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# HydroScience, Inc.

Environmental and Groundwater Consultants

12/7/01 Kp/Cr.  
Center City Executive Centre  
607 Washington Street  
Reading, PA 19601  
(610) 478-2111  
fax (610) 478-2217

Via Federal Express

October 29, 2001

Mr. Dave Traver  
NYSDEC  
21 South Putt Corners Road  
New Paltz, NY 12561-1696

RECEIVED

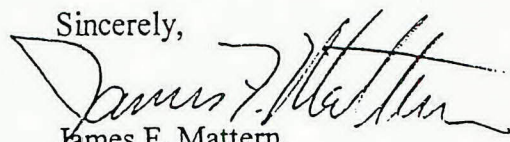
RE: Carmine's Auto Repair  
Ft. Montgomery, NY  
Spill #0107005

Dear Mr. Traver:

Pursuant to our conversation last week, I have enclosed pertinent portions of a report concerning the above-referenced facility. The sections of the report included consist of descriptions of soil sampling methodologies and laboratory analysis, soil boring summaries, analytical results, and locations of soil samples. As indicated when reporting the spill and as discussed with you, based on this data, it appears as if the release is limited both horizontally and vertically; however, we are developing a scope of work to investigate the full extent of the adversely affected soil. We will provide you with a copy of the scope once it has been finalized, and will provide you with as much notice as possible (at least 3 business days) before any further testing is conducted at the subject site.

Please feel free to contact me with any questions or comments.

Sincerely,

  
James F. Mattern  
President

cc: Mr. Chuck Phillips, LHAP



- the collection of 17 soil samples from 14 corings. Based upon field observations, eight of these samples were submitted for laboratory analysis. These samples were analyzed for one or more of the following: total RCRA metals, VOCs plus MTBE (USEPA method 8021), PAHs (USEPA method 8270) and PCBs (USEPA method 8020);
- the sampling of the on-site potable water supply well for the presence or absence of volatile organic hydrocarbons to determine if on-site groundwater had been impacted. Water samples were collected from the garage bathroom faucet and were submitted for laboratory analysis for VOCs plus MTBE (USEPA method 524.2, water).

All field work documented in this ESA was performed on September 27, 2001 by ESI personnel or designated contractors under the supervision of ESI personnel. Exterior soil corings were extended by Todd Syska, Inc., and interior soils corings were extended by ESI personnel.

A Field Work Map indicating the coring locations and associated selected site features is provided in Appendix A of this ESA.

### 4.3 Field Work Methodology

#### 4.3.1 Utility Markout

Prior to the initiation of field work, a request for a complete utility markout of the Site was submitted by ESI as required by New York State Department of Labor regulations. Confirmation of underground utility locations was secured and a field check of the utility markout was conducted prior to the extension of soil cores.

#### 4.3.2 Equipment Decontamination and Calibration

Prior to the initiation of field work, all field equipment was properly decontaminated in accordance with NYSDEC guidelines, and all field instruments were properly calibrated in accordance with procedures set forth by the equipment manufacturer(s). A MiniRAE 2000 (Model PGM 7600) photo-ionization detector (PID) was used for on-site screening of organic vapors. The PGM 7600 PID was calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene.

#### 4.3.3 Field Work Logs

An assessment of subsurface soil characteristics, including soil type, the presence of foreign materials, field indications of contamination (e.g., unusual coloration patterns or odors), and instrument indications of contamination (i.e., PID readings) was made by ESI personnel during the extension of each soil coring. ESI personnel maintained independent field logs documenting the physical characteristics, PID readings and any field indications of contamination for all encountered material at each coring location. Relevant information from ESI logs for each coring location is summarized in each task section.

#### 4.3.4 Sample Collection

All soil and water samples were collected in a manner consistent with NYSDEC sample collection protocols (see Soil and Water sections, below). After sample collection, the sample containers were placed in a cooler prior to transport to the laboratory. All soil and water samples (accompanied by properly completed chain of custody records) were transported via overnight courier to York Analytical Laboratories, Inc., a New York State Department of Health-certified laboratory (ELAP Certification Number 10854), for chemical analyses.



Notations were made regarding the sampled material's physical characteristics (e.g., material composition, color, odor, etc.). At each sample location and for each sample type (soil and liquid) a sufficient volume of material was collected for the known required analyses and for any potential additional analyses.

ESI personnel maintained field logs documenting the physical characteristics, PID readings, and any field indications of contamination for all encountered material at each coring location. Relevant information from ESI logs for each coring location is summarized in Section 4.4.1, below.

#### 4.3.4.1 Soil

[REDACTED] were extended using a direct-push, track-mounted Geoprobe operated by Todd Syska, Inc. Soil samples were collected over continuous four foot intervals to a depth of eight to 12 feet bsg or until drill refusal. The sampling spoon was equipped with disposable acetate sleeves to prevent the cross contamination of soil samples. All sample collection equipment was properly decontaminated prior to the initiation of sampling and between sample locations to avoid cross-contamination. The MiniRAE 2000 PID was utilized to screen the soils encountered during the extension of the soil cores to document the presence or absence of any volatile organic vapors.

All interior manual corings (HB-1 through HB-4) were extended by ESI personnel using a hand-held direct push sampling spoon equipped with a slide hammer. Sampling was conducted at 2-foot intervals to a maximum depth of eight feet below grade or until refusal was reached. The sampling spoon was equipped with disposable acetate sleeves to prevent the cross contamination of soil samples. All sample collection equipment was properly decontaminated prior to the initiation of sampling and between sample locations to avoid cross-contamination.

All soil samples were collected in a manner consistent with NYSDEC sample collection protocols. Decontaminated stainless steel trowels and dedicated gloves were used at each sample location to place the material into jars pre-cleaned at the laboratory. Prior to and after the collection of each material sample, the sample collection instrument was decontaminated to avoid cross-contamination between samples. Decontamination procedures were consistent with established USEPA and NYSDEC protocols.

#### 4.3.4.2 Well Water

Water from the on-site well was obtained from the bathroom faucet of the gasoline station building. VOC water samples were collected into two pre-prepared laboratory-supplied jars, preserved with hydrochloric acid, using standard sampling protocols after the faucet was allowed to run freely for approximately 20 minutes.

### 4.4 Field Work Observations

#### 4.4.1 Soil Cores

Subsurface soils encountered on the subject property during the extension of soil corings generally consisted of gray, red, brown, and black sandy to gravelly soils containing varying amounts of fragmented fill materials in a generally dry condition. [REDACTED]

Field observations for all soil corings are described in detail in Table 5, below. A Field Investigation Map indicating the boring locations and associated selected site features is provided in Appendix A of this ESA.



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CODING	LOCATION	DEPTH	SOIL CHARACTERISTICS	PID (ppb)	FIELD OBSERVATIONS
HB-1	northwest corner of northern garage bay, 5' south and 6.5' east	2 - 4'	Drilled through concrete (4-6"), void of 1-4" under slab Poor recovery, slightly moist medium brown coarse sand and gravel	0.0	No evidence of contamination
		Refusal at 6'	No recovery	N/A	N/A
HB-2	northwest corner of northern garage bay, 3.75' south and 18.5' east	2-4'	Drilled through concrete (4-6"), void of 1-4" under slab, no recovery	N/A	N/A
		4-5.5' (refusal)	Dark sand with gravel, slightly moist	53.1	Staining, strong petroleum odor
HB-3	northwest corner of northern garage bay, 14.75' south and 20.5' east	4-6'	Drilled through concrete (4-6"), void of 1-4" under slab, brown medium sand, dry	0.7	Slight petroleum odor
HB-4	northwest corner of northern garage bay, 5.75' south and 13' east	0.5 -2.5' Sample	Drilled through concrete (4-6"), void of 1-4" under slab, poor recovery, dark sand with gravel, slightly moist	79.6	Staining, strong petroleum odor
		4.5 -6.5' Sample	Brown medium sand with gravel, dry to slightly moist	15.3	Slight staining and slight petroleum odor
Notes: N/A=not applicable					

#### 4.4.2 Groundwater Well Sampling

No visual, olfactory, or instrument indications of contamination were observed during the collection of the water sample.

## 4.5 Laboratory Analysis and Results

During the course of the field work described in Sections 4.2 and 4.3, above, multiple soil samples and a single well water samples were collected. These samples were submitted to the laboratory for analysis to document the presence or absence of contamination in on-site soils and well water.

### 4.5.1 Terminology

#### Action Levels

The term "action level," as defined in this ESA, is the concentration of a particular contaminant above which remedial actions are considered more likely. The overall objective of setting action levels is to assess the integrity of on-site soils and groundwater relative to conditions which are likely to present a threat to public health, given the existing and probable future uses of the site. On-site soils and well water with contaminant levels exceeding these action levels are considered more likely to warrant remediation. No independent risk assessment was performed as part of this investigation.

The action levels identified in this ESA for metals and organic compounds are based on the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) on Determination of Soil Cleanup Objectives and Cleanup Levels (January 24, 1994) as modified by subsequent, relevant NYSDEC Records of Decision (RODs). In accordance with standards set forth in the above-referenced document, all detected compounds are provided with their respective action levels.

#### Background Levels

The term "background level", as defined in this ESA is the concentration of a particular metal which is known to naturally occur in Eastern United States soils. The overall objective of setting background levels for metals in soil is to assess the concentrations of metals in on-site soils relative to those that are naturally occurring.

On-site soils with metal concentrations exceeding these background levels are considered more likely to have been affected by anthropogenic contributions. The background levels for metals provided in this ESA are based on the NYSDEC's TAGM (January 24, 1994) as modified by subsequent, relevant NYSDEC Records of Decision (RODs).

Background levels do not exist for refined petroleum hydrocarbons, and, therefore, no discussion of naturally occurring levels for these compounds is appropriate.

### 4.5.2 Submission and Analysis

#### Soils

~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~ four soil samples collected from corings extended in the garage repair bays (HB-2 - HB-4) were submitted for laboratory analysis. Each of these samples ~~was~~ *were* collected from soil determined by ESI personnel in the field to be representative of possible soil contamination. A summary of soil samples submitted for laboratory analysis is presented below in Table 6.



Table 6: Summary of Requested Laboratory Analysis of Soil Samples

Sample ID	Laboratory Analysis Requested <sup>1,2</sup>
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
HB-2 (4-5.5')	PAHs, PCBs and Total RCRA Metals
HB-3 (4-6')	VOCs plus MTBE, PAHs and PCBs
HB-4 (.5-2.5')	VOCs plus MTBE, PAHs, PCBs and Total RCRA Metals
HB-4 (4.5-6.5')	VOCs plus MTBE, PAHs and PCBs
Notes: 1) Laboratory protocols used are USEPA method 8260 for VOCs plus MTBE, USEPA Method 8270 for PAHs and USEPA method 8020 for PCBs	
2) RCRA metals analyzed are arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver	

Water

The water sample collected from the potable on-site water supply well was submitted for laboratory analysis of VOCs plus MTBE using USEPA method 524.2 (water).

## 4.5.2 Laboratory Results

Summarized laboratory data and observations based upon laboratory results are outlined in the following discussion and presented below in Table 7 and Table 8. Specific characteristics or trends in results are noted where applicable. Further discussion of the laboratory results may also be found in the Conclusions and Recommendations section of this ESA.

Soil*Garage floor corings: HB1 through HB4*

Four soil cores (HB1 through HB4) were extended on the subject property inside the garage repair bays in order to characterize subsurface conditions under the concrete slab. Corings HB2 and HB4 were extended in close proximity to a floor drain observed to contain waste oil and reported to be a receptor for wastewater discharges containing de-greasers. Staining and a strong petroleum odor were noted in corings HB2 and HB4, located closest to the floor drain. A slight petroleum odor was noted in soil from HB3 and no field observations of contamination were noted in soil from HB1.

Laboratory analysis of soil sampled from HB4 (0.5-2.5') indicated the presence of multiple VOCs above action levels including MTBE, BTEX compounds and chlorinated hydrocarbons (e.g., tetrachloroethylene, trichloroethylene, and [total] 1,2-dichloroethylene). Naphthalene (PAH) and PCBs were detected at below action levels. Arsenic (8.01 ppm) was detected at a concentration slightly above its action level of 7.5 ppm. A deeper sample from this coring (HB4, 4.5 - 6.5') contained VOCs and PAHs at concentrations below action levels.



Laboratory analysis of soil sampled from HB2 (4-5.5') indicated the presence of PAHs (naphthalene, phenanthrene, and pyrene) at concentrations below action levels (poor recovery at this location prevented analysis for VOCs). Samples from HB3 (4-6') contained one PAH (pyrene) at concentrations below action levels and contained no detectable VOCs.

Table 7 : Summary of Detected VOCs in Soil Samples  
(All results measured in  $\mu\text{g}/\text{kg}$ -ppb. Results in bold exceed designated action levels.)

VOCs (USEPA Method 8260)	Action Level <sup>1</sup>	HB2 4-5.5'	HB2 4-5.5'	HB2 4-5.5'	HB4 0.5-2.5'	HB4 4.5-6.5'	HB3 4-6'
1,2,4-Trimethylbenzene	3,300				1700	58	ND
1,2-Dichloroethylene (total)	300				3100 (cis)	ND	ND
1,3,5-Trimethylbenzene	200				510	19	ND
Benzene	60				190	ND	ND
Ethylbenzene	5,500				310	ND	ND
Isopropylbenzene	2,300				68	ND	ND
MTBE	120				430	ND	ND
Naphthalene	13,000				530	14	ND
n-Butylbenzene	10,000				110	ND	ND
n-Propylbenzene	3,700				220	ND	ND
o-Xylene	NE				1700	18	ND
p-&m-Xylenes	NE				3700	38	ND



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VOCs (USEPA Method 8260)	Action Level <sup>1</sup>				HB4 0.5-2.5'	HB4 4.5-6.5'	HB3 4-6'
Total Xylenes	1,200				5400	56	ND
p-Isopropyltoluene	10,000				26	ND	ND
Sec-Butylbenzene	10,000				31	ND	ND
tert-Butylbenzene	1,300				190	ND	ND
Tetrachloroethylene	1400				5700	420	ND
Toluene	700				3400	13	ND
Trichloroethylene	700				3400	26	ND

Notes:

1. Source: NYSDEC Technical and Administrative Guidance Memorandum #4046 (TAGM) (January 24, 1994) as modified by subsequent, relevant NYSDEC Records of Decision (RODs).  
ND = Not Detected  
NE=Not Established

Table 8 : Summary of Detected PAHs in Soil Samples  
(All results measured in  $\mu\text{g}/\text{kg}$ -ppb. Results in bold exceed designated action levels.)

PAHs (USEPA Method 8270)	Action Level <sup>1</sup>	Sample Identification						
					HB4 0.5-2.5'	HB4 4.5-6.5'	HB2 4-4.5'	HB3 4-6'
Acenaphthene	50,000				ND	ND	ND	ND
Anthracene	50,000				ND	ND	ND	ND
Benzo (a) Anthracene	224				ND	ND	ND	ND
Benzo (a) Pyrene	61				ND	ND	ND	ND
Benzo (b) Fluoranthene	1,100				ND	ND	ND	ND
Benzo (k) Fluoranthene	1,100				ND	ND	ND	ND
Chrysene	400				ND	ND	ND	ND
Dibenzo (a,h) Anthracene	14				ND	ND	ND	ND
Fluoranthene	50,000				ND	1900	ND	ND
Fluorene	50,000				ND	ND	ND	ND
Indeno (1,2,3-construction and demolition) Pyrene	3,200				ND	ND	ND	ND
Naphthalene	13,000				2400	ND	3200	ND
Phenanthrene	50,000				ND	2100	2200	ND
Pyrene	50,000				ND	2300	1900	710

Notes:

1. Source: NYSDEC Division Technical and Administrative Guidance Memorandum #4046 (TAGM) (January 24, 1994) as modified by subsequent, relevant NYSDEC Records of Decision (RODs).  
ND Not Detected above specified detection limit.

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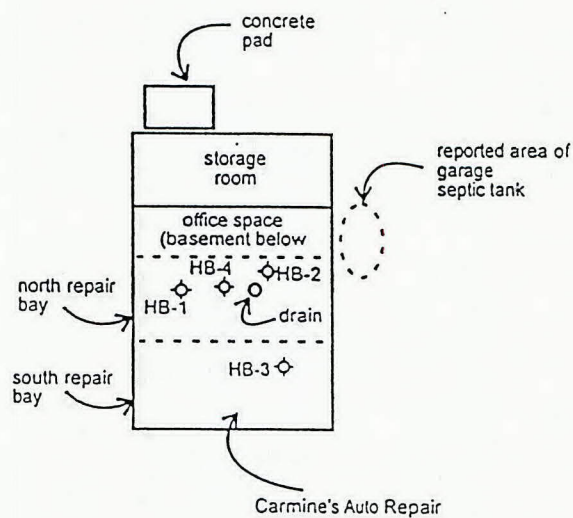
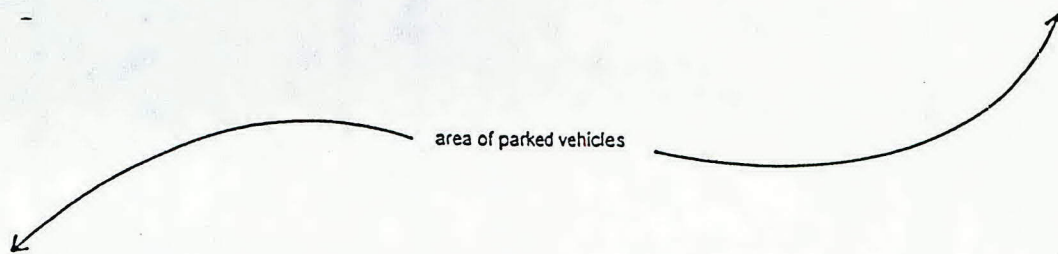
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*Water*

No detectable concentrations of VOCs were identified in the water supply well sample submitted for analysis. The absence of contamination in this source supports the hypothesis that deep groundwater has not been impacted by the petroleum contamination identified in subsurface soils (see Soils subsection above).



U.S. ROUTE 9W




All feature locations are approximate.  
Map based on field measurements

## Field Work Map - Detail

Sakmann Restaurant Corporation  
U.S. Route 9W,  
Hamlet of Fort Montgomery, Town of Highlands  
Orange County, New York

### Legend:

hand boring 

ESI File: SF01123.20

October 2001

Scale: 1" = 32' (approximately)

Appendix A

Client Sample ID			HB-2 4-5.5'		HB-4 0.5-2.5'	
York Sample ID			01100001-05		01100001-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8021+MTBE soil	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane					Not detected	10
1,1,1-Trichloroethane					Not detected	10
1,1,2,2-Tetrachloroethane					Not detected	10
1,1,2-Trichloroethane					Not detected	10
1,1-Dichloroethane					Not detected	10
1,1-Dichloroethylene					Not detected	10
1,1-Dichloropropylene					Not detected	10
1,2,3-Trichlorobenzene					Not detected	10
1,2,3-Trichloropropane					Not detected	10
1,2,4-Trichlorobenzene					Not detected	10
1,2,4-Trimethylbenzene					1700	10
1,2-Dibromo-3-chloropropane					Not detected	10
1,2-Dibromoethane					Not detected	10
1,2-Dichlorobenzene					Not detected	10
1,2-Dichloroethane					Not detected	10

YORK



Client Sample ID			HB-2 4-5.5'		HB-4 0.5-2.5'	
York Sample ID			01100001-05		01100001-06	
Matrix-			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,2-Dichloroethylene (Total)					3100(cis-)	10
1,2-Dichloropropane					Not detected	10
1,3,5-Trimethylbenzene					510	10
1,3-Dichlorobenzene					Not detected	10
1,3-Dichloropropane					Not detected	10
1,4-Dichlorobenzene					Not detected	10
2,2-Dichloropropane					Not detected	10
2-Chlorotoluene					Not detected	10
4-Chlorotoluene					Not detected	10
Benzene					190	10
Bromobenzene					Not detected	10
Bromochloromethane					Not detected	10
Bromodichloromethane					Not detected	10
Bromoform					Not detected	10
Bromomethane					Not detected	100
Carbon tetrachloride					Not detected	10
Chlorobenzene					Not detected	10
Chloroethane					Not detected	10
Chloroform					Not detected	10
Chloromethane					Not detected	100
cis-1,3-Dichloropropylene					Not detected	10
Dibromochloromethane					Not detected	10
Dibromomethane					Not detected	10
Dichlorodifluoromethane					Not detected	10
Ethylbenzene					810	10
Hexachlorobutadiene					Not detected	10
Isopropylbenzene					68	10
Methyl tert-butyl ether (MTBE)					430	10
Methylene chloride					Not detected	10
Naphthalene					530	10
n-Butylbenzene					110	10
n-Propylbenzene					220	10
o-Xylene					1700	10
p- & m-Xylenes					3700	10
p-Isopropyltoluene					26	10
sec-Butylbenzene					31	10
Styrene					Not detected	10
tert-Butylbenzene					190	10
Tetrachloroethylene					5700	10
Toluene					3400	10
trans-1,3-Dichloropropylene					Not detected	10
Trichloroethylene					3400	10
Trichlorofluoromethane					Not detected	10
Vinyl chloride					Not detected	100
Polynuclear Aromatic Hydroc.(BN)	SW846-S270	ug/kg	---	---	---	---
Acenaphthene			Not detected	1700	Not detected	1700
Acenaphthylene			Not detected	1700	Not detected	1700
Anthracene			Not detected	1700	Not detected	1700
Benzo[a]anthracene			Not detected	1700	Not detected	1700
Benzo[a]pyrene			Not detected	1700	Not detected	1700
Benzo[b]fluoranthene			Not detected	1700	Not detected	1700

**YORK**



Client Sample ID			HB-2 4-5.5'		HB-4 0.5-2.5'	
York Sample ID			01100001-05		01100001-06	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Benzo[g,h,i]perylene			Not detected	1700	Not detected	1700
Benzo[k]fluoranthene			Not detected	1700	Not detected	1700
Chrysene			Not detected	1700	Not detected	1700
Dibenz[a,h]anthracene			Not detected	1700	Not detected	1700
Fluoranthene			Not detected	1700	Not detected	1700
Fluorene			Not detected	1700	Not detected	1700
Indeno[1,2,3-cd]pyrene			Not detected	1700	Not detected	1700
Naphthalene			3200	1700	2400	1700
Phenanthrene			2200	1700	Not detected	1700
Pyrene			1900	1700	Not detected	1700
PCB	SW846-3550B/8082	mg/Kg	---	---	---	---
PCB 1016			Not detected	0.02	Not detected	0.02
PCB 1221			Not detected	0.02	Not detected	0.02
PCB 1232			Not detected	0.02	Not detected	0.02
PCB 1242			Not detected	0.02	Not detected	0.02
PCB 1248			Not detected	0.02	Not detected	0.02
PCB 1254			Not detected	0.02	Not detected	0.02
PCB 1260			Not detected	0.02	0.02	0.02
PCB, Total			Not detected	0.02	0.02	0.02
Total RCRA Metals	SW846	mg/kg	---	---	---	---
Arsenic, total			5.63	1.00	8.01	1.00
Barium, total			61.2	0.50	38.1	0.50
Cadmium, total			Not detected	0.50	Not detected	0.50
Chromium, total			14.2	0.50	14.1	0.50
Lead, total			52.4	0.50	37.7	0.50
Selenium, total			Not detected	1.00	Not detected	1.00
Silver, total			Not detected	0.50	Not detected	0.50
Mercury	SW846-7471	mg/kg	Not detected	0.25	Not detected	0.25

Client Sample ID			HB-4 4.5-6.5'		HB-3 4-6'	
York Sample ID			01100001-07		01100001-08	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Polynuclear Aromatic Hydroc.(BN)	SW846-8270	ug/kg	---	---	---	---
Acenaphthene			Not detected	1700	Not detected	660
Acenaphthylene			Not detected	1700	Not detected	660
Anthracene			Not detected	1700	Not detected	660
Benzo[a]anthracene			Not detected	1700	Not detected	660
Benzo[a]pyrene			Not detected	1700	Not detected	660
Benzo[b]fluoranthene			Not detected	1700	Not detected	660

YORK



Client Sample ID			HB-4 4.5-6.5'		HB-3 4-6'	
York Sample ID			01100001-07		01100001-08	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Benzo[g,h,i]perylene			Not detected	1700	Not detected	660
Benzo[k]fluoranthene			Not detected	1700	Not detected	660
Chrysene			Not detected	1700	Not detected	660
Dibenz[a,h]anthracene			Not detected	1700	Not detected	660
Fluoranthene			1900	1700	Not detected	660
Fluorene			Not detected	1700	Not detected	660
Indeno[1,2,3-cd]pyrene			Not detected	1700	Not detected	660
Naphthalene			Not detected	1700	Not detected	660
Phenanthrene			2100	1700	Not detected	660
Pyrene			2300	1700	710	660
PCB	SW846-3550B/8082	mg/Kg	--	--	--	--
PCB 1016			Not detected	0.02	Not detected	0.02
PCB 1221			Not detected	0.02	Not detected	0.02
PCB 1232			Not detected	0.02	Not detected	0.02
PCB 1242			Not detected	0.02	Not detected	0.02
PCB 1248			Not detected	0.02	Not detected	0.02
PCB 1254			Not detected	0.02	Not detected	0.02
PCB 1260			0.05	0.02	Not detected	0.02
PCB, Total			0.05	0.02	Not detected	0.02

Client Sample ID			W1	
York Sample ID			01100001-09	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
Volatiles-524.2+MTBE water	EPA 524.2	ug/L	--	--
1,1,1,2-Tetrachloroethane			Not detected	0.2
1,1,1-Trichloroethane			Not detected	0.2
1,1,2,2-Tetrachloroethane			Not detected	0.2
1,1,2-Trichloroethane			Not detected	0.2
1,1-Dichloroethane			Not detected	0.2
1,1-Dichloroethylene			Not detected	0.2
1,1-Dichloropropylene			Not detected	0.2
1,2,3-Trichlorobenzene			Not detected	0.2
1,2,3-Trichloropropane			Not detected	0.4
1,2,3-Trimethylbenzene			Not detected	0.4
1,2,4-Trichlorobenzene			Not detected	0.2
1,2,4-Trimethylbenzene			Not detected	0.2
1,2-Dibromo-3-chloropropane			Not detected	0.4
1,2-Dibromoethane			Not detected	0.2
1,2-Dichlorobenzene			Not detected	0.2
1,2-Dichloroethane			Not detected	0.2

YORK



Client Sample ID			W1	
York Sample ID			01100001-09	
Matrix			WATER	
Parameter	Method	Units	Results	MDL
1,2-Dichloroethylene (Total)			Not detected	0.2
1,2-Dichloropropane			Not detected	0.2
1,3,5-Trimethylbenzene			Not detected	0.2
1,3-Dichlorobenzene			Not detected	0.2
1,3-Dichloropropane			Not detected	0.2
1,3-Dichloropropylene			Not detected	0.2
1,4-Dichlorobenzene			Not detected	0.2
2,2-Dichloropropane			Not detected	0.4
2-Chlorotoluene			Not detected	0.2
4-Chlorotoluene			Not detected	0.2
Benzene			Not detected	0.1
Bromobenzene			Not detected	0.1
Bromochloromethane			Not detected	0.1
Bromodichloromethane			Not detected	0.1
Bromoform			Not detected	0.2
Bromomethane			Not detected	0.2
Carbon tetrachloride			Not detected	0.2
Chlorobenzene			Not detected	0.2
Chloroethane			Not detected	0.2
Chloroform			Not detected	0.2
Chloromethane			Not detected	0.2
Dibromochloromethane			Not detected	0.2
Dibromomethane			Not detected	0.2
Dichlorodifluoromethane			Not detected	0.2
Ethylbenzene			Not detected	0.2
Hexachlorobutadiene			Not detected	0.2
Isopropylbenzene			Not detected	0.2
Methyl tert-butyl ether (MTBE)			Not detected	0.2
Methylene chloride			Not detected	0.2
Naphthalene			Not detected	0.2
n-Butylbenzene			Not detected	0.2
n-Propylbenzene			Not detected	0.2
o-Xylene			Not detected	0.2
p- & m-Xylenes			Not detected	0.2
p-Isopropyltoluene			Not detected	0.2
sec-Butylbenzene			Not detected	0.2
Styrene			Not detected	0.2
tert-Butylbenzene			Not detected	0.2
Tetrachloroethylene			Not detected	0.2
Toluene			Not detected	0.2
Trichloroethylene			Not detected	0.2
Trichlorofluoromethane			Not detected	0.2
Vinyl chloride			Not detected	0.2

Units Key:

For Waters/Liquids: mg/L = ppm; ug/L = ppb

For Soils/Solids: mg/kg = ppm; ug/kg = ppb

YORK



Report Date: 10/3/2001  
Client Project ID: SF01123-20  
York Project No.: 01100001

es for York Project No. 01100001

The MDL (Minimum Detectable Limit) reported is adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference.

Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.

York's liability for the above data is limited to the dollar value paid to York for the referenced project.

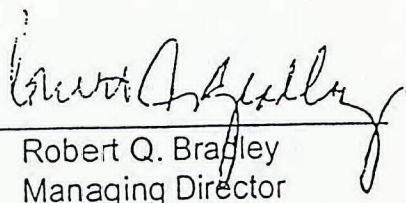
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All samples were received in proper condition for analysis with proper documentation.

All analyses conducted met method or Laboratory SOP requirements.

It is noted that no analyses reported herein were subcontracted to another laboratory.

proved By:

  
Robert Q. Bradley  
Managing Director

Date: 10/3/2001

**YORK**

Ecosystems Strategies, Inc.  
60 Worrall Avenue  
Poughkeepsie, NY 12603  
Attention: Scott Spitzer

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on 10/03/01. The project was identified as your project "SF01123-20".

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the NELAC acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All the analyses met the method and laboratory standard operating procedure requirements except as indicated under the Notes section of this report, or as indicated by any data flags, the meaning of which is explained in the attachment to this report, if applicable.

The results of the analyses, which are all reported on an as-received basis unless otherwise noted, are summarized in the following table(s).

### Analysis Results

Client Sample ID			HB-4 4.5-6.5'		HB-3 4-6'	
York Sample ID			01100001-07		01100001-08	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
Volatiles-8021+MTBE soil	SW846-8260	ug/Kg	---	---	---	---
1,1,1,2-Tetrachloroethane			Not detected	10	Not detected	5.0
1,1,1-Trichloroethane			Not detected	10	Not detected	5.0
1,1,2,2-Tetrachloroethane			Not detected	10	Not detected	5.0
1,1,2-Trichloroethane			Not detected	10	Not detected	5.0
1,1-Dichloroethane			Not detected	10	Not detected	5.0
1,1-Dichloroethylene			Not detected	10	Not detected	5.0
1,1-Dichloropropylene			Not detected	10	Not detected	5.0
1,2,3-Trichlorobenzene			Not detected	10	Not detected	5.0
1,2,3-Trichloropropane			Not detected	10	Not detected	5.0
1,2,4-Trichlorobenzene			Not detected	10	Not detected	5.0
1,2,4-Trimethylbenzene			58	10	Not detected	5.0
1,2-Dibromo-3-chloropropane			Not detected	10	Not detected	5.0
1,2-Dibromoethane			Not detected	10	Not detected	5.0
1,2-Dichlorobenzene			Not detected	10	Not detected	5.0
1,2-Dichloroethane			Not detected	10	Not detected	5.0
1,2-Dichloroethylene (Total)			Not detected	10	Not detected	5.0

**YORK**



Client Sample ID			HB-4 4.5-6.5'		HB-3 4-6'	
* York Sample ID			01100001-07		01100001-08	
Matrix			SOIL		SOIL	
Parameter	Method	Units	Results	MDL	Results	MDL
1,2-Dichloropropane			Not detected	10	Not detected	5.0
1,3,5-Trimethylbenzene			19	10	Not detected	5.0
1,3-Dichlorobenzene			Not detected	10	Not detected	5.0
1,3-Dichloropropane			Not detected	10	Not detected	5.0
1,4-Dichlorobenzene			Not detected	10	Not detected	5.0
2,2-Dichloropropane			Not detected	10	Not detected	5.0
2-Chlorotoluene			Not detected	10	Not detected	5.0
4-Chlorotoluene			Not detected	10	Not detected	5.0
Benzene			Not detected	10	Not detected	5.0
Bromobenzene			Not detected	10	Not detected	5.0
Bromochloromethane			Not detected	10	Not detected	5.0
Bromodichloromethane			Not detected	10	Not detected	5.0
Bromoform			Not detected	10	Not detected	5.0
Bromomethane			Not detected	100	Not detected	50
Carbon tetrachloride			Not detected	10	Not detected	5.0
Chlorobenzene			Not detected	10	Not detected	5.0
Chloroethane			Not detected	10	Not detected	5.0
Chloroform			Not detected	10	Not detected	5.0
Chloromethane			Not detected	100	Not detected	50
cis-1,3-Dichloropropylene			Not detected	10	Not detected	5.0
Dibromochloromethane			Not detected	10	Not detected	5.0
Dibromomethane			Not detected	10	Not detected	5.0
Dichlorodifluoromethane			Not detected	10	Not detected	5.0
Ethylbenzene			Not detected	10	Not detected	5.0
Hexachlorobutadiene			Not detected	10	Not detected	5.0
Isopropylbenzene			Not detected	10	Not detected	5.0
Methyl tert-butyl ether (MTBE)			Not detected	10	Not detected	5.0
Methylene chloride			Not detected	10	Not detected	5.0
Naphthalene			14	10	Not detected	5.0
n-Butylbenzene			Not detected	10	Not detected	5.0
n-Propylbenzene			Not detected	10	Not detected	5.0
o-Xylene			18	10	Not detected	5.0
p- & m-Xylenes			38	10	Not detected	5.0
p-Isopropyltoluene			Not detected	10	Not detected	5.0
sec-Butylbenzene			Not detected	10	Not detected	5.0
Styrene			Not detected	10	Not detected	5.0
tert-Butylbenzene			Not detected	10	Not detected	5.0
Tetrachloroethylene			420	10	Not detected	5.0
Toluene			13	10	Not detected	5.0
trans-1,3-Dichloropropylene			Not detected	10	Not detected	5.0
Trichloroethylene			26	10	Not detected	5.0
Trichlorofluoromethane			Not detected	10	Not detected	5.0
Vinyl chloride			Not detected	100	Not detected	50

ts Key:

For Waters/Liquids: mg/L = ppm ; ug/L = ppb

For Soils/Solids: mg/kg = ppm ; ug/kg = ppb

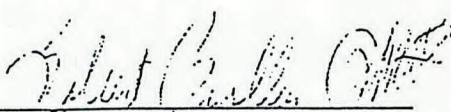
**YORK**

Report Date: 10/5/2001  
Client Project ID: SF01123-20  
York Project No.: 01100001 Addendum

s for York Project No. 01100001 A

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roved By:



Robert Q. Bradley  
Managing Director

Date: 10/5/2001

**YORK**