrete slab in PAOC 7. A new hoe point was brought to the site and concrete slab demolition was scheduled to begin again today (8/10).
- An air monitoring exceedance was encountered near PAOC 47 on Thursday, 8/9 at approximately 14:45 due to a visible dust cloud leaving the work area and the two downwind monitors sounding an alarm (Monitor 1 located approximately 150' downwind of area and Monitor 2 located approximately 25' downwind inside the park). The dust cloud was generated as a result of support activities in PAOC 47 from a fork truck moving and staging sheeting. The exceedance was a peak in dust levels that was not sustained, and the 15 minute average downwind readings did not exceed 100  $\mu\text{g}/\text{m}^3$  above background. Work was stopped after the exceedance event. Dust control measures were implemented by Severson. The dust control measures included bringing a water truck to PAOC to mist the sheeting and the ground surface around the sheeting. Severson indicated that if there is any visible dust observed by ARCADIS BBL that Severson's superintendent should be notified. Upon notification Severson will implement dust controls measures. An email notification to NYSDEC and New York State Department of Health (NYSDOH) of this exceedance will be sent.
- To facilitate continued work in PAOCs with a limited number of railcars, GM requested an additional staging area for the staging and load out of soils. Originally GM requested and secured 30-40 railcars for offsite transportation however, after demobilization of Severson's construction crew in May 2007, the railcars could not remain dedicated to the project without use. Severson plans to construct the larger second staging area adjacent to the first staging area. A modification letter presenting this and additional information regarding the second staging area will be sent to the NYSDEC.

### 3. Work to be completed 8/6/07 – 8/10/07

Severson indicated that the work activities anticipated to be completed next week include the following:

- Install sheeting in PAOC 47 along the northern sidewall
- Continue PAOC 29 excavation and soil stabilization
- Survey PAOC 29 to facilitate installation of demarcation barrier
- Continue concrete slab demolition in PAOC 7
- Mobilize larger hammer and crane for installation of 50' sheets (after PAOC 47 is complete)
- Initiate installation of second staging area

#### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- The Village of Sleepy Hollow's onsite observation Engineer (Frank) will be invited to future weekly meetings
- There has not been any interaction with the community to date (no emails, phone calls, or general complaints have been received since mobilization back to the site)
- GM approved the final format of the project sign. ARCADIS BBL will follow up on the project sign next week.
- Next week's weekly meeting will take place on Thursday 8/16.
- All associated site information is posted and working on Buzzsaw.

#### **Action Items**

ARCADIS BBL to provide Severson water table elevation information for surveyor to mark. Severson will use the markings to verify placement of clean backfill to the water table.

ARCADIS BBL will provide the following items:

- Notification to NYSDEC and NYSDOH regarding dust level exceedance in PAOC 47 work area
- Modification letter to NYSDEC regarding second material staging area

Severson to provide ARCADIS BBL with results of the waste characterization sampling that were conducted last week.

If there are any objections to this report please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
Margaret A. Carrillo-Sheridan, P.E.,  
ARCADIS BBL  
Alan Elia, Jr., Severson  
William Pendexter, EcolSciences

From:  
Maureen M. Hudson

Date:  
August 16, 2007

ARCADIS BBL Project No.:  
64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

August 16, 2007 – 9:00 a.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Joe White – NYSDEC  
Jim Hartnett – General Motors Corporation (GM)  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Doug Reynolds – Severson  
Raymond Kapp – ARCADIS BBL  
Scott Morris – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Greg McDermott – ARCADIS BBL

Lindsay Wilkins – ARCADIS BBL  
Frank Amorosena, Roux Associates

**The following items were discussed:**

**1. Work Completed 8/10/07 – 8/16/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Continue stabilization and excavation of soils (excavation and stabilization approximately 90% complete) in PAOC 29.
- Two 500-ton composite waste characterization sample from the treated material generated from PAOC 29 were collected. Sevenson received the results of the first sample. The results of the second sample should be sent to Sevenson on August 17.
- Continue concrete slab demolition at PAOC 7 (approximately 50% of the concrete surface area in PAOC 7 has been demolished).
- Installed sheet piles on the northern side of PAOC 47.
- Continued stockpiling of clean fill material. Approximately 4,784 tons of clean fill are currently stockpiled onsite.
- Results from the first lift of the composite sampling of chromium-impacted material PAOC 47 were received.
- Approximately one-third of the top 6 feet (first lift) has been excavated from PAOC 47.
- Concrete walls and chambers were encountered in PAOC47. A representative sample of soil and concrete material will be collected during the next round of composite sampling of chromium-impacted material.
- Sevenson indicated that the design information would be submitted on August 16 to their geotechnical engineers (Glynn Geotechnical Engineering) for the development of the revised excavation support approach in PAOC 47.
- Initiated construction of the second material staging area. The construction of the second material staging area will not be completed until the excavation and backfilling of PAOC 29 is completed.
- The influent water to the water treatment system was sampled and the results were submitted to Westchester County Publicly Owned Treatment Works (POTW). Sevenson received approval from Monika Wieleba, Assistant Environmental Chemist at Westchester County POTW, to discharge the water from the sampled batch.
- Sevenson mobilized additional equipment to the site.

ARCADIS BBL indicated that the exceedance notification associated with the air monitoring exceedance was submitted to the NYSDEC and the New York State Department of Health (NYSDOH).

## **2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- Severson did not have the storage capacity for dewatering the larger excavation area located in PAOC 29 to allow for observation of the native peat layer. Once the water in the modular tank has been treated and discharged to the POTW Severson will dewater PAOC 29 to allow ARCADIS BBL visually determine that excavation extend to the native (peat) layer.
- Severson encountered metal debris in PAOC 29 on August 10, 2007, including 3 drums that were not intact and rusted, and additional metal debris (wire). ARCADIS BBL directed Severson to remove these items from the excavation area, stage on and cover with polyethylene sheeting until they can be sampled. The NYSDEC was notified of the situation Severson has mobilized four, 85-gallon overpack drums and Level B personnel protective equipment to the site in the event that intact drums are encountered. Severson will follow their internal drum handling policies when handling encountered drums.
- Severson employed enhanced dust control measures to accommodate visible levels of dust (due mainly to truck traffic within the site) including continuous water dispersion by the water truck where needed, staging of water-filled poly tanks, and continuous watering of work areas where dust is/may be generated.

## **3. Work to be completed 8/17/07 – 8/24/07**

Severson indicated that the work activities anticipated to be completed next week include the following:

- Excavation in PAOC 47
- Dewater and excavate additional soil in PAOC 29 (if necessary)
- Place demarcation barrier and backfill in PAOC 29
- Continue concrete slab demolition in PAOC 7
- Mobilize larger hammer and crane for installation of 50' sheets
- Installation of second staging area
- Initiate loading of rail cars

## **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- The project sign will be finished before the end of next week and will be shipped to the site
- Next week's weekly meeting will take place on Thursday 8/23.

- The Mayor and Village Board of the Village of Sleepy Hollow may tour the site on Tuesday 8/21.
- Send any necessary information to Joe White at NYSDEC during Jim Moras' absence.

#### **Action Items**

ARCADIS BBL to provide Severson water table elevation information for surveyor to mark. Severson will use the markings to verify placement of clean backfill to the water table.

ARCADIS BBL to provide a modification letter to NYSDEC regarding second material staging area.

Severson to provide ARCADIS BBL with the revised shoring design for the excavation of PAOC 47.

If there are any objections to this report please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
Jim Moras, NYSDEC  
William Pendexter, EcolSciences  
Alan Elia, Jr., Severson  
Margaret A. Carrillo-Sheridan, P.E.,  
ARCADIS BBL  
Scott Morris, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
August 23, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

August 23, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Hartnett – General Motors Corporation (GM)  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Chester Adams - Severson  
Raymond Kapp – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Lindsay Wilkins – ARCADIS BBL  
Frank Amorosena – Roux Associates



**The following items were discussed:**

**1. Work Completed 8/16/07 – 8/23/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Completed stabilization and excavation of soils in the deep excavation area (to the native peat layer) of PAOC 29
- Continue concrete slab demolition at PAOC 7 (approximately 70% of concrete surface area demolished)
- Completed excavation of first 6.5 feet of PAOC 47
- Initiated excavation and crushing of below grade concrete structures in the first 6.5 foot lift in PAOC 47
- Continued stockpiling of clean fill material. Approximately 6,067 tons of clean fill are currently stockpiled onsite
- The second 500 ton composite waste characterization sample from the treated material generated from PAOC 29 (during IRM activities) was collected
- Initiated concrete removal from the top of the former UST Area
- Initiated pretrenching in the former UST area in preparation for sheeting installation
- Initiated movement of second staging area berm to approximately 30' from the park fence line, per comment and conditional approval from the NYSDEC
- Completed discharge of approximately 300,000 gallons of treated wastewater to Westchester County POTW
- Mobilized additional equipment to the site to prepare for installation of sheet piling
- Completed shipment of nine railcars containing soil for offsite transportation and disposal
- Continued implementation of dust control measures

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- The NYSDEC conditionally approved Modification No. 2, for the addition of a second material staging area adjacent to the first material staging area, provided that the berm along the park fence line is moved further onsite (inward) approximately 30 feet.

**3. Work to be completed 8/24/07 – 8/30/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Initiate installation of demarcation barrier and backfill in PAOC 29
- Continue concrete removal in PAOC 47 and sample final lift for waste characterization
- Continue concrete slab demolition in PAOC 7
- Complete concrete demolition and initiate sheeting in former UST Area
- Continue treatment and discharge of IRM-generated wastewater
- Complete installation of second material staging area

#### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- Last Tuesday's Mayor and Village Board site tour was cancelled due to rain. The site tour may be rescheduled in the future

#### **Action Items**

Sevenson to provide ARCADIS BBL with a revised site figure which presents the modified configuration of the second material staging area.

ARCADIS BBL to submit a revised Modification No. 2 to the NYSDEC.

ARCADIS BBL to provide the alternative sheeting design to the NYSDEC and the Village of Sleepy Hollow for their information.

ARCADIS BBL to provide Sevenson with water table elevation information for the former UST Area.

If there are any objections to this report please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
Jim Hartnett – General Motors Corporation  
William Pendexter, EcolSciences  
Alan Elia, Jr., Severson  
Frank Amorosena, Roux Associates

From:  
Maureen M. Hudson

Date:  
September 5, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

August 30, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Doug Reynolds – Severson  
Raymond Kapp – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Margaret Carrillo-Sheridan – ARCADIS BBL  
Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Lindsay Wilkins – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 8/23/07 – 8/30/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Completed excavation and sampling of last 3' area of PAOC 29
- Completed the installation of barrier fabric and imported 2" minus backfill in PAOC 29. Advanced Testing Technician was on site to determine the percent compaction
- Completed removal of remaining concrete and sampling in preparation for the excavation and disposal of material from the second lift of PAOC 47
- Upon receipt of favorable sample results from quadrants 1 – 4 of the second lift of PAOC 47, excavation and backfill operations were initiated in this area
- Loaded and shipped 24 rail cars with approved material from PAOC 29 and PAOC 47. To date 33 rail cars have been sent off site. The first 8 rail cars left the site on August 21, 2007 and were off loaded at Allied Waste on August 29, 2007
- Continued demolition and removal of concrete from the UST area in preparation for the installation of AZ26 sheet piles
- Continued demolition and removal of concrete and re-rod from PAOC 7 area
- Collected profile samples from the last 2 grids of the second lift of PAOC 47 and the pile of concrete rubble currently located on the staging pad
- Continued to sort and prep AZ 26 sheet piles for installation within the UST area
- Completed assembly of the 125 ton truck crane
- Continued to stockpile 2" minus stone. Approximately 7,350 tons have been stockpiled to date
- Relocated berm for second staging area to a location 30' off the park fence as requested by the DEC
- Initiated cleanup operations in PAOC 29

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- No issues were discussed

**3. Work to be completed 8/30/07 – 9/6/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Complete construction of the second staging area

- Continue excavation, loading and backfill of the PAOC 47 area
- Complete concrete removal in the Former UST area
- Initiate installation of the AZ 26 sheeting around the Former UST area
- Continue demolition and removal of concrete and re-rod from PAOC 7
- Complete cleanup of PAOC 29 work area and initiate decontamination and demobilization of 20,000 gallon frac tanks
- Continue to treat and discharge water as required
- Suspend import and stockpiling of 2" minus stone until current stockpile has been depleted
- Continue to load and ship rail cars with material from PAOC 47

#### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- Next week's weekly meeting will take place on Thursday 9/6 at 2 p.m.

#### **Action Items**

ARCADIS BBL to provide the alternative sheeting design to the NYSDEC and the Village of Sleepy Hollow for their information.

ARCADIS BBL to provide Severson with water table elevation information for the former UST Area.

If there are any objections to this report please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences  
Alan Elia, Jr., Severson

From:  
Maureen M. Hudson

Date:  
September 6, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

September 6, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Jim Hartnett – General Motors Corporation  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Margaret Carrillo-Sheridan – ARCADIS BBL  
Scott Morris – ARCADIS BBL

Greg McDermott – ARCADIS BBL

Lindsay Wilkins – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 8/30/07 – 9/6/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Completed the excavation of PAOC 47 and continued the placement and compaction of 2" minus stone as required. A technician from Advanced Testing has been on site to verify that compaction is being achieved on each lift as required. The tested lifts have achieved 95% compaction. The compaction test in the southern most excavation area located in PAOC 29 will be conducted by next week.
- Loaded and shipped 16 rail cars with approved material from PAOC 47. To date 49 rail cars have been sent off site. Fifteen rail cars were released due to the lack of stockpile material to ship out. The cars will be called back when a sufficient stockpile is compiled.
- Continued demolition and removal of concrete from the UST area in preparation for the installation of AZ26 sheet piles.
- Continued to sort and prep AZ 26 sheet piles for installation within the UST area.
- Continued to stockpile 2" minus stone. Approximately 7,950 tons have been stockpiled to date. Stockpiling of the 2" minus stone has ceased until the current stockpile is depleted during backfill activities.
- Continued the installation of the second staging area. To date, the berms, cushion layer of 8 ounce fabric, 40 mil liner, and 8 ounce geotextile protective layer have been placed.
- Continued restoration in PAOC 29.
- Continued treatment and discharge operations on construction water as required.
- Surveyors have been on site as required to verify excavation foot prints and elevations and to continue to layout sheeting boundaries that had been disturbed during demolition operations.
- Completed remobilization of concrete demolition equipment from the former UST area to PAOC 7 initiate subslab concrete demolition activities in that area.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- Sevenson may propose a new excavation support design for the former UST area to help expedite the completion of excavation activities in this area. If Sevenson's geotechnical engineer concurs with the modified design, Sevenson will provide ARCADIS BBL with the modified design for their review.

**3. Work to be completed 9/6/07 – 9/13/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Complete construction of the second staging area
- Complete backfill and compaction of PAOC 47 area
- Complete concrete removal in the UST area
- Continue demolition and removal of concrete and rerod from PAOC 7
- Complete restoration of PAOC 29 work area
- Initiate decontamination and demobilization of 20,000 gallon frac tanks
- Initiate installation of the AZ 26 sheeting around the former UST area
- Continue to treat and discharge water as required
- Continue to load and ship rail cars with material from PAOC 47

**4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- A safety audit will be conducted by GM personnel on Monday 9/10
- Joe Mahoney of Sevenson will take over as Sevenson's onsite project manager
- The project schedule is currently set so that demobilization is completed the week of Thanksgiving
- The Mayor of the Village of Sleepy Hollow has asked permission for parking cars in a portion of the parking lot outside of the fence line, for an event taking place this weekend

**Action Items**

ARCADIS BBL to provide the alternative excavation support design for PAOC 47 to the NYSDEC and the Village of Sleepy Hollow for their information.

If there are any objections to this report please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.





ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences  
Jim Hartnett, General Motors  
Corporation  
Alan Elia, Jr., Severson Environmental  
Services, Inc.

From:  
Maureen M. Hudson

Date:  
September 17, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

September 13, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Margaret Carrillo-Sheridan – ARCADIS BBL  
Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL

Lindsay Wilkins – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 9/6/07 – 9/13/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Continued the placement and compaction of 2" minus stone in PAOC 47 as required. A technician from Advanced Testing has been on site to verify that compaction is being achieved on each lift as required.
- Loaded and shipped 5 rail cars with approved material from PAOC 47. To date 54 rail cars have been sent off site.
- Initiated AZ26 sheet pile installation in the Former UST area. Approximately 60 linear feet of sheeting have been installed to date.
- Continued to sort and prep AZ 26 sheet piles for installation within the UST area.
- Continued to stockpile 2" minus stone. Approximately 9,517 tons have been stockpiled to date. Stockpiling of the 2" minus stone resumed after the initial stockpile was depleted.
- Continued treatment and discharge operations on construction water as required. Approximately 628,100 gallons have been treated and discharged to date.
- Continued decontamination of frac tanks in preparation for demobilization. Two frac tanks will remain onsite. Decontamination of frac tanks includes pressure washing. The rental company does not require wipe samples.
- Surveyors have been on site as required to verify excavation foot prints and elevations and to continue to layout sheeting boundaries that had been disturbed during demolition operations.
- GM completed their safety audit of the site and no deficiencies were noted.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- Three gallons of diesel fuel was spilled on a non-impervious portion of the ground while Sevenson was moving their diesel tank to secondary storage. Sevenson cleaned up the spilled fuel. Jim Pazderski of Sevenson reported the spill to NYSDEC and the spill number is 0706598. The NYSDEC considered the spill closed out and anticipated closing out their paperwork for the spill shortly.
- Sevenson may propose a new excavation support design for the former UST area to help expedite the completion of excavation activities in this area. If Sevenson's geotechnical engineer (Glynn) concurs

with the modified design, Severson will provide ARCADIS BBL with the modified design for their review. Glynn personnel are scheduled to arrive onsite on Friday, 9/21 to observe sheeting installation and discuss alternative excavation support designs in this area. ARCADIS BBL indicated that they would try to schedule one of their geotechnical engineers to be onsite to discuss modified support designs with Glynn.

### **3. Work to be completed 9/13/07 – 9/20/07**

Severson indicated that the work activities anticipated to be completed next week include the following:

- Continue demolition and removal of concrete and rerod from PAOC 7.
- Continue stabilization, excavation and backfill in PAOC 7.
- Continue installation of the AZ 26 sheeting and demolition of concrete, as necessary, in the former UST area.
- Continue decontamination and demobilization of 20,000 gallon frac tanks.
- Continue to treat and discharge water as required.
- Continue to load and ship rail cars with material from PAOC 7 when favorable sample results have been received.

### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

No additional items were noted.

### **Action Items**

No current action items were noted.

If there are any objections to this report please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences  
Margaret Carrillo-Sheridan, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
September 26, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

September 20, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Dave Herman – NYSDEC  
Jim Hartnett – General Motors Corporation  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Alan Elia Jr. – Severson  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL

Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Lindsay Wilkins – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 9/13/07 – 9/20/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Loaded and shipped four rail cars with approved material from PAOC 47 and two rail cars with approved material from PAOC 7. To date 60 rail cars have been sent off site.
- Loaded eight railcars with approved material from PAOC 7 and prepared for shipment.
- Removed sheet piling from PAOC 47.
- Continued installation of AZ26 sheet piling and demolition operations as required to facilitate driving operations in the Former UST area. Approximately 130 linear feet of sheet piling have been installed to date.
- Continued to stockpile 2" minus stone. Approximately 11,822 tons of stone have been imported to date.
- Surveyors have been on site as required to verify excavation foot prints and elevations and to continue to layout sheet piling boundaries that had been disturbed during demolition operations in the Former UST area.
- Maintained treatment and discharge operations on construction water as required. Approximately 628,100 gallons have been treated and discharged to date. Treated water was not discharged within the past week.
- Continued removal of re rod and concrete from PAOC 7 excavation area. Initiated stabilization and excavation operations.
- Continued decontamination of frac tanks in preparation for demobilization.
- Collected two samples of treated material in PAOC 7 for lead analysis.

## 2. Issues Associated With Work Activities

The following issues and the associated solutions were discussed in the meeting:

- Severson has prepared two separate profiles for the generated concrete material from PAOC 29 and PAOC 47. Severson provided a profile to ARCADIS BBL for review. Currently the soil profile allows for up to five percent of each rail car to be filled with concrete. Severson has encountered a larger volume of concrete than originally estimated. The new profiles will allow Severson to load the rail cars with only concrete if necessary.
- Severson may propose a new excavation support design for the former UST area to help expedite the completion of excavation activities in this area. If Severson's geotechnical engineer (Glynn) concurs with the modified design, Severson will provide ARCADIS BBL with the modified design for their review. Glynn personnel are scheduled to arrive onsite on Friday, September 21, to observe sheet piling installation and discuss alternative excavation support designs in this area.
- Currently, installation of the sheet piling is completed without pre-trenching until an obstruction is encountered, at which time the excavator is used to dig down and remove the obstruction (typically around 15 – 16'). During this discussion Severson indicated their initial design may include pre-trenching to approximately 16' below grade to remove obstructions prior to sheet pile driving. Severson indicated (with approval from Jim Hartnett) that they would test pre-trench a section along the sheet pile alignment to observe how much sloughing occurs and if this process increases the productivity of the sheet piling installation activities. Severson also indicated they would potentially propose a construction fill lift with more lenient compaction requirements until fill is at an adequate level to begin 1-foot fill lifts with typical compaction requirements for the remainder of the excavation area.
- Several large concrete structures were located at the bottom of the excavation in PAOC 7. Several structures had minimal soil located beneath the structures and above the excavation limit. The rest of the structures extended beyond the excavation limits. Severson, GM, ARCADIS BBL, and the NYSDEC agreed that these structures may remain in place. The structures that remain will be documented in the IRM report.

## 3. Work to be completed 9/20/07 – 9/27/07

Severson indicated that the work activities anticipated to be completed next week include the following:

- Complete demolition and removal of concrete and rerod, stabilization, excavation and continue backfill as appropriate in PAOC 7.

- Continue to load and ship rail cars with material from PAOC 7.
- Continue installation of sheet piling and demolition of concrete as necessary in the Former UST area.
- Continue demobilization of 20,000 gallon frac tanks.
- Continue to treat and discharge water as required.
- Complete restoration activities in PAOC 29 (e.g., removal of hay bales, work along fence line).
- Complete backfilling PAOC 47 (depressions left during sheet pile removal). Begin demobilizing PZ27 sheet piling from PAOC47.

#### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

No additional items were noted.

#### **Action Items**

ARCADIS BBL will discuss with Roseland, the appropriate compaction requirements and if the compaction requirements of 95% could potentially be more lenient to provide for a possible 4' to 6' construction fill lift in the Former UST and PAOC 7 excavation areas.

ARCADIS BBL will review Severson's additional profile for the generated concrete.

If there are any objections to this report please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences  
Alan Elia, Jr., Severson

From:  
Maureen M. Hudson

Date:  
October 2, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

September 27, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Jim Hartnett – General Motors Corporation  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL



Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Margaret Carrillo-Sheridan – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 9/21/07 – 9/27/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Loaded and shipped 24 rail cars with approved material from PAOC 7 and former UST area. To date 84 rail cars have been sent off site.
- Continued installation of AZ26 sheet piling and demolition operations, as required, to facilitate driving operations in the former UST area. Approximately 232 linear feet of sheet piling have been installed to date.
- Continued to stockpile 2" minus stone. Approximately 12,802 tons have been imported to date.
- Finished removal of re rod and concrete from PAOC 7. Continued stabilization and excavation of soils from PAOC 7 excavation area.
- Finished backfilling and cleaning up areas at PAOC 29 and PAOC 47.
- Continued treatment and discharge operations on construction water from PAOC 7 as required. Approximately 663,900 gallons have been treated and discharged to date.
- Surveyors have been on site, as required, to verify excavation foot prints and elevations and to continue to layout excavation areas in the former UST area and PAOC 7.
- Completed decontamination/demobilization of frac tank. As a contingency, two frac tanks will remain on site for the duration of the project.
- Collected two samples of treated material for lead analysis
- Sevenson submitted to Allied two separate profiles for the generated concrete material form PAOC 29 and PAOC 47.

## **2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- Severson has proposed a new excavation support design for the former UST area to help expedite the completion of excavation activities in this area. ARCADIS is currently reviewing the design.
- Severson has added 8 more rail cars to the fleet in order to increase the amount of material transported off-site.

## **3. Work to be completed 9/27/07 – 10/04/07**

Severson indicated that the work activities anticipated to be completed next week include the following:

- PAOC 7 - Continue to load and ship soils. Backfill operations.
- Former UST Area - Continue installation of sheet piling and demolition of concrete as necessary. Start excavation. Stockpile, load and ship soils.
- Continue to treat and discharge water as required.
- Continue preparing and begin demobilization of steel sheet piling.

## **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

ARCADIS BBL notified the village (via email) prior to transporting the rebar off-site.

### **Action Items**

- ARCADIS BBL will review Severson's revised excavation support design for the former UST Area.
- ARCADIS BBL will send the modifications to the work plan to Mr. McCarthy.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences

From:  
Maureen M. Hudson

Date:  
October 10, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

October 4, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Jim Hartnett – General Motors Corporation  
Jim Pazderski – Severson Environmental Services, Inc. (Severson)  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Alan Elia, Jr., Severson  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Margaret Carrillo-Sheridan, ARCADIS BBL  
Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 9/28/07 – 10/04/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Loaded and shipped 13 rail cars with approved material from PAOC 7 area. To date 97 rail cars have been sent off site.
- Loaded and tarped 1 rail car from PAOC 7.
- Continued installation of AZ26 sheet piling and demolition operations, as required, to facilitate driving operations in the former UST area. Approximately 324 linear feet of sheet piling have been installed to date.
- Continued to stockpile 2" minus stone. Approximately 13,254 tons have been imported to date.
- Backfill, compact and survey of PAOC 7 excavation areas.
- Continued treatment and discharge operations on construction water as required. Approximately 685,800 gallons have been treated and discharged to date.
- Surveyors have been on site, as required, to verify excavation foot prints and in PAOC 7 area.
- Began demobilization of sheet piles.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- Sevenson began to dewater outside the sheet piling in the former UST area in accordance with the revised excavation support design, submitted on September 28, 2007 to ARCADIS BBL. Sevenson has indicated that they are concerned that the discharge requirements placed on Sevenson by Westchester County and the capacity of the temporary water treatment plant may not keep up with the rate at which water must be pumped from the exterior of the sheet piling. Sevenson indicated that they were going to discuss multiple options with their geotechnical engineer. Once Sevenson and their geotechnical engineers agreed to a feasible alternative approach, Sevenson will submit this approach to ARCADIS BBL and GM.

- There are 4 to 5 sheet piles that Severson has been unable to drive to the required depth due to obstructions. The sheet piling is approximately 8 to 10 feet above the required depth. Severson indicated that during the excavation activities Severson would remove the obstruction and then drive the sheets to the required depths.
- ARCADIS BBL reminded Severson that the material that has been excavated from the former UST area should be covered while placed in the staging areas to suppress odors.

### **3. Work to be completed 10/05/07 – 10/11/07**

Severson indicated that the work activities anticipated to be completed next week include the following:

- Continue to load and ship soils from PAOC 7 for off site disposal.
- Continue installation of sheet piling and demolition of concrete, as necessary, in the former UST area. Continue to excavate soil. Stockpile, load and ship soils from former UST area for offsite disposal.
- Continue to treat and discharge water as required.
- Continue demobilization of steel sheet piling.

### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- The test wells for the In-situ chemical oxidation pilot study were installed this week. ARCADIS BBL will receive the treatability study results by the end of the month.

### **Action Items**

The following action items were identified in the meeting.

- Severson will speak with Westchester County to determine if the rate of discharge to the POTW can be increased.
- Severson will provide ARCADIS BBL the as-built drawings for POAC 47 and PAOC 29.
- Severson will provide ARCADIS BBL the compaction results for PAOC 7.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences  
Jim Moras, New York State Department of  
Environmental Conservation  
Jim Pazderski, Severson Environmental  
Services, Inc. (Severson)  
Alan Elia, Jr., Severson  
Margaret Carrillo-Sheridan, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
October 17, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:

---

Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

**Meeting Date/Time/Place:**

October 11, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Hartnett – General Motors Corporation  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL

**The following items were discussed:****1. Work Completed 10/5/07 – 10/11/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Loaded and shipped 8 rail cars with approved material from the UST area and one rail car from PAOC 7. To date 106 rail cars have been sent off site.
- Continued installation of AZ26 sheet piling and demolition operations, as required, to facilitate driving operations in the former UST area. Approximately 468 linear feet of sheet piling have been installed to date.
- Finished excavation and stockpiling of soil from first cell of the UST area. Began backfilling and compacting first cell.
- Completed compaction testing in PAOC 7.
- Completed survey for as-built for PAOC 7.
- Continued to stockpile 2" minus stone. Approximately 16,390 tons have been imported to date.
- Continued treatment and discharge operations on construction water as required. Approximately 812,900 gallons have been treated and discharged to date.
- Continued demobilization of sheet piles.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

No issues were discussed.

**3. Work to be completed 10/12/07 – 10/18/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Continue to load and ship soils from PAOC 7 for off site disposal.



- Continue installation of sheet piling and demolition of concrete, as necessary, in the former UST area. Continue to excavate soil. Stockpile, load and ship soils from former UST area for offsite disposal.
- Continue to treat and discharge water as required.
- Continue demobilization of steel sheet piling.

#### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- The baseline sampling associated with the treatability tests for the in-situ chemical oxidation pilot study was conducted this week. ARCADIS BBL anticipated that the baseline sampling would be completed on Monday.
- Jim Moras will be at the site next week. Jim Hartnett requested that ARCADIS BBL discuss the information and format of the IRM Construction Report with the NYSDEC next week. Mr. Hartnett indicated that he would like the IRM Construction Report sent to the NYSDEC as soon as possible.

#### **Action Items**

The following action items were identified in the meeting.

- ARCADIS BBL will discuss IRM Construction Report format with NYSDEC.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
Jim Hartnett, General Motors Corporation  
William Pendexter, EcolSciences  
Alan Elia, Jr.,, Severson Environmental  
Services, Inc. (Severson)  
Margaret Carrillo-Sheridan, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
October 24, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

October 18, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Pazderski – Severson  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Jim Moras – New York State Department of Environmental Conservation  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Lindsay Preston – ARCADIS BBL

**The following items were discussed:****1. Work Completed 10/11/07 – 10/18/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Loaded 27 and shipped 21 rail cars with approved material from the UST area. To date 127 rail cars have been sent offsite.
- Completed installation of AZ26 sheet piling and demolition operations, as required, to facilitate driving operations in the former UST area. Approximately 532 linear feet of sheet piling have been installed to date.
- Continued backfilling and compacting the first cell of the former UST area.
- Began excavation and stockpiling of soil from the second cell of the UST area.
- Continued to stockpile 2" minus stone. Approximately 19,525 tons have been imported to date.
- Continued treatment and discharge operations on construction water as required. Approximately 880,000 gallons have been treated and discharged to date.
- Continued demobilization of sheet piles.
- Began demobilization of miscellaneous materials and equipment.
- ARCADIS BBL collected one sample of the materials that are adhered to the concrete slab located in the PAOC 47 area. ARCADIS BBL anticipates receiving the results on Tuesday, October 23, 2007.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

A portion of a UST was encountered during excavation on October 15, 2007. It is believed that this is the second half of the UST that was removed in 1998.

### **3. Work to be completed 10/12/07 – 10/18/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Continue to load and ship soils from PAOC 7 for offsite disposal
- Continue to excavate soil from the former UST area. Continue to stockpile, load and ship soils from former UST area for offsite disposal.
- Begin backfilling and compacting in the second cell of the former UST excavation area.
- Begin removal of sheet piling from the first cell of the former UST area.
- Continue to treat and discharge water as required.
- Continue demobilization of steel sheet piling, equipment and materials.
- Begin general site cleanup.

### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- Jim Moras of the NYSDEC indicated that the removal of the UST encountered in the former UST area will be handled under the BCP program. Mr. Moras also indicated there was no additional reporting or sampling requirements associated with the UST removal as long as the soils are excavated to the depths required in the NYSDEC-approved IRM Work Plan.
- The baseline sampling associated with the treatability tests for the in-situ chemical oxidation pilot study was completed this week. ARCADIS BBL anticipates receiving the lab results for the treatment tests on Friday, October 19, 2007. The injection test is scheduled for the first week of November.
- The NYSDEC, GM and ARCADIS BBL have agreed to stockpile the concrete material removed from the surface of PAOC 7 and PAOC 29 to the area adjacent to PAOC7. The concrete removed from the surface of PAOC 47 may be stockpiled adjacent to PAOC 7, depending on the results of the sampling conducted this week.

- Severson received the modified proctor results for the crushed millings and the stockpiled soil removed from above the water table in the former UST area.

#### **Action Items**

The following action items were identified in the meeting.

- ARCADIS BBL will discuss with Roseland the possibility of allowing the staging pad to remain on-site following demobilization.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences  
Alan Elia, Jr.,, Severson Environmental  
Services, Inc. (Severson)  
Margaret Carrillo-Sheridan, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
October 31, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

October 25, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Hartnett – General Motors Corporation (GM)  
Jim Pazderski – Severson  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Scott Morris – ARCADIS BBL  
Greg McDermott – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Lindsay Preston – ARCADIS BBL

**The following items were discussed:****1. Work Completed 10/18/07 – 10/25/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Shipped six rail cars offsite with material from the former UST area. To date 133 rail cars have been sent offsite.
- Completed excavating and stockpiling material from the second cell in the former UST area.
- Initiated backfilling and compacting the second cell using clean backfill material. Began backfilling the first cell of the former UST area above the water table with on site stockpiled material.
- Initiated removal of steel sheet piling in the first cell of the former UST area.
- Continued to stockpile 2" minus stone. Approximately 21,126 tons have been imported to date.
- Continued treatment and discharge operations on construction water as required. Approximately 1,111,000 gallons have been treated and discharged to date.
- Continued demobilization of steel sheet piles and miscellaneous materials and equipment.
- ARCADIS BBL received the results from the sample of the materials that are adhered to the concrete from PAOC 47 (former concrete slab). The results were less than the site criteria (restricted residential use criteria listed in Part 375).
- Initiated movement of staged concrete generated from PAOC 47 to the area adjacent to PAOC 7 for final staging, as agreed to by NYSDEC, GM and ARCADIS BBL in the October 18, 2007 weekly meeting.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

No issues were discussed.

### **3. Work to be completed 10/25/07 – 11/1/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Continue to load and ship soils off-site from PAOC 7.
- Continue to load and ship soils off-site from the former UST area.
- Continue to remove sheet piling from former UST area.
- Complete backfill and compaction in the former UST area.
- Complete treatment and discharge of construction water as required.
- Initiate dismantling of the temporary onsite water treatment plant.
- Continue demobilization of sheet piles, equipment and materials.
- Continue general site cleanup.

### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- Jim Moras of the NYSDEC indicated that it is acceptable to demobilize all but three air monitoring units (keeping one upwind and two downwind units) for the remainder of the IRM activities.
- ARCADIS BBL received the results for the treatability tests for the in-situ chemical oxidation pilot study. The mobilization of equipment and personnel for the pilot study is scheduled for November 5 and the injections will begin on November 6, 2007. Multiple post injection monitoring events will be conducted following the injections.
- Sevenson anticipates a minimum of three to four weeks for remaining load out of materials.
- Sevenson anticipates covering the stockpiled materials located in the staging area to minimize the amount of water that comes in contact with the generated waste.



- ARCADIS BBL indicated that the former UST area will be backfilled and then sloped up to the top of the elevated concrete slab that remains intact. ARCADIS BBL proposed the use of the millings to create the slope. Mr. Moras of the NYSDEC agreed that this was consistent with the approach described in the IRM Work Plan.
- NYSDEC anticipates sending their comments on the Draft Remedial Investigation to GM on Monday, October 29, 2007.

#### **Action Items**

The following action items were identified in the meeting.

- ARCADIS BBL will discuss with Roseland the possibility of allowing the staging pad to remain on-site following demobilization. ARCADIS BBL will also discuss with Roseland the power disconnections to the site.
- ARCADIS BBL will provide Severson a punchlist of items to submit to ARCADIS BBL for the completion of the IRM Construction Completion Report.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
William Pendexter, EcolSciences  
Alan Elia, Jr.,, Severson Environmental  
Services, Inc. (Severson)  
Margaret Carrillo-Sheridan, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
November 7, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

November 1, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Hartnett – General Motors Corporation (GM)  
Jim Pazderski – Severson  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Jim Moras – New York State Department of Environmental Conservation (NYSDEC)  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Dan McKenna – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Lindsay Preston – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 10/25/07 – 11/01/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Completed backfilling and compacting in the first and second cell.
- Continued removal of steel sheet piling from the former UST area.
- Completed stockpile of 2" minus stone. Approximately 21,616 tons have been imported to date.
- Continued treatment and discharge operations on construction water as required. Approximately 1,138,000 gallons have been treated and discharged to date.
- Continued demobilization of steel sheet piles and miscellaneous materials and equipment.
- Initiated dismantling of unnecessary components in the temporary water treatment plant, which is still operational.
- Completed movement of concrete staged in the area adjacent to PAOC 47 for final staging in PAOC 7.
- Completed consolidation of asphalt piles removed from the surface of PAOC 29.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

No issues were discussed.

**3. Work to be completed 11/01/07 – 11/8/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Continue to load and ship soils off-site from the former UST area.
- Complete removal of sheet piling from the former UST area.

- Continue dismantlement of the temporary onsite water treatment plant.
- Continue demobilization of sheet piles, equipment and materials.
- Continue general site cleanup.

#### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- The mobilization of equipment and personnel for the pilot study is now scheduled for November 11 and the injections will begin on November 12, 2007. This schedule is one week later than the schedule discussed during the October 25, 2007 weekly progress meeting.

#### **Action Items**

The following action items were identified in the meeting.

- ARCADIS BBL will discuss with Roseland the possibility of allowing the staging pad to remain on-site following demobilization. ARCADIS BBL will also discuss with Roseland the power disconnections to the site.
- ARCADIS BBL will provide Severson a punchlist of items to submit to ARCADIS BBL for the completion of the IRM Construction Completion Report.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
Jim Moras, New York State Department of  
Environmental Conservation (NYSDEC)  
William Pendexter, EcolSciences  
Alan Elia, Jr.,, Severson Environmental  
Services, Inc. (Severson)  
Margaret Carrillo-Sheridan, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
November 8, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

November 8, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Hartnett – General Motors Corporation (GM)  
Jim Pazderski – Severson  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Frank Amorosena – Roux Associates  
Raymond Kapp – ARCADIS BBL  
Dan McKenna – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Lindsay Preston – ARCADIS BBL

**The following items were discussed:**

**1. Work Completed 11/01/07 – 11/08/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Shipped 32 rail cars off-site with material from the former UST area. To date 165 rail cars have been sent off-site.
- Completed removal of steel sheet piling from the former UST area.
- Continued treatment and discharge operations on construction water as required. Approximately 1,146,000 gallons have been treated and discharged to date.
- Continued demobilization of steel sheet piles and miscellaneous materials and equipment.
- Continued dismantling of the temporary water treatment plant.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

During removal of steel sheet piling from the former UST area, 4 sheets were immovable. Sevenson determined that the sheets were wedged into an obstruction, and could not be removed. Sevenson dug a trench on the outside of the former UST area to cut the sheets off and leave the portion in place that was wedged in the obstruction. The sheets cut and left in place will be depicted on the Record Drawings.

**3. Work to be completed 11/08/07 – 11/15/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Continue to load and ship soils off-site from the former UST area.
- Install a 1-foot layer of millings on top of the former UST area.
- Continue dismantlement of the temporary onsite water treatment plant.
- Continue demobilization of sheet piles, equipment and materials.

- Continue general site cleanup.

#### **4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- The mobilization of equipment and personnel for the pilot study is now scheduled to begin either November 13 or November 14, due to subcontractor delays.
- Severson has noted that Allied's weight tickets differ from the information Severson obtained during load out of materials onto the rail cars. Severson reviewed the processes Allied had used to determine the total weight. Allied is currently reviewing weight tickets from approximately the 40<sup>th</sup> rail car delivered to the present. Severson will keep the team up to date on progress of final weight of materials.
- ARCADIS BBL will maintain one engineer's trailer and one storage trailer onsite throughout the duration of the ISCO activities. Severson will transfer the rental of the trailers from Severson into ARCADIS BBL's name.
- GM will secure the area around PAOC 7 with a semi-permanent chain link.

#### **Action Items**

The following action items were identified in the meeting.

- ARCADIS BBL will discuss with Roseland the possibility of allowing the power connections, and steel sheet piling (until later demobilization by Severson) to remain on the site.
- ARCADIS BBL will provide Severson a list of comments on the as-built drawings.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.



ARCADIS of New York, Inc.  
6723 Towpath Road  
P.O. Box 66  
Syracuse  
New York 13214-0066  
Tel 315.446.9120  
Fax 315.449.0017

**MEMO**

To:  
Meeting Attendees

Copies:  
Jim Moras, New York State Department of  
Environmental Conservation (NYSDEC)  
William Pendexter, EcolSciences  
Alan Elia, Jr., Severson Environmental  
Services, Inc. (Severson)  
Frank Amorosena, Roux Associates  
Dan McKenna, ARCADIS BBL

From:  
Maureen M. Hudson

Date:  
December 3, 2007

ARCADIS BBL Project No.:  
1967.64462 #5

Subject:  
Former General Motors Assembly Plant Site – Sleepy Hollow, NY  
IRM Activities

---

**Meeting Date/Time/Place:**

November 15, 2007 – 2:00 p.m., Weekly Meeting

**Meeting Agenda:**

Discuss the IRM activities to be conducted and the activities that are already underway at the Former General Motors Assembly Plant Site (site) located in Sleepy Hollow, NY.

**Meeting Participants:**

Jim Hartnett – General Motors Corporation (GM)  
Jim Pazderski – Severson  
Joe Mahoney – Severson  
Doug Reynolds – Severson  
Raymond Kapp – ARCADIS BBL  
Margaret Carrillo-Sheridan – ARCADIS BBL  
Maureen Hudson – ARCADIS BBL  
Lindsay Preston – ARCADIS BBL



**The following items were discussed:**

**1. Work Completed 11/08/07 – 11/15/07**

Sevenson indicated that the work activities conducted this week at the time of the meeting include the following:

- Shipped 13 rail cars offsite with material from the former UST area. To date 178 rail cars have been sent offsite.
- Continued demobilization of steel sheet piles and miscellaneous materials and equipment.
- Continued dismantling of the temporary water treatment plant.

**2. Issues Associated With Work Activities**

The following issues and the associated solutions were discussed in the meeting:

- No issues were discussed.

**3. Work to be completed 11/15/07 – 11/27/07**

Sevenson indicated that the work activities anticipated to be completed next week include the following:

- Continue to load and ship soils offsite from the former UST area.
- Continue dismantlement of the temporary onsite water treatment plant.
- Continue demobilization of sheet piles, equipment and materials.
- Continue general site cleanup.

**4. Additional information for the meeting attendees to note**

The following information was presented during the meeting for the meeting attendees to note:

- The injection testing associated with the in-situ chemical oxidation pilot study began on November 14, 2007. At the time of the meeting, testing in PAOC 47 was complete and testing in the former UST area had just been initiated.

- Severson noted that Allied will provide Severson with a 5-ton credit per rail car to account for the differences between Severson's load out records and Allied's weight tickets. The credit applies to cars 40 through the present.

### **Action Items**

The following action items were identified in the meeting.

- Severson to provide GM with pricing information regarding the chain link fence around the PAOC 7 area.
- Severson to follow up with the Village of Sleepy Hollow and Westchester County POTW to formally close out the demolition permit and notify for close out of discharge operations. Formal requirements for close out of these operations will be reported to the group.
- The post-IRM meeting will be held on Tuesday November 27, 2007 at 11:00 AM at the site.

If there are any objections to this report, please contact Margaret Carrillo-Sheridan, Raymond Kapp, or Maureen Hudson of ARCADIS BBL as soon as possible.

**Former General Motors Assembly Plant Site  
Sleepy Hollow, New York  
Post-IRM Meeting**

**Post-IRM Meeting Minutes**

**Meeting Date/Time:** 11/27/2007 11:00 a.m.

**Meeting Location:** Former General Motors Assembly Plant Site, Sleepy Hollow, NY

**Meeting Participants:**

(see attached sign-in sheet)

**Pre-Final Inspection Discussion Items:**

On November 27, 2007 a Post-IRM meeting was held at the site in accordance with the IRM Work Plan. The following is a summary of the items discussed during the meeting:

*1. Overview of IRM Activities:*

ARCADIS BBL indicated that this meeting was to address the soil excavation portion of the IRM activities at the site. ARCADIS BBL indicated the IRM activities included the following elements:

- Soil excavation in four separate areas.
- In-situ chemical oxidation (ISCO) of the groundwater located in the former UST area and PAOC 47.
- Preparing and implementing site-wide remedial action plan for the implementation of engineering and institution controls in accordance with the NYSDEC decision document. This plan will include but not be limited to implementing environmental easements; placement of a final barrier cap system (consisting of a 2-foot thick surface cover for landscaped or naturally-vegetated areas meeting applicable BCP Soil Cleanup Objectives for restricted-residential areas; pavement over non-vegetated areas, permanent buildings); and monitoring of groundwater; etc.

ARCADIS BBL indicated that the soil excavation activities are almost complete. Groundwater samples were being completed as part of the ISCO pilot study. This ISCO pilot study will allow ARCADIS BBL to determine how the injections of the oxidant will be conducted. Following the study ARCADIS BBL will be able to determine the concentration of oxidants that will be injected into the groundwater and the layout of the injection wells.

*2. Overview of Soil Excavation Activities:*

ARCADIS BBL summarized the soil excavation activities conducted to date, which include the excavation of soils from four separate areas [PAOC 7, PAOC 29, PAOC 47, and the former underground storage tank (UST)]. The activities discussed included the following:

- PAOC 7 soil excavation.
- PAOC 29 soil excavation.
- PAOC 47 soil excavation.

**Former General Motors Assembly Plant Site  
Sleepy Hollow, New York  
Post-IRM Meeting**

**Post-IRM Meeting Minutes**

- Former UST Area soil excavation.
- Water Management.
- Waste Transportation and Disposal.
- Air Monitoring.
- Site Restoration.

**3. *Remaining Activities:***

Sevenson indicated that they were in the process of completing the following remaining activities:

- Removal and offsite disposal of materials staging pad. Sevenson indicated railroad schedule will dictate when the staging area will be completely removed from the site.
- Removal of remaining Water Treatment System components.
- Placement of 1 foot of concrete millings over the former UST area.
- Survey of final conditions.
- Stockpile sheet piles in GM designated location. GM has allowed Sevenson to stage the sheet piles at the site for several months.
- Removal of personnel and equipment from the site.

**4. *Trailer /Electrical Power Disconnection:***

Sevenson indicated that one site trailer and one storage shed, as well as the electrical and cable service to the trailer will be turned over to ARCADIS BBL through the duration of the pilot studies. ARCADIS BBL has contacted Roseland to determine if Roseland would like to continue electrical services to the site following completion of the pilot studies. ARCADIS BBL has not received an answer from Roseland yet.

**5. *Discontinuation of Permits:***

Sevenson submitted a notification (via electronic mail) to Westchester County indicating that they would no longer be discharging water to the POTW.

Sevenson contacted the Village of Sleepy Hollow via email and phone calls to determine the steps in canceling the village permits. Mr. Sean McCarthy indicated that the village will need to obtain the final IRM Construction completion report (which will provide the weight tickets of the waste materials as well as the compaction results) before discontinuing the permits. Mr. McCarthy was present at this Post-RM meeting and confirmed that the Village will only need these work products.

**Former General Motors Assembly Plant Site  
Sleepy Hollow, New York  
Post-IRM Meeting**

**Post-IRM Meeting Minutes**

6. *IRM Construction Completion Report:*

ARCADIS BBL indicated that they anticipate submitting the IRM Construction Completion Report to the NYSDEC before the end of the year.

7. *Site Tour:*

Meeting participants reviewed the site. The following Post-IRM items were discussed during the site walk:

- Severson will place one foot of concrete millings over the former UST area.
- Severson will remove the material staging area and send the material offsite via railroad.
- The water treatment area pad (including the liner and stone material) will remain in place for future use by GM or Roseland.
- Severson will remove the soil erosion control measures from the site that were put in place for the excavation.
- Severson will remove the shrouding from the fencing adjacent to PAOC 29.
- The shrouding material located on the fencing adjacent to PAOC 47 will remain in place until the ISCO pilot study is completed.
- Severson will slope the sides of the concrete millings pile to a gentler slope (1:1 slope or flatter).
- Severson will place a chain link fencing near across the existing slab near PAOC 7 and tie it into existing fencing to secure the entire open cut in the slab from unauthorized pedestrian access.
- Upon demobilization from the site, Severson, GM and the village representatives agreed that the site fencing will be locked with Village DPW master locks, for which a master key will be provided to ARCADIS.
- Severson will replace a damaged manhole cover on the slab near the former UST area with a steel plate or equivalent cover.
- Severson will provide ARCADIS BBL with a summary of the steel that was sent offsite for recycling.
- Severson will provide ARCADIS BBL with the waste manifests for all wastes that were transported offsite.
- Severson will provide revised as-built drawings to ARCADIS BBL.

No other site-related issues were noted during Post-IRM meeting.

**Former General Motors Assembly Plant Site  
Sleepy Hollow, New York  
Post-IRM Meeting**

**Post-IRM Meeting Minutes**

If there are any objections to these minutes please contact Raymond Kapp, Margaret Carrillo-Sheridan, P.E., or Maureen Hudson of ARCADIS BBL as soon as possible.

Distribution: Meeting Attendees  
Lindsay Preston, ARCADIS BBL  
ARCADIS BBL File: 0644.64462

**FORMER GENERAL MOTORS ASSEMBLY PLANT SITE  
SLEEPY HOLLOW, NY**

**INTERIM REMEDIAL MEASURES (IRM)**

**MEETING:** POST-IRM MEETING

**DATE:** TUESDAY, NOVEMBER 27, 2007

**LOCATION:** FORMER GENERAL MOTORS ASSEMBLY PLANT SITE **TIME:** 11:00 AM

	NAME	ORGANIZATION	PHONE	EMAIL
1.	Ray Kapp	ARCADIS BB		
2.	Ann Ellis	SES	716 284-0131	AELIS@sevenson.com
3.	Jim Harriott	GM	315 463-2391	Jim.F.Harriott@GM.com
4.	Joe Mahoney	SES	716 284-0431	Jmahoney@sevenson.com
5.	Margaret Carrillo-Shenker	ARCADIS BB	315-671-9167	m.carrillo-shenker@arcadis-us.com
6.	SEAN MCCARTHY	VILLAGE/SLEEPY HOLLOW	914-366-5124	smccarthy@villageofsleepyhollow.org
7.	DAVID CARTENUTO	CONSULTANT TO VILLAGE	914-482-5325	DCARTENUTO@OPTONLINE.NET
8.	Murleen Hudson	ARCADIS BB	315 671-9446	murleen.hudson@arcadis.com
9.	James Munas	NYSDEC	518-402-9814	jmunas@NYSDEC.state.ny.us
10.	James Pazderski	SEVENSON	716-284-0431	JPAZDERSKI@sevenson.com
11.	DAN MCKENNA	ARCADIS	315-263-1224	daniel.mckenna@arcadis-us.com
12.				
13.				
14.				
15.				
16.				
17.				
18.				

## **Appendix D**

Photograph Documentation



# Former General Motors Assembly Plant Site

Sleepy Hollow, New York

Soil Excavation IRM Documentation  
Photographs



Sediment and Erosion Control



Sediment and Erosion Control



Temporary Water Treatment Plant (TWTP)



Temporary Water Storage Tanks



Modular Tank Associated with TWTP



Material Staging Area



Material Staging Area



Second Materials Staging Area





Asphalt Staging Area



Temporary Concrete Staging Area



Dust Suppression



Excavation Activities, PAOC 29





Excavation Activities, PAOC 29



Excavation Activities, PAOC 29



Non-intact Drums Encountered in PAOC 29



Dewatering of PAOC 29





Dewatering of PAOC 29



Backfill of PAOC 29



Placement of Demarcation Barrier in PAOC 29



Backfilling of PAOC 29





Placement of Backfill in PAOC 29



Compaction in PAOC 29



Final Condition of PAOC 29



Installation of Excavation Support in PAOC 47





Excavation in PAOC 47



Excavation in PAOC 47



Concrete Structures Encountered During  
Excavation of PAOC 47



Placement of Demarcation Barrier in PAOC 47





Placement of Demarcation Barrier in PAOC 47



Placement of Backfill in PAOC 47



Compaction of Backfill in PAOC 47



Final Restored Condition of PAOC 47





Concrete Demolition, PAOC 7



Concrete Demolition, PAOC 7



Excavation in PAOC 7



Excavation in PAOC 7





Placement of Demarcation Barrier, PAOC 7



Placement of PAOC 7 Backfill

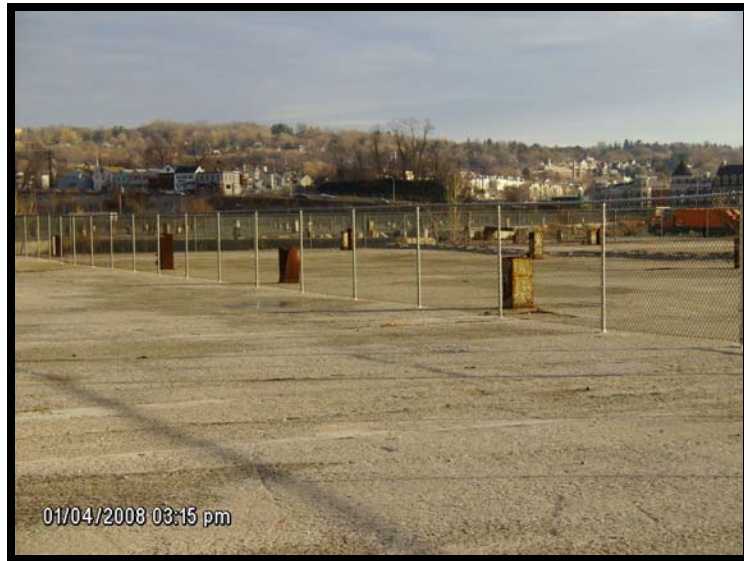


PAOC 7 Compaction Activities



PAOC 7 Following Backfill Placement





Newly Installed Chain-link Fence Surrounding  
PAOC 7



New Chain-link Fence Tied Into Existing Fence  
Surrounding PAOC 7



PAOC 7 Post-Restoration, Containing  
Consolidated Concrete Rubble



Installation of Excavation Support in the  
Former UST Area





Removal of Concrete Foundation in Former UST Area



Excavation in the Former UST Area



Exposed End of 10,000 Gal UST Remnant



Removed Remnant of 10,000 Gal UST





First Additional UST Encountered in Former UST Area



Second Additional UST Encountered in Former UST Area



Placement of Demarcation Barrier in Former UST Area



Compaction of Backfill in Former UST Area





Removal of Sheet Pile from Former UST Area



Former UST Area Following Restoration



Final Condition of the Onsite Millings Pile



Final Condition of the Onsite Millings Pile



Final Condition of the Onsite Millings Pile



Location of Materials Staging Pads Following Removal



## **Appendix E**

Backfill Analyses

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 05/03/07  
Work Order Number: 7D25010

**Prepared For**  
Jim Pazderski

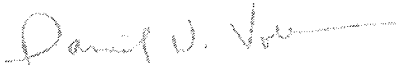
Sevenson Environmental Services

2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201

Site: GM Sleepy Hollow E-944

Enclosed are the results of analyses for samples received by the laboratory on 04/25/07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



---

Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757 CTDPH #PH-0306 MADEP #M-NY068



---

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
05/03/07 14:27

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GM Sleepy Hollow-BF	7D25010-01	Soil	04/24/07 14:45	04/25/07 09:40

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
05/03/07 14:27

**Metals by EPA 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Reporting				Batch	Prepared	Analyzed	Method	Notes	
	Result	Limit	Units	Dilution						
GM Sleepy Hollow-BF (7D25010-01) Soil    Sampled: 04/24/07 14:45    Received: 04/25/07 09:40										
Silver	ND	0.50	mg/kg dry	1	AD72517	04/25/07	04/25/07	EPA 6010B		
Arsenic	ND	1.70	"	"	"	"	"	"		
Barium	102	1.00	"	"	"	"	"	"		
Beryllium	ND	0.50	"	"	"	"	"	"		
Cadmium	ND	1.00	"	"	"	"	"	"		
Chromium	1.78	1.00	"	"	"	"	"	"		
Copper	213	1.00	"	"	"	"	"	"		
Mercury	ND	0.011	"	"	AD72706	04/27/07	04/27/07	EPA 7471A		
Manganese	247	1.00	"	"	AD72517	04/25/07	04/25/07	EPA 6010B		
Nickel	9.76	1.00	"	"	"	"	"	"		
Lead	6.66	4.10	"	"	"	"	"	"		
Selenium	ND	1.40	"	"	"	"	"	"		
Zinc	45.5	4.00	"	"	"	"	"	"		

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
05/03/07 14:27

## Organochlorine Pesticides and PCBs by EPA Methods 8081A /8082

### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>GM Sleepy Hollow-BF (7D25010-01) Soil</b> <b>Sampled: 04/24/07 14:45</b> <b>Received: 04/25/07 09:40</b>									
Alpha-BHC	ND	0.400	ug/kg dry	1	AD73020	04/30/07	05/01/07	8081A/8082	U
Beta-BHC	ND	0.400	"	"	"	"	"	"	U
Gamma-BHC (Lindane)	ND	0.400	"	"	"	"	"	"	U
Delta-BHC	ND	0.400	"	"	"	"	"	"	U
Heptachlor	ND	0.400	"	"	"	"	"	"	U
Aldrin	ND	0.400	"	"	"	"	"	"	U
Heptachlor Epoxide	ND	0.400	"	"	"	"	"	"	U
Endosulfan I	ND	0.400	"	"	"	"	"	"	U
Dieldrin	ND	0.400	"	"	"	"	"	"	U
4,4'-DDE	ND	0.400	"	"	"	"	"	"	U
Endrin	ND	0.400	"	"	"	"	"	"	U
Endosulfan II	ND	0.400	"	"	"	"	"	"	U
4,4'-DDD	ND	0.400	"	"	"	"	"	"	U
Endrin Aldehyde	ND	0.400	"	"	"	"	"	"	U
Endosulfan Sulfate	ND	0.400	"	"	"	"	"	"	U
4,4'-DDT	ND	0.400	"	"	"	"	"	"	U
Endrin Ketone	ND	0.400	"	"	"	"	"	"	U
Methoxychlor	ND	0.400	"	"	"	"	"	"	U
Chlordane	ND	6.70	"	"	"	"	"	"	U
Toxaphene	ND	8.30	"	"	"	"	"	"	U
Aroclor 1016	ND	3.30	"	"	"	"	"	"	U
Aroclor 1221	ND	3.30	"	"	"	"	"	"	U
Aroclor 1232	ND	3.30	"	"	"	"	"	"	U
Aroclor 1242	ND	3.30	"	"	"	"	"	"	U
Aroclor 1248	ND	3.30	"	"	"	"	"	"	U
Aroclor 1254	ND	3.30	"	"	"	"	"	"	U
Aroclor 1260	ND	3.30	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		113 %	61-140		"	"	"	"	
Surrogate: Decachlorobiphenyl		104 %	56-136		"	"	"	"	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
05/03/07 14:27

**Chlorinated Herbicides by EPA Method 8151A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>GM Sleepy Hollow-BF (7D25010-01) Soil    Sampled: 04/24/07 14:45    Received: 04/25/07 09:40</b>									
2,4,5-TP (Silvex)	ND	16.5	ug/kg dry	5	AD72801	04/28/07	04/30/07	8151	U
Surrogate: 2,4-DCPAA		130 %	22-140		"	"	"	"	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
05/03/07 14:27

**Volatile Organic Compounds by EPA Method 8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>GM Sleepy Hollow-BF (7D25010-01) Soil Sampled: 04/24/07 14:45 Received: 04/25/07 09:40</b>									
dichlorodifluoromethane	ND	10	ug/kg dry	1	AD72508	04/25/07	04/25/07	8260	U
chloromethane	ND	10	"	"	"	"	"	"	U
vinyl chloride	ND	10	"	"	"	"	"	"	U
bromomethane	ND	10	"	"	"	"	"	"	U
chloroethane	ND	10	"	"	"	"	"	"	U
trichlorofluoromethane	ND	10	"	"	"	"	"	"	U
1,1-dichloroethene	ND	2	"	"	"	"	"	"	U
acetone	ND	10	"	"	"	"	"	"	U
carbon disulfide	ND	2	"	"	"	"	"	"	U
methylene chloride	ND	2	"	"	"	"	"	"	U
Methyl tert-butyl ether	ND	2	"	"	"	"	"	"	U
trans-1,2-dichloroethene	ND	2	"	"	"	"	"	"	U
1,1-dichloroethane	ND	2	"	"	"	"	"	"	U
vinyl acetate	ND	10	"	"	"	"	"	"	U
2-butanone	ND	10	"	"	"	"	"	"	U
2,2-dichloropropane	ND	2	"	"	"	"	"	"	U
cis-1,2-dichloroethene	ND	2	"	"	"	"	"	"	U
chloroform	ND	2	"	"	"	"	"	"	U
bromochloromethane	ND	2	"	"	"	"	"	"	U
1,1,1-trichloroethane	ND	2	"	"	"	"	"	"	U
carbon tetrachloride	ND	2	"	"	"	"	"	"	U
1,1-dichloropropene	ND	2	"	"	"	"	"	"	U
benzene	ND	2	"	"	"	"	"	"	U
1,2-dichloroethane	ND	2	"	"	"	"	"	"	U
trichloroethene	ND	2	"	"	"	"	"	"	U
1,2-dichloropropane	ND	2	"	"	"	"	"	"	U
bromodichloromethane	ND	2	"	"	"	"	"	"	U
4-Methyl-2-pentanone (MIBK)	ND	10	"	"	"	"	"	"	U
cis-1,3-dichloropropene	ND	2	"	"	"	"	"	"	U
toluene	ND	2	"	"	"	"	"	"	U
trans-1,3-dichloropropene	ND	2	"	"	"	"	"	"	U
1,1,2-trichloroethane	ND	2	"	"	"	"	"	"	U
2-hexanone	ND	10	"	"	"	"	"	"	U
tetrachloroethene	ND	2	"	"	"	"	"	"	U
1,3-dichloropropane	ND	2	"	"	"	"	"	"	U
dibromochloromethane	ND	2	"	"	"	"	"	"	U
1,2-dibromoethane	ND	2	"	"	"	"	"	"	U
1-chlorohexane	ND	2	"	"	"	"	"	"	U
chlorobenzene	ND	2	"	"	"	"	"	"	U
1,1,1,2-tetrachloroethane	ND	2	"	"	"	"	"	"	U
ethylbenzene	ND	2	"	"	"	"	"	"	U
m,p-xylene	ND	4	"	"	"	"	"	"	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
05/03/07 14:27

**Volatile Organic Compounds by EPA Method 8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>GM Sleepy Hollow-BF (7D25010-01) Soil    Sampled: 04/24/07 14:45    Received: 04/25/07 09:40</b>									
o-xylene	ND	2	ug/kg dry	1	AD72508	04/25/07	04/25/07	8260	U
styrene	ND	2	"	"	"	"	"	"	U
bromoform	ND	2	"	"	"	"	"	"	U
isopropylbenzene	ND	2	"	"	"	"	"	"	U
1,1,2,2-tetrachloroethane	ND	2	"	"	"	"	"	"	U
bromobenzene	ND	2	"	"	"	"	"	"	U
1,2,3-trichloropropane	ND	2	"	"	"	"	"	"	U
n-propylbenzene	ND	2	"	"	"	"	"	"	U
2-chlorotoluene	ND	2	"	"	"	"	"	"	U
1,3,5-trimethylbenzene	ND	2	"	"	"	"	"	"	U
4-chlorotoluene	ND	2	"	"	"	"	"	"	U
tert-butylbenzene	ND	2	"	"	"	"	"	"	U
1,2,4-trimethylbenzene	ND	2	"	"	"	"	"	"	U
sec-butylbenzene	ND	2	"	"	"	"	"	"	U
p-isopropyltoluene	ND	2	"	"	"	"	"	"	U
1,3-dichlorobenzene	ND	2	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	2	"	"	"	"	"	"	U
n-butylbenzene	ND	2	"	"	"	"	"	"	U
1,2-dichlorobenzene	ND	2	"	"	"	"	"	"	U
1,2-dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	U
1,2,4-trichlorobenzene	ND	2	"	"	"	"	"	"	U
hexachlorobutadiene	ND	2	"	"	"	"	"	"	U
naphthalene	ND	2	"	"	"	"	"	"	U
1,2,3-trichlorobenzene	ND	2	"	"	"	"	"	"	U
Surrogate: Dibromofluoromethane		93.7 %		70-130	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		90.7 %		69-132	"	"	"	"	
Surrogate: Toluene-d8		92.3 %		81-121	"	"	"	"	
Surrogate: Bromofluorobenzene		95.3 %		83-121	"	"	"	"	



Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
05/03/07 14:27

## Semivolatile Organic Compounds by EPA Method 8270C

### Waste Stream Technology Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>GM Sleepy Hollow-BF (7D25010-01) Soil Sampled: 04/24/07 14:45 Received: 04/25/07 09:40</b>									
N-Nitrosodimethylamine	ND	67	ug/kg dry	1	AD73016	04/30/07	04/30/07	8270	U
bis(2-chloroethyl)ether	ND	67	"	"	"	"	"	"	U
phenol	ND	130	"	"	"	"	"	"	U
2-chlorophenol	ND	130	"	"	"	"	"	"	U
1,3-dichlorobenzene	ND	67	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	67	"	"	"	"	"	"	U
1,2-dichlorobenzene	ND	67	"	"	"	"	"	"	U
benzyl alcohol	ND	67	"	"	"	"	"	"	U
bis(2-chloroisopropyl)ether	ND	67	"	"	"	"	"	"	U
2-methylphenol	ND	67	"	"	"	"	"	"	U
hexachloroethane	ND	67	"	"	"	"	"	"	U
N-Nitrosodi-n-propylamine	ND	67	"	"	"	"	"	"	U
3 & 4-methylphenol	ND	130	"	"	"	"	"	"	U
nitrobenzene	ND	67	"	"	"	"	"	"	U
isophorone	ND	67	"	"	"	"	"	"	U
2-nitrophenol	ND	130	"	"	"	"	"	"	U
2,4-dimethylphenol	ND	130	"	"	"	"	"	"	U
Bis(2-chloroethoxy)methane	ND	67	"	"	"	"	"	"	U
benzoic acid	ND	330	"	"	"	"	"	"	U
2,4-dichlorophenol	ND	130	"	"	"	"	"	"	U
1,2,4-trichlorobenzene	ND	67	"	"	"	"	"	"	U
naphthalene	ND	67	"	"	"	"	"	"	U
4-chloroaniline	ND	67	"	"	"	"	"	"	U
hexachlorobutadiene	ND	67	"	"	"	"	"	"	U
4-chloro-3-methylphenol	ND	130	"	"	"	"	"	"	U
2-methylnaphthalene	ND	67	"	"	"	"	"	"	U
hexachlorocyclopentadiene	ND	130	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	130	"	"	"	"	"	"	U
2,4,5-trichlorophenol	ND	67	"	"	"	"	"	"	U
2-chloronaphthalene	ND	67	"	"	"	"	"	"	U
2-nitroaniline	ND	67	"	"	"	"	"	"	U
acenaphthylene	ND	67	"	"	"	"	"	"	U
Dimethyl phthalate	ND	67	"	"	"	"	"	"	U
2,6-dinitrotoluene	ND	67	"	"	"	"	"	"	U
acenaphthene	ND	67	"	"	"	"	"	"	U
3-nitroaniline	ND	67	"	"	"	"	"	"	U
2,4-dinitrophenol	ND	130	"	"	"	"	"	"	U
dibenzofuran	ND	67	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	67	"	"	"	"	"	"	U
4-nitrophenol	ND	130	"	"	"	"	"	"	U
fluorene	ND	67	"	"	"	"	"	"	U
4-Chlorophenyl phenyl ether	ND	67	"	"	"	"	"	"	U

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
05/03/07 14:27

**Semivolatile Organic Compounds by EPA Method 8270C**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>GM Sleepy Hollow-BF (7D25010-01) Soil Sampled: 04/24/07 14:45 Received: 04/25/07 09:40</b>									
Diethyl phthalate	ND	67	ug/kg dry	1	AD73016	04/30/07	04/30/07	8270	U
4-nitroaniline	ND	67	"	"	"	"	"	"	J-02, U
4,6-Dinitro-2-methylphenol	ND	130	"	"	"	"	"	"	U
n-nitrosodiphenylamine	ND	67	"	"	"	"	"	"	U
4-bromophenylphenylether	ND	67	"	"	"	"	"	"	U
hexachlorobenzene	ND	67	"	"	"	"	"	"	U
pentachlorophenol	ND	130	"	"	"	"	"	"	U
phenanthrene	ND	67	"	"	"	"	"	"	U
anthracene	ND	67	"	"	"	"	"	"	U
carbazole	ND	67	"	"	"	"	"	"	U
Di-n-butyl phthalate	ND	67	"	"	"	"	"	"	U
benzidine	ND	330	"	"	"	"	"	"	U
fluoranthene	ND	67	"	"	"	"	"	"	U
3,3'-Dichlorobenzidine	ND	67	"	"	"	"	"	"	U
pyrene	ND	67	"	"	"	"	"	"	U
Butyl benzyl phthalate	ND	67	"	"	"	"	"	"	U
Benzo (a) anthracene	ND	67	"	"	"	"	"	"	U
chrysene	ND	67	"	"	"	"	"	"	U
<b>bis(2-ethylhexyl)phthalate</b>	<b>158</b>	67	"	"	"	"	"	"	B
Di-n-octyl phthalate	ND	67	"	"	"	"	"	"	U
Benzo (b) fluoranthene	ND	67	"	"	"	"	"	"	U
Benzo (k) fluoranthene	ND	67	"	"	"	"	"	"	U
Benzo (a) pyrene	ND	67	"	"	"	"	"	"	U
Indeno (1,2,3-cd) pyrene	ND	67	"	"	"	"	"	"	U
Dibenz (a,h) anthracene	ND	67	"	"	"	"	"	"	J-02, U
Benzo (g,h,i) perylene	ND	67	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol		51.1 %	40-103		"	"	"	"	
Surrogate: Phenol-d6		48.9 %	43-108		"	"	"	"	
Surrogate: Nitrobenzene-d5		54.2 %	50-98		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		62.4 %	49-98		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		66.7 %	52-112		"	"	"	"	
Surrogate: Terphenyl-d14		93.0 %	43-108		"	"	"	"	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

Reported:  
05/03/07 14:27

**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>GM Sleepy Hollow-BF (7D25010-01) Soil    Sampled: 04/24/07 14:45    Received: 04/25/07 09:40</b>									
Cyanide (total)	ND	0.50	mg/kg dry	1	AE70121	05/01/07	05/01/07	EPA 9014	
% Solids	97.2	0.1	%	"	AD72601	04/25/07	04/26/07	% calculation	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: GM Sleepy Hollow  
Project Number: GM Sleepy Hollow E-944  
Project Manager: Jim Pazderski

**Reported:**  
05/03/07 14:27

### Notes and Definitions

U	Analyte included in the analysis, but not detected
J-02	The detection limit or result reported for the analyte is considered an estimated value due to a low analyte recovery in the associated LCS.
B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

— Since — **Advance  
Testing** — 1984 —

**CONSTRUCTION MATERIALS TESTING & INSPECTION SERVICES**

---

May 11, 2007

Sevenson Environmental Services  
2749 Lockport Rd.  
Niagra Falls, NY 14305

To whom it may concern,

Tilcon New York Inc. West Nyack Quarry is a New York State DOT approved material source. The Source Number is 8-8R. The current approval number is 06AR22.

This source is 100% Virgin Basalt (Trap Rock), quarried and processed to finish product requirements. To the best of our knowledge, this source is 'clean' and free from contaminants.

If there are any questions please contact me.

Yours truly,



Robert Patton  
Quality Control



3348 Route 208, Campbell Hall, NY 10916  
Phone: 845-496-1600 Fax: 845-496-1398  
42 Day Farm Road, West Stockbridge, MA 01266  
Phone/Fax: 413-232-8566

Client:	Sevenson Environmental Services Inc.	Project:	Sleepy Hollow Project GM, Sleepy Hollow
Material:	2" minus backfill	Project Number:	070232
Source:	Tilcon West Nyack	Lab Number:	07-0395
Date Sampled:	5/17/2007	Sampled By:	Client
Date Tested:	5/20/2007	Tested By:	L Borysiak

**GRADATION (SIEVE ANALYSIS) OF SOIL OR AGGREGATE**

Test Method(s): ASTM D422, C136, C117; AASHTO T11, T27, T88

Lab Number	Sample Type	Sampling Location	Specification
07-0395	2" minus backfill	Stockpile	

Sieve Size		% Retain	% Passing	Spec. % Pass
mm	Inches			
100.0 mm	4"	0.0	100.0	
75.0 mm	3"	0.0	100.0	
62.5 mm	2 1/2"	0.0	100.0	
50.0 mm	2"	0.0	100.0	
37.5 mm	1 1/2"	0.0	100.0	
25.0 mm	1"	6.7	93.3	
19.0 mm	3/4"	44.7	48.6	
12.5 mm	1/2"	15.4	33.2	
6.32 mm	1/4"	10.1	23.1	
4.75 mm	#4	3.2	19.9	
2.00 mm	#10	6.0	13.9	
0.850 mm	#20	4.0	9.9	
0.600 mm	#30	1.2	8.7	
0.425 mm	#40	1.0	7.7	
0.150 mm	#100	2.5	5.2	
0.075 mm	#200	1.2	4.0	
Pan		4.0		

Comments: Minus #200 by wash-sieve method.

Report Reviewed By:

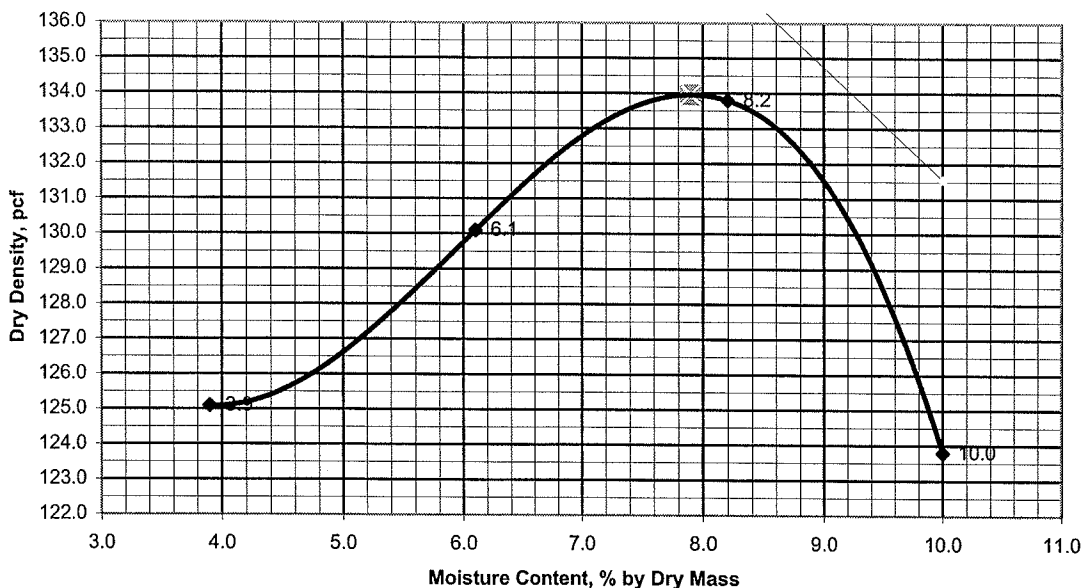


3348 Route 208, Campbell Hall, NY 10916  
Phone: 845-496-1600 Fax: 845-496-1398  
42 Day Farm Road, West Stockbridge, MA 01266  
Phone/Fax: 413-232-8566

### REPORT OF MOISTURE DENSITY RELATIONSHIP

CLIENT:	Sevenson Environmental Services Inc.	ATC PROJECT NO.:	70232
PROJECT:	Sleepy Hollow Project GM, Sleepy Hollow	ATC LAB NUMBER:	07-0395
TEST METHOD:	ASTM D 698 'Standard Proctor'	Method:	C
SOIL ID NUMBER:	2		
ITEM:	2" minus backfill		
SOURCE:	Tilcon West Nyack		
SOIL DESCRIPTION:	Dark gray crushed stone with little sand size		
DATE SAMPLED:	5/17/2007	SAMPLED BY:	Client
DATE TESTED:	5/20/2007	TESTED BY:	L. Borysiak

### MOISTURE DENSITY RELATIONSHIP



Individual Test Points	
Percent Moisture	Dry Density
10.0	123.8
3.9	125.1
6.1	130.1
8.2	133.8

Test Maximum Dry Density: 134.0 lb/cu. ft.  
Test Optimum Moisture Content: 7.9 %  
Percent Oversize Particles: 51.4 %  
Specific Gravity of Oversize: 2.67

Corrected Maximum Dry Density 149.0 lb/cu. ft.  
Corrected Opt. Moisture Content: 4.4 %

Report Reviewed By:

NOTE: Sample contained more than 30% oversize material. Test result correction for oversize may be inaccurate due to this high percentage.

Revised 6/5/2007