ANALYTICAL REPORT

Lab Number:	L1926118
Client:	Greystone Engineering PLLC 9 Bluebird Court Saratoga Springs, NY 12866
ATTN:	Brian Jacot
Phone:	(518) 378-3512
Project Name:	HVP-CASTLETON
Project Number:	19009EGP
Report Date:	06/18/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1926118-01	TP-2 (3-4')	SOIL	1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY	06/17/19 13:15	06/17/19
L1926118-02	TP-3 (6-7')	SOIL	1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY	06/17/19 13:50	06/17/19
L1926118-03	TP-3 (8-9')	SOIL	1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY	06/17/19 14:00	06/17/19
L1926118-04	TP-4 (2-3')	SOIL	1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY	06/17/19 15:20	06/17/19

Project Name:	HVP-CASTLETON	**Lab Number:**	L1926118
Project Number:	19009EGP	**Report Date:**	06/18/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	HVP-CASTLETON	**Lab Number:**	L1926118
Project Number:	19009EGP	**Report Date:**	06/18/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Cripps

Title: Technical Director/Representative Date: 06/18/19

ORGANICS

VOLATILES

Project Name: HVP-CASTLETON **Lab Number:** L1926118

Project Number: 19009EGP **Report Date:** 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03 Date Collected: 06/17/19 14:00

Client ID: TP-3 (8-9') Date Received: 06/17/19

Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 06/18/19 09:05

Analyst: MV

Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	410	190	1
1,1-Dichloroethane	ND		ug/kg	83	12.	1
Chloroform	ND		ug/kg	120	12.	1
Carbon tetrachloride	ND		ug/kg	83	19.	1
1,2-Dichloropropane	ND		ug/kg	83	10.	1
Dibromochloromethane	ND		ug/kg	83	12.	1
1,1,2-Trichloroethane	ND		ug/kg	83	22.	1
Tetrachloroethene	ND		ug/kg	41	16.	1
Chlorobenzene	ND		ug/kg	41	10.	1
Trichlorofluoromethane	ND		ug/kg	330	58.	1
1,2-Dichloroethane	ND		ug/kg	83	21.	1
1,1,1-Trichloroethane	ND		ug/kg	41	14.	1
Bromodichloromethane	ND		ug/kg	41	9.0	1
trans-1,3-Dichloropropene	ND		ug/kg	83	23.	1
cis-1,3-Dichloropropene	ND		ug/kg	41	13.	1
1,3-Dichloropropene, Total	ND		ug/kg	41	13.	1
Bromoform	ND		ug/kg	330	20.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	41	14.	1
Benzene	300		ug/kg	41	14.	1
Toluene	69	J	ug/kg	83	45.	1
Ethylbenzene	92		ug/kg	83	12.	1
Chloromethane	ND		ug/kg	330	77.	1
Bromomethane	ND		ug/kg	160	48.	1
Vinyl chloride	ND		ug/kg	83	28.	1
Chloroethane	ND		ug/kg	160	37.	1
1,1-Dichloroethene	ND		ug/kg	83	20.	1
trans-1,2-Dichloroethene	ND		ug/kg	120	11.	1
Trichloroethene	ND		ug/kg	41	11.	1

Project Name: HVP-CASTLETON **Lab Number:** L1926118

Project Number: 19009EGP **Report Date:** 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03 Date Collected: 06/17/19 14:00

Client ID: TP-3 (8-9') Date Received: 06/17/19

Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	160	12.	1
1,3-Dichlorobenzene	ND		ug/kg	160	12.	1
1,4-Dichlorobenzene	ND		ug/kg	160	14.	1
Methyl tert butyl ether	ND		ug/kg	160	17.	1
p/m-Xylene	220		ug/kg	160	46.	1
o-Xylene	ND		ug/kg	83	24.	1
Xylenes, Total	220		ug/kg	83	24.	1
cis-1,2-Dichloroethene	ND		ug/kg	83	14.	1
1,2-Dichloroethene, Total	ND		ug/kg	83	11.	1
Styrene	ND		ug/kg	83	16.	1
Dichlorodifluoromethane	ND		ug/kg	830	76.	1
Acetone	ND		ug/kg	830	400	1
Carbon disulfide	ND		ug/kg	830	380	1
2-Butanone	ND		ug/kg	830	180	1
4-Methyl-2-pentanone	ND		ug/kg	830	110	1
2-Hexanone	ND		ug/kg	830	98.	1
Bromochloromethane	ND		ug/kg	160	17.	1
1,2-Dibromoethane	ND		ug/kg	83	23.	1
n-Butylbenzene	320		ug/kg	83	14.	1
sec-Butylbenzene	190		ug/kg	83	12.	1
tert-Butylbenzene	ND		ug/kg	160	9.8	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	83.	1
Isopropylbenzene	280		ug/kg	83	9.0	1
p-Isopropyltoluene	21	J	ug/kg	83	9.0	1
Naphthalene	75	J	ug/kg	330	54.	1
n-Propylbenzene	970		ug/kg	83	14.	1
1,2,3-Trichlorobenzene	ND		ug/kg	160	27.	1
1,2,4-Trichlorobenzene	ND		ug/kg	160	22.	1
1,3,5-Trimethylbenzene	ND		ug/kg	160	16.	1
1,2,4-Trimethylbenzene	28	J	ug/kg	160	28.	1
Methyl Acetate	ND		ug/kg	330	79.	1
Cyclohexane	1500		ug/kg	830	45.	1
1,4-Dioxane	ND		ug/kg	6600	2900	1
Freon-113	ND		ug/kg	330	57.	1
Methyl cyclohexane	3200		ug/kg	330	50.	1

Project Name: HVP-CASTLETON **Lab Number:** L1926118

Project Number: 19009EGP **Report Date:** 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03 Date Collected: 06/17/19 14:00

Client ID: TP-3 (8-9') Date Received: 06/17/19

Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	92		70-130

Project Name: HVP-CASTLETON **Lab Number:** L1926118

Project Number: 19009EGP **Report Date:** 06/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/19 07:47
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1249805-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2

Project Name: HVP-CASTLETON
Project Number: 19009EGP
Lab Number: L1926118
Report Date: 06/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/19 07:47
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1249805-5					
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	12	J	ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	42	J	ug/kg	200	32.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/19 07:47
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 03 Batch: WG1249805-5					
Methyl Acetate	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	500	27.
1,4-Dioxane	ND		ug/kg	4000	1800
Freon-113	ND		ug/kg	200	35.
Methyl cyclohexane	ND		ug/kg	200	30.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	116		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	96		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1249805-3 WG1249805-4								
Methylene chloride	90		94		70-130	4		30
1,1-Dichloroethane	98		103		70-130	5		30
Chloroform	99		104		70-130	5		30
Carbon tetrachloride	114		121		70-130	6		30
1,2-Dichloropropane	96		101		70-130	5		30
Dibromochloromethane	98		92		70-130	6		30
1,1,2-Trichloroethane	96		89		70-130	8		30
Tetrachloroethene	111		105		70-130	6		30
Chlorobenzene	100		104		70-130	4		30
Trichlorofluoromethane	119		124		70-139	4		30
1,2-Dichloroethane	96		102		70-130	6		30
1,1,1-Trichloroethane	108		116		70-130	7		30
Bromodichloromethane	98		90		70-130	9		30
trans-1,3-Dichloropropene	99		90		70-130	10		30
cis-1,3-Dichloropropene	102		88		70-130	15		30
Bromoform	99		104		70-130	5		30
1,1,2,2-Tetrachloroethane	93		97		70-130	4		30
Benzene	100		104		70-130	4		30
Toluene	101		97		70-130	4		30
Ethylbenzene	106		110		70-130	4		30
Chloromethane	96		98		52-130	2		30
Bromomethane	110		111		57-147	1		30
Vinyl chloride	116		119		67-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1249805-3 WG1249805-4								
Chloroethane	115		119		50-151	3		30
1,1-Dichloroethene	107		115		65-135	7		30
trans-1,2-Dichloroethene	106		112		70-130	6		30
Trichloroethene	103		109		70-130	6		30
1,2-Dichlorobenzene	100		105		70-130	5		30
1,3-Dichlorobenzene	103		108		70-130	5		30
1,4-Dichlorobenzene	101		106		70-130	5		30
Methyl tert butyl ether	101		107		66-130	6		30
p/m-Xylene	108		120		70-130	11		30
o-Xylene	107		120		70-130	11		30
cis-1,2-Dichloroethene	102		107		70-130	5		30
Styrene	107		120		70-130	11		30
Dichlorodifluoromethane	112		119		30-146	6		30
Acetone	90		98		54-140	9		30
Carbon disulfide	99		103		59-130	4		30
2-Butanone	87		99		70-130	13		30
4-Methyl-2-pentanone	96		87		70-130	10		30
2-Hexanone	96		89		70-130	8		30
Bromochloromethane	101		108		70-130	7		30
1,2-Dibromoethane	98		90		70-130	9		30
n-Butylbenzene	111		116		70-130	4		30
sec-Butylbenzene	109		115		70-130	5		30
tert-Butylbenzene	109		114		70-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 03 Batch: WG1249805-3 WG1249805-4								
1,2-Dibromo-3-chloropropane	100		106		68-130	6		30
Isopropylbenzene	108		112		70-130	4		30
p-Isopropyltoluene	112		118		70-130	5		30
Naphthalene	109		112		70-130	3		30
n-Propylbenzene	105		110		70-130	5		30
1,2,3-Trichlorobenzene	108		112		70-130	4		30
1,2,4-Trichlorobenzene	110		112		70-130	2		30
1,3,5-Trimethylbenzene	105		110		70-130	5		30
1,2,4-Trimethylbenzene	106		112		70-130	6		30
Methyl Acetate	86		92		51-146	7		30
Cyclohexane	107		115		59-142	7		30
1,4-Dioxane	109		95		65-136	14		30
Freon-113	115		122		50-139	6		30
Methyl cyclohexane	112		119		70-130	6		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	99		90		70-130
4-Bromofluorobenzene	99		100		70-130
Dibromofluoromethane	99		101		70-130

SEMIVOLATILES

Project Name: HVP-CASTLETON **Lab Number:** L1926118

Project Number: 19009EGP **Report Date:** 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03
Client ID: TP-3 (8-9')
Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY

Date Collected: 06/17/19 14:00
Date Received: 06/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/18/19 15:59
Analyst: JG
Percent Solids: 72%

Extraction Method: EPA 3546
Extraction Date: 06/18/19 08:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	830		ug/kg	180	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	26.	1
Hexachlorobenzene	ND		ug/kg	140	25.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	31.	1
2-Chloronaphthalene	ND		ug/kg	220	22.	1
1,2-Dichlorobenzene	ND		ug/kg	220	40.	1
1,3-Dichlorobenzene	ND		ug/kg	220	39.	1
1,4-Dichlorobenzene	ND		ug/kg	220	39.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	60.	1
2,4-Dinitrotoluene	ND		ug/kg	220	45.	1
2,6-Dinitrotoluene	ND		ug/kg	220	39.	1
Fluoranthene	13000	E	ug/kg	140	26.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	24.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	34.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	38.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	23.	1
Hexachlorobutadiene	ND		ug/kg	220	33.	1
Hexachlorocyclopentadiene	ND		ug/kg	640	200	1
Hexachloroethane	ND		ug/kg	180	36.	1
Isophorone	ND		ug/kg	200	29.	1
Naphthalene	1800		ug/kg	220	27.	1
Nitrobenzene	ND		ug/kg	200	33.	1
NDPA/DPA	ND		ug/kg	180	26.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	35.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	78.	1
Butyl benzyl phthalate	ND		ug/kg	220	57.	1
Di-n-butylphthalate	ND		ug/kg	220	43.	1
Di-n-octylphthalate	ND		ug/kg	220	77.	1

Project Name: HVP-CASTLETON **Lab Number:** L1926118

Project Number: 19009EGP **Report Date:** 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03 Date Collected: 06/17/19 14:00

Client ID: TP-3 (8-9') Date Received: 06/17/19

Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	220	21.	1
Dimethyl phthalate	ND		ug/kg	220	47.	1
Benzo(a)anthracene	8400		ug/kg	140	25.	1
Benzo(a)pyrene	8400		ug/kg	180	55.	1
Benzo(b)fluoranthene	10000	E	ug/kg	140	38.	1
Benzo(k)fluoranthene	2800		ug/kg	140	36.	1
Chrysene	6800		ug/kg	140	23.	1
Acenaphthylene	730		ug/kg	180	35.	1
Anthracene	2900		ug/kg	140	44.	1
Benzo(ghi)perylene	4900		ug/kg	180	26.	1
Fluorene	1200		ug/kg	220	22.	1
Phenanthrene	9800	E	ug/kg	140	27.	1
Dibenzo(a,h)anthracene	1200		ug/kg	140	26.	1
Indeno(1,2,3-cd)pyrene	4600		ug/kg	180	31.	1
Pyrene	12000	E	ug/kg	140	22.	1
Biphenyl	120	J	ug/kg	510	52.	1
4-Chloroaniline	ND		ug/kg	220	41.	1
2-Nitroaniline	ND		ug/kg	220	44.	1
3-Nitroaniline	ND		ug/kg	220	42.	1
4-Nitroaniline	ND		ug/kg	220	93.	1
Dibenzofuran	660		ug/kg	220	21.	1
2-Methylnaphthalene	880		ug/kg	270	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	24.	1
Acetophenone	ND		ug/kg	220	28.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	43.	1
p-Chloro-m-cresol	ND		ug/kg	220	34.	1
2-Chlorophenol	ND		ug/kg	220	27.	1
2,4-Dichlorophenol	ND		ug/kg	200	36.	1
2,4-Dimethylphenol	ND		ug/kg	220	74.	1
2-Nitrophenol	ND		ug/kg	490	85.	1
4-Nitrophenol	ND		ug/kg	320	92.	1
2,4-Dinitrophenol	ND		ug/kg	1100	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	590	110	1
Pentachlorophenol	ND		ug/kg	180	50.	1
Phenol	ND		ug/kg	220	34.	1
2-Methylphenol	ND		ug/kg	220	35.	1
3-Methylphenol/4-Methylphenol	86	J	ug/kg	320	35.	1

Project Name: HVP-CASTLETON **Lab Number:** L1926118

Project Number: 19009EGP **Report Date:** 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03 Date Collected: 06/17/19 14:00

Client ID: TP-3 (8-9') Date Received: 06/17/19

Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	220	43.	1
Benzoic Acid	ND		ug/kg	730	230	1
Benzyl Alcohol	ND		ug/kg	220	69.	1
Carbazole	1000		ug/kg	220	22.	1
1,4-Dioxane	ND		ug/kg	34	10.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	36		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	84		10-136
4-Terphenyl-d14	62		18-120

Project Name: HVP-CASTLETON
Lab Number: L1926118
Project Number: 19009EGP
Report Date: 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03 D
Client ID: TP-3 (8-9')
Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY

Date Collected: 06/17/19 14:00
Date Received: 06/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/18/19 17:41
Analyst: JG
Percent Solids: 72%

Extraction Method: EPA 3546
Extraction Date: 06/18/19 08:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Fluoranthene	16000		ug/kg	680	130	5
Benzo(b)fluoranthene	11000		ug/kg	680	190	5
Phenanthrene	11000		ug/kg	680	140	5
Pyrene	14000		ug/kg	680	110	5

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/18/19 15:26
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 06/17/19 11:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1249437-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/18/19 15:26
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 06/17/19 11:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1249437-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	25.
2-Chlorophenol	ND		ug/kg	160	20.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/18/19 15:26
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 06/17/19 11:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1249437-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	25	7.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	69		30-120
2,4,6-Tribromophenol	78		10-136
4-Terphenyl-d14	72		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1249437-2 WG1249437-3								
Acenaphthene	74		72		31-137	3		50
1,2,4-Trichlorobenzene	75		72		38-107	4		50
Hexachlorobenzene	77		75		40-140	3		50
Bis(2-chloroethyl)ether	78		74		40-140	5		50
2-Chloronaphthalene	77		75		40-140	3		50
1,2-Dichlorobenzene	72		66		40-140	9		50
1,3-Dichlorobenzene	70		66		40-140	6		50
1,4-Dichlorobenzene	70		66		28-104	6		50
3,3'-Dichlorobenzidine	75		71		40-140	5		50
2,4-Dinitrotoluene	85		85		40-132	0		50
2,6-Dinitrotoluene	92		91		40-140	1		50
Fluoranthene	77		74		40-140	4		50
4-Chlorophenyl phenyl ether	72		72		40-140	0		50
4-Bromophenyl phenyl ether	76		75		40-140	1		50
Bis(2-chloroisopropyl)ether	83		78		40-140	6		50
Bis(2-chloroethoxy)methane	83		79		40-117	5		50
Hexachlorobutadiene	72		69		40-140	4		50
Hexachlorocyclopentadiene	**39**	Q	42		40-140	7		50
Hexachloroethane	70		66		40-140	6		50
Isophorone	82		79		40-140	4		50
Naphthalene	74		71		40-140	4		50
Nitrobenzene	94		90		40-140	4		50
NDPA/DPA	77		76		36-157	1		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1249437-2 WG1249437-3								
n-Nitrosodi-n-propylamine	84		81		32-121	4		50
Bis(2-ethylhexyl)phthalate	89		87		40-140	2		50
Butyl benzyl phthalate	84		81		40-140	4		50
Di-n-butylphthalate	82		78		40-140	5		50
Di-n-octylphthalate	88		86		40-140	2		50
Diethyl phthalate	76		75		40-140	1		50
Dimethyl phthalate	77		77		40-140	0		50
Benzo(a)anthracene	75		72		40-140	4		50
Benzo(a)pyrene	81		79		40-140	3		50
Benzo(b)fluoranthene	79		76		40-140	4		50
Benzo(k)fluoranthene	76		76		40-140	0		50
Chrysene	74		71		40-140	4		50
Acenaphthylene	78		77		40-140	1		50
Anthracene	75		72		40-140	4		50
Benzo(ghi)perylene	73		71		40-140	3		50
Fluorene	74		73		40-140	1		50
Phenanthrene	73		70		40-140	4		50
Dibenzo(a,h)anthracene	74		71		40-140	4		50
Indeno(1,2,3-cd)pyrene	77		74		40-140	4		50
Pyrene	77		73		35-142	5		50
Biphenyl	72		70		54-104	3		50
4-Chloroaniline	74		70		40-140	6		50
2-Nitroaniline	96		97		47-134	1		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1249437-2 WG1249437-3								
3-Nitroaniline	86		84		26-129	2		50
4-Nitroaniline	98		97		41-125	1		50
Dibenzofuran	74		72		40-140	3		50
2-Methylnaphthalene	76		73		40-140	4		50
1,2,4,5-Tetrachlorobenzene	69		67		40-117	3		50
Acetophenone	77		73		14-144	5		50
2,4,6-Trichlorophenol	86		84		30-130	2		50
p-Chloro-m-cresol	89		87		26-103	2		50
2-Chlorophenol	83		80		25-102	4		50
2,4-Dichlorophenol	89		86		30-130	3		50
2,4-Dimethylphenol	88		86		30-130	2		50
2-Nitrophenol	104		105		30-130	1		50
4-Nitrophenol	86		87		11-114	1		50
2,4-Dinitrophenol	43		68		4-130	45		50
4,6-Dinitro-o-cresol	62		84		10-130	30		50
Pentachlorophenol	71		72		17-109	1		50
Phenol	79		76		26-90	4		50
2-Methylphenol	87		83		30-130.	5		50
3-Methylphenol/4-Methylphenol	87		83		30-130	5		50
2,4,5-Trichlorophenol	88		87		30-130	1		50
Benzoic Acid	47		59		10-110	23		50
Benzyl Alcohol	84		82		40-140	2		50
Carbazole	76		74		54-128	3		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: HVP-CASTLETON

Project Number: 19009EGP

Lab Number: L1926118

Report Date: 06/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1249437-2 WG1249437-3								
1,4-Dioxane	57		54		40-140	5		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	87		78		25-120
Phenol-d6	86		79		10-120
Nitrobenzene-d5	106		96		23-120
2-Fluorobiphenyl	78		73		30-120
2,4,6-Tribromophenol	93		87		10-136
4-Terphenyl-d14	80		74		18-120

INORGANICS
&
MISCELLANEOUS

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

SAMPLE RESULTS

Lab ID: L1926118-03
Client ID: TP-3 (8-9')
Sample Location: 1900 RIVER ROAD, CASTLETON-ON-HUDSON, NY

Date Collected: 06/17/19 14:00
Date Received: 06/17/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72.3		%	0.100	NA	1	-	06/18/19 03:27	121,2540G	YA

Lab Duplicate Analysis

Batch Quality Control

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1249699-1 QC Sample: L1926078-11 Client ID: DUP Sample						
Solids, Total	85.9	86.0	%	0		20

Project Name: HVP-CASTLETON
Project Number: 19009EGP

Lab Number: L1926118
Report Date: 06/18/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1926118-01A	Glass 60mL/2oz unpreserved	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-01B	Vial Large Septa unpreserved (4oz)	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-01C	Glass 250ml/8oz unpreserved	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-02A	Glass 60mL/2oz unpreserved	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-02B	Vial Large Septa unpreserved (4oz)	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-02C	Glass 250ml/8oz unpreserved	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-03A	Glass 60mL/2oz unpreserved	A	NA		3.6	Y	Absent		HOLD-METAL(180)
L1926118-03B	Vial Large Septa unpreserved (4oz)	A	NA		3.6	Y	Absent		NYTCL-8260-R2(14)
L1926118-03C	Glass 250ml/8oz unpreserved	A	NA		3.6	Y	Absent		NYTCL-8270(14),TS(7),HOLD-8082()
L1926118-03X	Vial MeOH preserved split	A	NA		3.6	Y	Absent		NYTCL-8260-R2(14)
L1926118-03Y	Vial Water preserved split	A	NA		3.6	Y	Absent	18-JUN-19 03:30	NYTCL-8260-R2(14)
L1926118-03Z	Vial Water preserved split	A	NA		3.6	Y	Absent	18-JUN-19 03:30	NYTCL-8260-R2(14)
L1926118-04A	Glass 60mL/2oz unpreserved	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-04B	Vial Large Septa unpreserved (4oz)	A	NA		3.6	Y	Absent		ARCHIVE()
L1926118-04C	Glass 250ml/8oz unpreserved	A	NA		3.6	Y	Absent		ARCHIVE()

*Values in parentheses indicate holding time in days

Project Name:	HVP-CASTLETON	**Lab Number:**	L1926118
Project Number:	19009EGP	**Report Date:**	06/18/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	HVP-CASTLETON	**Lab Number:**	L1926118
Project Number:	19009EGP	**Report Date:**	06/18/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	HVP-CASTLETON	**Lab Number:**	L1926118
Project Number:	19009EGP	**Report Date:**	06/18/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-9288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 6/18/15

ALPHA Job #: L1926118

Client Information
Client: Greystone Engineering
Address: 9 Bluebird Ct.
Saratoga Springs, NY 12866
Phone: 518-378-3512
Fax:
Email: bjacot@greystone-eng.com

Project Information
Project Name: HVP-Castleton
Project Location: 400 River Rd., Castleton-on-Hudson, NY
Project # 19009 EQP
(Use Project name as Project #)
Project Manager: Scott Bogart
ALPHAQuote #:

Turn-Around Time
Standard
Rush (only if pre approved)
Due Date: 6/18/A COB
# of Days: 24 h

Deliverables
- [x] ASP-A
- [ ] ASP-B
- [ ] EQuIS (1 File)
- [ ] EQuIS (4 File)
- [ ] Other

Billing Information
- [x] Same as Client Info

PO #

Regulatory Requirement
- [ ] NY TOGS
- [ ] NY Part 375
- [ ] AWQ Standards
- [ ] NY CP-51
- [x] NY Restricted Use
- [ ] Other
- [ ] NY Unrestricted Use
- [ ] NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
- [ ] NJ
- [ ] NY
- [ ] Other:

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
- [ ] Done
- [ ] Lab to do

Preservation
- [ ] Lab to do

(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs 8260	SVOCs 8270	PCBs	PP Metals	Sample Specific Comments	Total Bottle
26118-01	TP-2 (3-4')	6/17/19	13:15	Soil	DK	✓	✓	✓	✓	Archive	3
02	TP-3 (6-7')		13:50			✓	✓	✓	✓	Archive	3
03	TP-3 (8-9')		14:00			✓	✓	✓	✓	Hold PCBs+Metals	3
04	TP-4 (2-3')		15:20			✓	✓	✓	✓	Archive	3

Container Type	4 oz G	8 oz G	8 oz G	2 oz G					
Preservative	A	A	A	A					

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	6/17/19 1550		6/17/19 1550
	6/17/19 2245		6/18/15 0815

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)