



NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES CORP.

1476 ROUTE 50 - P.O. Box 2167 BALLSTON SPA, NY 12020
Phone: (518) 884-8545 - Fax: (518) 884-9710

April 5, 2019

NYS Department of Environmental Conservation
Division of Environmental Remediation, Region 4
Attn.: Mr. Drew Hoffert Engineer Trainee
1130 N. Westcott Rd.
Schenectady, NY 12306-2014

EMAIL: drew.hoffert@dec.ny.gov

RE: NYSDEC SPILL NO. 01-04315 HAVILL AUTO BODY CENTER ALBANY COUNTY

Dear Drew,

This letter summarizes the supplemental site investigation (SI) work completed at the Havill's Automotive Collision Repair facility (hereinafter termed the Property) in response to regulatory directives issued by the NYS Department of Environmental Conservation (Department) on November 6, 2018 and March 28, 2019 for Spill No. 01-04315. The SI work has been completed in accordance with methods approved by the Department as outlined in Northeastern Environmental Technologies Corp. (NETC) work plan dated March 19, 2019 (Revised March 29, 2019). A more detailed accounting of the services proposed are listed below for your review and consideration.

COMPLETED SERVICES

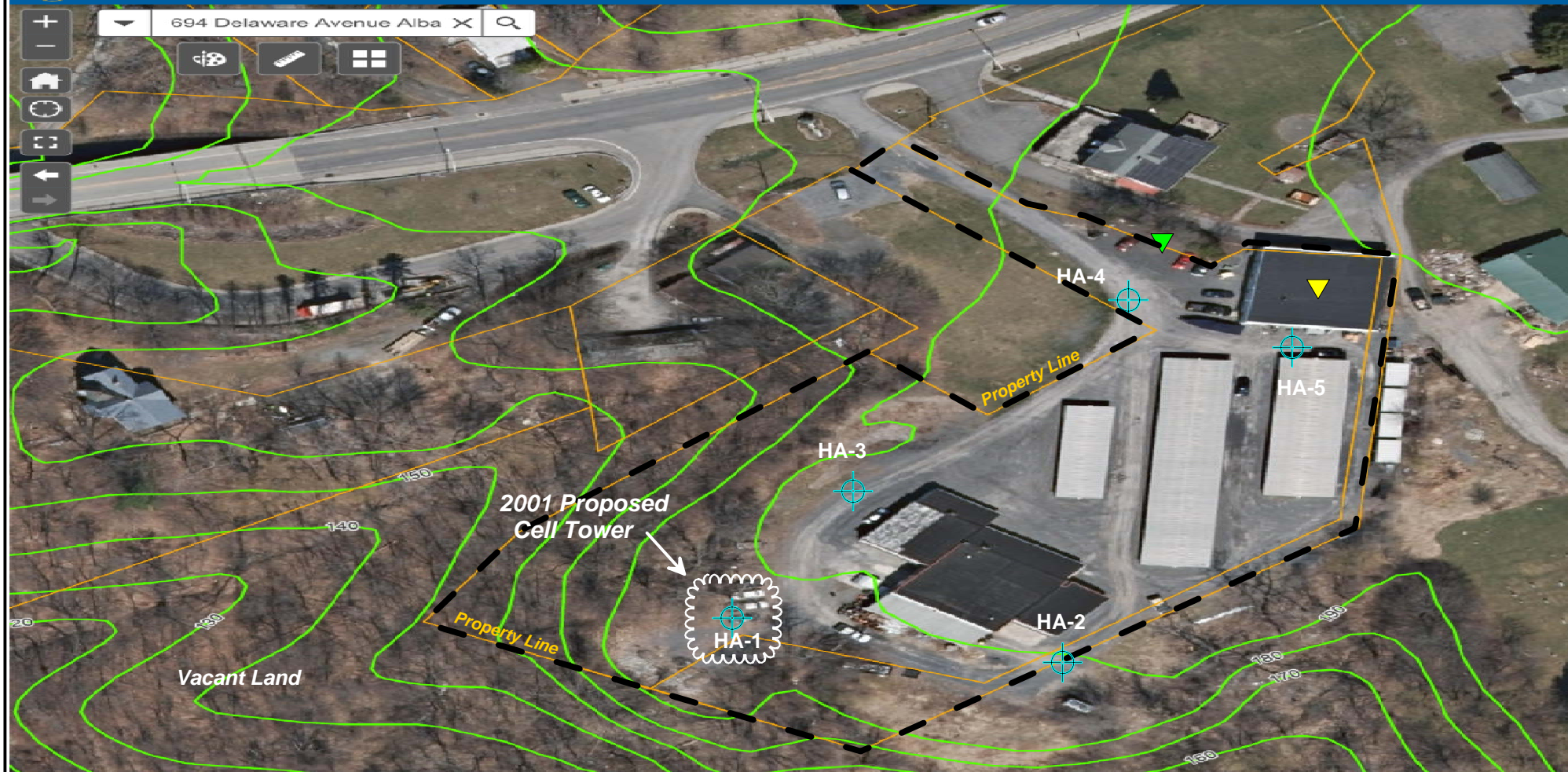
SOIL BORING PROGRAM

On March 27 and 28, 2008 NETC completed a total of (5) soil borings at the Property (see **Figure 1**). The soil borings were advanced to a depth ranging from ± 20.0 to 30.0 feet below grade. Each soil boring was completed with a 1.0" Schedule 40 PVC monitoring well. Each soil boring was completed in a manner to provide a geological log of the subsurface conditions and provide data on the site's soil and groundwater condition. All soil samples collected were examined and described using the Burmister and Unified Soil Classification Systems. Copies of the individual soil boring logs and monitoring well completion diagrams are included as **Attachments A** and **B**, respectively.




Field headspace soil gas screening was performed on each soil sample collected at the Property. A properly calibrated photo ionization detector (PID - Rae Model 3000) was used for the field screening work. Soil gas headspace measurements were recorded on a ± 2.5 - 5.0 ft. interval. The field soil gas screening work was used to document VOC concentrations in each sample, as well as a means to short list samples for laboratory analysis. One soil sample from each soil boring was prepared for laboratory analysis. Each of the soil samples were shipped to Phoenix Environmental Laboratories (PEL) on March 29, 2019; soil sample HA-1/S-5A was submitted for the volatile target compound list (TCL) chemical analysis via EPA Method 8260.

SOIL VAPOR INTRUSION SAMPLING PROGRAM

On March 27, 2019 sub-slab vapor and indoor air samples were collected simultaneously from the automotive repair garage and an outdoor air (OA) was collected from the northeast corner of the Property. The sub-slab vapor sample was obtained from a stainless steel [vapor pin] implant installed in the floor of the structure. All samples were collected using a negatively pressurized 6L "Summa" canister equipped with a 24 hour sample regulator. The outdoor air sample was collected at an upwind location (free of obstructions) adjacent



LEGEND

- HA-1  Soil Boring / Monitoring Well
-  Sub Slab & Indoor Air TO-15 Sample
-  Outdoor Air TO-15 Sample

NOTES: All site features are approximate.
This site plan is intended for illustration purpose
associated with a proposed site investigation work plan
to be performed on behalf of Havill's Automotive Collision Repair, exclusively.



**NORTHEASTERN
ENVIRONMENTAL
TECHNOLOGIES CORP.**

1476 Route 50, P.O. Box 2167, Ballston Spa, NY 12020
Phone: (518) 884-8545 Fax: (518) 884-9710 e-mail: jeffnetc@nycap.rr.com

Site Investigation Areas - Spill No. 01-04315

PROJECT: Havill's Automotive Collision Repair
694 Delaware Ave.
Albany, New York

Project # 19.0102014

Scale: Not to Scale

Date: 04/05/19

NYS Department of Environmental Conservation
Division of Environmental Remediation, Region 4
Attn.: Mr. Drew Hoffert Engineer Trainee
April 5, 2019
Page 3 of 3

to the structure. The indoor and outdoor air samples were obtained from a 3 foot elevated platform. Each of the Summa canisters samples were shipped to PEL on March 29, 2019.

GROUNDWATER SAMPLING PROGRAM

Groundwater samples were collected from each monitoring well on April 2, 2019 using low flow sampling techniques. Prior to sampling groundwater levels were recorded; a Nephelometric Turbidity Units (NTU) values as well as similar physiochemical observations (i.e., non-aqueous components of well water, floaters," surface sheens) were documented during the low flow sampling work. Copies of the field sampling data sheet are included at **Attachment C**. All groundwater samples were shipped to Phoenix Environmental Laboratories (PEL) on April 3, 2019; groundwater sample HA-1 was submitted for the volatile TCL chemical analysis via EPA Method 8260.

FINDINGS

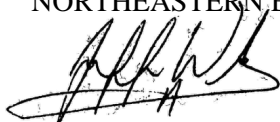
The unconsolidated deposits encountered during the soil boring installation work include in descending order a cultural fill horizon composed of a heterogeneous mixture of sand, gravel, brick and concrete and a low permeable glaciolacustrine varved clay and silt deposit. Groundwater levels recorded in the network of wells on April 2, 2019 ranged from ± 3 - 18 feet below grade.

With the exception of a localized horizon at soil boring location HA-3, no visual or olfactory indications of a chemical release was documented at the (5) soil boring sites; soil gas conditions documented in the field were also indicative of background VOC concentrations (i.e., 0.0-0.5 ppm) in each of the sample. A slight petrochemical odor was documented between 10 - 15 feet below grade at soil boring HA-3; VOC soil gas concentrations of 45 - 98 ppm were also documented in a buried lens of low permeable clay and silt deposits which attenuated to background conditions at ± 17 feet below grade.

The laboratory sample results from the cell tower area of concern demonstrate soil conditions at soil boring HA-1 are unaffected by the VOC chemical parameters inherent to TCL EPA Method 8260. Groundwater sample HA-1 was reported to contain the 1,1,1-Trichloroethane (95 ug/L), 1,1-Dichloroethane (28 ug/L), 1,1-Dichloroethene (12 ug/L), Acetone (9.9 ug/L), Chloroethane (1.9 ug/L) and Methyl t-butyl ether (56 ug/L). Copies of the PEL laboratory reports are included as **Attachment D & E**.

Data developed during this SI appears to demonstrates the presence of localized low concentration VOCs poses a low exposure risk. NETCs position on this matter is based on the current and foreseeable commercial use of the Property, the apparent absence of down gradient sensitive receptors, and the use of municipal water on site and in the surrounding area. Should the Department require other supplemental information from the Property to programmatically close the regulatory notices issued on November 6, 2018 and March 28, 2019, please notify our office on or before April 10, 2019*.

Sincerely,
NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES CORPORATION



Jeffrey T. Wink
President

**Note: Laboratory holding times for soil (i.e., HA-2/S-5, HA-3/S-3A, HA-4/S-3 & HA-5/S-3) and groundwater (i.e., HA-2, HA-3, HA-4 and HA-5) samples collected during the SI expire on April 10 & 16, 2019, respectively.*

ATTACHMENT A

SOIL BORING LOGS

PRESENTATION OF IDENTIFICATIONS

BASED ON THE

BURMISTER SYSTEM

Fully Written Descriptions

Start the description with the color, first letter of first color capitalized (e.g. Brown, Yellow brown, Yellow and brown). The color should be the same as field description, since with oxidation the color sometimes changes between the time the sample is recovered and when it is viewed in the laboratory.

Determine the primary component (e.g. sand, gravel, or silt) and whether the component represents 50% (by weight) or more of the sample.

1. If more than 50% sand, the word sand gets fully capitalized. Preceding the word sand, are the terms coarse, medium and/or fine as follows:

- a. If there are approximately equal amounts of coarse, medium and fine sand, the description reads "coarse to fine SAND". If there is more coarse sand, the description reads "coarse (+) to fine SAND". The same holds true for the fine sand predomination. If medium sand predominates, the description reads "coarse medium (+) to fine SAND". In order for a term coarse, medium or fine to be included in a description, it must represent at least 10% of the sand fraction. For example, if a sample contains 70% sand, the sample must contain at least 7% of coarse sand for the word coarse to be included in the description. The above usage of coarse, medium and fine applies to gravel as well as sand.

Unless advised to the contrary on a specific job, the differentiation between coarse and fine silt shall not be made.

- b. A comma always appears immediately after the word sand. Next comes the adjective giving the approximate percentage of soil by weight passing the #200 sieve as follows:

and: 35-50%

some: 20-35%

little: 10-20%

trace: 1-10%

with a (+) sign indicating the upper third of percentage, a (-) sign indicating the lower third of percentage, and no sign indicating the middle third of percentage. Next comes a description of the soil passing the #200 sieve, based exclusively on plasticity as follows:

<u>PI</u>	<u>Description</u>	<u>Organic</u>
0 - 1%	Silt	(non-plastic)
1 - 5%	Clayey Silt	(Slight P.I.)
5 - 10%	Silt & Clay	(Low P.I.)
10 - 20%	Clay & Silt	(Medium P.I.)
20 - 40%	Silty Clay	(High P.I.)
40% and more	Clay	(Very High P.I.)

If the soil is organic, the term Organic Silt is used instead of the terms listed under "Description" and the terms listed under "Organic" are used at the very end of the full description (in parentheses).

- c. A comma is placed immediately after the term describing the soil passing the #200 sieve (e.g. Silt & Clay). Next the usage of and, some, little or trace (with a (+) or (-) if needed) is used to indicate the percent of gravel, followed by the use of coarse, medium and/or fine to describe the gravel gradation, with the word gravel always using a capital "G".
- d. An illustration of description of a soil having more than 50% sand is as follows:

Brown coarse to fine SAND, little Clayey Silt, some (-) medium to fine (+) Gravel.

2. If the major component is less than 50% of the total sample, the description is written exactly as for Item 1 above (with sand coming first), except that in the word sand, only the S is capitalized rather than the full word.
3. If there is more than 50% gravel, the description once more starts with the color, followed by the applicable terms of coarse, medium and fine, followed by the word GRAVEL in all capitals.
 - a. The adjective giving the percentage of all the soil except gravel is placed after the word gravel, and then a comma (e.g. if there is 62% gravel, a partial description would be "Brown medium to fine (+) GRAVEL and (-),...."). The sand is then described by coarse, medium and/or fine without its own percent adjective (with only the S in sand being capitalized). A comma is placed immediately after the word Sand, after which the soil passing the #200 sieve is indicated with the adjective for percentage as given in Item 1b above.
 - b. An example is: Gray medium to fine (+) GRAVEL and (-), coarse to fine Sand, trace Silt.

4. If there is more than 50% passing the #200 sieve, the description once more starts with the color, followed by the #200 description based exclusively on plasticity as follows:

<u>PI</u>	<u>Description</u>	<u>Organic</u>
0 - 1%	SILT	(non-plastic)
1 - 5%	Clayey SILT	(Slight P.I.)
5 - 10%	SILT & CLAY	(Low P.I.)
10 - 20%	CLAY & SILT	(Medium P.I.)
20 - 40%	Silty CLAY	(High P.I.)
40% or more	CLAY	(Very High P.I.)

If the soil is organic, the term Organic SILT is used instead of the terms listed under "Description", and the terms listed under "Organic" are used at the very end of the full description (in parentheses).

- a. The description is written as discussed in Section 3, with sand preceding gravel.
- b. An example is: Brown Clayey SILT some (+), coarse to fine Sand, trace fine Gravel.
- c. In the foregoing example, if the fines are organic the identification would be:

Brown Organic SILT some (+), coarse to fine Sand, trace fine Gravel (Slight P.I.).

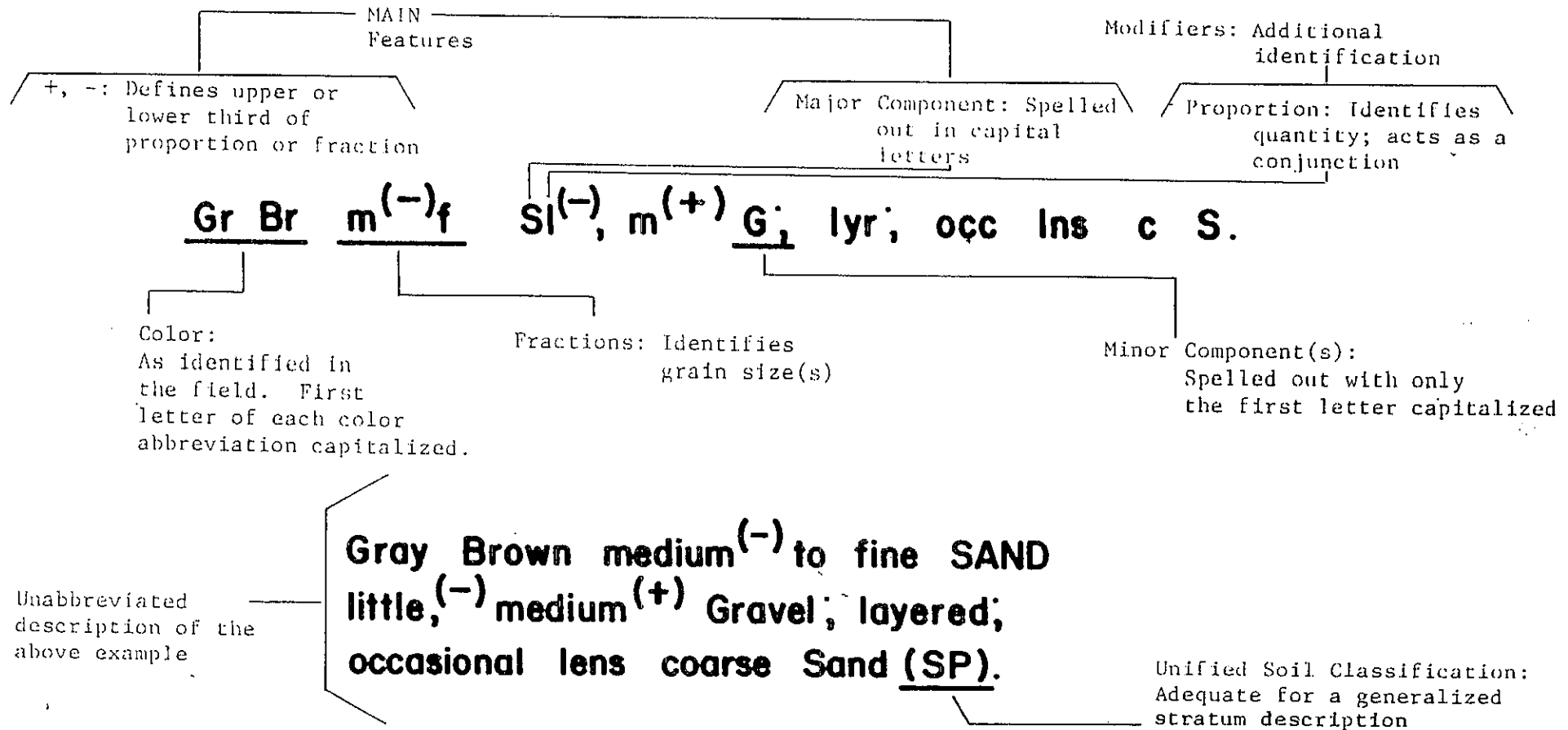
5. If pockets, layers, etc., of other soil are present in the sample, include it at the end of the previously written description with a comma at the end of the previously written description.
6. If closely layered (partings, seams, or layers) soils, such as varved clays, are involved, each layer must be completely identified along with a sketch in the remarks column showing layer thicknesses.
7. Organic soils are identified as Organic Silt (as previously described) or as Peat.
 - a. Characteristics of Organic Silt are:
 - (1) Usually light gray to very dark gray (or black) color
 - (2) Odor caused by decomposition of plant or animal life imparting H_2S , CO_2 and other organic gases
 - (3) Plastic properties, usually very compressible

- (4) May contain shells and fragments of partly decayed vegetable matter

b. Characteristics of Peat are:

- (1) Fibrous aggregate of undecayed or partially decayed vegetable matter, found in swamps
- (2) Frequently contains organic silt
- (3) Usually light brown to black in color
- (4) Distinctive odor, as for organic silt

MODIFIED BURMISTER SYSTEM



VISUAL IDENTIFICATION OF SAMPLES

The samples were identified in accordance with the American Society for Engineering Education System of Definition.

I. Definition of Soil Components and Fractions

Material	Symbol	Fraction	Sieve Size	Definition
Boulders	Bldr	—	9" +	Material retained on 9" sieve.
Cobbles	Cbl	—	3" to 9"	Material passing the 9" sieve and retained on the 3" sieve.
Gravel	G	coarse (c) medium (m) fine (f)	1" to 3" $\frac{3}{8}$ " to 1" No. 10 to $\frac{3}{8}$ "	Material passing the 3" sieve and retained on the No. 10 sieve.
Sand	S	coarse (c) medium (m) fine (f)	No. 30 to No. 10 No. 60 to No. 30 No. 200 to No. 60	Material passing the No. 10 sieve and retained on the No. 200 sieve.
Silt	\$	—	Passing No. 200 (0.074 mm)	Material passing the No. 200 sieve that is non plastic in character and exhibits little or no strength when air dried.

Organic Silt (O\$)

Material passing the No. 200 sieve which exhibits plastic properties within a certain range of moisture content, and exhibits fine granular and organic characteristics.

		Plasticity	Plasticity Index	
Clayey SILT	Cy\$	Slight (SI)	1 to 5	Clay-Soil Material passing the No. 200 sieve which can be made to exhibit plasticity and clay qualities within a certain range of moisture content, and which exhibits considerable strength when air-dried.
SILT & CLAY	\$&C	Low (L)	5 to 10	
CLAY & SILT	C&\$	Medium (M)	10 to 20	
Silty CLAY	\$yC	High (H)	20 to 40	
CLAY	C	Very High (VH)	40 plus	

II. Definition of Component Proportions

Component	Written	Proportions	Symbol	Percentage Range by Weight *
Principal	CAPITALS	—		50 or more
Minor	Lower Case	and some little trace	a. s. l. t.	35 to 50 20 to 35 10 to 20 1 to 10

* Minus sign (—) lower limit, plus sign (+) upper limit, no sign middle range.

III. Glossary of Modifying Abbreviations

Category	Symbol	Term	Symbol	Term	Symbol	Term
A. Borings	U/D	Undisturbed	B	Exploratory	A	Auger
B. Samples	C	Casing	L	Lost	U	Undisturbed
	D	Denison	S	Spoon	W	Wash
	O.E.	Open End				
C. Colors	bk	black	gn	green	wh	white
	bl	blue	or	orange	yw	yellow
	br	brown	rd	red	dk	dark
	gr	gray	tn	tan	lt	light
D. Organic Soils	dec	decayed	o	organic	veg	vegetation
	dec'g	decaying	rts	roots	pt	peat
	lig	lignite	ts	topsoil		
E. Rocks	LS	Limestone	rk	rock	Shst	Schist
	Gns	Gneiss	SS	Sandstone	Sh	Shale
F. Fill and Miscellaneous Materials	bldr (s)	boulder (s)	cbl (s)	cobble(s)	gls	glass
	brk (s)	brick (s)	wd	wood	misc	miscellaneous
	cndr (s)	cinder (s)	dbr	debris	rbl	rubble
G. Miscellaneous Terms	do	ditto	pp	pocket	ref	refusal
	el, El	elevation		penetrometer	sm	small
	fgmt (s)	fragment(s)	P. I.	Plasticity	W. L.	water level
	frqt	frequent		Index	W. H.	weight of hammer
	lrg	large	P	pushed	W. R.	weight of rods
	mtld	mottled		pressed		
	no rec	no recovery	pc (s)	piece (s)		
	pen	penetration	rec or R	recovered		
H. Stratified Soils	alt	alternating				
	thk	thick				
	thn	thin				
	w	with				
	prt	parting				
	seam	seam				
	lyr	layer				
	stra	stratum				
	vvd c	varved Clay				
	pkt	pocket				
	lns	lens				
	occ	occasional				
	freq	frequent				

- 0 to 1/16" thickness
- 1/16 to 1/2" thickness
- 1/2 to 12" thickness
- greater than 12" thickness
- alternating seams or layers of sand, silt and clay
- small, erratic deposit, usually less than 1 foot
- lenticular deposit
- one or less per foot of thickness
- more than one per foot of thickness

Table 3.5 Unified Soil Classification

Field Identification Procedures (Excluding particles larger than 3 in. and basing fractions on estimated weights)				Group Symbols ^a	Typical Names	Information Required for Describing Soils	Laboratory Classification Criteria				
Coarse-grained soils More than half of material is larger than No. 200 sieve size (The No. 200 sieve size is about the smallest particle visible to naked eye)	Gravels More than half of coarse fraction is larger than No. 4 sieve size (For visual classification, the ½ in. size may be used as equivalent to the No. 4 sieve size)	Clean gravels (little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes	GW	Well graded gravels, gravel-sand mixtures, little or no fines	Give typical name; indicate approximate percentages of sand and gravel; maximum size; angularity, surface condition, and hardness of the coarse grains; local or geologic name and other pertinent descriptive information; and symbols in parentheses For undisturbed soils add information on stratification, degree of compactness, cementation, moisture conditions and drainage characteristics Example: <i>Silty sand, gravelly; about 20% hard, angular gravel particles ½-in. maximum size; rounded and subangular sand grains coarse to fine, about 15% non-plastic fines with low dry strength; well compacted and moist in place; alluvial sand; (SM)</i>	$C_u = \frac{D_{60}}{D_{10}} \text{ Greater than 4}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}} \text{ Between 1 and 3}$ Not meeting all gradation requirements for GW Atterberg limits below "A" line, or <i>PI</i> less than 4 Atterberg limits above "A" line, with <i>PI</i> greater than 7				
			Predominantly one size or a range of sizes with some intermediate sizes missing	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines						
			Nonplastic fines (for identification procedures see <i>ML</i> below)	GM	Silty gravels, poorly graded gravel-sand-silt mixtures						
	Sands More than half of coarse fraction is smaller than No. 4 sieve size (For visual classification, the ½ in. size may be used as equivalent to the No. 4 sieve size)	Gravels with fines (appreciable amount of fines)	Plastic fines (for identification procedures, see <i>CL</i> below)	GC	Clayey gravels, poorly graded gravel-sand-clay mixtures						
			Wide range in grain sizes and substantial amounts of all intermediate particle sizes	SW	Well graded sands, gravelly sands, little or no fines						
			Predominantly one size or a range of sizes with some intermediate sizes missing	SP	Poorly graded sands, gravelly sands, little or no fines						
	Sands with fines (appreciable amount of fines)	Clean sands (little or no fines)	Nonplastic fines (for identification procedures, see <i>ML</i> below)	SM	Silty sands, poorly graded sand-silt mixtures	$C_u = \frac{D_{60}}{D_{10}} \text{ Greater than 6}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}} \text{ Between 1 and 3}$ Not meeting all gradation requirements for SW Atterberg limits below "A" line or <i>PI</i> less than 5 Atterberg limits below "A" line with <i>PI</i> greater than 7					
			Plastic fines (for identification procedures, see <i>CL</i> below)	SC	Clayey sands, poorly graded sand-clay mixtures						
			Identification Procedures on Fraction Smaller than No. 40 Sieve Size								
	Fine-grained soils More than half of material is smaller than No. 200 sieve size (The No. 200 sieve size is about the smallest particle visible to naked eye)	Silt and clay liquid limit less than 50	Dry Strength (crushing characteristics)	Dilatancy (reaction to shaking)	Toughness (consistency near plastic limit)		<i>ML</i>	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands with slight plasticity	Give typical name; indicate degree and character of plasticity, amount and maximum size of coarse grains; colour in wet condition, odour if any, local or geologic name, and other pertinent descriptive information, and symbol in parentheses For undisturbed soils add information on structure, stratification, consistency in undisturbed and remoulded states, moisture and drainage conditions Example: <i>Clayey silt, brown; slightly plastic; small percentage of fine sand; numerous vertical root holes; firm and dry in place; loess; (ML)</i>		
None to slight			Quick to slow	None	$C_u = \frac{D_{60}}{D_{10}} \text{ Greater than 4}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}} \text{ Between 1 and 3}$ Not meeting all gradation requirements for GW Atterberg limits below "A" line, or <i>PI</i> less than 4 Atterberg limits above "A" line, with <i>PI</i> greater than 7						
Medium to high			None to very slow	Medium							
Silt and clay liquid limit greater than 50		Dry Strength (crushing characteristics)	Slight to medium	Slow		Slight	<i>CL</i>	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays			
			Slight to medium	Slow to none		Slight to medium				<i>MH</i>	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			High to very high	None		High					
Highly Organic Soils		Dry Strength (crushing characteristics)	Medium to high	None to very slow		Slight to medium	<i>CH</i>	Inorganic clays of high plasticity, fat clays			
			Medium to high	None to very slow	Slight to medium	<i>OH</i>			Organic clays of medium to high plasticity		
			Medium to high	None to very slow	Slight to medium						
Readily identified by colour, odour, spongy feel and frequently by fibrous texture					<i>PI</i>		Peat and other highly organic soils				

Determine percentages of gravel and sand from grain size curve

Depending on percentage of fines (fraction smaller than No. 200 sieve size) coarse grained soils are classified as follows:
GW, GP, SW, SP
Less than 5%
GM, GC, SM, SC
More than 12%
5% to 12%
Borderline cases requiring use of dual symbols

Use grain size curve in identifying the fractions as given under field identification

Comparing soils at equal liquid limit

Toughness and dry strength increase with increasing plasticity index

Plasticity index

Liquid limit

Plasticity chart for laboratory classification of fine grained soils

From Wagner, 1957.

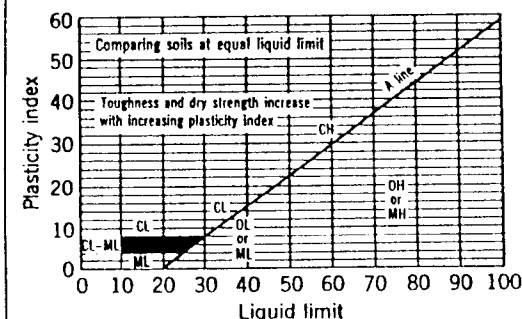
^a Boundary classifications. Soils possessing characteristics of two groups are designated by combinations of group symbols. For example GW-GC, well graded gravel-sand mixture with clay binder.^b All sieve sizes on this chart are U.S. standard.

These procedures are to be performed on the minus No. 40 sieve size particles, approximately ¼ in. For field classification purposes, screening is not intended, simply remove by hand the coarse particles that interfere with the tests.

Dilatancy (Reaction to shaking):
After removing particles larger than No. 40 sieve size, prepare a pat of moist soil with a volume of about one-half cubic inch. Add enough water if necessary to make the soil soft but not sticky.
Place the pat in the open palm of one hand and shake horizontally, striking vigorously against the other hand several times. A positive reaction consists of the appearance of water on the surface of the pat which changes to a livery consistency and becomes glossy. When the sample is squeezed between the fingers, the water and gloss disappear from the surface, the pat stiffens and finally it cracks or crumbles. The rapidity of appearance of water during shaking and of its disappearance during squeezing assist in identifying the character of the fines in a soil.
Very fine clean sands give the quickest and most distinct reaction whereas a plastic clay has no reaction. Inorganic silts, such as a typical rock flour, show a moderately quick reaction.

Dry Strength (Crushing characteristics):
After removing particles larger than No. 40 sieve size, mould a pat of soil to the consistency of putty, adding water if necessary. Allow the pat to dry completely by oven, sun or air drying, and then test its strength by breaking and crumbling between the fingers. This strength is a measure of the character and quantity of the colloidal fraction contained in the soil. The dry strength increases with increasing plasticity.
High dry strength is characteristic for clays of the CH group. A typical inorganic silt possesses only very slight dry strength. Silty fine sands and silts have about the same slight dry strength, but can be distinguished by the feel when powdering the dried specimen. Fine sand feels gritty whereas a typical silt has the smooth feel of flour.

Toughness (Consistency near plastic limit):
After removing particles larger than the No. 40 sieve size, a specimen of soil about one-half inch cube in size, is moulded to the consistency of putty. If too dry, water must be added and if sticky, the specimen should be spread out in a thin layer and allowed to lose some moisture by evaporation. Then the specimen is rolled out by hand on a smooth surface or between the palms into a thread about one-eighth inch in diameter. The thread is then folded and re-rolled repeatedly. During this manipulation the moisture content is gradually reduced and the specimen stiffens, finally loses its plasticity, and crumbles when the plastic limit is reached.
After the thread crumbles, the pieces should be lumped together and a slight kneading action continued until the lump crumbles.
The tougher the thread near the plastic limit and the stiffer the lump when it finally crumbles, the more potent is the colloidal clay fraction in the soil. Weakness of the thread at the plastic limit and quick loss of coherence of the lump below the plastic limit indicate either inorganic clay of low plasticity, or materials such as kaolin-type clays and organic clays which occur below the A-line.

Plasticity chart
for laboratory classification of fine grained soils

Soil Characteristics Pertinent to Roads and Airfields

Soil Characteristics Pertinent to Roads and Airfields													
Major Divisions		Letter (1)	Name	Value as Subgrade When Not Subject to Frost Action	Value as Subbase When Not Subject to Frost Action	Value as Base When Not Subject to Frost Action	Potential Frost Action	Compressibility and Expansion	Drainage Characteristics	Compaction Equipment	Unit Dry Weight lb. per cu. ft.	Typical Design Values	
												CBR (2)	Subgrade Modulus k lb. per cu. in.
COARSE- GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravels or gravel-sand mixtures, little or no fines	Excellent	Excellent	Good	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller, steel-wheeled roller	125-140	40-80	300-500
		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines	Good to excellent	Good	Fair to good	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller, steel-wheeled roller	110-140	30-60	300-500
		GM	Silty gravels, gravel-sand-silt mixtures	Good to excellent	Good	Fair to good	Slight to medium	Very slight	Fair to poor	Rubber-tired roller, sheepsfoot roller; close control of moisture	125-145	40-60	300-500
				Good	Fair	Poor to not suitable	Slight to medium	Slight	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	115-135	20-30	200-500
		OC	Clayey gravels, gravel-sand-clay mixtures	Good	Fair	Poor to not suitable	Slight to medium	Slight	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	130-145	20-40	200-500
	SAND AND SANDY SOILS	SW	Well-graded sands or gravelly sands, little or no fines	Good	Fair to good	Poor	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller	110-130	20-40	200-400
		SP	Poorly graded sands or gravelly sands, little or no fines	Fair to good	Fair	Poor to not suitable	None to very slight	Almost none	Excellent	Crawler-type tractor, rubber-tired roller	105-135	10-40	150-400
		SM	Silty sands, sand-silt mixtures	Fair to good	Fair to good	Poor	Slight to high	Very slight	Fair to poor	Rubber-tired roller, sheepsfoot roller; close control of moisture	120-135	15-40	150-400
				Fair	Poor to fair	Not suitable	Slight to high	Slight to medium	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	100-130	10-20	100-300
		SC	Clayey sands, sand-clay mixtures	Poor to fair	Poor	Not suitable	Slight to high	Slight to medium	Poor to practically impervious	Rubber-tired roller, sheepsfoot roller	100-135	5-20	100-300
FINE- GRAINED SOILS	SILTS AND CLAYS LL IS LESS THAN 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Poor to fair	Not suitable	Not suitable	Medium to very high	Slight to medium	Fair to poor	Rubber-tired roller, sheepsfoot roller; close control of moisture	90-130	15 or less	100-200
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	Poor to fair	Not suitable	Not suitable	Medium to high	Medium	Practically impervious	Rubber-tired roller, sheepsfoot roller	90-130	15 or less	50-150
		OL	Organic silts and organic silt-clays of low plasticity	Poor	Not suitable	Not suitable	Medium to high	Medium to high	Poor	Rubber-tired roller, sheepsfoot roller	90-105	5 or less	50-100
	SILTS AND CLAYS LL IS GREATER THAN 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	Poor	Not suitable	Not suitable	Medium to very high	High	Fair to poor	Sheepsfoot roller, rubber-tired roller	80-105	10 or less	50-100
		CH	Inorganic clays of medium to high plasticity, organic silts	Poor to fair	Not suitable	Not suitable	Medium	High	Practically impervious	Sheepsfoot roller, rubber-tired roller	90-115	15 or less	50-150
		OH	Organic clays of high plasticity, fat clays	Poor to very poor	Not suitable	Not suitable	Medium	High	Practically impervious	Sheepsfoot roller, rubber-tired roller	80-110	5 or less	25-100
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils	Not suitable	Not suitable	Not suitable	Slight	Very high	Fair to poor	Compaction not practical	—	—	—

Note:

(1) Unit Dry Weights are for compacted soil at optimum moisture content for modified AASHTO compaction effort. Division of GM and SM groups into subdivision of d and u are for roads and airfields only. Subdivision is basis of Atterberg limits; suffix d (e.g., GMd) will be used when the liquid limit (LL) is 25 or less and the plasticity index is 6 or less; the suffix u will be used otherwise.

(2) The maximum value that can be used in design of airfields is, in some cases, limited by gradation and plasticity requirements.

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

TEST BORING LOG						Boring No. HA-1
PROJECT: 694 Delaware Avenue, Albany, NY						SHEET NO.: 1 of 2
CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repari, LLC						JOB NO.: 19.0102014
DRILLING CONTRACTOR: Northeastern Environmental Technologies Corporation						M.P. ELEV.: -----
PURPOSE: Subsurface Investigation						GR. ELEV.: -----
DRILLING METHOD: Direct Push			Soil Sample	GW Sample	Sample Method	DATUM: -----
DRILL RIG: Geoprobe 6620DT		TYPE	Macro	-----	Sch 40 PVC	DATE START: 3/27/19
GROUND WATER LEVEL: -----		DIAM.	2.0"	-----	1.0"	DATE FINISH: 3/27/19
MEASURING PT.: -----		Sample	Yes	No	----	DRILLER: M. Wink
DATE: -----		Screen	-----	-----	15.0'	INSPECTOR: R. Gray

Depth (feet)	Sample ID	Peak PID (ppm) bkg=0.0	Unified Soil Class. System	GEOLOGIC DESCRIPTION	REMARKS
1	S-1	0.0		Br c-f S, l mf G, t \$	R= 3.0'
2				Brown coarse to fine SAND, little medium fine Gravel, trace Silt	Dry
3				Br mf S a Cly\$	No Odor
4				Brown medium fine SAND and Clayey Silt	
5					
6	S-2	0.0		Br c-f S, t\$; frqt fgmts conc a brk	R= 2.0'
7				Brown coarse to fine SAND, trace Silt; frequetn fragments concrete and brick	Dry
8					No Odor
9					
10					
11	S-3	0.0		Same as above	R= 2.75
12					Dry
13					No Odor
14					
15					
16	S-4A	0.0		Same as above	R= 4.25'
17					Dry
18	S-4B	0.0		Br Gr vvd Cly	No Odor
19				Brown Gray varved CLAY	Moist / WET
20					

Soil Boring Completed @ 25.0 feet

Shipping Address: 1476 Route 50 Ballston Spa, NY 12020 (518) 884-8545 - Phone
Mailing Address: P.O. Box 2167 Ballston Spa, NY 12020 (518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

TEST BORING LOG				Boring No. HA-1	
PROJECT: 694 Delaware Avenue, Albany, NY				SHEET NO.: 2 of 2	
CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repari, LLC				JOB NO.: 19.0102014	
Depth (feet)	Sample ID	Peak PID (ppm) bkg=0.0	Unified Soil Class. System	GEOLOGIC DESCRIPTION	REMARKS
21	S-5A	0.5		Br Gr vwd C	R= 4.75'
22				<u>Brown Gray varved CLAY</u>	No Odor
23					Moist / WET
24	S-5B	0.0			
25					
26					
27				End of Soil Boring @ 25.0 feet	
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
Soil Boring Completed @ 25.0 feet					

Shipping Address: 1476 Route 50 Ballston Spa, NY 12020 (518) 884-8545 - Phone
Mailing Address: P.O. Box 2167 Ballston Spa, NY 12020 (518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

TEST BORING LOG						Boring No. HA-2	
PROJECT: 694 Delaware Avenue, Albany, NY						SHEET NO.: 1 of 2	
CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repari, LLC						JOB NO.: 19.0102014	
DRILLING CONTRACTOR: Northeastern Environmental Technologies Corporation						M.P. ELEV.: -----	
PURPOSE: Subsurface Investigation						GR. ELEV.: -----	
DRILLING METHOD: Direct Push			Soil Sample	GW Sample	Sample Method	DATUM: -----	
DRILL RIG: Geoprobe 6620DT		TYPE	Macro	-----	Sch 40 PVC	DATE START: 3/27/19	
GROUND WATER LEVEL: -----		DIAM.	2.0"	-----	1.0"	DATE FINISH: 3/27/19	
MEASURING PT.: -----		Sample	Yes	No	----	DRILLER: M. Wink	
DATE: -----		Screen	-----	-----	15.0'	INSPECTOR: R. Gray	
Depth (feet)	Sample ID	Peak PID (ppm) bkg=0.0	Unified Soil Class. System	GEOLOGIC DESCRIPTION		REMARKS	
1	S-1	0.0		Br c-f S, s \$, l f Gr; fgmts brk conc		R= 3.0'	
2				Brown coarse to fine SAND, some Silt, little fine Gravel; fragments brick, concrete		Dry	
3				(± 1.5')			
4				Br mfS a Silt, t f Gr		No Odor	
5				Brown medium fine SAND and Silt, trace fine Gravel			
6	S-2	0.0		Gr +c-f S a f Gr		(± 4.5')	
7				Gray +coarse to fine SAND and fine Gravel		R= 3.5'	
8				Br c-fS, t\$; fgmts coal brk		Dry	
9				Brown coarse to fine SAND, trace Silt, fragments coal and brick		No Odor	
10							
11	S-3	0.0				R= 3.0'	
12				Drk Br c-fS, t\$; fgmts brk conc cinder		Dry	
13				(± 11.5')			
14				Dark Brown coarse to fine SAND, trace Silt; fragments brick, concrete and cinders		No Odor	
15							
16	S-4	0.0		Gr mfS a \$; fgmts wd organics		(± 15.0')	
17				Gray medium fine SAND; fragments wood and organics		R= 2.75"	
18				Gr +c-fS a f Gr		Dry	
19				Gray +coarse to fine SAND and fine Gravel		(± 17.5')	
20				Br vvd C Brown varved CLAY		(± 19.5') Moist / WET	
Soil Boring Completed @ 30.0 feet							

Shipping Address: 1476 Route 50 Ballston Spa, NY 12020 (518) 884-8545 - Phone

Mailing Address: P.O. Box 2167 Ballston Spa, NY 12020 (518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

TEST BORING LOG					Boring No. HA-2
PROJECT: 694 Delaware Avenue, Albany, NY					SHEET NO.: 2 of 2
CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repari, LLC					JOB NO.: 19.0102014
Depth (feet)	Sample ID	Peak PID (ppm) bkg=0.0	Unified Soil Class. System	GEOLOGIC DESCRIPTION	REMARKS
21	S-5	0.0		Br Gr vvd C	R= 4.75'
22				<u>Brown Gray varved CLAY</u>	No Odor
23					Moist / WET
24					
25					
26	S-6	0.0		Gr vvd C <div>(± 26.0')</div> Gray varved CLAY	R= 5.0'
27					No Odor
28					Moist / WET
29					
30					
31				End of Soil Boring @ 30.0 feet	
32					
33					
34					
35					
36					
37					
38					
39					
40					
Soil Boring Completed @ 30 feet					

Shipping Address: 1476 Route 50 Ballston Spa, NY 12020 (518) 884-8545 - Phone
Mailing Address: P.O. Box 2167 Ballston Spa, NY 12020 (518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

TEST BORING LOG						Boring No. HA-3	
PROJECT: 694 Delaware Avenue, Albany, NY						SHEET NO.: 1 of 1	
CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repari, LLC						JOB NO.: 19.0102014	
DRILLING CONTRACTOR: Northeastern Environmental Technologies Corporation						M.P. ELEV.: -----	
PURPOSE: Subsurface Investigation						GR. ELEV.: -----	
DRILLING METHOD: Direct Push			Soil Sample	GW Sample	Sample Method	DATUM: -----	
DRILL RIG: Geoprobe 6620DT		TYPE	Macro	-----	Sch 40 PVC	DATE START: 3/28/19	
GROUND WATER LEVEL: -----		DIAM.	2.0"	-----	1.0"	DATE FINISH: 3/28/19	
MEASURING PT.: -----		Sample	Yes	No	----	DRILLER: M. Wink	
DATE: -----		Screen	-----	-----	15.0'	INSPECTOR: R. Gray	
Depth (feet)	Sample ID	Peak PID (ppm) bkg=0.0	Unified Soil Class. System	GEOLOGIC DESCRIPTION		REMARKS	
1	S-1	0.0		Gr c-fS a mf Gr, l \$		R= 5.0'	
2				Gray coarse to fine SAND, and medium fine Gravel, trace Silt		Dry	
3				(± 2.0')			
4				Br vvd C		No Odor	
5				Brown varved CLAY			
6	S-2	49.5		Same as above		R= 5.0'	
7						No Odor	
8						Moist / WET	
9							
10							
11	S-3A	98		Same as above		R= 5.0	
12						Slight Odor	
13						Moist / WET	
14	S-3B	82					
15							
16	S-4A	3.2		Same as above		R= 5.0'	
17						No Odor	
18						Moist / WET	
19	S-4B	0.0		Gr vvd C		(± 17.5')	
20						Gray varved CLAY	
Soil Boring Completed @ 20.0 feet							

Shipping Address: 1476 Route 50 Ballston Spa, NY 12020 (518) 884-8545 - Phone

Mailing Address: P.O. Box 2167 Ballston Spa, NY 12020 (518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

TEST BORING LOG						Boring No. HA-4	
PROJECT: 694 Delaware Avenue, Albany, NY						SHEET NO.: 1 of 1	
CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repari, LLC						JOB NO.: 19.0102014	
DRILLING CONTRACTOR: Northeastern Environmental Technologies Corporation						M.P. ELEV.: -----	
PURPOSE: Subsurface Investigation						GR. ELEV.: -----	
DRILLING METHOD: Direct Push			Soil Sample	GW Sample	Sample Method	DATUM: -----	
DRILL RIG: Geoprobe 6620DT		TYPE	Macro	-----	Sch 40 PVC	DATE START: 3/28/19	
GROUND WATER LEVEL: -----		DIAM.	2.0"	-----	1.0"	DATE FINISH: 3/28/19	
MEASURING PT.: -----		Sample	Yes	No	----	DRILLER: M. Wink	
DATE: -----		Screen	-----	-----	15.0'	INSPECTOR: R. Gray	
Depth (feet)	Sample ID	Peak PID (ppm) bkg=0.0	Unified Soil Class. System	GEOLOGIC DESCRIPTION		REMARKS	
1	S-1	0.0		BrmfS, s Cly\$		R= 3.5'	
2				Brown medium fine SAND. some Clayey Silt		Dry	
3				(± 2.0')			
4				Br vvd C		No Odor	
5				Brown varved CLAY			
6	S-2	0.0		Same as above		R= 5.0'	
7						No Odor	
8						Dry	
9							
10						Moist	
11	S-3	0.0		Same as above		R= 5.0	
12						No Odor	
13						Moist / WET	
14							
15							
16	S-4	0.0		Same as above		R= 5.0'	
17						No Odor	
18						Moist / WET	
19						(± 17.5')	
20						Gr vvd C	
				Gray varved CLAY			
Soil Boring Completed @ 20.0 feet							

Shipping Address: 1476 Route 50 Ballston Spa, NY 12020 (518) 884-8545 - Phone

Mailing Address: P.O. Box 2167 Ballston Spa, NY 12020 (518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

TEST BORING LOG						Boring No. HA-5	
PROJECT: 694 Delaware Avenue, Albany, NY						SHEET NO.: 1 of 1	
CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repari, LLC						JOB NO.: 19.0102014	
DRILLING CONTRACTOR: Northeastern Environmental Technologies Corporation						M.P. ELEV.: -----	
PURPOSE: Subsurface Investigation						GR. ELEV.: -----	
DRILLING METHOD: Direct Push			Soil Sample	GW Sample	Sample Method	DATUM: -----	
DRILL RIG: Geoprobe 6620DT		TYPE	Macro	-----	Sch 40 PVC	DATE START: 3/28/19	
GROUND WATER LEVEL: -----		DIAM.	2.0"	-----	1.0"	DATE FINISH: 3/28/19	
MEASURING PT.: -----		Sample	Yes	No	----	DRILLER: M. Wink	
DATE: -----		Screen	-----	-----	10.0'	INSPECTOR: R. Gray	
Depth (feet)	Sample ID	Peak PID (ppm) bkg=0.0	Unified Soil Class. System	GEOLOGIC DESCRIPTION		REMARKS	
1	S-1	0.0		Gr c-fS, s mf Gr; fgmts brk		R= 3.8'	
2				Gray coarse to fine SAND. some medium fine Gravel; fragments brick		Dry	
3				Br vvd C		No Odor	
4				Brown varved CLAY			
5							
6	S-2A	0.0		Same as above		R= 5.0'	
7						No Odor	
8						Dry	
9	S-2B	0.0					
10							
11	S-3	0.0		Same as above		R= 5.0	
12						No Odor	
13						Moist / WET	
14							
15							
16	S-4	0.0		Gr vvd C		R= 5.0'	
17				Gray varved CLAY		No Odor	
18						Moist / WET	
19							
20							
Soil Boring Completed @ 20.0 feet							

Shipping Address: 1476 Route 50 Ballston Spa, NY 12020 (518) 884-8545 - Phone
Mailing Address: P.O. Box 2167 Ballston Spa, NY 12020 (518) 884-9710 - Fax

ATTACHMENT B

WELL COMPLETION LOGS

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

MONITORING WELL COMPLETION LOG

WELL NO. HA-1

PROJECT: 694 Delaware Avenue, Albany, New York

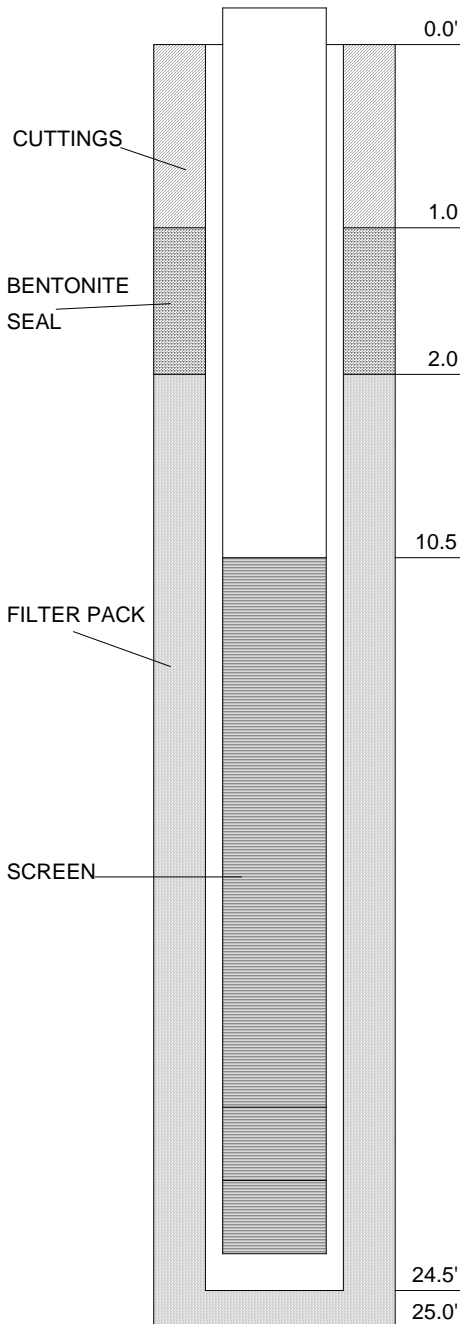
DATE DRILLED: March 27, 2019

CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repair, LLC

DATE DEVELOPED: April 2, 2019

PROJECT NO. 19.0102014

WELL CONSTRUCTION DETAIL



INSPECTOR: Rob Gray

DRILLING CONTRACTOR: Northeastern Environmental Technologies Corp.

TYPE OF WELL: Monitoring Well

STATIC WATER LEVEL: 16.97 ft.

DATE: April 2, 2019

MEASURING POINT: Top of PVC

TOTAL DEPTH OF WELL: 25.0 ft.

TOTAL DEPTH OF BORING: 25.0 ft.

DRILLING METHOD:

TYPE: DPT

DIAMETER: 2.0"

CASING: N/A

SAMPLING METHOD:

TYPE: MACRO

DIAMETER: 2.0"

WEIGHT: N/A

FALL:

INTERVAL: Continuous

RISER PIPE LEFT IN PLACE:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

LENGTH: +/-10.0'

JOINT TYPE: Flush Thread

SCREEN:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

SLOT SIZE: Slot 10 (0.01")

INTERVAL: 10.5' - 24.5'

STRATEGIC UNIT SCREEN: Varved Clay & Fill

FILTER PACK:

TYPE: SAND

GRADE: #1

AMOUNT: 50 lbs

INTERVAL: 2.0' - 24.5'

SEAL (S):

TYPE: Bentonite

INTERVAL: 1.0' - 2.0'

TYPE: Cuttings

INTERVAL: 0.00' - 1.0'

TYPE:

INTERVAL:

NOTES:

No road box installed. PVC Cap

Shipping Address: 1476 Route 50
Mailing Address: P.O. Box 2167

Malta, NY 12020
Malta, NY 12020

(518) 884-8545 - Phone
(518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

MONITORING WELL COMPLETION LOG

WELL NO. HA-2

PROJECT: 694 Delaware Avenue, Albany, New York

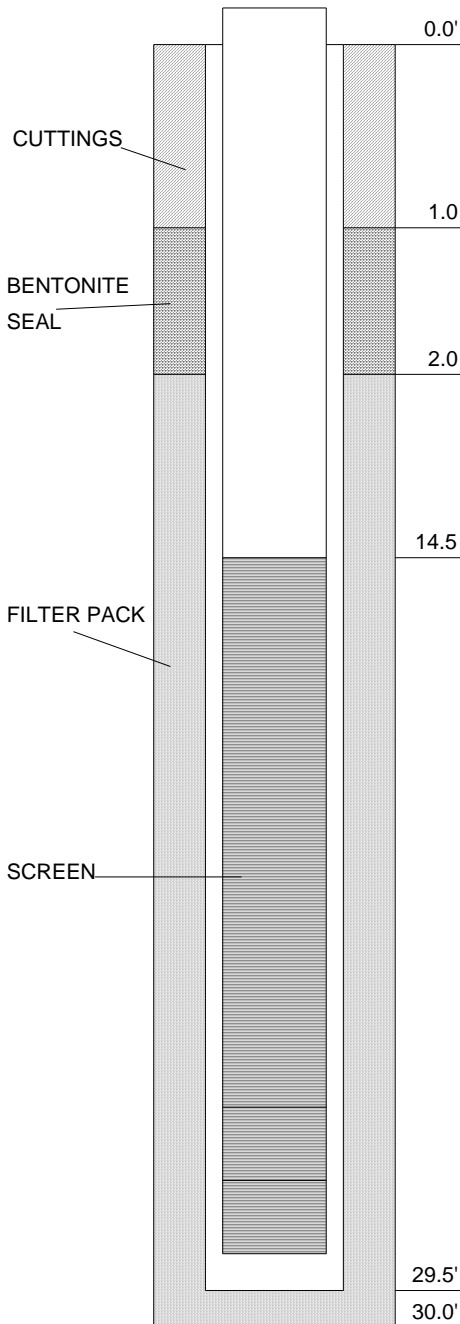
DATE DRILLED: March 27, 2019

CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repair, LLC

DATE DEVELOPED: April 2, 2019

PROJECT NO. 19.0102014

WELL CONSTRUCTION DETAIL



NOT TO SCALE

INSPECTOR: Rob Gray

DRILLING CONTRACTOR: Northeastern Environmental Technologies Corp.

TYPE OF WELL: Monitoring Well

STATIC WATER LEVEL: 18.83 ft.

DATE: April 2, 2019

MEASURING POINT: Top of PVC

TOTAL DEPTH OF WELL: 30.0 ft.

TOTAL DEPTH OF BORING: 30.0 ft.

DRILLING METHOD:

TYPE: DPT

DIAMETER: 2.0"

CASING: N/A

SAMPLING METHOD:

TYPE: MACRO

DIAMETER: 2.0"

WEIGHT: N/A

FALL:

INTERVAL: Continuous

RISER PIPE LEFT IN PLACE:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

LENGTH: +/-15.0'

JOINT TYPE: Flush Thread

SCREEN:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

SLOT SIZE: Slot 10 (0.01")

INTERVAL: 14.5' - 29.5'

STRATEGIC UNIT SCREEN: Varved Clay & Fill

FILTER PACK:

TYPE: SAND

GRADE: #1

AMOUNT: 50 lbs

INTERVAL: 2.0' - 29.5'

SEAL (S):

TYPE: Bentonite

INTERVAL: 1.0' - 2.0'

TYPE: Cuttings

INTERVAL: 0.00' - 1.0'

TYPE:

INTERVAL:

NOTES:

No road box installed. PVC Cap

Shipping Address: 1476 Route 50
Mailing Address: P.O. Box 2167

Malta, NY 12020
Malta, NY 12020

(518) 884-8545 - Phone
(518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

MONITORING WELL COMPLETION LOG

WELL NO. HA-3

PROJECT: 694 Delaware Avenue, Albany, New York

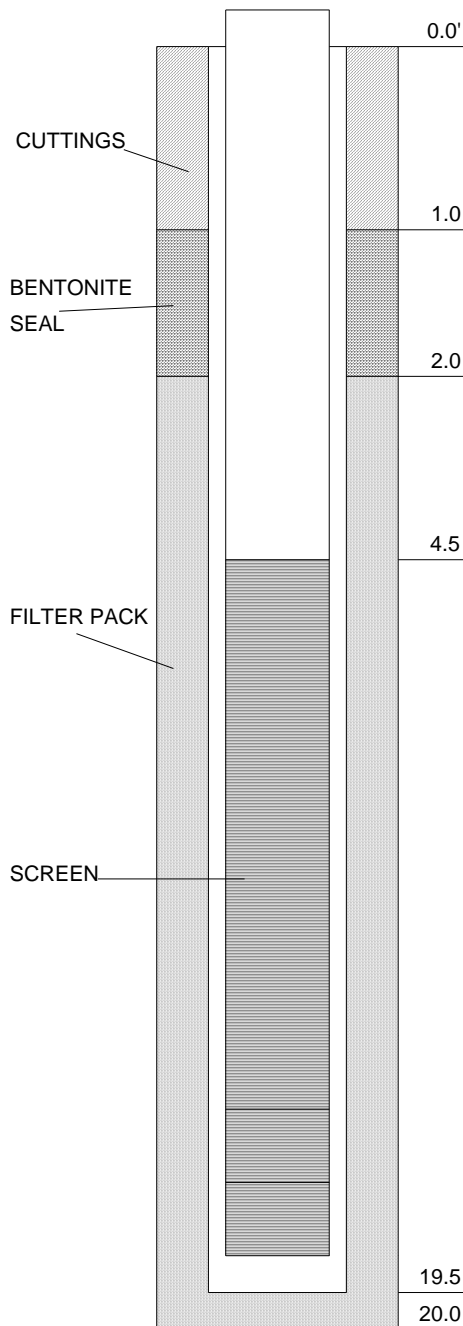
DATE DRILLED: March 28, 2019

CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repair, LLC

DATE DEVELOPED: April 2, 2019

PROJECT NO. 19.0102014

WELL CONSTRUCTION DETAIL



NOT TO SCALE

INSPECTOR: Rob Gray

DRILLING CONTRACTOR: Northeastern Environmental Technologies Corp.

TYPE OF WELL: Monitoring Well

STATIC WATER LEVEL: 9.59 ft.

DATE: April 2, 2019

MEASURING POINT: Top of PVC

TOTAL DEPTH OF WELL: 20.0 ft.

TOTAL DEPTH OF BORING: 20.0 ft.

DRILLING METHOD:

TYPE: DPT

DIAMETER: 2.0"

CASING: N/A

SAMPLING METHOD:

TYPE: MACRO

DIAMETER: 2.0"

WEIGHT: N/A

FALL:

INTERVAL: Continuous

RISER PIPE LEFT IN PLACE:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

LENGTH: +/-5.0'

JOINT TYPE: Flush Thread

SCREEN:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

SLOT SIZE: Slot 10 (0.01")

INTERVAL: 4.5' - 19.5'

STRATEGIC UNIT SCREEN: Varved Clay

FILTER PACK:

TYPE: SAND

GRADE: #1

AMOUNT: 50 lbs

INTERVAL: 2.0' - 19.5'

SEAL (S):

TYPE: Bentonite

INTERVAL: 1.0' - 2.0'

TYPE: Cuttings

INTERVAL: 0.00' - 1.0'

TYPE:

INTERVAL:

NOTES:

No road box installed. PVC Cap

Shipping Address: 1476 Route 50
Mailing Address: P.O. Box 2167

Malta, NY 12020
Malta, NY 12020

(518) 884-8545 - Phone
(518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

MONITORING WELL COMPLETION LOG

WELL NO. HA-4

PROJECT: 694 Delaware Avenue, Albany, New York

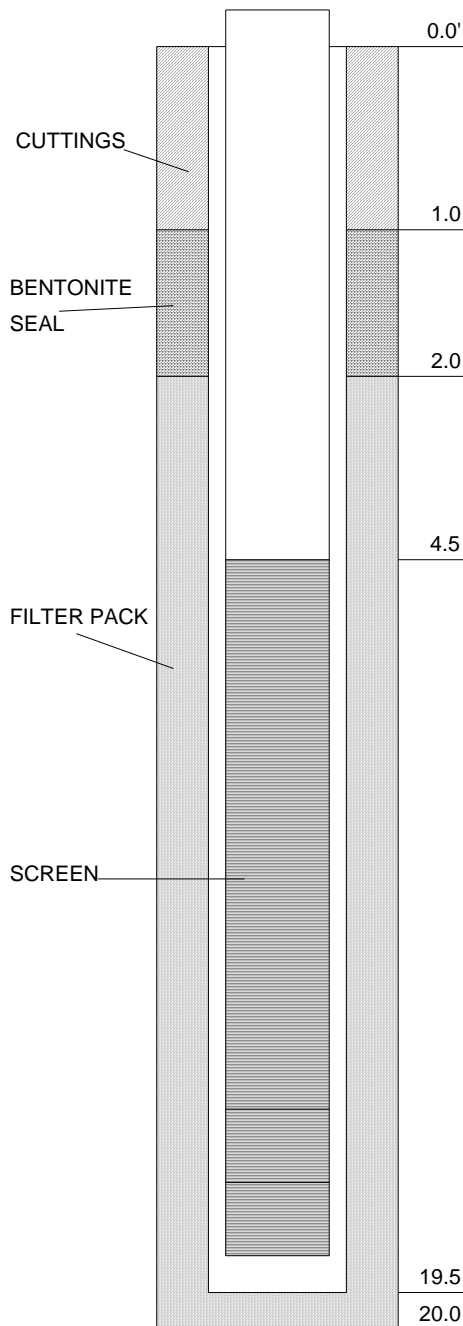
DATE DRILLED: March 28, 2019

CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repair, LLC

DATE DEVELOPED: April 2, 2019

PROJECT NO. 19.0102014

WELL CONSTRUCTION DETAIL



NOT TO SCALE

INSPECTOR: Rob Gray

DRILLING CONTRACTOR: Northeastern Environmental Technologies Corp.

TYPE OF WELL: Monitoring Well

STATIC WATER LEVEL: 8.02 ft.

DATE: April 2, 2019

MEASURING POINT: Top of PVC

TOTAL DEPTH OF WELL: 20.0 ft.

TOTAL DEPTH OF BORING: 20.0 ft.

DRILLING METHOD:

TYPE: DPT

DIAMETER: 2.0"

CASING: N/A

SAMPLING METHOD:

TYPE: MACRO

DIAMETER: 2.0"

WEIGHT: N/A

FALL:

INTERVAL: Continuous

RISER PIPE LEFT IN PLACE:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

LENGTH: +/-5.0'

JOINT TYPE: Flush Thread

SCREEN:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

SLOT SIZE: Slot 10 (0.01")

INTERVAL: 4.5' - 19.5'

STRATEGIC UNIT SCREEN: Varved Clay

FILTER PACK:

TYPE: SAND

GRADE: #1

AMOUNT: 50 lbs

INTERVAL: 2.0' - 19.5'

SEAL (S):

TYPE: Bentonite

INTERVAL: 1.0' - 2.0'

TYPE: Cuttings

INTERVAL: 0.00' - 1.0'

TYPE:

INTERVAL:

NOTES:

No road box installed. PVC Cap

Shipping Address: 1476 Route 50
Mailing Address: P.O. Box 2167

Malta, NY 12020
Malta, NY 12020

(518) 884-8545 - Phone
(518) 884-9710 - Fax

NORTHEASTERN ENVIRONMENTAL TECHNOLOGIES

MONITORING WELL COMPLETION LOG

WELL NO. HA-4

PROJECT: 694 Delaware Avenue, Albany, New York

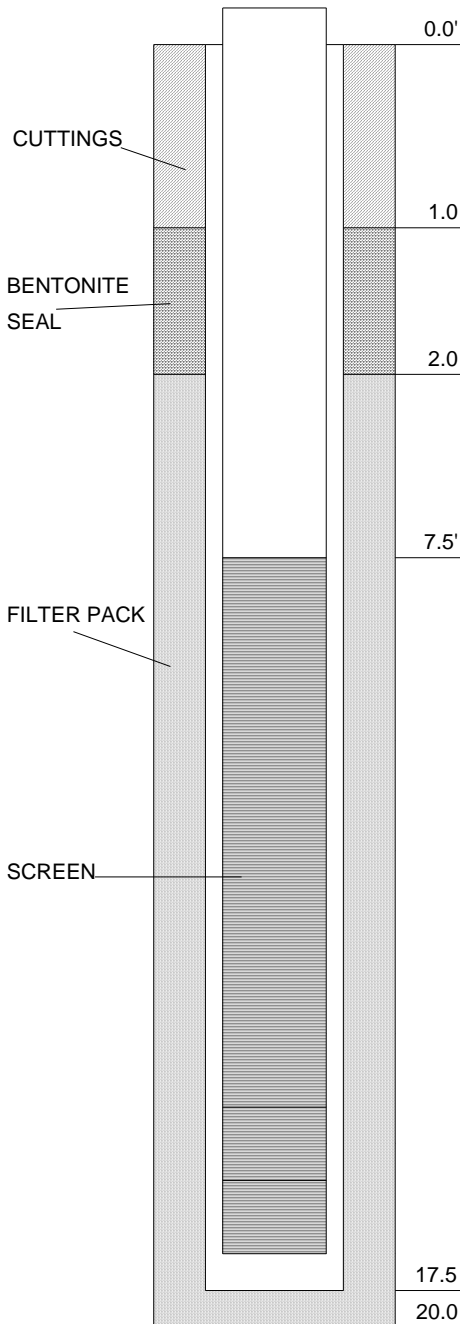
DATE DRILLED: March 28, 2019

CLIENT: Robert Havill & Craig Horn dba Havill's Automotive Collision Repair, LLC

DATE DEVELOPED: April 2, 2019

PROJECT NO. 19.0102014

WELL CONSTRUCTION DETAIL



NOT TO SCALE

INSPECTOR: Rob Gray

DRILLING CONTRACTOR: Northeastern Environmental Technologies Corp.

TYPE OF WELL: Monitoring Well

STATIC WATER LEVEL: 3.35 ft.

DATE: April 2, 2019

MEASURING POINT: Top of PVC

TOTAL DEPTH OF WELL: 18.0 ft.

TOTAL DEPTH OF BORING: 20.0 ft.

DRILLING METHOD:

TYPE: DPT

DIAMETER: 2.0"

CASING: N/A

SAMPLING METHOD:

TYPE: MACRO

DIAMETER: 2.0"

WEIGHT: N/A

FALL:

INTERVAL: Continuous

RISER PIPE LEFT IN PLACE:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

LENGTH: +/- 8.0'

JOINT TYPE: Flush Thread

SCREEN:

MATERIAL: Sch40PVC

DIAMETER: 1.0"

SLOT SIZE: Slot 10 (0.01")

INTERVAL: 7.5' - 17.5'

STRATEGIC UNIT SCREEN: Varved Clay

FILTER PACK:

TYPE: SAND

GRADE: #1

AMOUNT: 50 lbs

INTERVAL: 2.0' - 17.5'

SEAL (S):

TYPE: Bentonite

INTERVAL: 1.0' - 2.0'

TYPE: Cuttings

INTERVAL: 0.00' - 1.0'

TYPE:

INTERVAL:

NOTES:

No road box installed. PVC Cap

Shipping Address: 1476 Route 50
Mailing Address: P.O. Box 2167

Malta, NY 12020
Malta, NY 12020

(518) 884-8545 - Phone
(518) 884-9710 - Fax

ATTACHMENT C

FIELD SAMPLING DATA SHEETS

Comments:



WATER LEVEL MEASUREMENTS

Sheet 2 of 6

PROJECT: 694 Dekuwar Ave

SAMPLER: R. Gray

CLIENT: Hawaii & Horn

DATE: 4/2/19

WEATHER / TEMP: Sunny

TIME OF ARRIVAL: 8:40 am

MEASURING DEVICE: Interface probe / YSI

TIME OF DEPARTURE: 4:00 pm

Well Id	Depth to Product	Depth to Water	pH	Volume Bailed	Color/ Odor	Temp. - C	ORP	Conductivity <small>US cm/cm</small>	Turbidity <small>NTU</small>	Dissolved Oxygen <small>MG/L</small>	TDS <small>G/L</small>	Salinity <small>PPT</small>	Spec.Gravity Seawater <small>OT</small>	Recovery Time	Sample Time	Sampling Depth*
HA-1		16.56													9:31	21.0'
		20.96	6.94	1/2 L	Tn/CL	8.2	-65	1063	645	2.34					9:48	21
		21.26	6.61	1 L	Tn/CL	7.2	6.1	1054	376	5.26					9:55	22
		23.05	6.72	1 1/2 L	Tn/CL	7.6	6.9	1035	309	7.84					10:15	24
Sample		24.09	6.73	2 L	Tn/CL	7.8	7.1	1027	233	5.38					10:24	24

* Groundwater samples should be allowed to recover to original elevation prior to sampling

Comments:

Comments:

Comments:

Comments:

ATTACHMENT D

PEL SOIL QUALITY REPORT



Monday, April 01, 2019

Attn: Mr. Rob Gray
NETC
PO Box 2167
Ballston Spa, NY 12020

Project ID: 694 DELAWARE AVENUE, ALBANY NEW YORK
SDG ID: GCC77924
Sample ID#s: CC77924

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



PROJECT NARRATIVE

Client: NETC

Project: 694 DELAWARE AVENUE, ALBANY NEW YORK

Laboratory Project: GCC77924



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823



Project Narrative

April 01, 2019

SDG I.D.: GCC77924

NETC 694 DELAWARE AVENUE, ALBANY NEW YORK

Methodology Summary

Volatile Organic Compounds:

USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods 3rd Ed. Update III, Method 8260C and Environmental Protection Agency, EPA-600/4-79-020, Revised March 1983 (Methods 624) as printed in 40CFR part 136.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823



Project Narrative

April 01, 2019

SDG I.D.: GCC77924

NETC 694 DELAWARE AVENUE, ALBANY NEW YORK

Laboratory Chronicle

The samples in this delivery group were received at 1.3°C.

Sample	Analysis	Collection Date	Prep Date	Analysis Date	Analyst	Hold Time Met
CC77924	1,4-dioxane	03/27/19	03/29/19	03/29/19	JLI	Y
CC77924	Percent Solid	03/27/19	03/29/19	03/29/19	DA	Y
CC77924	Volatiles (TCL)	03/27/19	03/29/19	03/29/19	JLI	Y
CC77925	On Hold	03/27/19	03/29/19	03/29/19		Y
CC77926	On Hold	03/27/19	03/29/19	03/29/19		Y
CC77927	On Hold	03/27/19	03/29/19	03/29/19		Y
CC77928	On Hold	03/27/19	03/29/19	03/29/19		Y



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

April 01, 2019

SDG I.D.: GCC77924

Project ID: 694 DELAWARE AVENUE, ALBANY NEW YORK

Client Id	Lab Id	Matrix
HA-1/ S-5A	CC77924	SOIL



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

April 01, 2019

FOR: Attn: Mr. Rob Gray
NETC
PO Box 2167
Ballston Spa, NY 12020

Sample Information

Matrix: SOIL
Location Code: NETC
Rush Request: 24 Hour
P.O.#: 19.0102014

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

03/27/19
03/29/19

Time

11:45
16:24

Laboratory Data

SDG ID: GCC77924
Phoenix ID: CC77924

Project ID: 694 DELAWARE AVENUE, ALBANY NEW YORK
Client ID: HA-1/ S-5A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	79		%		03/29/19	DA	SW846-%Solid

Volatiles (TCL)

1,1,1-Trichloroethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,1-Dichloroethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,1-Dichloroethene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,2-Dibromoethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,2-Dichloroethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,2-Dichloropropane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
2-Hexanone	ND	29	ug/kg	1	03/29/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/kg	1	03/29/19	JLI	SW8260C
Acetone	ND	59	ug/kg	1	03/29/19	JLI	SW8260C
Benzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Bromochloromethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Bromodichloromethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Bromoform	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Bromomethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Carbon Disulfide	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Carbon tetrachloride	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Chlorobenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C

Client ID: HA-1/ S-5A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Chloroform	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Chloromethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Cyclohexane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Dibromochloromethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Dichlorodifluoromethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Ethylbenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Isopropylbenzene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
m&p-Xylene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Methyl ethyl ketone	ND	35	ug/kg	1	03/29/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/kg	1	03/29/19	JLI	SW8260C
Methylacetate	ND	4.7	ug/kg	1	03/29/19	JLI	SW8260C
Methylcyclohexane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Methylene chloride	ND	29	ug/kg	1	03/29/19	JLI	SW8260C
o-Xylene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Styrene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Tetrachloroethene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Toluene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Total Xylenes	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Trichloroethene	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Trichlorofluoromethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
Vinyl chloride	ND	5.9	ug/kg	1	03/29/19	JLI	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	105		%	1	03/29/19	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	03/29/19	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	03/29/19	JLI	70 - 130 %
% Toluene-d8	94		%	1	03/29/19	JLI	70 - 130 %
<u>1,4-dioxane</u>							
1,4-dioxane	ND	88	ug/kg	1	03/29/19	JLI	SW8260C
Non Target Volatile Compounds	Absent			1	04/01/19	JLI	

Client ID: HA-1/ S-5A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

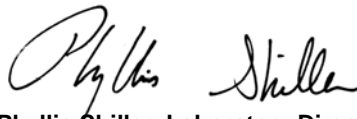
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.

The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

April 01, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

April 01, 2019

QA/QC Data

SDG I.D.: GCC77924

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 472663 (ug/kg), QC Sample No: CC77442 (CC77924)										
Volatiles - Soil										
1,1,1-Trichloroethane	ND	5.0	78	79	1.3	78	79	1.3	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	78	79	1.3	83	83	0.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	74	76	2.7	70	70	0.0	70 - 130	30
1,1-Dichloroethane	ND	5.0	77	77	0.0	81	92	12.7	70 - 130	30
1,1-Dichloroethene	ND	5.0	82	85	3.6	84	85	1.2	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	77	77	0.0	77	81	5.1	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	77	76	1.3	81	83	2.4	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	69	68	1.5	66	69	4.4	70 - 130	30 l,m
1,2-Dibromoethane	ND	5.0	76	77	1.3	70	71	1.4	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	78	78	0.0	86	86	0.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	74	75	1.3	72	73	1.4	70 - 130	30
1,2-Dichloropropane	ND	5.0	80	81	1.2	77	78	1.3	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	78	78	0.0	86	85	1.2	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	77	77	0.0	85	85	0.0	70 - 130	30
1,4-dioxane	ND	100	92	85	7.9	84	88	4.7	70 - 130	30
2-Hexanone	ND	25	79	81	2.5	68	68	0.0	70 - 130	30 m
4-Methyl-2-pentanone	ND	25	81	83	2.4	71	71	0.0	70 - 130	30
Acetone	ND	10	77	80	3.8	72	69	4.3	70 - 130	30 m
Benzene	ND	1.0	79	81	2.5	78	79	1.3	70 - 130	30
Bromochloromethane	ND	5.0	82	81	1.2	77	80	3.8	70 - 130	30
Bromodichloromethane	ND	5.0	73	75	2.7	71	72	1.4	70 - 130	30
Bromoform	ND	5.0	68	69	1.5	60	62	3.3	70 - 130	30 l,m
Bromomethane	ND	5.0	103	103	0.0	111	110	0.9	70 - 130	30
Carbon Disulfide	ND	5.0	97	99	2.0	97	97	0.0	70 - 130	30
Carbon tetrachloride	ND	5.0	71	74	4.1	72	84	15.4	70 - 130	30
Chlorobenzene	ND	5.0	80	81	1.2	76	77	1.3	70 - 130	30
Chloroethane	ND	5.0	96	91	5.3	106	109	2.8	70 - 130	30
Chloroform	ND	5.0	80	80	0.0	79	80	1.3	70 - 130	30
Chloromethane	ND	5.0	106	108	1.9	103	106	2.9	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	81	83	2.4	80	80	0.0	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	73	75	2.7	69	71	2.9	70 - 130	30 m
Cyclohexane	ND	5.0	85	88	3.5	86	86	0.0	70 - 130	30
Dibromochloromethane	ND	3.0	76	76	0.0	70	72	2.8	70 - 130	30
Dichlorodifluoromethane	ND	5.0	130	134	3.0	131	129	1.5	70 - 130	30 l,m
Ethylbenzene	ND	1.0	79	81	2.5	76	76	0.0	70 - 130	30
Isopropylbenzene	ND	1.0	80	82	2.5	88	87	1.1	70 - 130	30
m&p-Xylene	ND	2.0	80	81	1.2	75	77	2.6	70 - 130	30
Methyl ethyl ketone	ND	5.0	89	86	3.4	73	73	0.0	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	78	80	2.5	75	76	1.3	70 - 130	30
Methylacetate	ND	5.0	92	94	2.2	87	87	0.0	70 - 130	30
Methylcyclohexane	ND	5.0	88	92	4.4	86	86	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GCC77924

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Methylene chloride	ND	5.0	68	69	1.5	68	69	1.5	70 - 130	30	I,m
o-Xylene	ND	2.0	79	80	1.3	75	75	0.0	70 - 130	30	
Styrene	ND	5.0	76	77	1.3	71	73	2.8	70 - 130	30	
Tetrachloroethene	ND	5.0	78	80	2.5	74	74	0.0	70 - 130	30	
Toluene	ND	1.0	78	80	2.5	76	77	1.3	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	80	82	2.5	79	80	1.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	69	71	2.9	63	65	3.1	70 - 130	30	I,m
Trichloroethene	ND	5.0	81	83	2.4	79	80	1.3	70 - 130	30	
Trichlorofluoromethane	ND	5.0	98	100	2.0	105	107	1.9	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	95	97	2.1	95	95	0.0	70 - 130	30	
Vinyl chloride	ND	5.0	106	107	0.9	108	107	0.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0	98	98	0.0	70 - 130	30	
% Bromofluorobenzene	95	%	97	98	1.0	97	97	0.0	70 - 130	30	
% Dibromofluoromethane	93	%	96	95	1.0	94	94	0.0	70 - 130	30	
% Toluene-d8	95	%	97	97	0.0	97	97	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of compounds can be outside of acceptance criteria as long as recovery is 40-160%.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

April 01, 2019

Monday, April 01, 2019

Criteria: NY: CP51S

State: NY

Sample Criteria Exceedances Report

GCC77924 - NETC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Project Narrative

April 01, 2019

SDG I.D.: GCC77924

VOA Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

CHEM03 03/29/19-2

Jane Li, Chemist 03/29/19

CC77924

Initial Calibration Evaluation (CHEM03/VT-L032019):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Chloroethane 32% (20%), Methylene chloride 22% (20%)

The following compounds did not meet recommended response factors: Acetone 0.084 (0.1)

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM03/0329L32-VT-L032019):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

99% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: None.

The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 472663 (CC77442)

CC77924

All LCS recoveries were within 70 - 130 with the following exceptions: 1,2-Dibromo-3-chloropropane(69%), Bromoform(68%), Methylene chloride(68%), trans-1,3-Dichloropropene(69%)

All LCSD recoveries were within 70 - 130 with the following exceptions: 1,2-Dibromo-3-chloropropane(68%), Bromoform(69%), Dichlorodifluoromethane(134%), Methylene chloride(69%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Additional 8260 criteria: 10% of compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples in this delivery group were received at 1.3°C.

(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



NY Temperature Narration

April 01, 2019

SDG I.D.: GCC77924

The samples in this delivery group were received at 1.3°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

ATTACHMENT E

PEL GROUNDWATER QUALITY REPORT



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

April 04, 2019

FOR: Attn: Mr. Rob Gray
NETC
PO Box 2167
Ballston Spa, NY 12020

Sample Information

Matrix: GROUND WATER
Location Code: NETC
Rush Request: 24 Hour
P.O.#: 19.0102014

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

04/02/19 10:24
04/03/19 17:00

Time

Laboratory Data

SDG ID: GCC81351
Phoenix ID: CC81351

Project ID: 694 DELAWARE AVE ALBANY NY
Client ID: HA-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles (TCL)</u>							
1,1,1-Trichloroethane	95	5.0	ug/L	5	04/03/19	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
1,1-Dichloroethane	28	1.0	ug/L	1	04/03/19	MH	SW8260C
1,1-Dichloroethene	12	1.0	ug/L	1	04/03/19	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	04/03/19	MH	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	04/03/19	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	04/03/19	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
2-Hexanone	ND	2.5	ug/L	1	04/03/19	MH	SW8260C
4-Methyl-2-pentanone	ND	2.5	ug/L	1	04/03/19	MH	SW8260C
Acetone	9.9	S 2.5	ug/L	1	04/03/19	MH	SW8260C
Benzene	ND	0.70	ug/L	1	04/03/19	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Bromodichloromethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Carbon Disulfide	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Chloroethane	1.9	1.0	ug/L	1	04/03/19	MH	SW8260C

Client ID: HA-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroform	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	04/03/19	MH	SW8260C
Cyclohexane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Dibromochloromethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Methyl ethyl ketone	ND	2.5	ug/L	1	04/03/19	MH	SW8260C
Methyl t-butyl ether (MTBE)	56	5.0	ug/L	5	04/03/19	MH	SW8260C
Methylacetate	ND	5.0	ug/L	1	04/03/19	MH	SW8260C
Methylcyclohexane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Methylene chloride	ND	3.0	ug/L	1	04/03/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Styrene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	04/03/19	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	04/03/19	MH	SW8260C
<u>QA/QC Surrogates</u>							
% 1,2-dichlorobenzene-d4	96		%	1	04/03/19	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	04/03/19	MH	70 - 130 %
% Dibromofluoromethane	102		%	1	04/03/19	MH	70 - 130 %
% Toluene-d8	99		%	1	04/03/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (5x)	95		%	5	04/03/19	MH	70 - 130 %
% Bromofluorobenzene (5x)	101		%	5	04/03/19	MH	70 - 130 %
% Dibromofluoromethane (5x)	110		%	5	04/03/19	MH	70 - 130 %
% Toluene-d8 (5x)	95		%	5	04/03/19	MH	70 - 130 %
<u>1,4-dioxane</u>							
1,4-dioxane	ND	100	ug/l	1	04/03/19	MH	SW8260C
Non Target Volatile Compounds	Absent			1	04/04/19	MH	
Volatile Library Search Top 10	Completed				04/04/19	MH	

Client ID: HA-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL

BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

S - Laboratory solvent, contamination is possible.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

April 04, 2019

Official Report Release To Follow

Sample Criteria Exceedances Report

GCC81351 - NETC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC81351	\$8260_TCLR	1,1-Dichloroethene	NY / TAGM - Volatile Organics / Groundwater Standards	12	1.0	5	5	ug/L
CC81351	\$8260_TCLR	1,1-Dichloroethene	NY / TAGM - Volatile Organics / Groundwater Standards	28	1.0	5	5	ug/L
CC81351	\$8260_TCLR	1,1,1-Trichloroethane	NY / TAGM - Volatile Organics / Groundwater Standards	95	5.0	5	5	ug/L
CC81351	\$8260_TCLR	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC81351	\$8260_TCLR	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CC81351	\$8260_TCLR	1,1-Dichloroethene	NY / TOGS - Water Quality / GA Criteria	12	1.0	5	5	ug/L
CC81351	\$8260_TCLR	1,1-Dichloroethane	NY / TOGS - Water Quality / GA Criteria	28	1.0	5	5	ug/L
CC81351	\$8260_TCLR	1,1,1-Trichloroethane	NY / TOGS - Water Quality / GA Criteria	95	5.0	5	5	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

