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# 2017 PERIODIC REVIEW REPORT FORMER SIGNORE, INC. ELLICOTTVILLE, NEW YORK BROWNFIELD CLEANUP PROGRAM Site Number C905034

April 11, 2017 File No. 21.0056367.80



#### **PREPARED FOR:**

Iskalo Ellicottville Holdings, LLC Williamsville, New York

#### **GZA GeoEnvironmental of New York**

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#### **VIA EMAIL**

April 11, 2017 File No. 21.0056367.80

Mr. Jaspal Walia New York State Department of Environmental Conservation Division of Environmental Remediation 270 Michigan Avenue Buffalo, New York 14203

Re: 2017 Periodic Review Report

Former Signore, Inc. Ellicottville, New York

Brownfield Cleanup Program Site (Number C905034)

Dear Mr. Walia:

GZA GeoEnvironmental of New York (GZA) is pleased to submit this Periodic Review Report (PRR) on behalf of Iskalo Ellicottville Holdings, LLC (Iskalo). Iskalo is the owner and operator of the Former Signore, Inc. Brownfield Cleanup Program (BCP) Site (No. 905034; Site) located at 55-57 Jefferson Street in Ellicottville, New York. This is the first PRR to be submitted for the Site for which a Certificate of Completion (COC) was issued by the New York State Department of Environmental Conservation (NYSDEC) on December 11, 2015. GZA prepared this PRR in general conformance with the guidelines provided to Iskalo by the NYSDEC in their reminder notice letter dated January 27, 2017.

If you have any questions or need additional information, please call Jim Richert at (716) 844-7048.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

im Richert

James J. Richert, C.P.G. Senior Project Manager Bart A. Klettke, P.E.

Principal

Cc: David Chiazza (Iskalo Ellicottville Holdings, LLC)
David Szymanski (NYSDEC Region 9)



#### **TABLE OF CONTENTS**

		Page
EXEC	UTIVE SUMMARY	1
1.1	BACKGROUND	1
1.2	EFFECTIVENESS OF THE REMEDIAL PROGRAM	2
1.3	COMPLIANCE	2
1.4	RECOMMENDATIONS	2
SITE (	OVERVIEW	2
2.1	SITE LOCATION AND FEATURES	2
2.2	INVESTIGATION AND REMEDIAL HISTORY	
EVAL	UATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS	3
INSTI	TUTIONAL CONTROL/ENGINEERING CONTROL (IC/EC) PLAN COMPLIANCE REPORT	4
4.1	IC/EC REQUIREMENTS AND COMPLIANCE	4
4.2	IC/EC CERTIFICATION	5
PRR C	CONCLUSIONS AND RECOMMENDATIONS	5
5.1	PRR CONCLUSIONS	5
_		
	1.1 1.2 1.3 1.4 SITE ( 2.1 2.2 EVAL INSTI 4.1 4.2	1.2 EFFECTIVENESS OF THE REMEDIAL PROGRAM  1.3 COMPLIANCE

#### **FIGURES**

FIGURE 1 SITE LOCATION MAP

FIGURE 2 SITE PLAN WITH PHOTO LOCATIONS

#### **APPENDICES**

APPENDIX A PHOTOGRAPH LOG

APPENDIX B SITE MANAGEMENT FORM

APPENDIX C GROUNDWATER MONITORING REPORTS

APPENDIX D IC/EC CERTIFICATION FORM

Page | 1



#### 1.0 EXECUTIVE SUMMARY

#### 1.1 BACKGROUND

The Former Signore, Inc. Site (Site) is located in the village of Ellicottville, Cattaraugus County, New York (Figure 1). The 8.43-acre BCP Site is part of the larger approximate 55-acre former Signore property addressed at 55-57 Jefferson Street. The greater former Signore property is currently listed as a Class 4 site on the NYSDEC's Registry of Inactive Hazardous Waste sites (Site No. 905023), and involves groundwater contaminated with chlorinated volatile organic compounds (cVOCs).

The 8.43-acre BCP Site is currently occupied by a concrete slab (associated with the former 168,000 square foot main building that was demolished in July and August 2012) and three smaller ancillary buildings. Additional Site features include a paved parking area along the eastern and southern side of the concrete slab, and gravel and short vegetative cover surrounding the concrete slab on its northern, southern, and western sides. The Site is bounded by residences and the rest of the former Signore property to the north; residences, the rest of the former Signore property, and wooded vacant land to the south; Jefferson Street, residences, and a cemetery to the east; and the rest of the former Signore property to the west.

Environmental investigations identified localized petroleum-impacted soil and groundwater in historical underground storage tank (UST) areas. Groundwater sampling confirmed the presence of chlorinated volatile organic compounds (cVOCs) at concentrations above groundwater criteria. Two interim remedial measures (IRMs) were completed in 2011 and 2013 to remove several USTs, septic tanks and associated impacted soils.

The remedial action objectives (RAOs) for groundwater targeted compliance with the NYSDEC Class GA criteria, and reducing the potential exposure from inhalation of organic vapors, ingestion, and dermal contact with contaminated groundwater.

In July 2015, GZA implemented an organic carbon electron donor substrate (OCEDS) injection program to enhance and accelerate natural attenuation of cVOCs in the groundwater.

A Certificate of Completion (COC) of the BCP remedy was issued by NYSDEC to Iskalo on December 11, 2015.

#### **Institutional Controls Include:**

- Property use may include restricted residential, restricted commercial, and/or restricted industrial uses;
- Groundwater may not be used without prior treatment and approval of the regulator;
- All future activities that will disturb remaining subsurface contaminated material must be conducted as defined in the SMP (in the Excavation Work Plan);
- Access to the Site must be provided to representatives of the State of New York;

#### **Engineering Controls Include:**

- Evaluation of vapor intrusion on new buildings and/or installation and operation of vapor mitigation systems;
- Groundwater monitoring must be performed and reported as defined in the SMP;



#### 1.2 EFFECTIVENESS OF THE REMEDIAL PROGRAM

Contaminant sources have been removed from the Site. Natural attenuation of cVOCs in the groundwater continues to reduce their concentrations as indicated by data collected during semi-annual groundwater monitoring program. Potential impacts of vapor intrusion will be evaluated for any new on-site buildings and vapor mitigation implemented as necessary. Therefore, the Site remedy continues to be effective at meeting the Site's RAOs.

#### 1.3 COMPLIANCE

GZA observed the Site to be in compliance with the SMP. The Institutional Controls and Engineering Controls (IC/ECs) remain in place and there are no active remedial systems requiring monitoring or operation and maintenance.

#### 1.4 RECOMMENDATIONS

GZA and Iskalo recommend no changes to the SMP or to the frequency of PRR submittals. Implementation of the SMP, including the Excavation Work Plan and maintenance of the Site cover system, will continue as the Site is redeveloped for the planned and approved restricted residential and/or commercial use.

#### 2.0 SITE OVERVIEW

#### 2.1 SITE LOCATION AND FEATURES

The Former Signore, Inc. Site is located in the Village of Ellicottville, Cattaraugus County, New York (Figure 1). The 8.43-acre BCP Site is part of the larger approximate 55-acre former Signore property addressed at 55-57 Jefferson Street. The greater former Signore property is currently listed as a Class 4 site on the NYSDEC's Registry of Inactive Hazardous Waste sites (Site No. 905023), and includes groundwater contaminated with chlorinated volatile organic compounds (cVOCs).

The BCP Site is currently occupied by of the concrete slab foundation associated with the former main building, as well as three smaller ancillary buildings. Areas not occupied by the concrete slab include a paved parking area along the eastern and southern side of the slab, and gravel and short vegetative cover surrounding the slab on its northern, southern, and western sides. The Site is bounded by residences and the rest of the former Signore property to the north; residences, the rest of the former Signore property, and wooded vacant land to the south; Jefferson Street, residences, and a cemetery to the east; and the rest of the former Signore property to the west.

#### 2.2 INVESTIGATION AND REMEDIAL HISTORY

The Site formerly included localized petroleum-impacted soil and groundwater in historical UST areas, which were remediated during two IRMs in 2011 and 2013. Several USTs and septic tanks and associated impacted soils were removed during these IRMs. Groundwater sampling events conducted prior to and following the IRMs indicated the presence of chlorinated volatile organic compounds (cVOCs) at concentrations above groundwater criteria. GZA determined that the cVOC-impacted groundwater at the Site would require remediation to reduce contaminant concentrations prior to the anticipated redevelopment.



The Remedial Action Objectives (RAOs) for the Site included:

#### **Groundwater:**

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.
- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

#### Soil:

- Prevent ingestion/direct contact with contaminated soil; and
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.
- Prevent migration of contaminants that would result in groundwater or surface water contamination;
   and
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

#### Soil Vapor:

• Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

In July 2015, GZA implemented an organic carbon electron donor substrate (OCEDS) injection program to enhance and accelerate natural attenuation of cVOCs.

Remediation of the Site under the BCP followed Track 2 of the program to achieve restricted residential cleanup status. Soils with constituents exceeding the NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for Restricted Residential Use (RRSCOs) were remediated during the IRM activities conducted in 2011 and 2013. Additional remedial actions pertaining to subsurface soils were not required as part of the final remedy. Based on the results of the groundwater sampling conducted following the full-scale OCEDS injection program, the OCEDS injections were successful in reducing total cVOC concentrations, and continued reductions in concentrations by enhanced natural attenuation are anticipated. If the RAOs for groundwater are not met within three years of implementation of the full-scale injections, the need to evaluate additional in-situ remediation will be considered at that time.

#### 3.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

GZA performed a Site Inspection on November 9, 2016, during the reporting period. A log of photographs taken during the inspection is provided in Appendix A, a Site inspection form was completed(Appendix B), and a map showing the locations and orientation of the Site photographs is provided as Figure 2. No evidence of Site activity or excavations were observed during the inspection. The Site groundwater monitoring wells remain present for

Page | 4



continued monitoring use and the Site remains vacant and undeveloped (excepting the remaining concrete slab and three ancillary buildings).

Appendix D provides copies of two semi-annual post-injection groundwater monitoring reports (June 2016 and October 2016) completed since the October 2015 event (report provided to NYSDEC on February 23, 2016). Data collected under semi-annual post-injection groundwater monitoring program confirm that natural attenuation of cVOCs in the groundwater continues. Therefore, the Site remedy continues to be effective at meeting the Site RAOs for protection of potential current and future Site users.

## 4.0 INSTITUTIONAL CONTROL/ENGINEERING CONTROL (IC/EC) PLAN COMPLIANCE REPORT

#### 4.1 IC/EC REQUIREMENTS AND COMPLIANCE

IC/ECs for the Site were determined by NYSDEC and specified in the Decision Document (DD) issued by NYSDEC on July 24, 2015. The IC/ECs were carried forward in the Environmental Easement (EE), issued by NYSDEC on July 28, 2015, and later again included in the Site Management Plan (SMP) (prepared by GZA and approved by NYSDEC on October 6, 2015). Complete lists of the Site IC and ECs are provided in Sections 3.2 and 3.3 of the SMP. Summary lists of the ICs and ECs for the Site are provided as follow:

#### **Summary of Site Institutional Controls:**

- Property use may include restricted residential, restricted commercial, and/or restricted industrial uses;
- Groundwater may not be used without prior treatment and approval of the regulator;
- Access to the Site must be provided to representatives of the State of New York;
- Groundwater monitoring must be performed and reported as defined in the SMP;
- All future activities that will disturb remaining subsurface contaminated material must be conducted as defined in the SMP;
- The potential for vapor intrusion must be evaluated for any buildings developed on the Site and any
  potential impacts identified must be monitored or mitigated.

#### **Summary of Site Engineering Controls:**

- Vapor intrusion will be evaluated on new buildings and mitigation systems. Sub-slab depressurization system(s), if installed, will be operated and monitored with NYSDEC and NYSDOH concurrence.
- Groundwater monitoring to assess natural attenuation will continue, as determined by NYSDEC in consultation with NYSDOH, until residual groundwater concentrations are found consistently below ambient water quality standards or have become asymptotic at an acceptable level over an extended period.

No on-Site activity has occurred since completion of the Site remedy in the summer of 2015.

Based on observations made during the Site inspection and discussions with Iskalo, the Site owner is complying with the IC/ECs. The Site remains undeveloped and inactive. Site groundwater monitoring wells remain in place and functional. No occupied building structures are present on-Site and Site groundwater is not being used.



#### 4.2 IC/EC CERTIFICATION

The Site-specific IC/EC Certification Form, for reporting period of December 11, 2015 to March 12, 2017, was provided to Iskalo as an attachment to the January 27, 2017 Reminder Notice letter sent by NYSDEC. This form has been completed by Iskalo as Site owner and Certified by GZA as Qualified Environmental Professional (QEP). The completed IC/EC Certification Form for this reporting period is provided in Appendix D of this PRR.

#### 5.0 PRR CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 PRR CONCLUSIONS

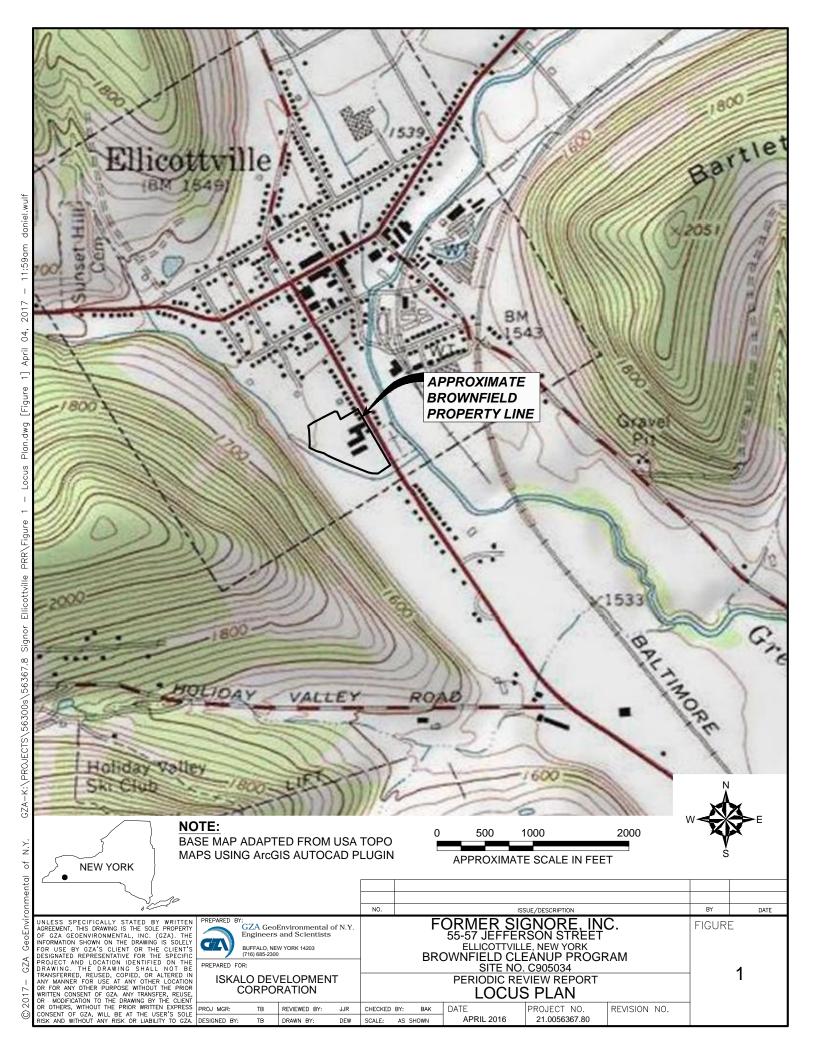
GZA observed the BCP Site to be in compliance with provisions of the SMP. The IC/ECs remain in place and are unchanged since issuance of the COC. There are no active remedial systems requiring operation, monitoring, or maintenance.

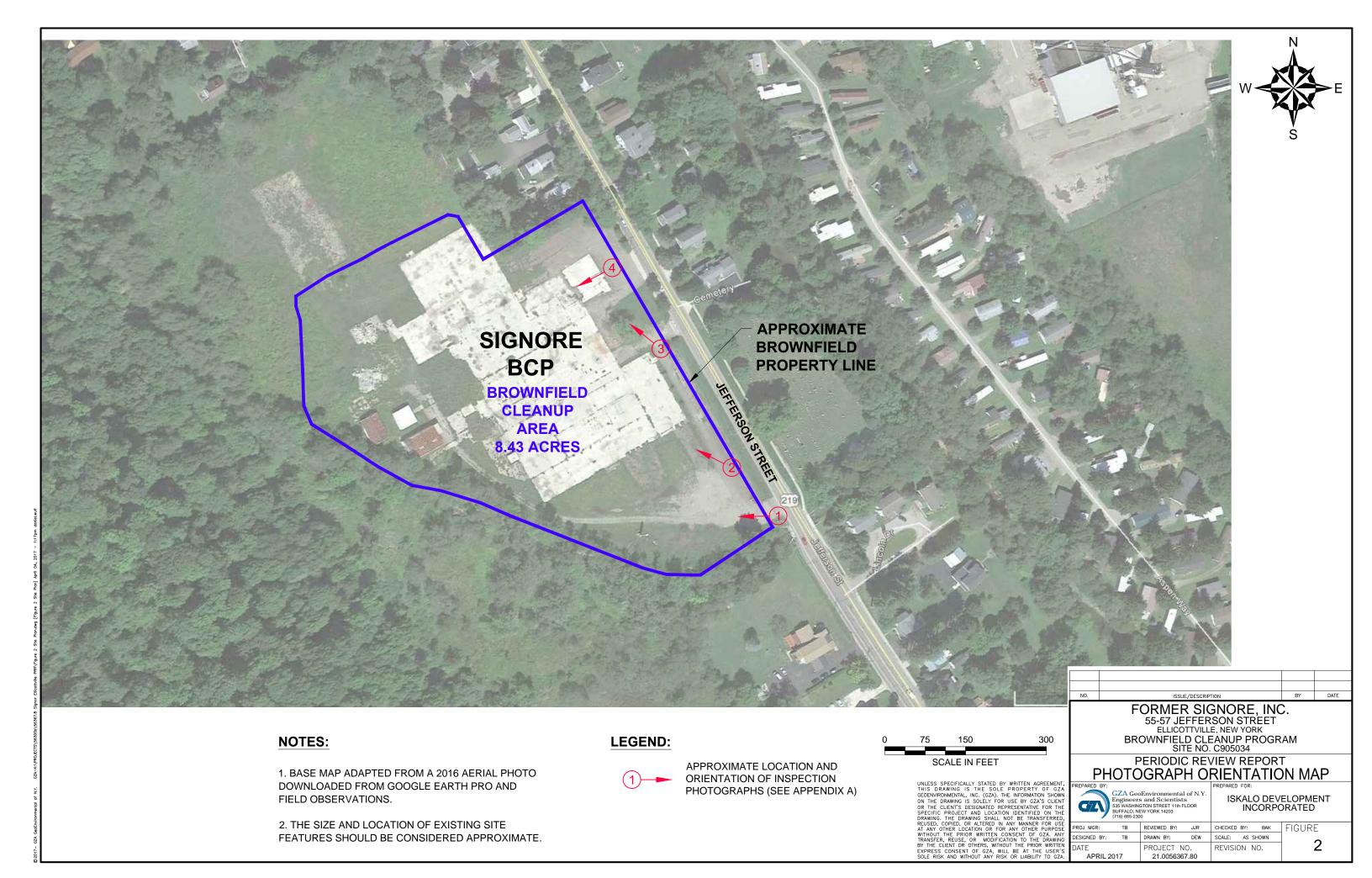
#### 5.2 PRR RECOMMENDATIONS

GZA and Iskalo recommend no changes to the SMP nor to the frequency of PRR submittals at this time. Implementation of the SMP, including the Excavation Work Plan and evaluation for soil vapor intrusion, will proceed as the Site is redeveloped in compliance with the Environmental Easement.



**FIGURES** 







#### **APPENDIX A**

**PHOTOGRAPH LOG** 



Periodic Review Report – 11/9/16 Site Inspection Photographs
Former Signore, Inc. Site Number C905034
Ellicottville, New York



Photo 1 – Southwest area of Site looking northwest



Photo 3 – North side of Site looking northwest



Photo 2 – Northwest portion of Site looking northwest



Photo 4 – west side of Site looking west.



#### **APPENDIX B**

**SITE MANAGEMENT FORM** 

Former Signore Site, Ellicottville, NY BCP Site No.: C905034 Site Management Form

SITE DI	ETAILS				
Site No.: C905034   Site Name: Former Signore, Inc.					
Site Address: 55-57- Jefferson St., Ellicottville, NY					
PERSON PERFORM	ING INS	PECTION	J		
Name: Jim Richert	Email: Jam	nes.Richert	t@GZA.con	1	
Company: GZA	Phone Nun	nber: 716/	844-7048		
Others Present: None					
INSPECTION DATE AN	ND SITE C	CONDITION	ONS		
	Inspection	Time: 1:3	80 PM		
Weather Conditions: Overcast, Temp ~ 35 degrees F					
REASON FOR SI	TE INSPE	CTION			
Type of Inspection: $\square$ Annual Inspection $\square$ Routine Maintenar	<u> </u>		n-Routine Inspec	ction	
Inspection after a Severe Condition that could effect Site	e control	Yes		✓ No	
Describe severe condition triggering inspection: NA					
VERIFICATION (	F SITE D	ETAILS			
Current Site Owner: Iskalo Ellicottville Holdings LLC					
Current Site Operator: Iskalo Ellicottville Holdings LL(					
Describe Current Site Use (check all that apply)			_		
Industrial Commercial Residentia	ļ	✓ Other	Vacant, av	vaiting rede	velopment
Briefly describe observed site uses:					
Site remains vacant and awaits redevelopment. No phy			ed since Dec	ember 11, 2	2015 when
Certificate of Completion of the Brownfield Cleanup Pr					
Note any additional pertinent information to Verification of Site L	Petails (use ac	dditional pag	ges if necessar	y.	
DEGCOVERNOV OF TWO	THE PAR	C CONTE	2010		
DESCRIPTION OF ENG	INEERIN		ROLS		
Are the Engineering Controls still in place:		No			
If No, explain:					
Is the Site Management Plan still in place:  Yes		No			
If No, explain:	AID OD I	E A ENTERNA	LANCE		
AREAS IN NEED OF REP					
Area discussed in this section must be shown on a figure and have		ic documento	ation.		
No	ne				
		MIDING	NODECTI	ON DEDIC	D
INTRUSIVE ACTIVITIES PERFORMED	AISHEL		INSPECTION	JN PERIO	ע
Location:		Date:			
Description of activities being performed:	out ad bry Cir	ta avvman/a	manatan		
None observed and none rep	orted by Si	te owner/o	perator		

Former Signore Site, Ellicottville, NY BCP Site No.: C905034 Site Management Form

Are Site records being properly generated and maintained:	s 1	No
Provide a summary of recordkeeping review and adeuacy:		
ADDITIONAL NOTES & C	COMMENTS	
None		
INSPECTION CERTIFI	CATION	
I hereby certify that the information included in this report is comp	plete and accurate to t	the best of my knowledge
Inspector Signature: _ Him Richard	Date:	April 3, 2017
	1	



## **APPENDIX C**

POST-INJECTION GROUNDWATER MONITORING REPORTS (JUNE 2016 AND OCTOBER 2016)



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# JUNE 2016 POST-INJECTION GROUNDWATER MONITORING DATA REPORT

Former Signore Inc. 55-57 Jefferson Street Ellicottville New York 14731

August 30, 2016 File No. 21.0056367.61



## **PREPARED FOR:**

Iskalo Ellicottville Holdings LLC Williamsville, New York

## **GZA GeoEnvironmental of New York**

535 Washington Street, 11<sup>th</sup> Floor | Buffalo, New York 14203 716-685-2300

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#### **VIA EMAIL**

August 30, 2016 File No. 21.0056367.61

Mr. Matthew Roland Iskalo Ellicottville Holdings LLC Harbinger Square 5166 Main Street Williamsville, NY 14221

Re: June 2016 Post-Injection Groundwater Monitoring Data Report

Former Signore, Inc. 55-57 Jefferson Street Ellicottville, NY 14731 NYSDEC Site No. C905034

#### Dear Matt:

GZA GeoEnvironmental of New York (GZA) is pleased to submit this post-injection groundwater monitoring data report to Iskalo Ellicottville Holdings LLC (Iskalo) presenting the analytical results of a seven well sampling event conducted in June 2016 at the above referenced Site. The post-injection groundwater monitoring was performed as required by New York State Department of Environmental Conservation (NYSDEC) as specified in the Decision Document for Brownfield Site No. C905034 dated July 2015. The post-injection monitoring was conducted in conjunction with the semi-annual groundwater monitoring of 12 other wells that has been performed since 1992 as required by NYSDEC and specified in the Record of Decision (ROD) dated January 1992.

Details of the remedial injection program and the first (August 2015) round of post-injection monitoring were provided in the Final Engineering Report for the Site, dated October 2015.

This data report provides well development forms, an analytical data summary table, graphs of preand post-injection concentrations of chlorinated solvents in groundwater, and the laboratory data report for the eight wells sampled.

The analytical results of the groundwater sampling provide useful information for documentation of concentrations of chlorinated volatile organic compounds (cVOCs) present in the on-Site groundwater. Groundwater cVOC concentrations measured at eleven months post-OCEDS injection (June 2016) follow trends typical for this stage of enhanced reductive dechlorination, with PCE and TCE concentrations decreasing in conjunction with production of DCE, VC, and ethene. Groundwater biogeochemical parameters are generally conducive to reductive dechlorination, with predominately low DO, nitrate, and sulfate in conjunction with higher groundwater concentrations of methane and reduced iron and manganese. The TOC concentrations are lower than they were at three months post-OCEDS injection. This is expected, as the OCEDS additive, by design, provides organic carbon for indigenous bacteria to consume while reducing electron acceptors that compete with cVOCs. Typically, biomass generated by bacterial growth cycles provides a sustainable source of organic carbon, helping to maintain groundwater conditions conducive to reductive



dechlorination as the injected OCEDS is consumed. In GZA's opinion, groundwater conditions are generally conducive to continued reductive dechlorination. Continued monitoring will allow us to more fully assess the long-term impacts of the OCEDS injections on groundwater quality at the Site and continue documentation of the dechlorination process.

Per the Site Management Plan, continued post-injection groundwater monitoring is required on a semi-annual basis. The required monitoring is intended to more fully assess the long-term impacts of the injections on groundwater quality at the Site and provide necessary data for documentation of the dechlorination process. The next post-injection groundwater monitoring event is scheduled for fall of 2016.

Should you have any questions or require additional information following your review, please contact Jim Richert at 716-844-7048.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

Thomas Bohlen Project Manager

James J. Richert, P.G. Senior Project Manager Karen Kinsella, Ph. D. Technical Specialist

Bart A. Klettke, P.E.

Principal

#### **ATTACHMENTS**

ATTACHMENT A LIMITATIONS

Jim Richer

ATTACHMENT B WELL DEVELOPMENT FORMS

ATTACHMENT C GROUNDWATER ANALYTICAL RESULTS SUMMARY

ATTACHMENT D CONCENTRATIONS OF CVOC PARENT MATERIAL AND DAUGHTER PRODUCTS

MEASURED IN GROUNDWATER

ATTACHMENT E LABORATORY REPORT



# **ATTACHMENT A**

**LIMITATIONS** 

# GEOHYDROLOGICAL LIMITATIONS



21.0056367.61 Page | 1 April 2012

#### **USE OF REPORT**

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

#### STANDARD OF CARE

- 2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).
- 3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
- 4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

#### SUBSURFACE CONDITIONS

- 5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
- 6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

#### **COMPLIANCE WITH CODES AND REGULATIONS**

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

#### **GEOHYDROLOGICAL LIMITATIONS**



21.0056367.61 Page | 2 April 2012

#### **SCREENING AND ANALYTICAL TESTING**

- 8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
- 9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
- 10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

#### INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

#### **ADDITIONAL INFORMATION**

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

#### **ADDITIONAL SERVICES**

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.



# **ATTACHMENT B**

**WELL DEVELOPMENT FORMS** 

File: 21.0056491.76

	en and the		10 m			Historic Info	ormation		Value of the last			
Boring Log A	vailable (v	es/no/attac	hed):			Photono IIII	annum II					
Installation L												
						Summ	ary					
Monitoring W	/ell:	EW-1.25		Ground Su	rface Elevation			Riser/Sci	reen Materia	al: Steel/Sta	inless Steel	
Installation D	ate:	7/90		Protective (	Casing Elevation	n: 1532.29 ft.		Top of S	creen Depth	: 15 ft.		
Installed By:	~ = 5	Empire Soi	ls	Monitoring	Point Elevation	: 1531.96 ft.		Bottom o	f Screen De	pth: 25 ft.		
				Elevation D	Datum:							
Previous Fie	ld measure	ement Inforr	mation Availal	ble (yes/ <b>no</b> /								
					Ranges	s of Previous F	ield Measu	rements				
Depth to	Water	ŗ	ЭΗ	Specific 0	Conductance	Tempera	ature	Tui	bidity		Color	
(ft) (Standard Units) (uMhos/cm) (°C) (NTU)												
(it) (Standard Units) (umnos/cm) (°C) (NTU)												
Notes:									1.7			
									· ·			
		William .	-1	eld Observa	tions	G Committee of the Comm	THE IS		Parame	eters +/-	Sampling Information	
Exterior Obs	ervations:	All 9000	7						pН	+/- 0.1	Sample ID: EW-1.25 -061516	
									Conductivit		Sample Time: i115	
Interior Obse	ervations	A11 900	Ò						Temperatu		# of Sample Containers: 9	
									Turbidity	+/- 10%	Duplicate Sample ID: NA	
		CLOS VERSION CO.							ORP		Sample Analysis: VOCs 8260 + MWA	
Signs of Dan				0 (	0 11 1	/ · / · /	DID M		DO	+/- 10%		
Locked (	/es/no)	Well Ca	p(yes/no)	Surfa	ace Seal Intact		PID Meas	urement:	0-0	Odors: A	ON E	
BUILD ENK			# (SEL N. 11, SE	(1) (State   13) (State   13)		Well Quali	ty Data					
Date	Time	Depth to	Cumulative	рН	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes	
Date	Tille	Water	Volume				(NTU)	COIO	Oxygen	Reduction	Notes	
	1	ft bgs	Purged	Units)	Conductance (uMhos/cm)	( C)	(1410)		Oxygen	Potential		
6-15-16	1035	11.38	O	6.84	0.626	12.6	61.5	clear	1.44	360-3	Depth of Water: //. Z6	
0 13 10	1055	11.40	0.70	6.77	0.636	12.2	77.2	CLEOR	0.35	174.9	Length of Water Column: 12-68	
	1100	11.40	1.00	6.81	0-649	12-2	31.7	clear	0.33	176-8	Depth of Well: 23 94	
	1105	11.40	1,30	6.79	0.652	12-4	21.5	CLEW	0.32	161.3	Sheen Observed: Y W	
	1116	11.40	1.60	6-78	0.652	12.4	20.6	Clear	0.31	156.7	DNAPL Observed: Y A	
	1115	11.40	1.90	6.79	0.653	12.4	20.1	Clear	0.29	161.4	Did Well Go Dry: Y N	
											Other:	
											Pump net @ ~20	
											I well Vol. ~ 2.0 gal.	

NI XIVI	185/15					Historic Info	ormation			del a la			
Boring Log	Available (	yes/no/attac	ched):										
Installation	Log Availal	ble (yes/no/	'attached)										
			e proportion and a constitution of the			Summ	nary						
Monitoring \	Well:	SP-32		Ground Su	ırface Elevation			Riser/Sc	reen Materia	al: PVC			
Installation I	Date:	9/27/2012			Casing Elevation			Top of Screen Depth: 9 ft.					
Installed By	<i>f</i> :	TREC			Point Elevation	า		Bottom o	of Screen De	epth: 19 ft.			
				Elevation D									
Previous Fi	ield measur	rement Infor	rmation Availa	ble (yes/ <b>no</b> /	/attached)								
					Range	s of Previous F	ield Measu	urements					
Depth to	o Water		рН	Specific (	Conductance	Tempera	ature	Tu	rbidity		Color		
(fi	ft)	(Stand	ard Units)	(uMi	hos/cm)	(°C	)	(1	NTU)				
9.2		1 6	6.45	,		6.76		Clear					
Notes:						-							
				eld Observa	tions			07.00	Param	eters +/-	Sampling Information		
Exterior Ob	servations:	A11 0000							рН	+/- 0.1	Sample ID: 57-32-06/5/6		
									Conductivi		Sample Time: 1325		
Interior Obs	servations	A11 good						Tomporatu	FO +/ 100/	10 10 11			
											# of Sample Containers: 9		
									Turbidity	+/- 10%	Duplicate Sample ID:		
									Turbidity ORP	+/- 10% +/- 10mV	Duplicate Sample ID: Sample Analysis: VOCs 8260		
	amage/Tam	npering: No	ΝÉ						Turbidity ORP DO	+/- 10% +/- 10mV +/- 10%	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS		
Signs of Da Locked (	amage/Tam	npering: No		Surfa	ace Seal Intact		PID Meas	urement:	Turbidity ORP DO	+/- 10% +/- 10mV	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS		
	amage/Tam	npering: No	ΝÉ	Surfa	ace Seal Intact	(Ves/no) Well Qual		urement:	Turbidity ORP DO	+/- 10% +/- 10mV +/- 10%	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS		
Locked (	amage/Tam	npering: No	ΝÉ	рН	Specific	Well Qual Temperature	ity Data	urement:	Turbidity ORP DO	+/- 10% +/- 10mV +/- 10%	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS		
Locked	amage/Tam (yes/no)	mpering: Au 6 Well Ca Depth to Water	ap (yes/no)  Cumulative Volume	рН	Specific Conductance (uMhos/cm)	Well Qual	ity Data Turbidity		Turbidity ORP DO O-O PPM Dissolved	+/- 10% +/- 10mV +/- 10% Odors: ~~ Oxygen Reduction	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS Notes  Depth of Water: 9.38		
Locked (	Time	Depth to Water ft bgs	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (uMhos/cm) 0.252 0.228	Well Quali Temperature (°C)	Turbidity (NTU)	Color	Dissolved Oxygen	+/- 10% +/- 10mV +/- 10% Odors: ~ Oxygen Reduction Potential 3 = 9.1	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS Notes  Depth of Water: 9.38 Length of Water Column:		
Locked (	Time  1249 1305	Depth to Water ft bgs 9.70 70.07	Cumulative Volume Purged O O O O O O O O O O O O O O O O O O O	pH (Standard Units) 7.08 6.21	Specific Conductance (uMhos/cm) 0.252 0.228 0.230	Well Qual	Turbidity (NTU)	Color Clem (vear tiear	Dissolved Oxygen	+/- 10% +/- 10mV +/- 10% Odors: ~ Oxygen Reduction Potential 309.1 246, 7	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS  Notes  Depth of Water: 9.38 Length of Water Column: Depth of Well: /8.68		
Locked (	Time  1249 1305 1310 1315	Depth to Water ft bgs 9.76 70.07	Cumulative Volume Purged  0 0.30 0.40 0.50	pH (Standard Units) 7.08 6.21 6.20	Specific Conductance (uMhos/cm) 0.252 0.228 0.230	Well Qual Temperature (°C)  16.9  16.3  16.1  16.0	Turbidity (NTU)  /0.29  9.97  9.07  7.81	Color Clear Clear Clear	Dissolved Oxygen  3.63 O-54 O.53 O-56	+/- 10% +/- 10mV +/- 10% Odors: ~ Oxygen Reduction Potential 309.1 246, 7 246, 7	Duplicate Sample ID: Sample Analysis: VOCs 8260 MNA PARAMETERS  Notes  Depth of Water: 9.38 Length of Water Column: Depth of Well: /8.68 Sheen Observed: Y		
Locked (	Time  1249 1305 1310 1315 1320	Depth to Water ft bgs 9.76 10.10 10.10	Cumulative Volume Purged O 0.30 0.40 0.50	pH (Standard Units) 7.08 6.21 6.20 6.20	Specific Conductance (uMhos/cm) 0.252 0.228 0.230 0.230	Well Qual Temperature (°C)  16.9  16.3  16.1  16.0  15.8	Turbidity (NTU)  /0.29  9.97  9.81  7.67	Color Clem (sear Clear Clear Clear	Dissolved Oxygen  3.63 0-54 0.53 0-54	+/- 10% +/- 10mV +/- 10% Odors: //- Oxygen Reduction Potential 3° 9. 1 246, 2 2'19. i 2'77. 3 2 39. 4	Duplicate Sample ID:  Sample Analysis: VOCs 8260  MNA PARAMETERS  Notes  Depth of Water: 9.38  Length of Water Column: Depth of Well: /8.68  Sheen Observed: Y D  DNAPL Observed: Y		
Locked (	Time  1249 1305 1310 1315	Depth to Water ft bgs 9.76 70.07	Cumulative Volume Purged  0 0.30 0.40 0.50	pH (Standard Units) 7.08 6.21 6.20	Specific Conductance (uMhos/cm) 0.252 0.228 0.230	Well Qual Temperature (°C)  16.9  16.3  16.1  16.0	Turbidity (NTU)  /0.29  9.97  9.07  7.81	Color Clear Clear Clear	Dissolved Oxygen  3.63 O-54 O.53 O-56	+/- 10% +/- 10mV +/- 10% Odors: ~ Oxygen Reduction Potential 309.1 246, 7 246, 7	Duplicate Sample ID:  Sample Analysis: VOCs 8260  MNA PARAMETERS  Notes  Notes  Depth of Water: 9.38  Length of Water Column: Depth of Well: /8.68  Sheen Observed: Y D  DNAPL Observed: Y D  Did Well Go Dry: Y		
Locked (	Time  1249 1305 1310 1315 1320	Depth to Water ft bgs 9.76 10.10 10.10	Cumulative Volume Purged O 0.30 0.40 0.50	pH (Standard Units) 7.08 6.21 6.20 6.20	Specific Conductance (uMhos/cm) 0.252 0.228 0.230 0.230	Well Qual Temperature (°C)  16.9  16.3  16.1  16.0  15.8	Turbidity (NTU)  /0.29  9.97  9.81  7.67	Color Clem (sear Clear Clear Clear	Dissolved Oxygen  3.63 0-54 0.53 0-54	+/- 10% +/- 10mV +/- 10% Odors: //- Oxygen Reduction Potential 3° 9. 1 246, 2 2'19. i 2'77. 3 2 39. 4	Duplicate Sample ID:  Sample Analysis: VOCs 8260  MNA PARAMETERS  Notes  Depth of Water: 9.38  Length of Water Column: Depth of Well: /8.68  Sheen Observed: Y D  DNAPL Observed: Y		
Locked (	Time  1249 1305 1310 1315 1320	Depth to Water ft bgs 9.76 10.10 10.10	Cumulative Volume Purged O 0.30 0.40 0.50	pH (Standard Units) 7.08 6.21 6.20 6.20	Specific Conductance (uMhos/cm) 0.252 0.228 0.230 0.230	Well Qual Temperature (°C)  16.9  16.3  16.1  16.0  15.8	Turbidity (NTU)  /0.29  9.97  9.81  7.67	Color Clem (sear Clear Clear Clear	Dissolved Oxygen  3.63 0-54 0.53 0-54	+/- 10% +/- 10mV +/- 10% Odors: //- Oxygen Reduction Potential 3° 9. 1 246, 2 2'19. i 2'77. 3 2 39. 4	Duplicate Sample ID:  Sample Analysis: VOCs 8260  MNA PARAMETERS  Notes  Notes  Depth of Water: 9.38  Length of Water Column: Depth of Well: /8.68  Sheen Observed: Y D  DNAPL Observed: Y D  Did Well Go Dry: Y		

	- Not														
		THE REAL PROPERTY.			Contract to the	Historic Info	ormation								
Boring Log A			•												
Installation L	og Availab	ole ( <b>yes</b> /no/a	attached)												
						Summ	ary								
Monitoring W		SP-38			rface Elevation				reen Materia						
Installation E		9/27/2012			Casing Elevation				creen Depth						
Installed By:		TREC			Point Elevation	i		Bottom o	f Screen De	epth: 19 ft.					
				Elevation D											
Previous Fie	ld measure	ement Infori	mation Availa	ble (yes/ <b>no</b> /											
						s of Previous F	ield Measu	rements							
Depth to	Water	(	ЭΗ	Specific C	Conductance	Tempera	ature	Tu	rbidity		Color				
(ft)	)	(Standa	ard Units)	(uMł	nos/cm)	(°C)	)	(١	NTU)						
9.9	3	6	6.72 0.412 15.2 2.12 Clear												
Notes:															
100000000000000000000000000000000000000	3000	A	Fie	eld Observa	tions	10 110	G		Parame	eters +/-	Sampling Information				
Exterior Obs	ervations:	All goo							рН	+/- 0.1	Sample ID: 5p-38 -06/5/6				
*									Conductivit	v +/- 3%	Sample Time: 1415				
Interior Obse	ervations	All good	)_						Temperatu		# of Sample Containers: 9				
									Turbidity		Duplicate Sample ID: NA				
									ORP		Sample Analysis: VOCs 8260				
Signs of Dar	nage/Tam	pering: 🕡 🗸	NE						DO		MNA PARAMETERS				
Locked/(	yes/no)	Well Ca	p (yes/no)	Surfa	ace Seal Intact	(yes/no)	PID Measi	urement:	0-0000	Odors:	•				
						Well Quali									
Date	Time	Depth to	Cumulative	рΗ	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes				
		Water	Volume	(Standard	Conductance	(°C)	(NTU)		Oxygen	Reduction					
	fų.	ft bgs	Purged	Units)	(uMbos/cm)	` ,	, ,			Potential					
6-15-16	1353	999	0	6.52	0 413	15.1	12.70	cur	1-98	259.3	Depth of Water: 9.88				
	1405	9.99	0:3	6-59	0.418	16.5	6.50	Clea	1.30	252.3	Length of Water Column:				
	1410	9.19	0-4	6-60	0.419	16.3	6.46	Clean	1-31	246.7	Depth of Well: 18 66				
	1415	9.99	0.5	6.59	0.419	16-1	6.39	ciew	1-32	241.8	Sheen Observed: Y N				
										3.5	DNAPL Observed: Y (N)				
											Did Well Go Dry: Y N				
											Other:				
											Pump , ret(0-15'				
											G				
, i															

			والمحالة والمتالية			Historic Info	ormation				
Boring Log	Available (	yes/no/attac	ched):								
nstallation	Log Availa	ble ( <b>yes</b> /no/	attached)								
						Summ	ary				
Monitoring \	Well:	SP-43		Ground Su	rface Elevation			Riser/Sc	reen Materi	al: PVC	
nstallation		10/1/2012			Casing Elevation				creen Depti		
nstalled By	r:	TREC			Point Elevation				of Screen De		
•				Elevation [							
Previous Fi	eld measui	rement Infor	mation Availa	ble (yes/ <b>no</b>	/attached)						
						s of Previous F	ield Measu	rements			
Depth to	Water	T	pН	Specific 0	Conductance	Tempera			rbidity		Color
(f		1	ard Units)		hos/cm)	(°C)		1	NTU)		<b>3 3 3 3 3 3 3 3 3 3</b>
10.			5.88		0.513	18.4			4.04		Clear
Notes:			7.00			10.4			T.V'T		Olcai
VULUS.											
			Fie	eld Observa	tions	The Res Contract			Daram	eters +/-	Sampling Information
-vterior Ob	convations:	A11 9000		old Observa	tions			_		+/- 0.1	Sample ID: 5P-43 - 06/6/6
-xterior Ob-	sci valions.	ATT GOOD			· · · · · · · · · · · · · · · · · · ·				Conductivi		Sample Time: 810
nterior Obs	ervations	A11 9000	11								# of Sample Containers: 9
11101101 000	01 10110110	All good						Turbidity		Duplicate Sample ID: NA	
									ORP		Sample Analysis: VOCs 8260
Signs of Da	mage/Tam	pering: ~/	· N.F						DO		MNA PARAMETERS
Locked			p (ves/no)	Surfa	ace Seal Intact	(ves/no)	PID Meas	urement:		Odors:	
77		200		-	Con Jan Land	Well Qual				AT STATE OF THE ST	
	T										
Date	Time	Depth to	Cumulative	pН	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes
		Water	Volume	(Standard			(NTU)		Oxygen	Reduction	
		ft bgs	Purged	Units)	Conductance (uMhos/cm)	( -,	` ′		, ,	Potential	
6-16-16	728	10.00	0	6.84	0.239	15.1	8.31	Clear	1.74	531.5	Depth of Water: 10.35
	740	10.58	0.30	5.84	0.237	14.7	6.99	CLOS	1.13	401.7	Length of Water Column:
	745	10,60	0.50	5.91	6.236	14.7	6.87	clear	1.21	360.6	Depth of Well: 19.95
	750	10.60	0.80	51.69	0.236	14.7	6.81	Clear	1.19	34116	Sheen Observed: Y N
	300	10.60	1.00	5.88	0,236	14.8	6.72	Clear	1.26	320.0	DNAPL Observed: Y &
	805	10,60	Vide	5.88	0.236	14.8	6.67	cleer	1.25	315.3	Did Well Go Dry: Y (N/
	810	10.66	1,20	5.87	0-337	14.6	6.70	clear	1,23	310.9	Other:
											Runo mol Bals
											1 well vol. ~

			Self-			Historic Info	ormation		9 7 7 7	Marie Contract	
Boring Log A			•	25							
Installation L	.og Availal	ole ( <b>yes</b> /no/	attached)								
						Summ	nary				
Monitoring V	Vell:	SP-37			rface Elevation			Riser/Sc	reen Materia	al: PVC	
Installation D		9/27/2012			Casing Elevation				creen Depth		
Installed By:		TREC			Point Elevation	1:		Bottom o	of Screen De	epth: 19 ft.	
				Elevation D							
Previous Fie	ld measur	ement Infor	mation Availa	ble (yes/ <b>no</b>	/attached)						
					Range	s of Previous F	ield Measu	rements			
Depth to	Water		рН	Specific (	Conductance	Tempera	ature	Tu	rbidity		Color
(ft)	1	(Standa	ard Units)		hos/cm)	(°C		ı	NTU)		
9.5			5.39		0.535	17			9.35		Clear
Notes:								<u> </u>	3.00		Glear
10.00.											
21-11-21			Fie	eld Observa	tions	- 500	7 6 60	35 7	Parami	eters +/-	Sampling Information
Exterior Obs	ervations:		All good.						рН	+/- 0.1	Sample ID: 5 P- 37 -06/6/5
			, g 500.						Conductivi		Sample Time: 900
Interior Obse	ervations		A11 0000						Temperatu	re +/- 10%	# of Sample Containers: 9
			-								Duplicate Sample ID: AA
									ORP	+/- 10mV	Sample Analysis: VOCs 8260
Signs of Dan	mage/Tam	pering: ~	and E						DO		MNA PARAMETERS
Locked (§	ves/no)	Well Ca	p (yes/no)	Surfa	ace Seal Intact	(ves/no)	PID Meas	urement:	0.0000	Odors:	
						Well Qual		No. 10 A			
									1		
Date	Time	Depth to	Cumulative	рН	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes
		Water	Volume	(Standard	Conductance	(°C)	(NTU)		Oxygen	Reduction	1
		ft bgs	Purged	Units)	Conductance ( <del>uMh</del> os/cm)	\	L ` _ ´ .		,,,	Potential	
6-16-16	830	9.72	O	6.04	0.283	13.9	15.0	clear	1.74	456.1	Depth of Water: 9, 63
	850	9,74	0.80	6.00	0.287	13.2	5.93	Clean	0.31	3/8.4	Length of Water Column:
	855	7.74	1,00	6.01	0.289	13.3	5.82	cuer	0.30		Depth of Well:/9.67
	900	9.74	1,20	6.03	0.291	13.3	5.93	Clear	0.29		Sheen Observed: Y(N)
											DNAPL Observed: Y 🕦
											Did Well Go Dry: Y(N)
											Other:
											pump nut = 15
											*
											1 well vol. ~

Y	TO A NAME OF STREET					Historic Infe	ormation				
Boring Log	Available (	yes/no/attac	ched):								
Installation	Log Availa	ble ( <b>yes</b> /no/	attached)								
						Summ	ary				
Monitoring \	Well:	SP-45		Ground Su	rface Elevation	1:		Riser/Sc	reen Materi	al: PVC	
Installation		10/1/2012		Protective	Casing Elevation	on:		Top of S	creen Depth	n: 9.2 ft.	
Installed By	<i>r</i> :	TREC			Point Elevation	1:		Bottom o	of Screen De	epth: 19.2 ft.	8:
				Elevation D							
Previous Fi	eld measur	ement Infor	mation Availa	ble (yes/ <b>no</b> .							
					Range	s of Previous F	ield Measu	rements			
Depth to	o Water		рН	Specific (	Conductance	Tempera	ature	Tu	rbidity		Color
(f	t)	(Standa	ard Units)	(uM	hos/cm)	(°C		(1)	NTU)		
11.	.25	6	6.83	C	.363	17.8			2.3		Clear
Notes:											
100				eld Observa	tions		AGE PROPERTY.	1.00	Param	eters +/-	Sampling Information
Exterior Ob	servations:	All good							рН	+/- 0.1	Sample ID: 5 P-45-06/6/6
									Conductivi		Sample Time: 1005
Interior Obs	servations	All good								# of Sample Containers: 9	
									Turbidity	Duplicate Sample ID:	
0:									ORP		Sample Analysis: VOCs 8260
Locked		pering: No.		C4	01	164	DID M		DO		MNA PARAMETERS
LUCKEU	(yes/no)	vven Ca	p (yes/no)	Suna	ace Seal Intact		PID Meas	urement:	0.0	Odors: 🗤	0 N E
						Well Qual	ly Data				
	1										
Date	Time	Denth to	Cumulative	nH	Specific	Temperature	Turbidity	Color	Dissolved	Ovygon	Notos
Date	Time	Depth to	Cumulative	pH (Standard	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes
Date	Time	Water	Volume				Turbidity (NTU)	Color	Dissolved Oxygen	Reduction	Notes
		Water ft bgs	Volume Purged	(Standard Units)	Conductance (uMhos/cm)	(°C)	(NTU)		Oxygen	Reduction Potential	
Date	9:23 9:35	Water ft bgs	Volume Purged	(Standard Units)	Conductance (uMhos/cm)		(NTU) 52 5	clear	Oxygen 2.80	Reduction Potential	Depth of Water: //. /7
	9:23	Water ft bgs	Volume Purged	(Standard Units) 6.47 6.81	Conductance (uMnos/cm) 0.459	(°C)	(NTU)		2.80	Reduction Potential 372.2 289.6	Depth of Water: //. /7 Length of Water Column:
	9:23	Water ft bgs	Volume Purged  6.30	(Standard Units)	Conductance (uMhos/cm)	(°C) 15.3 15.0	(NTU) 52 5 /1. 10	clear Clear	Oxygen 2.80	Reduction Potential	Depth of Water: //. /7
	9:23 935 940 945 950	Water ft bgs /1.20 /1.20 /1.20 /1.20 /1.20	Volume Purged  0 0.30 0.46	(Standard Units) 6.47 6.81 6.83 6.86	Conductance (uMnos/cm) 0.459 0.477	(°C) /5.3 /5.0	(NTU)  52 5  //. 10  // 186	Clear Clear	2.80 1.13	Reduction Potential 372.2 289.6 287.0	Depth of Water: //./7 Length of Water Column: Depth of Well: /1.00 Sheen Observed: Y (N) DNAPL Observed: Y (N)
	9:23 935 940 945	Water ft bgs	Volume Purged  0 0.30 0.40 0.56 0.60 0.70	(Standard Units) 6.47 6.81 6.83 6.86 6.88	Conductance (ulvinos/cm) 0.459 0.477 0.481	(°C)  15.3  15.0  15.1  15.1  15.2  15.2	(NTU)  52 5  //. 10  //.86  //.67	CLEAR CLEAR CLEAR	2.80 1.13 1.03	Reduction Potential 372.2 289.6 287.0 278.9	Depth of Water: //./7 Length of Water Column: Depth of Well: /7.co Sheen Observed: Y (N) DNAPL Observed: Y (N) Did Well Go Dry: Y (N)
	9:23 935 940 945 950 955	Water ft bgs   11.20	Volume Purged  0 0.30 0.40 0.56 0.60 0.70 0.80	(Standard Units) 6.47 6.81 6.83 6.86	Conductance (uMnos/cm) v.459 o.4177 o.481 0.486	(°C)  15.3  15.0  15.1  15.1  15.2  15.2  15.2	(NTU)  52 5  //. 10  11.86  //.67  //.59  //.20  //.17	CLEAR CLEAR CLEAR CLEAR	0xygen  2.80 1.13 1.03 0.94 0.14	Reduction Potential 372.2 289.6 287.0 278.9 272. <	Depth of Water: //./7 Length of Water Column: Depth of Well: /7.co Sheen Observed: Y(N) DNAPL Observed: Y(N) Did Well Go Dry: Y(N) Other:
	9:23 935 940 945 950 955	Water ft bgs	Volume Purged  0 0.30 0.40 0.56 0.60 0.70	(Standard Units) 6.47 6.81 6.83 6.86 6.88	Conductance (uMnos/cm) v.459 o.4177 o.481 o.486 o.497	(°C)  15.3  15.0  15.1  15.1  15.2  15.2	(NTU)  52 5  //. 10  11.86  //.67  //.59  //.7C	Clear Clear Clear Clear Clear	0xygen  2.80 1.13 4.03 0.84 0.56	Reduction Potential 372.2 289.6 287.0 278.9 272.5 26615	Depth of Water: //./7 Length of Water Column: Depth of Well: /7.co Sheen Observed: Y (N) DNAPL Observed: Y (N) Did Well Go Dry: Y (N)
	9:23 935 940 945 950 955	Water ft bgs   11.20	Volume Purged  0 0.30 0.40 0.56 0.60 0.70 0.80	(Standard Units) 6.47 6.81 6.83 6.86 6.96 6.92	Conductance (uMnos/cm) v.459 o.477 o.481 o.486 o.497 o.497	(°C)  15.3  15.0  15.1  15.1  15.2  15.2  15.2	(NTU)  52 5  //. 10  11.86  //.67  //.59  //.20  //.17	clear Clear Clear Clear Clear Clear	Oxygen  2.80 1.13 4.03 0.84 0.56 0.53	Reduction Potential 372.2 289.6 287.0 278.9 272.4 26615 261.9	Depth of Water: //./7 Length of Water Column: Depth of Well: /7.co Sheen Observed: Y(N) DNAPL Observed: Y(N) Did Well Go Dry: Y(N) Other:

						Historic Info	ormation	(C)			
Boring Log A	Available (	<b>/es</b> /no/attac	ched):								
Installation L	.og Availat	ole (yes/no/	attached)								
						Summ	nary				
Monitoring V	Vell:	EW-1.25	TP-11	Ground Su	rface Elevation	1532.29		Riser/Sc	reen Materia	al: Steel/Sta	inless Steel
Installation E	Date:	7/90		Protective	Casing Elevation	on: 1532.29 ft.		- I - I - I - I - I - I - I - I - I - I	creen Depth	PARTY CHILD STATES IN THE INC.	
Installed By:		<b>Empire Soi</b>	ils	Monitoring	Point Elevation	n: 1531.96 ft.			of Screen De		
			•	Elevation D							
Previous Fie	eld measur	ement Infor	mation Availa	ble (yes/no	/attached)						
					Range	s of Previous F	ield Measu	ırements			
Depth to	Water		рН	Specific 6	Conductance	Tempera			rbidity		Color
(ft)	)	(Standa	ard Units)	uM	hos/cm)	(°C)			NTU)		
		<u> </u>									
Notes:				H							
File District	TO 1 78.5		Fie	eld Observa	tions		11-2-17	2720	Param	eters +/-	Sampling Information
Exterior Obs	ervations:	All and		A. III. A. A. A. I.I.A.					рН	+/- 0.1	Sample ID: EW-1.25 7P-11-00/6/6
		1900							Conductivi		Sample Time: 1055
Interior Obse	ervations	A11 900	d								# of Sample Containers: 3
									Turbidity		Duplicate Sample ID: NA
									ORP		Sample Analysis: VOCs 8260 TCL
Signs of Dar	mage/Tam	pering: No.	ne						DO		MNA PARAMETERS
Locked (	yes/no)	Well Ca	p (yes/ho)	Surfa	ace Seal Intact	(yes/no)	PID Meas	urement:	6.0	Odors: N	one
			Remission.			Well Quali	ity Data	40.60			
Date	Time	Depth to	Cumulative	рΗ	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes
		Water	Volume	(Standard	Conductance	(°C)	(NTU)		Oxygen	Reduction	
		ft bgs	Purged	Units)	(uMhos/cm)	` '				Potential	
6-16-16	1026	11,53	0	7.06	0.499	14.3	36.8	clear	4.02	921.6	Depth of Water: 11.48
	1035	11.53	0.30	6.91	0.492	11.8	15.2	clear	3.16	312,4	Length of Water Column:
	1040	11.53	0.40	6.90	0.489	12.5	8.11	CLEAR	2.81	Z89.5	Depth of Well: /1,52
	1645	11.53	0.50	6.90	0.497	12.6	7.67	Clear	2.84	276.9	Sheen Observed: Y
	1050	11.53	0.60	6.90	0-492	12.4	7, 71	Clear	2.86	271.9	DNAPL Observed: Y N
	1055	11:53	0.70	6.90	0.493	12.4	7,69	Clean	2.84	267.4	Did Well Go Dry: Y 🖘
											Other:
											Puno intel @ -14'



# **ATTACHMENT C**

**GROUNDWATER ANALYTICAL RESULTS SUMMARY** 

#### Attachment C June 2016 Post-Injection Groundwater Analytical Results Summary Former Signore Facility Ellicottville, New York BCP Site No. C905034

	1	1	1			ĺ			1	1	1	ĺ	1	ı			
Sample Location		EW-1.25	EW-1.25		EW-1.25	EW-1.25	EW-1.25		EW-1.25	EW-1.25	SP-32	SP-32	SP-32	SP-32	SP-32	SP-32	SP-32
Sample Date	Class GA	6/25/2013	10/16/201		6/10/2014	6/4/2015	8/21/2015		10/21/2015	6/15/2016	10/3/2012	10/17/2013	6/10/2014	6/4/2015	8/21/2015	10/22/2015	6/15/2016
Sample Date	Criteria	0/23/2013	10/10/201	13	0/10/2014	0/4/2013	0/21/2013		10/21/2013	0/13/2010	10/3/2012	10/17/2013	0/10/2014	0/4/2013	0/21/2013	10/22/2013	0/13/2010
	Cinteria	Q	Ī	Q	Q	Q	Г	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organic Compounds - EP	PA Method SW-84								-	_		-	-		-		-
Acetone	50	<	<		<	<	<		3.8 J	2.3 J	<	240 D	<	<	<	<	2.8 J
Methylene Chloride	5	<	<		<	<	<		<	<	<	<	<	<	<	<	<
Carbon disulfide	NV	<	<		<	<	<		<	<	<	<	<	<	<	<	<
Chloromethane	NV	0.77 J	<		<	<	<		<	<	<	<	<	<	<	<	<
1,1-Dichloroethane	5	4.1	4.1		2.9	3	2.6		4.2	2.9	<	<	<	<	<	<	<
1,1-Dichloroethene	5	<	<		<	0.25 J	0.19	1	0.36 J	0.24 J	<	<	<	<	<	<	<
Vinyl chloride	2	4.6	5		2.4	2.6	<		3.3	3.2	<	<	<	0.18 J	0.23 J	<	<
2-Butanone	50	<	<		<	<	<		<	<	<	45	<	<	<	<	<
cis-1,2-Dichloroethene	5	31	32		23	29	28		44	28	<	26	11	4.5	4.7	2.7	3.3
Toluene	5	<	<		<	<	<		<	<	<	<	<	<	<	<	<
1,1,1-Trichloroethane	5	<	<		<	<	0.82		<	<	<	<	<	<	<	<	<
Tetrachloroethene	5	3.3	3.8		3.6	<	1.4		1.8	3.1	2.1	<	<	0.25 J	0.46 J	0.62	0.44 J
Trichloroethene	5	51	59		41	47	42		58	47	120	3.4	6.4	5.8	6.5	6.7	14
Total VOCs	2	94.77	103.9		72.9	81.85	75.01		115.46	86.74	122.1	314.4	17.4	10.73	11.89	10.02	20.54
Field Parameters																	
Temperature (Deg. C)	NV	13	13.5		10.4	9.1	13.1		13.4	12.4	13.2	16.5	13.1	11.0	17.7	16.6	15.8
Specific Conductance (mS/cm)	NV	0.7	0.68		0.7	0.757	0.67		0.68	0.653	0.418	0.65	0.392	0.326	0.272	0.223	0.232
Dissolved Oxygen (mg/L)	NV	0.05	0.18		0.06	0.17	0.12		0.22	0.29	4.92	0.18	0.12	0.15	0.16	0.48	0.53
Oxygen Reduction Potential (mv)	NV	-88.5	-99.3		-91.2	-130.5	-86.2		-91.6	161.4	50.3	-95.3	-21.9	104.4	57.7	169.9	236.7
pH (std. units)	NV	7.35	6.85		6.78	6.73	6.77		6.89	6.79	7.23	6.45	6.48	6.28	6.34	6.25	6.22
Turbidity (NTUs)	NV	9.12	3.31		11.71	7.7	14.2		10.7	20.1	35	6.76	4.95	0.6	7.15	4.42	7.6
Inorganics (ug/L)																	
Iron	300	NS	1,000		14,000	14,000	11,500		11,900	27,300	NS	3,480	16,000	339	246	206	541
Manganese	NV	NS	1,300		1,600	1,482	1,265		1,465	1,453	NS	24,600	19,000	6,468	8,331	2,897	2,668
Miscellaneous Water Quality Para	ameters																
Methane (ug/L)	NV	NS	1,000		170	237	218		190	244	NS	120	660	725	932	208	205
Ethane (ug/L)	NV	NS	<		<	<	<		<	<	NS	<	<	0.659	0.841	<	<
Ethene (ug/L)	NV	NS	1.7		<	<	0.535		<	0.558	NS	1.7	<	<	<	<	<
Total Organic Carbon (mg/L)	NV	NS	<		<	2.07	2.47		1.92	2.26	NS	51	<	1.35	1.7	1.02	1.45
Chloride (mg/L)	NV	NS	66	В	69	62	57		56	49	NS	5 B	3.1	3.46	3.12	2.83	2.72
Nitrate (mg/L)	NV	NS	<		<	0.015 J	0.020 J		<	<	NS	<	<	1.92	0.93	4.2	3.9
Nitrite (mg/L)	NV	NS	<		<	NS	NS		NS	NS	NS	<	<	NS	NS	NS	NS
Sulfate (mg/L)	NV	NS	7.6		7.4 B	12.8	10.3		10.5	10.2	NS	4.9 J	14 B	14.6	16.8	16.1	16.3

- Only compounds detected in one or more of the groundwater samples are presented in this table.
   "<" indicates compound was not detected above the method detection limit.</li>

#### Attachment C June 2016 Post-Injection Groundwater Analytical Results Summary Former Signore Facility Ellicottville, New York BCP Site No. C905034

Sample Location Sample Date	Class GA	SP-37 10/5/2012	SP-37 10/17/2013	SP-37 6/10/2014	SP-37 6/4/2015	SP-37 8/21/2015	SP-37 10/23/2015	SP-37 6/16/2016	SP-38 10/4/2012	SP-38 10/17/2013	SP-38 6/10/2014	SP-38 8/21/2015	SP-38 10/23/2015	SP-38 6/15/2016
Sample Date	Criteria	10/3/2012	10/17/2013	0/10/2014	0/4/2013	0/21/2013	10/23/2013	0/10/2010	10/4/2012	10/17/2013	0/10/2014	0/21/2013	10/23/2013	0/13/2010
	Ontona	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organic Compounds - EP	A Method SW-84													
Acetone	50	<	<	<	<	<	<	2.6 J	<	<	<	<	<	1.6 J
Methylene Chloride	5	<	<	<	<	<	<	<	<	<	<	<	<	<
Carbon disulfide	NV	<	<	<	<	<	<	<	<	<	<	1.8 J	1.9	<
Chloromethane	NV	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1-Dichloroethane	5	<	<	<	<	<	<	<	<	<	<	2 J	1.9 J	<
1,1-Dichloroethene	5	<	<	<	<	<	<	<	<	<	<	<	<	<
Vinyl chloride	2	<	<	<	<	<	0.21 J	0.42 J	<	<	<	<	22	0.39 J
2-Butanone	50	<	<	<	<	<	<	<	<	<	<	26	2.1 J	<
cis-1,2-Dichloroethene	5	1.8	7.3	0.99 J	3.4	9.9	9.4	6.7	<	1.5	1.2	46	0.82 J	<
Toluene	5	<	<	<	<	<	<	<	<	<	<	<	1 J	<
1,1,1-Trichloroethane	5	<	<	<	<	0.82 J	<	<	2.4	<	<	0.86 J	<	<
Tetrachloroethene	5	9.6	24	13	18	15	26	14	5	<	5.2	0.22 J	0.37 J	0.28 J
Trichloroethene	5	13	20	7.2	10	11	19	13	17	7.8	19	0.45 J	0.29 J	5.5 J
Total VOCs	2	24.4	51.3	27.2	31.4	36.72	54.61	36.72	24.4	9.3	25.4	77.33	30.38	7.77
Field Parameters														
Temperature (Deg. C)	NV	13.5	17	11.9	10	17	15.3	13.3	13.1	15.2	11.6	15.2	15.1	16.1
Specific Conductance (mS/cm)	NV	0.452	0.535	0.305	0.449	0.432	0.396	0.291	0.437	0.412	0.437	1.03	0.69	0.419
Dissolved Oxygen (mg/L)	NV	0.28	0.2	0.58	0.68	0.07	0.13	0.29	3.25	2.88	4.65	0.07	0.11	1.32
Oxygen Reduction Potential (mv)	NV	-122.4	74.8	107.7	117.6	16.1	82.8	306.5	31.7	103.5	136	-124.2	-172.7	241.8
pH (std. units)	NV	6.6	6.39	6.28	6.12	6.28	6.3	6.03	6.81	6.72	6.72	7.1	7.39	6.59
Turbidity (NTUs)	NV	2.5	9.35	12.5	1.4	5.27	2.3	5.93	27.4	2.12	19.2	12.3	2.12	6.39
Inorganics (ug/L)														
Iron	300	NS	61.7 B	900	81.4	409	66	85	<	<	1,500	5,660	3,040	352
Manganese	NV	NS	336	150	1,021	6,015	2,035	1,137	5,100	41.1 B	180	24,820	12,680	2762
Miscellaneous Water Quality Para	meters													
Methane (ug/L)	NV	NS	26	2.5	28	108	67.4	47.2	<	20	1.1	807.0	636.0	3.9
Ethane (ug/L)	NV	NS	<	<	<	<	<	<	NM	<	<	<	2.57	<
Ethene (ug/L)	NV	NS	<	<	<	<	<	<	NM	<	<	3.45	4.56	<
Total Organic Carbon (mg/L)	NV	NS	4 J	2.8 J	2.51	4.75	2.62	2.47	<	<	<	86.9	2.22	1.21
Chloride (mg/L)	NV	NS	12 B	3.8	28.8	16.4	14.7	7.11	31	40 B	34	29	27.1	36.1
Nitrate (mg/L)	NV	NS	4.8	5.2	2.98	0.04	0.27	1.40	4.7	1.4	3.3	0.0 J	<	0.6
Nitrite (mg/L)	NV	NS	<	<	NS	NS	NS	NS			<	<	NS	NS
Sulfate (mg/L)	NV	NS	36	24 B	23.3	18	21.1	18.3	23	11	13 B	0.063 J	5.99	11.5

- Only compounds detected in one or more of the groundwater samples are presented in this table.
   "<" indicates compound was not detected above the method detection limit.</li>

#### Attachment C June 2016 Post-Injection Groundwater Analytical Results Summary Former Signore Facility Ellicottville, New York BCP Site No. C905034

	Î		ı	1		1	1	1		1	1		ı		1	1	1	
Sample Location		SP-43	SP-43	SP-43	SP-43	SP-43	SP-43	SP-43	SP-45	SP-45	SP-45	SP-45	SP-45	SP-45	SP-45	TP-11	TP-11	TP-11
Sample Date	Class GA	10/4/2012	10/17/2013	6/10/2014	6/4/2015	8/21/2015	10/23/2015	6/16/2016	10/4/2012	10/17/2013	6/10/2014	6/4/2015	8/21/2015	10/23/2015	6/16/2016	6/3/2015	10/22/2015	6/16/2016
Campio Bato	Criteria	10/4/2012	10/1//2010	0/10/2014	0/4/2010	0/21/2010	10/20/2010	0/10/2010	10/4/2012	10/11/2010	0/10/2014	0/4/2010	0/21/2010	10/20/2010	0/10/2010	0/0/2010	10/22/2010	0/10/2010
	Ontona	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	C	Q	Q	Q	Q	Q	Q
Volatile Organic Compounds - EP	A Method SW-84																	
Acetone	50	<	53	<	<	<	<	1.9 J	<	<	<	<	<	<	1.5 J	<	<	2 J
Methylene Chloride	5	<	<	<	<	<	<	<	3.2 DJ	<	<	<	<	<	<	<	<	<
Carbon disulfide	NV	<	1.3	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Chloromethane	NV	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1-Dichloroethane	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1-Dichloroethene	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Vinyl chloride	2	<	<	<	<	0.48 J	6.6	<	<	<	<	<	<	6.3	5.5	<	<	<
2-Butanone	50	<	84	<	<	21	<	<	<	<	<	<	<	<	<	<	<	<
cis-1,2-Dichloroethene	5	<	5.4	3.9	1.1 J	9.4	9.2	4.6	6.8	1.1	1.9	2.9	1.4 J	5.7	3.7	19	12	18
Toluene	5	<	<	<	<	<	84.0	<	<	<	<	<	<	<	<	<	<	<
1,1,1-Trichloroethane	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	5	93	24	14	14	10	17	7.7	260 D	69	130	160	16	45	16	0.58	1.5	0.53
Trichloroethene	5	5.2	2.6	<	0.72	2.20	8.30	0.71	13	3.6	6.4	8.5	1.5	7.5	7.2	88	74	77
Total VOCs	2	98.2	170.3	17.9	15.82	43.08	125.10	14.91	283.0	73.7	138.3	171.4	18.9	171.4	33.9	107.58	87.50	97.53
Field Parameters																		
Temperature (Deg. C)	NV	14.1	18.4	13	12.2	16.6	15.9	14.6	14.6	17.8	16.5	14	19.1	15.8	15.2	9.1	14.4	12.4
Specific Conductance (mS/cm)	NV	0.445	0.513	0.304	0.773	0.66	0.68	0.237	0.543	0.363	0.391	0.584	0.6	0.62	0.503	0.574	0.535	0.493
Dissolved Oxygen (mg/L)	NV	1.48	0.22	0.23	1.1	0.12	0.12	1.23	1.07	5.21	3.02	3.58	0.09	0.07	0.5	5.27	1.57	2.84
Oxygen Reduction Potential (mv)	NV	44.2	-39.3	149	175.8	-15.1	-88.2	310.9	-29.5	88.3	143.1	73.3	-62.7	-61.7	250.7	96.2	90.7	267.4
pH (std. units)	NV	6.55	5.88	6.13	5.82	6.31	6.83	5.87	6.48	6.83	6.71	6.71	7.05	7.05	6.91	6.91	7.04	6.9
Turbidity (NTUs)	NV	39.8	4.04	18	0.2	31.7	4.26	6.7	3.95	2.3	3.17	0.5	14.91	5.06	11.25	1.9	1.87	7.69
Inorganics (ug/L)																		
Iron	300	NS	6,150	7,100	54	5,780	6,220	127	NS	32.1 B	170 J	27.2 J	45 J	1,260	197	NS	NS	NS
Manganese	NV	NS	5,510	1,600	1,254	8,919	10,240	171.8	NS	<	<	1.93	296.4	3,510	1447	NS	NS	NS
Miscellaneous Water Quality Parameters																		
Methane (ug/L)	NV	NS	16	12	0.756 J	2,490.000	6,520.000	0.612	NS	14	1.1	0.762 J	96.9	958	1500	NS	NS	NS
Ethane (ug/L)	NV	NS	2.4	<	<	<	<	<	NS	<	<	<	<	<	1.18	NS	NS	NS
Ethene (ug/L)	NV	NS	3.7	<	<	<	2.13	<	NS	<	<	<	<	1.08	2.59	NS	NS	NS
Total Organic Carbon (mg/L)	NV	NS	80	<	1.84	28.8	3.62	2.09	NS	<	<	1.64	3.93	1.86	1.69	NS	NS	NS
Chloride (mg/L)	NV	NS	6.3 B	2.2	136.0	62.2	40.0	12.2	NS	5.1 B	4.2	35.0	9.4	17.3	15.4	NS	NS	NS
Nitrate (mg/L)	NV	NS	0.36	8.30	8.65	0.59	0.21	2.10	NS	6	5.2	2.68	1.2	1.9	0.39	NS	NS	NS
Nitrite (mg/L)	NV	NS	<	0.042 J	NS	NS	NS	NS	NS	<	<	NS	NS	NS	NS	NS	NS	NS
Sulfate (mg/L)	NV	NS	12	25 B	19.8	18.3	13.3	22	NS	39	33 B	32.7	43.4	22.4	24	NS	NS	NS

- Only compounds detected in one or more of the groundwater samples are presented in this table.
   "<" indicates compound was not detected above the method detection limit.</li>

- "<" indicates compound was not detected above the method detection limit.</li>
   Analytical testing completed by TestAmerica and Alpha Analytical.
   Criteria is a guidance value.
   Laboratory qualifiers: B = compound was found in the blank and sample; J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximation;
   \*- LCS or LCSD exceeds the control limits; D = value shown is result of dilution analysis; E = value above quantitation range.
   mg/L = parts per million; ug/L = parts per billion
   NYSDEC Class GA Groundwater Criteria as promulgated in 6 NYCRR 703; Table 1 in Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, dated October 1993; revised June 1998; errata dated January 1999; addendum dated April 2000.
   NV = no value: NS = Not sampled
- 8. NV = no value; NS = Not sampled.9. Shaded concentrations exceed Class GA criteria.

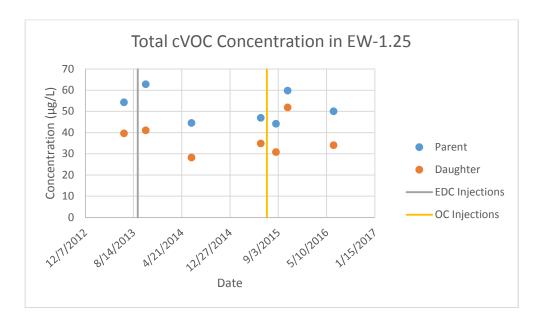


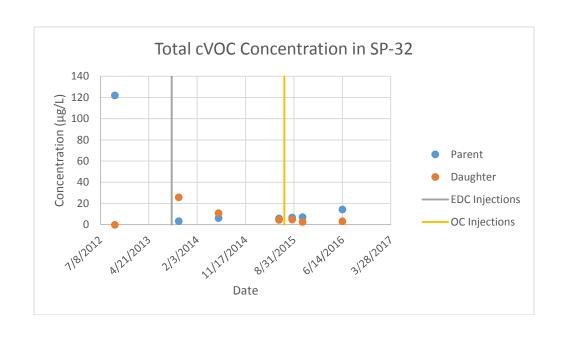
# **ATTACHMENT D**

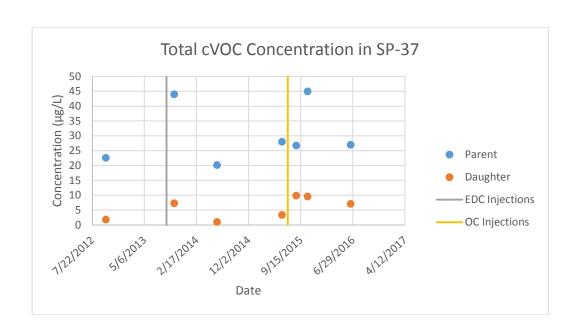
CONCENTRATIONS OF CVOC PARENT MATERIAL AND DAUGHTER PRODUCTS IN GROUNDWATER

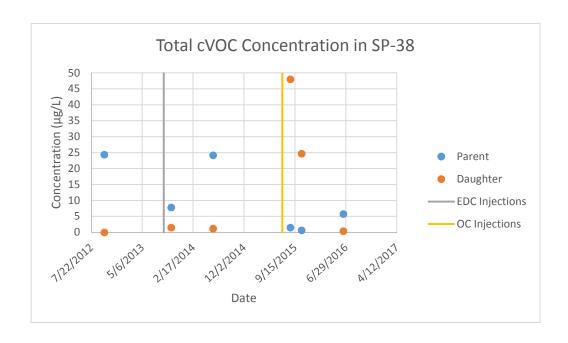
Attachment D

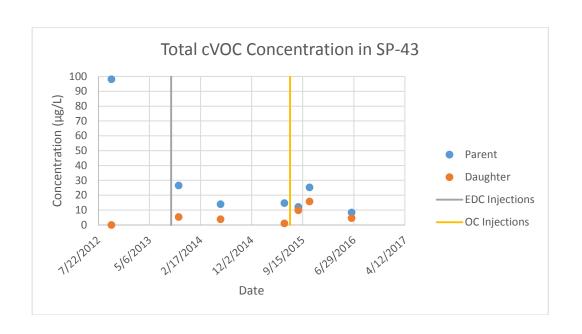
# Concentrations of cVOC Parent Material and Daughter Products in Groundwater Former Signore Facility 55-57 Jefferson Street Ellicottville, New York

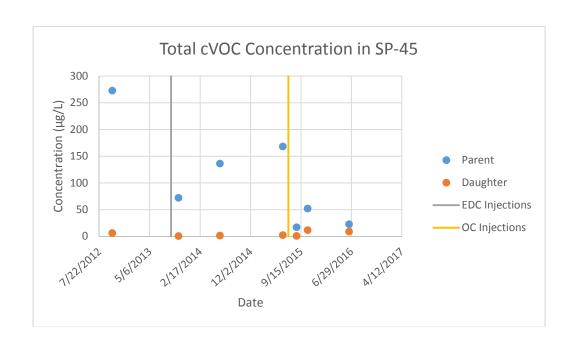


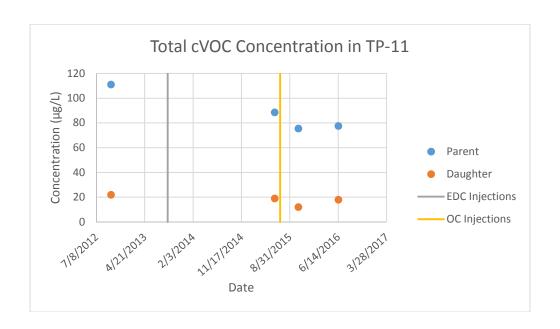














### **ATTACHMENT E**

**LABORATORY REPORT** 



#### ANALYTICAL REPORT

Lab Number: L1618425

Client: GZA GeoEnvironmental

535 Washington St. Buffalo, NY 14203

ATTN: James Richert Phone: (716) 685-2300

Project Name: FORMER SIGNORE

Project Number: 21.0056367.61

Report Date: 06/28/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

 Lab Number:
 L1618425

 Report Date:
 06/28/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1618425-01	EW-1.25-061516	WATER	ELLICOTTVILLE, NY	06/15/16 11:15	06/15/16
L1618425-02	SP-32-061516	WATER	ELLICOTTVILLE, NY	06/15/16 13:25	06/15/16
L1618425-03	SP-38-061516	WATER	ELLICOTTVILLE, NY	06/15/16 14:15	06/15/16
L1618425-04	TRIP BLANK	WATER	ELLICOTTVILLE, NY	06/15/16 07:05	06/15/16
L1618425-05	SP-43-061616	WATER	ELLICOTTVILLE, NY	06/16/16 08:10	06/16/16
L1618425-06	SP-37-061616	WATER	ELLICOTTVILLE, NY	06/16/16 09:00	06/16/16
L1618425-07	SP-45-061616	WATER	ELLICOTTVILLE, NY	06/16/16 10:05	06/16/16
L1618425-08	TP-11-061616	WATER	ELLICOTTVILLE, NY	06/16/16 10:55	06/16/16
L1618425-09	TRIP BLANK	WATER	ELLICOTTVILLE, NY	06/16/16 07:05	06/16/16



Project Name:FORMER SIGNORELab Number:L1618425Project Number:21.0056367.61Report Date:06/28/16

#### **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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any guestions.



Project Name:FORMER SIGNORELab Number:L1618425Project Number:21.0056367.61Report Date:06/28/16

#### **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.

Total Organic Carbon

The WG904966-4 MS recovery (123%), performed on L1618425-01, is outside the acceptance criteria; however, the associated LCS recovery was within criteria. No further action was taken.

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:

Title: Technical Director/Representative Date: 06/28/16

(600) Skulow Kelly Stenstrom

## **ORGANICS**



## **VOLATILES**



None

Field Prep:

Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

 Lab ID:
 L1618425-01
 Date Collected:
 06/15/16 11:15

 Client ID:
 EW-1.25-061516
 Date Received:
 06/15/16

Client ID: EW-1.25-061516
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 06/22/16 11:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	244		ug/l	0.500	0.500	1	Α
Ethene	0.558		ug/l	0.500	0.500	1	Α
Ethane	ND		ug/l	0.500	0.500	1	Α



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

Report Date: 06/28/16

Lab ID: L1618425-02 Client ID: SP-32-061516

Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 06/24/16 14:26

Analyst: PD Date Collected: 06/15/16 13:25 Date Received:

06/15/16 Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	stborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.44	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	14		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1618425

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Report Date:

06/28/16

Lab ID: L1618425-02 Client ID: SP-32-061516

Sample Location: ELLICOTTVILLE, NY Date Collected: 06/15/16 13:25

Date Received: 06/15/16 Field Prep: None

Lab Number:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Wes	tborough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	3.3		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	99		70-130	
Toluene-d8	106		70-130	
4-Bromofluorobenzene	101		70-130	
Dibromofluoromethane	102		70-130	



None

Field Prep:

Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

 Lab ID:
 L1618425-02
 Date Collected:
 06/15/16 13:25

 Client ID:
 SP-32-061516
 Date Received:
 06/15/16

Client ID: SP-32-061516
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 06/22/16 12:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	205		ug/l	0.500	0.500	1	Α
Ethene	ND		ug/l	0.500	0.500	1	Α
Ethane	ND		ug/l	0.500	0.500	1	Α



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

Report Date: 06/28/16

Lab ID: L1618425-03

Client ID: SP-38-061516 Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 06/24/16 15:00

Analyst: PD Date Collected: 06/15/16 14:15 Date Received: 06/15/16

Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	stborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.28	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.39	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	5.5		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1618425

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 06/15/16 14:15

Client ID: SP-38-061516 Date Received: 06/15/16 Sample Location: ELLICOTTVILLE, NY Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	oorough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	100		70-130	
Toluene-d8	105		70-130	
4-Bromofluorobenzene	103		70-130	
Dibromofluoromethane	102		70-130	



None

Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

 Lab ID:
 L1618425-03
 Date Collected:
 06/15/16 14:15

 Client ID:
 SP-38-061516
 Date Received:
 06/15/16

Client ID: SP-38-061516 Date Received: Sample Location: ELLICOTTVILLE, NY Field Prep:

Matrix: Water Analytical Method: 117,-

Analytical Date: 06/22/16 12:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	3.87		ug/l	0.500	0.500	1	Α
Ethene	ND		ug/l	0.500	0.500	1	Α
Ethane	ND		ug/l	0.500	0.500	1	А



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

**Report Date:** 06/28/16

Lab ID: L1618425-04

Client ID: TRIP BLANK

Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 06/24/16 18:15

Analyst: PD

Date Collected:	06/15/16 07:05
Date Received:	06/15/16
Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Wes	stborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1618425

Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

SAMPLE RESULTS

L1618425-04

Date Collected: 06/15/16 07:05

Lab Number:

Client ID: TRIP BLANK Date Received: 06/15/16
Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbo	orough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

% Recovery	Qualifier	Acceptance Criteria	
101		70-130	
95		70-130	
93		70-130	
101		70-130	
	101 95 93	101 95 93	% Recovery         Qualifier         Criteria           101         70-130           95         70-130           93         70-130



Lab ID:

06/16/16 08:10

Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

**Report Date:** 06/28/16

Date Collected:

SAIVIFLE RESUL

Lab ID: L1618425-05 Client ID: SP-43-061616

Sample Location: ELLICOTTVILLE, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/24/16 15:35

Analyst: PD

Date Received: 06/16/16
Field Prep: Not Specified

ELLICOTTVILLE, NY Field Prep: Not Specified Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbord	ough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	7.7		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.71		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1618425

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

SAMPLE RESULTS

Lab ID: Date Collected: 06/16/16 08:10

Client ID: SP-43-061616 Date Received: 06/16/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - Wes	tborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1	
p/m-Xylene	ND		ug/l	2.5	0.70	1	
o-Xylene	ND		ug/l	2.5	0.70	1	
cis-1,2-Dichloroethene	4.6		ug/l	2.5	0.70	1	
Styrene	ND		ug/l	2.5	0.70	1	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1	
Acetone	1.9	J	ug/l	5.0	1.5	1	
Carbon disulfide	ND		ug/l	5.0	1.0	1	
2-Butanone	ND		ug/l	5.0	1.9	1	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1	
2-Hexanone	ND		ug/l	5.0	1.0	1	
Bromochloromethane	ND		ug/l	2.5	0.70	1	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1	
Isopropylbenzene	ND		ug/l	2.5	0.70	1	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
Methyl Acetate	ND		ug/l	2.0	0.23	1	
Cyclohexane	ND		ug/l	10	0.27	1	
1,4-Dioxane	ND		ug/l	250	41.	1	
Freon-113	ND		ug/l	2.5	0.70	1	
Methyl cyclohexane	ND		ug/l	10	0.40	1	

% Recovery	Qualifier	Acceptance Criteria	
101		70-130	
106		70-130	
102		70-130	
103		70-130	
	101 106 102	101 106 102	% Recovery         Qualifier         Criteria           101         70-130           106         70-130           102         70-130



Not Specified

Field Prep:

Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

 Lab ID:
 L1618425-05
 Date Collected:
 06/16/16 08:10

 Client ID:
 SP-43-061616
 Date Received:
 06/16/16

Client ID: SP-43-061616
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 06/22/16 12:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	0.612		ug/l	0.500	0.500	1	Α
Ethene	ND		ug/l	0.500	0.500	1	А
Ethane	ND		ug/l	0.500	0.500	1	А



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

**Report Date:** 06/28/16

OAIIII EE IXEOO

Lab ID: L1618425-06 Client ID: SP-37-061616

Sample Location: ELLICOTTVILLE, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/24/16 16:09

Analyst: PD

Date Collected: 06/16/16 09:00

Date Received: 06/16/16 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	estborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	14		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.42	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	13		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 06/16/16 09:00

Client ID: SP-37-061616 Date Received: 06/16/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbor	ough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	6.7		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	99		70-130	
Toluene-d8	106		70-130	
4-Bromofluorobenzene	103		70-130	
Dibromofluoromethane	101		70-130	
Toluene-d8 4-Bromofluorobenzene	106 103		70-130 70-130	



Not Specified

Field Prep:

Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

 Lab ID:
 L1618425-06
 Date Collected:
 06/16/16 09:00

 Client ID:
 SP-37-061616
 Date Received:
 06/16/16

Client ID: SP-37-061616
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 06/22/16 12:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	47.2		ug/l	0.500	0.500	1	Α
Ethene	ND		ug/l	0.500	0.500	1	Α
Ethane	ND		ug/l	0.500	0.500	1	А



06/16/16 10:05

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

Report Date: 06/28/16

Lab ID: L1618425-07 Date Collected:

> Date Received: 06/16/16 SP-45-061616 Field Prep: Not Specified

Sample Location: ELLICOTTVILLE, NY Matrix: Water

Analytical Method: 1,8260C Analytical Date: 06/24/16 16:44

Analyst: PD

Client ID:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbord	ough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	16		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	5.5		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	7.2		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1618425

Lab Number:

**Project Name:** FORMER SIGNORE

**Project Number:** Report Date: 21.0056367.61 06/28/16

**SAMPLE RESULTS** 

Lab ID: L1618425-07 Date Collected: 06/16/16 10:05

Client ID: Date Received: SP-45-061616 06/16/16 Sample Location: Field Prep: ELLICOTTVILLE, NY Not Specified

Result	Qualifier	Units	RL	MDL	Dilution Factor
borough Lab					
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
3.7		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	5.0	1.0	1
1.5	J	ug/l	5.0	1.5	1
ND		ug/l	5.0	1.0	1
ND		ug/l	5.0	1.9	1
ND		ug/l	5.0	1.0	1
ND		ug/l	5.0	1.0	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.0	0.65	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.0	0.23	1
ND		ug/l	10	0.27	1
ND		ug/l	250	41.	1
ND		ug/l	2.5	0.70	1
ND		ug/l	10	0.40	1
	ND N	ND N	ND	ND         ug/l         2.5           ND         ug/l         5.0           ND         ug/l         2.5           ND         ug/l         2.5	ND         ug/l         2.5         0.70           ND         ug/l         5.0         1.0           ND         ug/l         5.0         1.5           ND         ug/l         5.0         1.0           ND         ug/l         2.5         0.70           ND         ug/l         2.5

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06/16/16

Not Specified

Date Received:

Field Prep:

Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 06/16/16 10:05

Client ID: SP-45-061616
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 06/22/16 14:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	1500		ug/l	0.500	0.500	1	Α
Ethene	2.59		ug/l	0.500	0.500	1	Α
Ethane	1.18		ug/l	0.500	0.500	1	Α



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

**Report Date:** 06/28/16

SAIMPLE RESUL

Lab ID: L1618425-08
Client ID: TP-11-061616

Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 06/24/16 17:18 Analyst: PD Date Collected: 06/16/16 10:55 Date Received: 06/16/16

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	estborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.53		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	77		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 06/16/16 10:55

Client ID: TP-11-061616 Date Received: 06/16/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

•	·				•	•	
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - Wes	tborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1	
p/m-Xylene	ND		ug/l	2.5	0.70	1	
o-Xylene	ND		ug/l	2.5	0.70	1	
cis-1,2-Dichloroethene	18		ug/l	2.5	0.70	1	
Styrene	ND		ug/l	2.5	0.70	1	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1	
Acetone	2.0	J	ug/l	5.0	1.5	1	
Carbon disulfide	ND		ug/l	5.0	1.0	1	
2-Butanone	ND		ug/l	5.0	1.9	1	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1	
2-Hexanone	ND		ug/l	5.0	1.0	1	
Bromochloromethane	ND		ug/l	2.5	0.70	1	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1	
Isopropylbenzene	ND		ug/l	2.5	0.70	1	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
Methyl Acetate	ND		ug/l	2.0	0.23	1	
Cyclohexane	ND		ug/l	10	0.27	1	
1,4-Dioxane	ND		ug/l	250	41.	1	
Freon-113	ND		ug/l	2.5	0.70	1	
Methyl cyclohexane	ND		ug/l	10	0.40	1	

% Recovery	Qualifier	Acceptance Criteria	
102		70-130	
106		70-130	
103		70-130	
102		70-130	
	102 106 103	102 106 103	% Recovery         Qualifier         Criteria           102         70-130           106         70-130           103         70-130



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

**SAMPLE RESULTS** 

Lab Number: L1618425

Report Date: 06/28/16

Lab ID: L1618425-09

Client ID: TRIP BLANK

Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C Analytical Date: 06/24/16 17:52

Analyst: PD Date Collected: 06/16/16 07:05

Date Received: 06/16/16 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough	Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 06/16/16 07:05

Client ID: TRIP BLANK Date Received: 06/16/16
Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

·					•	•
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	tborough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

% Recovery	Acceptance Qualifier Criteria	
99	70-130	
107	70-130	
102	70-130	
100	70-130	
	99 107 102	% Recovery         Qualifier         Criteria           99         70-130           107         70-130           102         70-130



**Project Name:** FORMER SIGNORE **Lab Number:** L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 117,-

Analytical Date: 06/22/16 10:06

Parameter	Result Qu	alifier Units	RL	MDL	
Dissolved Gases by GC - Mansfield	Lab for sample	(s): 01-03,05-07	Batch:	WG906213-3	
Methane	ND	ug/l	0.500	0.500	Α
Ethene	ND	ug/l	0.500	0.500	Α
Ethane	ND	ug/l	0.500	0.500	Α



L1618425

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/16 10:12

Analyst: PD

arameter	Result	Qualifier	Units	i	RL	MDL
olatile Organics by GC/MS	- Westborough Lab	for sampl	e(s):	04	Batch:	WG907699-5
Methylene chloride	ND		ug/l		2.5	0.70
1,1-Dichloroethane	ND		ug/l		2.5	0.70
Chloroform	ND		ug/l		2.5	0.70
Carbon tetrachloride	ND		ug/l		0.50	0.13
1,2-Dichloropropane	ND		ug/l		1.0	0.13
Dibromochloromethane	ND		ug/l		0.50	0.15
1,1,2-Trichloroethane	ND		ug/l		1.5	0.50
Tetrachloroethene	ND		ug/l		0.50	0.18
Chlorobenzene	ND		ug/l		2.5	0.70
Trichlorofluoromethane	ND		ug/l		2.5	0.70
1,2-Dichloroethane	ND		ug/l		0.50	0.13
1,1,1-Trichloroethane	ND		ug/l		2.5	0.70
Bromodichloromethane	ND		ug/l		0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l		0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l		0.50	0.14
Bromoform	ND		ug/l		2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l		0.50	0.14
Benzene	ND		ug/l		0.50	0.16
Toluene	ND		ug/l		2.5	0.70
Ethylbenzene	ND		ug/l		2.5	0.70
Chloromethane	ND		ug/l		2.5	0.70
Bromomethane	ND		ug/l		2.5	0.70
Vinyl chloride	ND		ug/l		1.0	0.07
Chloroethane	ND		ug/l		2.5	0.70
1,1-Dichloroethene	ND		ug/l		0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l		2.5	0.70
Trichloroethene	ND		ug/l		0.50	0.18
1,2-Dichlorobenzene	ND		ug/l		2.5	0.70
1,3-Dichlorobenzene	ND		ug/l		2.5	0.70



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

**Report Date:** 06/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/16 10:12

Analyst: PD

A-Dichlorobenzene   ND	Parameter	Result	Qualifier	Units		RL	MDL	
Methyl tert butyl ether         ND         ug/l         2.5         0.70           p/m-Xylene         ND         ug/l         2.5         0.70           o-Xylene         ND         ug/l         2.5         0.70           cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromoe-3-chloropropane         ND         ug/l         2.5         0.70	/olatile Organics by GC/MS - V	Vestborough Lab	for samp	le(s):	04	Batch:	WG907699-5	
p/m-Xylene         ND         ug/l         2.5         0.70           o-Xylene         ND         ug/l         2.5         0.70           cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         5.0         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70      <	1,4-Dichlorobenzene	ND		ug/l		2.5	0.70	
o-Xylene         ND         ug/l         2.5         0.70           cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5 <t< td=""><td>Methyl tert butyl ether</td><td>ND</td><td></td><td>ug/l</td><td></td><td>2.5</td><td>0.70</td><td></td></t<>	Methyl tert butyl ether	ND		ug/l		2.5	0.70	
cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0	p/m-Xylene	ND		ug/l		2.5	0.70	
Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.70           Cyclohexane         ND         ug/l         2.5	o-Xylene	ND		ug/l		2.5	0.70	
Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         250         41           Freon-113         ND         ug/l         2.5         0.70 <td>cis-1,2-Dichloroethene</td> <td>ND</td> <td></td> <td>ug/l</td> <td></td> <td>2.5</td> <td>0.70</td> <td></td>	cis-1,2-Dichloroethene	ND		ug/l		2.5	0.70	
Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         2.0         0.23           Treon-113         ND         ug/l         2.5         0.70	Styrene	ND		ug/l		2.5	0.70	
Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         250         41           Freon-113         ND         ug/l         2.5         0.70	Dichlorodifluoromethane	ND		ug/l		5.0	1.0	
2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41           Freon-113         ND         ug/l         2.5         0.70	Acetone	ND		ug/l		5.0	1.5	
4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41           Freon-113         ND         ug/l         2.5         0.70	Carbon disulfide	ND		ug/l		5.0	1.0	
2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41           Freon-113         ND         ug/l         2.5         0.70	2-Butanone	ND		ug/l		5.0	1.9	
Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41           Freon-113         ND         ug/l         2.5         0.70	4-Methyl-2-pentanone	ND		ug/l		5.0	1.0	
1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41           Freon-113         ND         ug/l         2.5         0.70	2-Hexanone	ND		ug/l		5.0	1.0	
1,2-Dibromo-3-chloropropane       ND       ug/l       2.5       0.70         Isopropylbenzene       ND       ug/l       2.5       0.70         1,2,3-Trichlorobenzene       ND       ug/l       2.5       0.70         1,2,4-Trichlorobenzene       ND       ug/l       2.5       0.70         Methyl Acetate       ND       ug/l       2.0       0.23         Cyclohexane       ND       ug/l       10       0.27         1,4-Dioxane       ND       ug/l       250       41         Freon-113       ND       ug/l       2.5       0.70	Bromochloromethane	ND		ug/l		2.5	0.70	
Sopropylbenzene   ND   ug/l   2.5   0.70	1,2-Dibromoethane	ND		ug/l		2.0	0.65	
1,2,3-Trichlorobenzene       ND       ug/l       2.5       0.70         1,2,4-Trichlorobenzene       ND       ug/l       2.5       0.70         Methyl Acetate       ND       ug/l       2.0       0.23         Cyclohexane       ND       ug/l       10       0.27         1,4-Dioxane       ND       ug/l       250       41         Freon-113       ND       ug/l       2.5       0.70	1,2-Dibromo-3-chloropropane	ND		ug/l		2.5	0.70	
1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41.           Freon-113         ND         ug/l         2.5         0.70	Isopropylbenzene	ND		ug/l		2.5	0.70	
Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41.           Freon-113         ND         ug/l         2.5         0.70	1,2,3-Trichlorobenzene	ND		ug/l		2.5	0.70	
Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         41.           Freon-113         ND         ug/l         2.5         0.70	1,2,4-Trichlorobenzene	ND		ug/l		2.5	0.70	
1,4-Dioxane         ND         ug/l         250         41.           Freon-113         ND         ug/l         2.5         0.70	Methyl Acetate	ND		ug/l		2.0	0.23	
Freon-113 ND ug/l 2.5 0.70	Cyclohexane	ND		ug/l		10	0.27	
3	1,4-Dioxane	ND		ug/l		250	41.	
Methyl cyclohexane ND ug/l 10 0.40	Freon-113	ND		ug/l		2.5	0.70	
	Methyl cyclohexane	ND		ug/l		10	0.40	



L1618425

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/16 10:12

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by GC/MS - Wes	stborough La	ab for sampl	e(s): 04	Batch: V	VG907699-5	

			Acceptance	
Surrogate	%Recovery	Qualifier	Criteria	
1,2-Dichloroethane-d4	101		70-130	
Toluene-d8	96		70-130	
4-Bromofluorobenzene	95		70-130	
Dibromofluoromethane	102		70-130	



L1618425

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/16 12:08

Parameter	Result	Qualifier Units	RL.	MDL	
Volatile Organics by GC/MS	- Westborough Lab	for sample(s):	02-03,05-09	Batch: WG907702-5	
Methylene chloride	ND	ug/l	2.5	0.70	
1,1-Dichloroethane	ND	ug/l	2.5	0.70	
Chloroform	ND	ug/l	2.5	0.70	
Carbon tetrachloride	ND	ug/l	0.50	0.13	
1,2-Dichloropropane	ND	ug/l	1.0	0.13	
Dibromochloromethane	ND	ug/l	0.50	0.15	
1,1,2-Trichloroethane	ND	ug/l	1.5	0.50	
Tetrachloroethene	ND	ug/l	0.50	0.18	
Chlorobenzene	ND	ug/l	2.5	0.70	
Trichlorofluoromethane	ND	ug/l	2.5	0.70	
1,2-Dichloroethane	ND	ug/l	0.50	0.13	
1,1,1-Trichloroethane	ND	ug/l	2.5	0.70	
Bromodichloromethane	ND	ug/l	0.50	0.19	
trans-1,3-Dichloropropene	ND	ug/l	0.50	0.16	
cis-1,3-Dichloropropene	ND	ug/l	0.50	0.14	
Bromoform	ND	ug/l	2.0	0.65	
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50	0.14	
Benzene	ND	ug/l	0.50	0.16	
Toluene	ND	ug/l	2.5	0.70	
Ethylbenzene	ND	ug/l	2.5	0.70	
Chloromethane	ND	ug/l	2.5	0.70	
Bromomethane	ND	ug/l	2.5	0.70	
Vinyl chloride	ND	ug/l	1.0	0.07	
Chloroethane	ND	ug/l	2.5	0.70	
1,1-Dichloroethene	ND	ug/l	0.50	0.14	
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
Trichloroethene	ND	ug/l	0.50	0.18	
1,2-Dichlorobenzene	ND	ug/l	2.5	0.70	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

**Report Date:** 06/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/16 12:08

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by GC/MS	- Westborough Lat	o for sampl	e(s):	02-03,05-09	Batch: WG907702-5	
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	
Methyl tert butyl ether	ND		ug/l	2.5	0.70	
p/m-Xylene	ND		ug/l	2.5	0.70	
o-Xylene	ND		ug/l	2.5	0.70	
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	
Styrene	ND		ug/l	2.5	0.70	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	
Acetone	ND		ug/l	5.0	1.5	
Carbon disulfide	ND		ug/l	5.0	1.0	
2-Butanone	ND		ug/l	5.0	1.9	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	
2-Hexanone	ND		ug/l	5.0	1.0	
Bromochloromethane	ND		ug/l	2.5	0.70	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	
Isopropylbenzene	ND		ug/l	2.5	0.70	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	
Methyl Acetate	ND		ug/l	2.0	0.23	
Cyclohexane	ND		ug/l	10	0.27	
1,4-Dioxane	64	J	ug/l	250	41.	
Freon-113	ND		ug/l	2.5	0.70	
Methyl cyclohexane	ND		ug/l	10	0.40	



**Project Name:** FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/16 12:08

Parameter	Result	Qualifier	Units	RL RL	N	<b>IDL</b>
Volatile Organics by GC/MS - V	Westborough La	b for sampl	e(s):	02-03.05-09	Batch:	WG907702-5

			Acceptance	
Surrogate	%Recovery	Qualifier	Criteria	
1,2-Dichloroethane-d4	97		70-130	
Toluene-d8	106		70-130	
4-Bromofluorobenzene	103		70-130	
Dibromofluoromethane	101		70-130	



**Project Name:** FORMER SIGNORE

Lab Number:

L1618425

**Project Number:** 21.0056367.61

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab A	ssociated sample(s	): 01-03,05	5-07 Batch: WG	906213-2					
Methane	101		-		80-120	-		25	А
Ethene	100		-		80-120	-		25	Α
Ethane	102		-		80-120	-		25	Α

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
olatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	04 Batch: W0	907699-3	WG907699-4			
Methylene chloride	110		98		70-130	12		20
1,1-Dichloroethane	100		93		70-130	7		20
Chloroform	110		96		70-130	14		20
2-Chloroethylvinyl ether	120		100		70-130	18		20
Carbon tetrachloride	110		99		63-132	11		20
1,2-Dichloropropane	100		93		70-130	7		20
Dibromochloromethane	110		96		63-130	14		20
1,1,2-Trichloroethane	100		92		70-130	8		20
Tetrachloroethene	120		98		70-130	20		20
Chlorobenzene	110		95		75-130	15		20
Trichlorofluoromethane	110		97		62-150	13		20
1,2-Dichloroethane	100		95		70-130	5		20
1,1,1-Trichloroethane	110		98		67-130	12		20
Bromodichloromethane	110		94		67-130	16		20
trans-1,3-Dichloropropene	100		90		70-130	11		20
cis-1,3-Dichloropropene	110		95		70-130	15		20
1,1-Dichloropropene	110		95		70-130	15		20
Bromoform	110		98		54-136	12		20
1,1,2,2-Tetrachloroethane	96		86		67-130	11		20
Benzene	110		93		70-130	17		20
Toluene	110		92		70-130	18		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
olatile Organics by GC/MS - Westborough	Lab Associated	sample(s): (	04 Batch: WG	907699-3	WG907699-4			
Ethylbenzene	110		93		70-130	17		20
Chloromethane	81		71		64-130	13		20
Bromomethane	130		110		39-139	17		20
Vinyl chloride	90		83		55-140	8		20
Chloroethane	100		91		55-138	9		20
1,1-Dichloroethene	110		95		61-145	15		20
trans-1,2-Dichloroethene	110		97		70-130	13		20
Trichloroethene	110		99		70-130	11		20
1,2-Dichlorobenzene	110		95		70-130	15		20
1,3-Dichlorobenzene	110		95		70-130	15		20
1,4-Dichlorobenzene	110		94		70-130	16		20
Methyl tert butyl ether	100		94		63-130	6		20
p/m-Xylene	115		100		70-130	14		20
o-Xylene	115		100		70-130	14		20
cis-1,2-Dichloroethene	110		96		70-130	14		20
Dibromomethane	110		100		70-130	10		20
1,2,3-Trichloropropane	96		86		64-130	11		20
Acrylonitrile	96		91		70-130	5		20
Isopropyl Ether	97		90		70-130	7		20
tert-Butyl Alcohol	80		108		70-130	30	Q	20
Styrene	115		100		70-130	14		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 04	Batch: WG9	07699-3 V	VG907699-4			
Dichlorodifluoromethane	68		61		36-147	11		20
Acetone	100		76		58-148	27	Q	20
Carbon disulfide	96		84		51-130	13		20
2-Butanone	80		75		63-138	6		20
Vinyl acetate	95		88		70-130	8		20
4-Methyl-2-pentanone	80		76		59-130	5		20
2-Hexanone	81		78		57-130	4		20
Acrolein	95		86		40-160	10		20
Bromochloromethane	120		110		70-130	9		20
2,2-Dichloropropane	110		95		63-133	15		20
1,2-Dibromoethane	100		93		70-130	7		20
1,3-Dichloropropane	100		90		70-130	11		20
1,1,1,2-Tetrachloroethane	110		97		64-130	13		20
Bromobenzene	110		96		70-130	14		20
n-Butylbenzene	110		94		53-136	16		20
sec-Butylbenzene	110		94		70-130	16		20
tert-Butylbenzene	120		94		70-130	24	Q	20
o-Chlorotoluene	100		86		70-130	15		20
p-Chlorotoluene	110		90		70-130	20		20
1,2-Dibromo-3-chloropropane	97		93		41-144	4		20
Hexachlorobutadiene	120		110		63-130	9		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 04	Batch: WG9	07699-3	WG907699-4			
Isopropylbenzene	110		93		70-130	17		20
p-Isopropyltoluene	120		96		70-130	22	Q	20
Naphthalene	83		98		70-130	17		20
n-Propylbenzene	110		92		69-130	18		20
1,2,3-Trichlorobenzene	93		120		70-130	25	Q	20
1,2,4-Trichlorobenzene	100		110		70-130	10		20
1,3,5-Trimethylbenzene	110		93		64-130	17		20
1,2,4-Trimethylbenzene	110		94		70-130	16		20
Methyl Acetate	88		84		70-130	5		20
Ethyl Acetate	88		85		70-130	3		20
Cyclohexane	100		91		70-130	9		20
Ethyl-Tert-Butyl-Ether	100		93		70-130	7		20
Tertiary-Amyl Methyl Ether	100		93		66-130	7		20
1,4-Dioxane	60		128		56-162	72	Q	20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		98		70-130	12		20
p-Diethylbenzene	120		97		70-130	21	Q	20
p-Ethyltoluene	110		93		70-130	17		20
1,2,4,5-Tetramethylbenzene	110		97		70-130	13		20
Tetrahydrofuran	99		92		58-130	7		20
Ethyl ether	100		94		59-134	6		20
trans-1,4-Dichloro-2-butene	83		72		70-130	14		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date:

06/28/16

Parameter	LCS %Recovery	Qual	LCSE %Recov		%Recovery Limits	RPD	RPD Qual Limits	
Volatile Organics by GC/MS - W	estborough Lab Associated	d sample(s):	04 Batch:	WG907699-3	WG907699-4			
lodomethane	32	Q	39	Q	70-130	20	20	
Methyl cyclohexane	110		96		70-130	14	20	

	LCS		LCSD		Acceptance	
Surrogate	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	95		100		70-130	
Toluene-d8	97		96		70-130	
4-Bromofluorobenzene	95		93		70-130	
Dibromofluoromethane	103		104		70-130	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits
platile Organics by GC/MS - Westborough L	ab Associated	sample(s):	02-03,05-09 E	atch: WG9	07702-3 WG9077	'02-4	
Methylene chloride	100		100		70-130	0	20
1,1-Dichloroethane	120		110		70-130	9	20
Chloroform	100		100		70-130	0	20
2-Chloroethylvinyl ether	83		86		70-130	4	20
Carbon tetrachloride	90		90		63-132	0	20
1,2-Dichloropropane	120		110		70-130	9	20
Dibromochloromethane	88		97		63-130	10	20
1,1,2-Trichloroethane	110		110		70-130	0	20
Tetrachloroethene	100		100		70-130	0	20
Chlorobenzene	110		110		75-130	0	20
Trichlorofluoromethane	97		83		62-150	16	20
1,2-Dichloroethane	98		96		70-130	2	20
1,1,1-Trichloroethane	93		90		67-130	3	20
Bromodichloromethane	96		98		67-130	2	20
trans-1,3-Dichloropropene	96		100		70-130	4	20
cis-1,3-Dichloropropene	100		100		70-130	0	20
1,1-Dichloropropene	110		100		70-130	10	20
Bromoform	83		92		54-136	10	20
1,1,2,2-Tetrachloroethane	100		110		67-130	10	20
Benzene	110		110		70-130	0	20
Toluene	110		110		70-130	0	20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

Parameter	LCS %Recovery	Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-03,05-09 Batc	h: WG907702-3 WG90770	2-4		
Ethylbenzene	110		110	70-130	0		20
Chloromethane	130		88	64-130	39	Q	20
Bromomethane	87		64	39-139	30	Q	20
Vinyl chloride	130		94	55-140	32	Q	20
Chloroethane	160	Q	120	55-138	29	Q	20
1,1-Dichloroethene	110		90	61-145	20		20
trans-1,2-Dichloroethene	120		100	70-130	18		20
Trichloroethene	100		100	70-130	0		20
1,2-Dichlorobenzene	110		110	70-130	0		20
1,3-Dichlorobenzene	110		110	70-130	0		20
1,4-Dichlorobenzene	110		110	70-130	0		20
Methyl tert butyl ether	93		92	63-130	1		20
p/m-Xylene	115		115	70-130	0		20
o-Xylene	115		115	70-130	0		20
cis-1,2-Dichloroethene	110		110	70-130	0		20
Dibromomethane	100		100	70-130	0		20
1,2,3-Trichloropropane	100		110	64-130	10		20
Acrylonitrile	110		110	70-130	0		20
Isopropyl Ether	120		120	70-130	0		20
tert-Butyl Alcohol	114		120	70-130	5		20
Styrene	115		120	70-130	4		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

Parameter	LCS %Recovery	Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-03,05-09 Batcl	h: WG907702-3 WG90770	2-4		
Dichlorodifluoromethane	94		46	36-147	69	Q	20
Acetone	110		95	58-148	15		20
Carbon disulfide	110		84	51-130	27	Q	20
2-Butanone	100		110	63-138	10		20
Vinyl acetate	110		100	70-130	10		20
4-Methyl-2-pentanone	100		110	59-130	10		20
2-Hexanone	96		100	57-130	4		20
Acrolein	95		98	40-160	3		20
Bromochloromethane	110		110	70-130	0		20
2,2-Dichloropropane	91		85	63-133	7		20
1,2-Dibromoethane	100		100	70-130	0		20
1,3-Dichloropropane	100		110	70-130	10		20
1,1,1,2-Tetrachloroethane	97		100	64-130	3		20
Bromobenzene	100		110	70-130	10		20
n-Butylbenzene	120		110	53-136	9		20
sec-Butylbenzene	120		110	70-130	9		20
tert-Butylbenzene	110		110	70-130	0		20
o-Chlorotoluene	120		120	70-130	0		20
p-Chlorotoluene	110		110	70-130	0		20
1,2-Dibromo-3-chloropropane	82		92	41-144	11		20
Hexachlorobutadiene	97		94	63-130	3		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

Parameter	LCS %Recovery	Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	RPD Qual Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-03,05-09 Batc	h: WG907702-3 WG90770	2-4		
Isopropylbenzene	120		110	70-130	9	20	
p-Isopropyltoluene	120		110	70-130	9	20	
Naphthalene	100		110	70-130	10	20	
n-Propylbenzene	120		120	69-130	0	20	
1,2,3-Trichlorobenzene	100		100	70-130	0	20	
1,2,4-Trichlorobenzene	100		100	70-130	0	20	
1,3,5-Trimethylbenzene	110		110	64-130	0	20	
1,2,4-Trimethylbenzene	110		110	70-130	0	20	
Methyl Acetate	120		120	70-130	0	20	
Ethyl Acetate	100		100	70-130	0	20	
Cyclohexane	120		100	70-130	18	20	
Ethyl-Tert-Butyl-Ether	98		98	70-130	0	20	
Tertiary-Amyl Methyl Ether	90		94	66-130	4	20	
1,4-Dioxane	196	Q	124	56-162	45	Q 20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		91	70-130	9	20	
p-Diethylbenzene	120		110	70-130	9	20	
p-Ethyltoluene	120		110	70-130	9	20	
1,2,4,5-Tetramethylbenzene	110		110	70-130	0	20	
Tetrahydrofuran	110		110	58-130	0	20	
Ethyl ether	110		100	59-134	10	20	
trans-1,4-Dichloro-2-butene	87		91	70-130	4	20	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date:

06/28/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-03,05-09 Bato	h: WG907	7702-3 WG90770	2-4		
lodomethane	32	Q	38	Q	70-130	17	20	
Methyl cyclohexane	100		90		70-130	11	20	

	LCS		LCSD		Acceptance	
Surrogate	%Recovery Qual		%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	94		95		70-130	
Toluene-d8	108		107		70-130	
4-Bromofluorobenzene	105		105		70-130	
Dibromofluoromethane	99		102		70-130	



L1618425

06/28/16

Lab Number:

## Matrix Spike Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 

21.0056367.61

Report Date:

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual Found	MSD %Recovery	Recovery Qual Limits	, RPD	RPD Qual Limits	<u>Colum</u> n
Dissolved Gases by GC - N	Mansfield Lab	Associated sa	mple(s): 01-0	3,05-07 QC E	Satch ID: WG90621	3-5 QC Sam	ple: L1618425-03	Client ID	): SP-38-061516	
Methane	3.87	54.6	55.0	94	-	-	80-120	-	25	Α
Ethene	ND	95.5	90.2	94	-	-	80-120	-	25	Α
Ethane	ND	102	98.0	96	-	-	80-120	-	25	Α

## Lab Duplicate Analysis Batch Quality Control

Lab Number:

L1618425

06/28/16 Report Date:

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Dissolved Gases by GC - Mansfield Lab 061616	Associated sample(s): 01-03,05-07	QC Batch ID: WG90	6213-4 QC Sa	ample: L161	8425-07	Client ID:	SP-45-
Methane	1500	1470	ug/l	2		25	Α
Ethene	2.59	2.72	ug/l	5		25	Α
Ethane	1.18	1.21	ug/l	3		25	Α



**Project Name:** 

Project Number:

FORMER SIGNORE

21.0056367.61

### **METALS**



**Project Name:** Lab Number: FORMER SIGNORE **Project Number:** 21.0056367.61

L1618425

**Report Date:** 

06/28/16

**SAMPLE RESULTS** 

Lab ID: L1618425-01 Client ID: EW-1.25-061516

Date Collected:

06/15/16 11:15

Sample Location:

ELLICOTTVILLE, NY

Date Received:

06/15/16

Matrix: Water Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mans	field Lab										
Iron, Total	27.3		mg/l	1.00	0.240	20	06/20/16 07:45	5 06/22/16 20:05	EPA 3005A	1,6020A	ВМ
Manganese, Total	1.453		mg/l	0.02000	0.00604	20	06/20/16 07:45	5 06/22/16 20:05	EPA 3005A	1,6020A	ВМ



Project Name: FORMER SIGNORE Lab Number: L1618425

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

 Lab ID:
 L1618425-02
 Date Collected:
 06/15/16 13:25

 Client ID:
 SP-32-061516
 Date Received:
 06/15/16

Sample Location: ELLICOTTVILLE, NY Field Prep: None

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mar	nsfield Lab										
Iron, Total	0.541		mg/l	0.050	0.012	1	06/20/16 07:4	5 06/23/16 09:54	EPA 3005A	1,6020A	TT
Manganese, Total	2.668		mg/l	0.02000	0.00604	20	06/20/16 07:4	5 06/22/16 20:09	EPA 3005A	1,6020A	ВМ



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61 Lab Number: **Report Date:** 

L1618425 06/28/16

**SAMPLE RESULTS** 

Lab ID: L1618425-03

Client ID: SP-38-061516 Sample Location:

ELLICOTTVILLE, NY

Matrix: Water Date Collected:

06/15/16 14:15

Date Received:

06/15/16

Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansf	ield Lab										
Iron, Total	0.352		mg/l	0.050	0.012	1	06/20/16 07:45	06/23/16 09:57	EPA 3005A	1,6020A	TT
Manganese, Total	2.762		mg/l	0.02000	0.00604	20	06/20/16 07:45	06/22/16 20:13	EPA 3005A	1,6020A	ВМ



Project Name:FORMER SIGNORELab Number:L1618425Project Number:21.0056367.61Report Date:06/28/16

SAMPLE RESULTS

 Lab ID:
 L1618425-05
 Date Collected:
 06/16/16 08:10

 Client ID:
 SP-43-061616
 Date Received:
 06/16/16

Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mar	nsfield Lab										
Iron, Total	0.127		mg/l	0.050	0.012	1	06/21/16 09:4	5 06/22/16 11:27	EPA 3005A	1,6020A	AM
Manganese, Total	0.1718		mg/l	0.0010	0.0003	1	06/21/16 09:4	5 06/22/16 11:27	EPA 3005A	1,6020A	AM



L1618425

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

 Lab ID:
 L1618425-06
 Date Collected:
 06/16/16 09:00

 Client ID:
 SP-37-061616
 Date Received:
 06/16/16

Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Iron, Total	0.085		mg/l	0.050	0.012	1	06/21/16 09:4	5 06/22/16 11:30	EPA 3005A	1,6020A	AM
Manganese, Total	1.137		mg/l	0.0100	0.0030	10	06/21/16 09:4	5 06/22/16 12:13	EPA 3005A	1,6020A	AM



Not Specified

**Project Name:** Lab Number: FORMER SIGNORE L1618425 **Project Number:** 21.0056367.61 **Report Date:** 06/28/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: L1618425-07 06/16/16 10:05 Client ID: SP-45-061616 Date Received: 06/16/16 Sample Location: ELLICOTTVILLE, NY Field Prep:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mar	nsfield Lab										
Iron, Total	0.197		mg/l	0.050	0.012	1	06/21/16 09:4	5 06/22/16 11:33	EPA 3005A	1,6020A	AM
Manganese, Total	1.447		mg/l	0.0100	0.0030	10	06/21/16 09:4	5 06/22/16 12:16	EPA 3005A	1,6020A	AM



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date:

06/28/16

# Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared		Analytical Method	
Total Metals - Mansfi	eld Lab for sample(s):	01-03 E	Batch: WC	G905598	8-1				
Iron, Total	ND	mg/l	0.0500	0.0120	1	06/20/16 07:45	06/22/16 18:04	1,6020A	ВМ
Manganese, Total	ND	mg/l	0.00100	0.00030	) 1	06/20/16 07:45	06/22/16 18:04	1,6020A	ВМ

**Prep Information** 

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfie	ld Lab for sample(s)	: 05-07 B	Batch: WO	G906080	0-1				
Iron, Total	ND	mg/l	0.050	0.012	1	06/21/16 09:45	06/22/16 10:29	1,6020A	AM
Manganese, Total	ND	mg/l	0.0010	0.0003	1	06/21/16 09:45	06/22/16 10:29	1,6020A	AM

**Prep Information** 

Digestion Method: EPA 3005A



**Project Name:** FORMER SIGNORE

**Project Number:** 

21.0056367.61

Lab Number: L1618425

Report Date:

06/28/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample	e(s): 01-03 Bat	ch: WG90	5598-2					
Iron, Total	92		-		80-120	-		
Manganese, Total	95		-		80-120	-		
Total Metals - Mansfield Lab Associated sample	e(s): 05-07 Bat	ch: WG90	6080-2					
Iron, Total	96		-		80-120	-		
Manganese, Total	98		-		80-120	-		



## Matrix Spike Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 

21.0056367.61

Lab Number: L1618425

arameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery (	Recovery Qual Limits	RPD Qu	RPD <sub>al</sub> Limits
Total Metals - Mansfield Lab A	ssociated sam	ple(s): 01-03	QC Bat	tch ID: WG905	598-4	QC Samp	le: L1618788-03	Client ID: MS	Sample	
Iron, Total	ND	1	0.990	99		-	-	75-125	-	20
Manganese, Total	0.00069J	0.5	0.5043	101		-	-	75-125	-	20
Total Metals - Mansfield Lab A	ssociated sam	ple(s): 05-07	QC Bat	tch ID: WG906	080-4	QC Samp	le: L1618907-01	Client ID: MS	Sample	
Iron, Total	1.76	1	2.70	94		-	-	75-125	-	20
Manganese, Total	0.0475	0.5	0.5280	96		-	-	75-125	-	20

## Lab Duplicate Analysis Batch Quality Control

Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date:

06/28/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03	3 QC Batch ID:	WG905598-3 QC Sample	e: L1618788-03	Client ID:	DUP Sample	)
Iron, Total	ND	ND	mg/l	NC		20
Manganese, Total	0.00069J	0.00035J	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 05-07	QC Batch ID:	WG906080-3 QC Sample	e: L1618907-01	Client ID:	DUP Sample	)
Iron, Total	1.76	1.75	mg/l	1		20
Manganese, Total	0.0475	0.0467	mg/l	2		20



## INORGANICS & MISCELLANEOUS



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date: 06/28/16

### **SAMPLE RESULTS**

Lab ID: L1618425-01

Client ID: Sample Location: ELLICOTTVILLE, NY

EW-1.25-061516

Matrix:

Water

Date Collected:

06/15/16 11:15

Date Received:

06/15/16

Field Prep:

None

Parameter	Result Q	ualifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - W	estborough Lab								
Nitrogen, Nitrate	ND	mg/l	0.10	0.019	1	-	06/16/16 22:58	44,353.2	MR
Total Organic Carbon	2.26	mg/l	1.00	0.228	2	-	06/17/16 07:55	121,5310C	DW
Anions by Ion Chromat	ography - Westbo	rough Lab							
Chloride	48.8	mg/l	0.500	0.054	1	-	06/18/16 17:16	44,300.0	JC
Sulfate	10.2	mg/l	1.00	0.150	1	-	06/18/16 17:16	44,300.0	JC



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

**Report Date:** 06/28/16

### **SAMPLE RESULTS**

Lab ID: L1618425-02

Client ID: Sample Location:

SP-32-061516 ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

06/15/16 13:25

Date Received:

06/15/16

Field Prep:

None

Parameter	Result (	Qualifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	estborough Lab								
Nitrogen, Nitrate	3.9	mg/l	0.10	0.019	1	-	06/16/16 22:59	44,353.2	MR
Total Organic Carbon	1.45	mg/l	1.00	0.228	2	-	06/17/16 07:55	121,5310C	DW
Anions by Ion Chromato	ography - Westb	orough Lab							
Chloride	2.72	mg/l	0.500	0.054	1	-	06/18/16 17:28	44,300.0	JC
Sulfate	16.3	mg/l	1.00	0.150	1	-	06/18/16 17:28	44,300.0	JC



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date:

06/28/16

### **SAMPLE RESULTS**

Lab ID: L1618425-03

Client ID: Sample Location: ELLICOTTVILLE, NY

SP-38-061516

Matrix:

Water

Date Collected:

06/15/16 14:15

Date Received:

06/15/16

None Field Prep:

Parameter	Result C	Qualifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lab								
Nitrogen, Nitrate	0.57	mg/l	0.10	0.019	1	-	06/16/16 23:00	44,353.2	MR
Total Organic Carbon	1.21	mg/l	1.00	0.228	2	-	06/17/16 07:55	121,5310C	DW
Anions by Ion Chromato	graphy - Westbo	orough Lab							
Chloride	36.1	mg/l	0.500	0.054	1	-	06/18/16 18:04	44,300.0	JC
Sulfate	11.5	mg/l	1.00	0.150	1	-	06/18/16 18:04	44,300.0	JC



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

**Report Date:** 

06/28/16

### **SAMPLE RESULTS**

Lab ID: L1618425-05 Client ID:

SP-43-061616

Sample Location: ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

06/16/16 08:10

Date Received:

06/16/16

Not Specified Field Prep:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab	)								
Nitrogen, Nitrate	2.1		mg/l	0.10	0.019	1	-	06/17/16 23:39	44,353.2	MR
Total Organic Carbon	2.09		mg/l	1.00	0.228	2	-	06/21/16 08:38	121,5310C	DW
Anions by Ion Chromato	graphy - West	borough	Lab							
Chloride	12.2		mg/l	0.500	0.054	1	-	06/18/16 18:16	44,300.0	JC
Sulfate	22.0		mg/l	1.00	0.150	1	-	06/18/16 18:16	44,300.0	JC



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

**Report Date:** 

06/28/16

### **SAMPLE RESULTS**

Lab ID: L1618425-06

Client ID: Sample Location: ELLICOTTVILLE, NY

SP-37-061616

Matrix:

Water

Date Collected:

06/16/16 09:00

Date Received:

06/16/16

Field Prep:

Not Specified

Parameter	Result Qu	ualifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	estborough Lab								
Nitrogen, Nitrate	1.4	mg/l	0.10	0.019	1	-	06/17/16 23:40	44,353.2	MR
Total Organic Carbon	2.47	mg/l	1.00	0.228	2	-	06/21/16 08:38	121,5310C	DW
Anions by Ion Chromato	ography - Westbor	rough Lab							
Chloride	7.11	mg/l	0.500	0.054	1	-	06/18/16 18:28	44,300.0	JC
Sulfate	18.3	mg/l	1.00	0.150	1	-	06/18/16 18:28	44,300.0	JC



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date:

06/28/16

### **SAMPLE RESULTS**

Lab ID: L1618425-07

Client ID:

SP-45-061616

Sample Location:

ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

06/16/16 10:05

Date Received:

06/16/16

Field Prep:

Not Specified

Parameter	Result C	Qualifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	estborough Lab								
Nitrogen, Nitrate	0.39	mg/l	0.10	0.019	1	-	06/17/16 23:45	44,353.2	MR
Total Organic Carbon	1.69	mg/l	1.00	0.228	2	-	06/21/16 08:38	121,5310C	DW
Anions by Ion Chromato	ography - Westbo	orough Lab							
Chloride	15.4	mg/l	0.500	0.054	1	-	06/18/16 18:40	44,300.0	JC
Sulfate	24.0	mg/l	1.00	0.150	1	-	06/18/16 18:40	44,300.0	JC



L1618425

Lab Number:

Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.61 Report Date: 06/28/16

Method	Blank	Anal	lysis
Batch	Quality	Conti	rol

Parameter	Result Qualifi	er Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - W	estborough Lab for s	sample(s): 0	1-03 Ba	tch: WC	904797-1				
Nitrogen, Nitrate	ND	mg/l	0.10	0.019	1	-	06/16/16 22:29	44,353.2	MR
General Chemistry - W	estborough Lab for s	sample(s): 0	1-03 Ba	tch: WC	904966-1				
Total Organic Carbon	ND	mg/l	0.500	0.114	1	-	06/17/16 07:55	121,5310C	DW
General Chemistry - W	estborough Lab for s	sample(s): 0	5-07 Ba	tch: WC	905218-1				
Nitrogen, Nitrate	ND	mg/l	0.10	0.019	1	-	06/17/16 22:38	44,353.2	MR
Anions by Ion Chromat	ography - Westborou	gh Lab for s	sample(s)	: 01-03	,05-07 Bat	ch: WG9055	44-1		
Chloride	ND	mg/l	0.500	0.054	1	-	06/18/16 15:16	44,300.0	JC
Sulfate	ND	mg/l	1.00	0.150	1	-	06/18/16 15:16	44,300.0	JC
General Chemistry - W	estborough Lab for s	sample(s): 0	5-07 Ba	tch: WC	906008-1				
Total Organic Carbon	ND	mg/l	0.500	0.114	1	-	06/21/16 08:38	121,5310C	DW



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number:

L1618425

Report Date:

06/28/16

Parameter	LCS %Recovery Qu	LCSD al %Recovery	% Qual	Recovery	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 01-	-03 Batch: WG9047	97-2				
Nitrogen, Nitrate	98	-		90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 01-	-03 Batch: WG9049	966-2				
Total Organic Carbon	97	-		90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 05-	-07 Batch: WG9052	218-2				
Nitrogen, Nitrate	96	-		90-110	-		
Anions by Ion Chromatography - Westb	orough Lab Associated sa	ample(s): 01-03,05-07	7 Batch: WG9	05544-2			
Chloride	100	-		90-110	-		
Sulfate	104	-		90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 05-	-07 Batch: WG9060	008-2				
Total Organic Carbon	96	-		90-110	-		



### Matrix Spike Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

Lab Number: L1618425

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery		overy nits RP	RPD O Qual Limits
General Chemistry - Wes	tborough Lab Assoc	iated samp	ole(s): 01-03	QC Batch ID	): WG9	04797-4	QC Sample: L	1618480-01	Client ID:	MS Sample
Nitrogen, Nitrate	1.7	4	5.6	98		-	-	83	-113 -	6
General Chemistry - Wes	tborough Lab Assoc	iated samp	ole(s): 01-03	QC Batch ID	): WG9	04966-4	QC Sample: L	1618425-01	Client ID:	EW-1.25-061516
Total Organic Carbon	2.26	8	12.1	123	Q	-	-	80	-120 -	20
General Chemistry - Wes	tborough Lab Assoc	iated samp	ole(s): 05-07	QC Batch ID	): WG9	05218-4	QC Sample: L	1618425-07	Client ID:	SP-45-061616
Nitrogen, Nitrate	0.39	4	4.2	95		-	-	83	-113 -	6
Anions by Ion Chromatog	graphy - Westboroug	h Lab Asso	ociated samp	le(s): 01-03,0	5-07 (	QC Batch	ID: WG905544-	4 QC Sar	nple: L1618	633-01 Client ID:
Chloride	39.1	4	41.2	53		-	-	40	-151 -	18
Sulfate	19.1	8	26.1	88		-	-	60	-140 -	20
General Chemistry - Wes	tborough Lab Assoc	iated samp	ole(s): 05-07	QC Batch ID	): WG9	06008-4	QC Sample: L	1618588-02	Client ID:	MS Sample
Total Organic Carbon	72.9	200	266	96		-	-	80	-120 -	20

# Lab Duplicate Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.61

L1618425 06/28/16

Lab Number:

Report Date:

Parameter	Nati	ve Sam	ple D	uplicate Samp	le Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s):	01-03	QC Batch ID:	WG904797-3	QC Sample:	L1618480-01	Client ID:	DUP Sample
Nitrogen, Nitrate		1.7		1.7	mg/l	0		6
General Chemistry - Westborough Lab	Associated sample(s):	01-03	QC Batch ID:	WG904966-3	QC Sample:	L1618425-01	Client ID:	EW-1.25-061516
Total Organic Carbon		2.26		2.32	mg/l	3		20
General Chemistry - Westborough Lab	Associated sample(s):	05-07	QC Batch ID:	WG905218-3	QC Sample:	L1618425-07	Client ID:	SP-45-061616
Nitrogen, Nitrate		0.39		0.39	mg/l	0		6
Anions by Ion Chromatography - Westb DUP Sample	orough Lab Associated	d sample	(s): 01-03,05-	07 QC Batch	ID: WG90554	4-3 QC Sam	ple: L161	8633-01 Client ID:
Chloride		39.1		39.2	mg/l	0		18
Sulfate		19.1		19.1	mg/l	0		20
General Chemistry - Westborough Lab	Associated sample(s):	05-07	QC Batch ID:	WG906008-3	QC Sample:	L1618588-02	Client ID:	DUP Sample
Total Organic Carbon		72.9		65.5	mg/l	11		20



Serial\_No:06281620:41

Project Name:FORMER SIGNORELab Number: L1618425Project Number:21.0056367.61Report Date: 06/28/16

### **Sample Receipt and Container Information**

Were project specific reporting limits specified?

Cooler Information Custody Seal

Cooler

A Absent B Absent

Container Info	ormation			Temp			
Container ID	Container Type	Cooler	рΗ	deg C	Pres	Seal	Analysis(*)
L1618425-01A	Vial H2SO4 preserved	Α	N/A	4.0	Υ	Absent	TOC-5310(28)
L1618425-01B	Vial H2SO4 preserved	Α	N/A	4.0	Υ	Absent	TOC-5310(28)
L1618425-01C	20ml Vial HCl preserved	Α	N/A	4.0	Υ	Absent	DISSGAS(14)
L1618425-01D	20ml Vial HCl preserved	Α	N/A	4.0	Υ	Absent	DISSGAS(14)
L1618425-01E	Plastic 250ml unpreserved	Α	7	4.0	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1618425-01F	Plastic 250ml HNO3 preserved	Α	<2	4.0	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1618425-02A	Vial HCI preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
L1618425-02B	Vial HCI preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
L1618425-02C	Vial HCI preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
L1618425-02D	Vial H2SO4 preserved	Α	N/A	4.0	Υ	Absent	TOC-5310(28)
L1618425-02E	Vial H2SO4 preserved	Α	N/A	4.0	Υ	Absent	TOC-5310(28)
L1618425-02F	20ml Vial HCl preserved	Α	N/A	4.0	Υ	Absent	DISSGAS(14)
L1618425-02G	20ml Vial HCl preserved	Α	N/A	4.0	Υ	Absent	DISSGAS(14)
L1618425-02H	Plastic 250ml unpreserved	Α	7	4.0	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1618425-02I	Plastic 250ml HNO3 preserved	Α	<2	4.0	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1618425-03A	Vial HCl preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
L1618425-03B	Vial HCl preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
L1618425-03C	Vial HCI preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
L1618425-03D	Vial H2SO4 preserved	Α	N/A	4.0	Υ	Absent	TOC-5310(28)
L1618425-03E	Vial H2SO4 preserved	Α	N/A	4.0	Υ	Absent	TOC-5310(28)
L1618425-03F	20ml Vial HCl preserved	Α	N/A	4.0	Υ	Absent	DISSGAS(14)
L1618425-03G	20ml Vial HCl preserved	Α	N/A	4.0	Υ	Absent	DISSGAS(14)
L1618425-03H	Plastic 250ml unpreserved	Α	7	4.0	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1618425-03I	Plastic 250ml HNO3 preserved	Α	<2	4.0	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1618425-04A	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-04B	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-05A	Vial HCI preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)



Serial\_No:06281620:41

**Project Name:** FORMER SIGNORE

**Project Number: 21.0056367.61** 

**Lab Number:** L1618425 **Report Date:** 06/28/16

Container Info	ormation			Temp			
Container ID	Container Type	Cooler	рΗ	deg C	Pres	Seal	Analysis(*)
L1618425-05B	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-05C	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-05D	Vial H2SO4 preserved	В	N/A	4.1	Υ	Absent	TOC-5310(28)
L1618425-05E	Vial H2SO4 preserved	В	N/A	4.1	Υ	Absent	TOC-5310(28)
L1618425-05F	20ml Vial HCl preserved	В	N/A	4.1	Υ	Absent	DISSGAS(14)
L1618425-05G	20ml Vial HCl preserved	В	N/A	4.1	Υ	Absent	DISSGAS(14)
L1618425-05H	Plastic 250ml unpreserved	В	7	4.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1618425-05I	Plastic 250ml HNO3 preserved	В	<2	4.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1618425-06A	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-06B	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-06C	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-06D	Vial H2SO4 preserved	В	N/A	4.1	Υ	Absent	TOC-5310(28)
L1618425-06E	Vial H2SO4 preserved	В	N/A	4.1	Υ	Absent	TOC-5310(28)
L1618425-06F	20ml Vial HCl preserved	В	N/A	4.1	Υ	Absent	DISSGAS(14)
L1618425-06G	20ml Vial HCl preserved	В	N/A	4.1	Υ	Absent	DISSGAS(14)
L1618425-06H	Plastic 250ml unpreserved	В	7	4.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1618425-06I	Plastic 250ml HNO3 preserved	В	<2	4.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1618425-07A	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-07B	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-07C	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-07D	Vial H2SO4 preserved	В	N/A	4.1	Υ	Absent	TOC-5310(28)
L1618425-07E	Vial H2SO4 preserved	В	N/A	4.1	Υ	Absent	TOC-5310(28)
L1618425-07F	20ml Vial HCl preserved	В	N/A	4.1	Υ	Absent	DISSGAS(14)
L1618425-07G	20ml Vial HCl preserved	В	N/A	4.1	Υ	Absent	DISSGAS(14)
L1618425-07H	Plastic 250ml unpreserved	В	7	4.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1618425-07I	Plastic 250ml HNO3 preserved	В	<2	4.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1618425-08A	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-08B	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-08C	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-09A	Vial HCl preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)
L1618425-09B	Vial HCI preserved	В	N/A	4.1	Υ	Absent	NYTCL-8260(14)



Project Name:FORMER SIGNORELab Number:L1618425Project Number:21.0056367.61Report Date:06/28/16

### **GLOSSARY**

### Acronyms

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).

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.

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.

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

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.

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**

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

### Terms

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

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.

### **Data Qualifiers**

A - Spectra identified as "Aldol Condensation Product".

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

Report Format: DU Report with 'J' Qualifiers



Project Name:FORMER SIGNORELab Number:L1618425Project Number:21.0056367.61Report Date:06/28/16

#### **Data Qualifiers**

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- 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).
- ND Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Serial\_No:06281620:41

Project Name:FORMER SIGNORELab Number:L1618425Project Number:21.0056367.61Report Date:06/28/16

### **REFERENCES**

- Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I IV, 2007.
- Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 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.



Alpha Analytical, Inc. Facility: Company-wide

**Department: Quality Assurance** 

Title: Certificate/Approval Program Summary

Serial\_No:06281620:41

ID No.:17873 Revision 6

Published Date: 2/3/2016 10:23:10 AM

Page 1 of 1

### Certification Information

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

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene

EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene

EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.

EPA 1010A: NPW: Ignitability

EPA 6010C: NPW: Strontium; SCM: Strontium

EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate

(soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-

Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation EPA 9038: NPW: Sulfate

EPA 9050A: NPW: Specific Conductance EPA 9056: NPW: Chloride, Nitrate, Sulfate

EPA 9065: NPW: Phenols EPA 9251: NPW: Chloride SM3500: NPW: Ferrous Iron

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

SM5310C: DW: Dissolved Organic Carbon

#### **Mansfield Facility**

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane

SM 2540D: TSS

SM2540G: SCM: Percent Solids EPA 1631E: SCM: Mercury EPA 7474: SCM: Mercury

EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA 8270-SIM: NPW and SCM: Alkylated PAHs.

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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

Biological Tissue Matrix: 8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A: Lead; 8270D: bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

### The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

### Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; EPA 200.7: Ba,Be,Ca,Cd,Cr,Cu,Na; EPA 245.1: Mercury;

EPA 300.0: 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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.

### Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F,

EPA 353.2: Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.

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

Pre-Qualtrax Document ID: 08-113 Document Type: Form

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$C = HNO_3$ $D = H_2SO_4$	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup	Westboro: Certification No Mansfield: Certification No				tainer Type									Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are
F = MeOH $G = NaHSO_4$ $H = Na_2S_2O_3$ K/E = Zn Ac/NaOH O = Other	C = Cube O = Other E = Encore D = BOD Bottle	Relinquished B	sy:	Date/16	11330	All	U	red By:		G-	6-16 G/1		733° 0159	6	resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)
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### ANALYTICAL REPORT

Lab Number: L1618428

Client: GZA GeoEnvironmental

535 Washington St. Buffalo, NY 14203

ATTN: James Richert Phone: (716) 685-2300

Project Name: FORMER SIGNORE

Project Number: 21.0056491.76

Report Date: 06/27/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Number:** 21.0056491.76

Lab Number:

L1618428

Report Date:

06/27/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
I 1618428-01	FW-1 25-061516	WATER	ELLICOTTVILLE. NY	06/15/16 11:15	06/15/16



Project Name:FORMER SIGNORELab Number:L1618428Project Number:21.0056491.76Report Date:06/27/16

### **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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.



Serial\_No:06271613:14

Project Name:FORMER SIGNORELab Number:L1618428Project Number:21.0056491.76Report Date:06/27/16

### **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.

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:

Title: Technical Director/Representative Date: 06/27/16

Michelle M. Morris

### **ORGANICS**



### **VOLATILES**



Serial\_No:06271613:14

Project Name: FORMER SIGNORE

**Project Number:** 21.0056491.76

**SAMPLE RESULTS** 

Lab Number: L1618428

**Report Date:** 06/27/16

OAIIII EE IXEOO

Lab ID: L1618428-01
Client ID: EW-1.25-061516
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 06/24/16 15:42

Analyst: PD

Date Collected: 06/15/16 11:15
Date Received: 06/15/16

Date Received: 06/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - We	estborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1	
1,1-Dichloroethane	2.9		ug/l	2.5	0.70	1	
Chloroform	ND		ug/l	2.5	0.70	1	
Carbon tetrachloride	ND		ug/l	0.50	0.13	1	
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1	
Dibromochloromethane	ND		ug/l	0.50	0.15	1	
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1	
Tetrachloroethene	3.1		ug/l	0.50	0.18	1	
Chlorobenzene	ND		ug/l	2.5	0.70	1	
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1	
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1	
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1	
Bromodichloromethane	ND		ug/l	0.50	0.19	1	
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1	
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1	
Bromoform	ND		ug/l	2.0	0.65	1	
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1	
Benzene	ND		ug/l	0.50	0.16	1	
Toluene	ND		ug/l	2.5	0.70	1	
Ethylbenzene	ND		ug/l	2.5	0.70	1	
Chloromethane	ND		ug/l	2.5	0.70	1	
Bromomethane	ND		ug/l	2.5	0.70	1	
Vinyl chloride	3.2		ug/l	1.0	0.07	1	
Chloroethane	ND		ug/l	2.5	0.70	1	
1,1-Dichloroethene	0.24	J	ug/l	0.50	0.14	1	
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
Trichloroethene	47		ug/l	0.50	0.18	1	
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1	
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1	



Serial\_No:06271613:14

L1618428

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056491.76 **Report Date:** 06/27/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 06/15/16 11:15

Client ID: EW-1.25-061516 Date Received: 06/15/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbor	ough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	28		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

% Recovery	Qualifier	Acceptance Criteria	
106		70-130	
106		70-130	
103		70-130	
101		70-130	
	106 106 103	106 106 103	% Recovery         Qualifier         Criteria           106         70-130           106         70-130           103         70-130



**Project Number:** 21.0056491.76

Lab Number: L1618428

**Report Date:** 06/27/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 06/24/16 09:55

Analyst: PD

Parameter	Result	Qualifier	Units		RL	MDL
Volatile Organics by GC/MS	- Westborough Lat	o for sampl	e(s):	01	Batch:	WG907448-5
Methylene chloride	ND		ug/l		2.5	0.70
1,1-Dichloroethane	ND		ug/l		2.5	0.70
Chloroform	ND		ug/l		2.5	0.70
Carbon tetrachloride	ND		ug/l		0.50	0.13
1,2-Dichloropropane	ND		ug/l		1.0	0.13
Dibromochloromethane	ND		ug/l		0.50	0.15
1,1,2-Trichloroethane	ND		ug/l		1.5	0.50
Tetrachloroethene	ND		ug/l		0.50	0.18
Chlorobenzene	ND		ug/l		2.5	0.70
Trichlorofluoromethane	ND		ug/l		2.5	0.70
1,2-Dichloroethane	ND		ug/l		0.50	0.13
1,1,1-Trichloroethane	ND		ug/l		2.5	0.70
Bromodichloromethane	ND		ug/l		0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l		0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l		0.50	0.14
Bromoform	ND		ug/l		2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l		0.50	0.14
Benzene	ND		ug/l		0.50	0.16
Toluene	ND		ug/l		2.5	0.70
Ethylbenzene	ND		ug/l		2.5	0.70
Chloromethane	ND		ug/l		2.5	0.70
Bromomethane	ND		ug/l		2.5	0.70
Vinyl chloride	ND		ug/l		1.0	0.07
Chloroethane	ND		ug/l		2.5	0.70
1,1-Dichloroethene	ND		ug/l		0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l		2.5	0.70
Trichloroethene	ND		ug/l		0.50	0.18
1,2-Dichlorobenzene	ND		ug/l		2.5	0.70
1,3-Dichlorobenzene	ND		ug/l		2.5	0.70



**Project Number:** 21.0056491.76

Lab Number: L1618428

**Report Date:** 06/27/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1 Analytical Date: 0

1,8260C 06/24/16 09:55

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	
olatile Organics by GC/MS	- Westborough Lal	o for samp	le(s): 01	Batch:	WG907448-5	
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	
Methyl tert butyl ether	ND		ug/l	2.5	0.70	
p/m-Xylene	ND		ug/l	2.5	0.70	
o-Xylene	ND		ug/l	2.5	0.70	
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	
Styrene	ND		ug/l	2.5	0.70	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	
Acetone	ND		ug/l	5.0	1.5	
Carbon disulfide	ND		ug/l	5.0	1.0	
2-Butanone	ND		ug/l	5.0	1.9	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	
2-Hexanone	ND		ug/l	5.0	1.0	
Bromochloromethane	ND		ug/l	2.5	0.70	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	
Isopropylbenzene	ND		ug/l	2.5	0.70	
1,2,3-Trichlorobenzene	0.86	J	ug/l	2.5	0.70	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	
Methyl Acetate	ND		ug/l	2.0	0.23	
Cyclohexane	ND		ug/l	10	0.27	
1,4-Dioxane	ND		ug/l	250	41.	
Freon-113	ND		ug/l	2.5	0.70	
Methyl cyclohexane	ND		ug/l	10	0.40	



**Project Number:** 21.0056491.76

Lab Number:

L1618428

Report Date:

06/27/16

### Method Blank Analysis Batch Quality Control

Analytical Method:

1,8260C

Analytical Date:

06/24/16 09:55

Analyst:

PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - W	estborough La	ab for samp	e(s): 01	Batch: WO	907448-5

			Acceptance	
Surrogate	%Recovery	Qualifier	Criteria	
1,2-Dichloroethane-d4	102		70-130	
Toluene-d8	107		70-130	
4-Bromofluorobenzene	106		70-130	
Dibromofluoromethane	96		70-130	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.76

Lab Number: L161

L1618428

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits	
Volatile Organics by GC/MS - Westborough L	ab Associated	sample(s): 0	1 Batch: WG9	07448-3	WG907448-4			
Methylene chloride	110		110		70-130	0	20	
1,1-Dichloroethane	110		110		70-130	0	20	
Chloroform	110		110		70-130	0	20	
2-Chloroethylvinyl ether	68	Q	65	Q	70-130	5	20	
Carbon tetrachloride	92		90		63-132	2	20	
1,2-Dichloropropane	110		110		70-130	0	20	
Dibromochloromethane	100		100		63-130	0	20	
1,1,2-Trichloroethane	110		110		70-130	0	20	
Tetrachloroethene	110		110		70-130	0	20	
Chlorobenzene	110		110		75-130	0	20	
Trichlorofluoromethane	94		93		62-150	1	20	
1,2-Dichloroethane	110		100		70-130	10	20	
1,1,1-Trichloroethane	110		110		67-130	0	20	
Bromodichloromethane	110		100		67-130	10	20	
trans-1,3-Dichloropropene	100		99		70-130	1	20	
cis-1,3-Dichloropropene	97		95		70-130	2	20	
1,1-Dichloropropene	120		110		70-130	9	20	
Bromoform	80		76		54-136	5	20	
1,1,2,2-Tetrachloroethane	100		99		67-130	1	20	
Benzene	110		110		70-130	0	20	
Toluene	120		110		70-130	9	20	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.76

Lab Number: L1618428

Parameter	LCS %Recovery		CSD ecovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough L	ab Associated	sample(s): 01 Ba	atch: WG9	07448-3	WG907448-4			
Ethylbenzene	120		110		70-130	9		20
Chloromethane	100		110		64-130	10		20
Bromomethane	120		100		39-139	18		20
Vinyl chloride	100		100		55-140	0		20
Chloroethane	93		94		55-138	1		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	115		115		70-130	0		20
o-Xylene	115		115		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	97		96		70-130	1		20
1,2,3-Trichloropropane	110		110		64-130	0		20
Acrylonitrile	110		110		70-130	0		20
Isopropyl Ether	120		120		70-130	0		20
tert-Butyl Alcohol	104		114		70-130	9		20
Styrene	115		115		70-130	0		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.76

Lab Number: L1618428

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RF Qual Lin	PD nits
olatile Organics by GC/MS - Westborough L	.ab Associated	sample(s):	01 Batch: WG9	07448-3	WG907448-4			
Dichlorodifluoromethane	54		53		36-147	2	2	20
Acetone	110		100		58-148	10	2	20
Carbon disulfide	100		100		51-130	0	2	20
2-Butanone	100		98		63-138	2	2	20
Vinyl acetate	94		92		70-130	2	2	20
4-Methyl-2-pentanone	100		100		59-130	0	2	20
2-Hexanone	91		93		57-130	2	2	20
Acrolein	88		90		40-160	2	2	20
Bromochloromethane	97		96		70-130	1	2	20
2,2-Dichloropropane	100		99		63-133	1	2	20
1,2-Dibromoethane	100		100		70-130	0	2	20
1,3-Dichloropropane	120		110		70-130	9	2	20
1,1,1,2-Tetrachloroethane	100		100		64-130	0	2	20
Bromobenzene	100		100		70-130	0	2	20
n-Butylbenzene	120		120		53-136	0	2	20
sec-Butylbenzene	110		110		70-130	0	2	20
tert-Butylbenzene	94		92		70-130	2		20
o-Chlorotoluene	120		110		70-130	9		20
p-Chlorotoluene	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	75		79		41-144	5		20
Hexachlorobutadiene	120		120		63-130	0		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.76

Lab Number: L16

L1618428

Parameter	LCS %Recovery	Qual	LCSD %Recovery		covery nits RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 01	Batch: WG9	907448-3 WG9074	48-4		
Isopropylbenzene	110		110	70-	130 0		20
p-Isopropyltoluene	100		100	70-	130 0		20
Naphthalene	54	Q	74	70-	130 <b>31</b>	Q	20
n-Propylbenzene	120		110	69-	130 9		20
1,2,3-Trichlorobenzene	70		100	70-	130 <b>35</b>	Q	20
1,2,4-Trichlorobenzene	87		95	70-	130 9		20
1,3,5-Trimethylbenzene	110		110	64-	130 0		20
1,2,4-Trimethylbenzene	110		110	70-	130 0		20
Methyl Acetate	100		100	70-	130 0		20
Ethyl Acetate	100		100	70-	130 0		20
Cyclohexane	100		100	70-	130 0		20
Ethyl-Tert-Butyl-Ether	110		110	70-	130 0		20
Tertiary-Amyl Methyl Ether	94		94	66-	130 0		20
1,4-Dioxane	104		110	56-	162 6		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	93		93	70-	130 0		20
p-Diethylbenzene	98		96	70-	130 2		20
p-Ethyltoluene	110		110	70-	130 0		20
1,2,4,5-Tetramethylbenzene	91		92	70-	130 1		20
Tetrahydrofuran	130		110	58-	130 17		20
Ethyl ether	100		100	59-	134 0		20
trans-1,4-Dichloro-2-butene	80		75	70-	130 6		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.76

Lab Number:

L1618428

Report Date:

06/27/16

Parameter	LCS %Recovery	Qual	LCSD %Recover	y Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Wes	tborough Lab Associated	sample(s): (	)1 Batch: V	VG907448-3	WG907448-4				
Iodomethane	34	Q	49	Q	70-130	36	Q	20	
Methyl cyclohexane	100		100		70-130	0		20	

	LCS		LCSD		Acceptance	
Surrogate	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	98		100		70-130	
Toluene-d8	109		108		70-130	
4-Bromofluorobenzene	107		107		70-130	
Dibromofluoromethane	98		98		70-130	



Serial\_No:06271613:14

Project Name:FORMER SIGNORELab Number: L1618428Project Number:21.0056491.76Report Date: 06/27/16

### **Sample Receipt and Container Information**

Were project specific reporting limits specified?

**Cooler Information Custody Seal** 

Cooler

A Absent

Container Info	Temp						
Container ID	Container Type	Cooler	рН	deg C	Pres	Seal	Analysis(*)
L1618428-01A	Vial HCl preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
L1618428-01B	Vial HCI preserved	Α	N/A	4.0	Υ	Absent	NYTCL-8260(14)
I 1618428-01C	Vial HCI preserved	Α	N/A	4.0	Υ	Absent	NYTCI -8260(14)



Project Name:FORMER SIGNORELab Number:L1618428Project Number:21.0056491.76Report Date:06/27/16

### **GLOSSARY**

### Acronyms

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).

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.

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.

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.

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**

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

### Terms

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

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.

### **Data Qualifiers**

A - Spectra identified as "Aldol Condensation Product".

-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

Report Format: DU Report with 'J' Qualifiers



Project Name:FORMER SIGNORELab Number:L1618428Project Number:21.0056491.76Report Date:06/27/16

#### **Data Qualifiers**

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- The lower value for the two columns has been reported due to obvious interference.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- 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).
- ND Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Serial\_No:06271613:14

Project Name:FORMER SIGNORELab Number:L1618428Project Number:21.0056491.76Report Date:06/27/16

### REFERENCES

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

### 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.



Serial\_No:06271613:14

Alpha Analytical, Inc. Facility: Company-wide

**Department: Quality Assurance** 

Title: Certificate/Approval Program Summary

ID No.:17873 Revision 6

Published Date: 2/3/2016 10:23:10 AM

Page 1 of 1

### Certification Information

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

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene

EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene

EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.

EPA 1010A: NPW: Ignitability

EPA 6010C: NPW: Strontium; SCM: Strontium

EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate

(soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-

Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation EPA 9038: NPW: Sulfate

EPA 9050A: NPW: Specific Conductance EPA 9056: NPW: Chloride, Nitrate, Sulfate

EPA 9065: NPW: Phenols EPA 9251: NPW: Chloride SM3500: NPW: Ferrous Iron

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

SM5310C: DW: Dissolved Organic Carbon

#### **Mansfield Facility**

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane

SM 2540D: TSS

SM2540G: SCM: Percent Solids EPA 1631E: SCM: Mercury EPA 7474: SCM: Mercury

EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA 8270-SIM: NPW and SCM: Alkylated PAHs.

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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

Biological Tissue Matrix: 8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A: Lead; 8270D: bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

### The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

### Drinking Water

EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; EPA 200.7: Ba,Be,Ca,Cd,Cr,Cu,Na; EPA 245.1: Mercury;

EPA 300.0: 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, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.

### Non-Potable Water

EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;

EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F,

EPA 353.2: Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.

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

Pre-Qualtrax Document ID: 08-113 Document Type: Form

Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193  Client Information Client: GZA  Address: 535 Wast  Phone: 716-685- Fax: Email: Petc., Ny21	nyk Qoza com	ALPHAQuote #:  Turn-Around Time  Standard  Rush (only if pre approved)	Vay oper Ave, Suite of  Control 491, 76 oject #)  Richart	,~l		of /	Deliv	Other- ilatory F NY TOO AWQ S NY Res	ab (1 File) پکرانیم ا	AYS Danient	ASP EQU	art 375	Billing Information  Same as Client Info  Po# 21.0056491,76  Disposal Site Information  Please identify below location of applicable disposal facilities.  Disposal Facility:  NJ NY  Other:
These samples have be							ANA	LYSIS					Sample Filtration
Other project specific  Please specify Metals		nents:					8260 TCL						Done Lab to do Preservation Lab to do  (Please Specify below)
ALPHA Lab ID (Lab Use Only)	Sa	mple ID		Sample Sampler's		Voc						t	
			Date	Time	Matrix	Initials							Sample Specific Comments e
18498 -01	EW-1.25-	061516	6-15-16	1115	GW	PN	X				_		
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Preservative Code:	Container Code												
A = None I B = HCI // C = HNO <sub>3</sub> N D = H <sub>2</sub> SO <sub>4</sub> (0	P = Plastic	Westboro: Certification No Mansfield: Certification No				tainer Type		+					Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until now ambiguities are
$F = MeOH$ $G = NaHSO_4$ $H = Na_2S_2O_3$	C = Cube O = Other E = Encore D = BOD Bottle  C Sept-2013)	Relinquished B		Date/1 6-15-16 / i (o	ime //616 6	J. A.	Receive		026	15/1	Date/	Time Olis's	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.)



GZA GeoEnvironmental, Inc.



Proactive by Design



# OCTOBER 2016 POST-INJECTION GROUNDWATER MONITORING DATA REPORT

Former Signore Inc. 55-57 Jefferson Street Ellicottville New York 14731

December 2, 2016 File No. 21.0056367.62



### **PREPARED FOR:**

Iskalo Ellicottville Holdings LLC Williamsville, New York

### **GZA GeoEnvironmental of New York**

535 Washington Street, 11<sup>th</sup> Floor | Buffalo, New York 14203 716-685-2300

26 Offices Nationwide www.gza.com

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CONSTRUCTION MANAGEMENT

GZA GeoEnvironmental of NY 535 Washington Street 11th Floor Buffalo, NY 14203 T: 716.685.2300 F: 716.685.3629 www.gza.com



### **VIA EMAIL**

December 2, 2016 File No. 21.0056367.62

Mr. David Chiazza Iskalo Ellicottville Holdings LLC Harbinger Square 5166 Main Street Williamsville, NY 14221 dchiazza@iskalo.com

Re: October 2016 Post-Injection Groundwater Monitoring Data Report

Former Signore, Inc. 55-57 Jefferson Street Ellicottville, NY 14731 NYSDEC Site No. C905034

Dear David:

GZA GeoEnvironmental of New York (GZA) is pleased to submit this post-injection groundwater monitoring data report to Iskalo Ellicottville Holdings LLC (Iskalo) presenting the analytical results of a seven well sampling event conducted in October 2016 at the above referenced Site. The post-injection groundwater monitoring was performed as required by New York State Department of Environmental Conservation (NYSDEC) as specified in the Decision Document for Brownfield Site No. C905034 dated July 2015. The post-injection monitoring was conducted in conjunction with the semi-annual groundwater monitoring of 12 other wells that has been performed since 1992 as required by NYSDEC and specified in the Record of Decision (ROD) dated January 1992.

Details of the remedial injection program and the first (August 2015) round of post-injection monitoring were provided in the Final Engineering Report for the Site, dated October 2015.

This data report provides well development forms, an analytical data summary table, graphs of preand post- injection concentrations of chlorinated solvents in groundwater, and the laboratory data report for the eight wells sampled.

The analytical results of the groundwater sampling provide useful information for documentation of concentrations of chlorinated volatile organic compounds (cVOCs) present in the on-Site groundwater. Groundwater cVOC concentrations measured at 15 months post-OCEDS injection (October 2016) follow trends typical for this stage of enhanced reductive dechlorination, with PCE and TCE concentrations decreasing in conjunction with production of DCE, VC, and ethene. As cVOC concentrations decline, biodegradation typically slows down due to less contact between cVOCs and dechlorination bacteria. Groundwater biogeochemical parameters are generally conducive to continued reductive dechlorination, with predominately low DO, ORP, nitrate, and sulfate in conjunction with higher groundwater concentrations of methane and reduced iron and manganese. The TOC concentrations are lower than they were at 11 months post-OCEDS injection. This is expected, as the OCEDS additive, by design, provides organic carbon for indigenous bacteria to



consume while reducing electron acceptors that compete with cVOCs. Biomass generated by bacterial growth cycles provides a sustainable source of organic carbon, helping to maintain groundwater conditions conducive to reductive dechlorination as the injected OCEDS is consumed. In GZA's opinion, groundwater conditions are generally conducive to continued reductive dechlorination. Monitoring will continue to more fully assess the long-term impacts of the OCEDS injections on groundwater quality at the Site and to continue to document the dechlorination process.

Per the Site Management Plan, continued post-injection groundwater monitoring is required on a semi-annual basis. The required monitoring is intended to more fully assess the long-term impacts of the injections on groundwater quality at the Site and provide necessary data for documentation of the dechlorination process. The next post-injection groundwater monitoring event is scheduled for spring of 2017.

Should you have any questions or require additional information following your review, please contact Jim Richert at 716-844-7048.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

Thomas Bohlen Project Manager

James J. Richert, P.G. Senior Project Manager Karen Kinsella, Ph. D. Technical Specialist

Karen Krusella

Bart A. Klettke, P.E.

Principal

#### **ATTACHMENTS**

ATTACHMENT A LIMITATIONS

Jim Richer

ATTACHMENT B WELL DEVELOPMENT FORMS

ATTACHMENT C GROUNDWATER ANALYTICAL RESULTS SUMMARY

ATTACHMENT D CONCENTRATIONS OF CVOC PARENT MATERIAL AND DAUGHTER PRODUCTS

MEASURED IN GROUNDWATER

ATTACHMENT E LABORATORY REPORT



### **ATTACHMENT A**

**LIMITATIONS** 

### GEOHYDROLOGICAL LIMITATIONS



21.0056367.62 Page | 1 April 2012

#### **USE OF REPORT**

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

#### STANDARD OF CARE

- 2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).
- 3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
- 4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

#### SUBSURFACE CONDITIONS

- 5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
- 6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

#### **COMPLIANCE WITH CODES AND REGULATIONS**

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.





21.0056367.62 Page | 2 April 2012

#### **SCREENING AND ANALYTICAL TESTING**

- 8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
- 9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
- 10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

#### INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

#### **ADDITIONAL INFORMATION**

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

#### **ADDITIONAL SERVICES**

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.



### **ATTACHMENT B**

**WELL DEVELOPMENT FORMS** 

File: 21.0056491.77

				- 1	F7 F7/0/9	Historic Info	ormation	1000	1100	27.7	
Boring Log A	Available (	yes/no/attac	ched):								
Installation L	og Availal	ole ( <b>yes</b> /no/a	attached)								
						Summ	ary				
Monitoring V		EW-1.25			rface Elevation						ainless Steel
Installation D		7/90			Casing Elevation				creen Depth		
Installed By:		Empire Soi	ls		Point Elevation	n: 1531.96 ft.		Bottom of	of Screen De	epth: 25 ft.	
				Elevation D							
Previous Fie	eld measur	ement Infori	mation Availa	ble (yes/ <b>no</b> /							
						s of Previous F	ield Measu				
Depth to			рН		Conductance	Tempera	ature	Tu	rbidity		Color
(ft)	)	(Standa	ard Units)	(uMl	hos/cm)	(°C)		1)	NTU)		
Notes:											
		Market I		eld Observa	tions				-	eters +/-	Sampling Information
Exterior Obs	ervations:	A11 0000	)						рH	+/- 0.1	Sample ID: EW-1.25 ~ 102 516
									Conductivi		Sample Time: /145
Interior Obse	ervations	Readbox	Filled u	of water	, a						# of Sample Containers: 3
									Turbidity		Duplicate Sample ID:   A
Signs of Dar	mana/Tam	noring:							ORP DO	+/- 10mv +/- 10%	Sample Analysis: VOCs 8260
Locked (6			p (yes/no)	Surfe	ace Seal Intact	(focina)	PID Measi	romont:			
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						VV CII Quai	ly Dala				
Date	Time	Depth to	Cumulative	рН	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes
Buto	''''	Water	Volume	(Standard		(°C)	(NTU)	00101	Oxygen	Reduction	140103
		ft bgs	Purged	Units)	(uMhos/cm)	( 0)	(111.0)		Oxygon	Potential	
10-25-16	1115	10.17	0	7.05	578.2	12.3	26.7	Curr	1.56	-9117	Depth of Water: 10.12
	1130	10.17	0.50	6.87	615.0	12.0	21.2	cier	0.32	-117,6	Length of Water Column: /5.77
	1135	10.17	0.75	6.86	615,9	13.0	12.7	clear	6.29		Depth of Well: 23,89
	1190	10.17	1.00	6.84	615.6	12.8	12.12	Cirm	0.26	-121.8	Sheen Observed: Y 🕦
	1195	10.17	1.25	6.87	612.8	13.0	11.37	CLEGE	0.23	- 125.1	DNAPL Observed: Y (N
											Did Well Go Dry: Y (N)
											Other: 1 well vol 2.25gal
											Inut 6 -20'
7. 12											

New York	- 300					Historic Inf	formation	- CT - S-			
Boring Log	Available (	ves/no/atta	ched).			THISTOTIC IIII	Offination		Real Property		
Installation I											
		Je (Jeenner	attachicaj			Sumn	nany				
Monitoring V	Nell :	SP-32		Ground St	rface Elevation		lary	Dicor/Co	reen Materi	ali DVC	
Installation I		9/27/2012			Casing Elevation				creen Dept		
Installed By:		TREC			Point Elevation				of Screen D		
motanea by	•	TREO		Elevation [		<u></u>		- Bollom (	Ji Screen D	ерит. 19 п.	
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Dooth to	Motor			0					1.1.1.1		
Depth to			pН		Conductance	Temper			rbidity		Color
(ft			ard Units)		hos/cm)	(°C			NTU)		
9.2	!3	6	6.45		0.65	16.5	5		6.76		Clear
Notes:											
				eld Observa	tions	Nacine (S			Param	eters +/-	Sampling Information
Exterior Obs	servations:	All goo	J						рH	+/- 0.1	Sample ID: 5P-32-102-16
			1						Conductivi		Sample Time: 1435
Interior Obs	ervations	A-11 900	d								# of Sample Containers: 3
									Turbidity	+/- 10%	Duplicate Sample ID:
									ORP	+/- 10mV	Sample Analysis: VOCs 8260
Signs of Dar									DO	+/- 10%	MNA PARAMETERS
Locked (	yes/no)	Well Ca	(yes/no)	Surfa	ace Seal Intact	(yes/no)	PID Meas	urement:	O.O ppw	Odors: N	one
_						Well Qual	ity Data				
						ľ					
Date	Time	Depth to	Cumulative	pН	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes
		Water	Volume	(Standard	Conductance	(°C)	(NTU)		Oxygen	Reduction	
		ft bgs	Purged	Units)	(uMhos/cm)					Potential	
10.25-16	1408	7.37	0	6.76	192.4	13.6	9.61	CLEOS	2.86	115.0	Depth of Water: 7./1
	1420	7.42	0.10	6.04	179.8	14.7	5.68	clear	1.72	147.4	Length of Water Column: //. 57
	1425	7.42	0.30	6.62	180.8	14.9	5,26	CLOS	1.74	151.4	Depth of Well: / 8.68
	1430	7,42	0.50	6,00	1825	14.9	5.09	close	1.70	152.4	Sheen Observed: Y
	1435	7.42	0.70	6.00	181.4	15.1	4.96	cion	1.67	153.0	DNAPL Observed: Y
								-	W		Did Well Go Dry: Y
											Other: 1 w11 101. = 0.97 gc1
											INE + @ ~15'
											**ev
CZA CooFe	L										

1080 11.5180	a tax	TO E SA			S DELLA	Historic Inf	ormation		1,200		
Boring Log A	Available (	yes/no/attac	ched):								
Installation L	.og Availal	ole ( <b>yes</b> /no/	attached)								
						Summ	nary				
Monitoring V		SP-37			rface Elevation				reen Materi		
Installation [		9/27/2012			Casing Elevation				creen Depth		
Installed By:		TREC			Point Elevation	1:		Bottom	of Screen De	epth: 19 ft.	
Drovious Fie	lel management			Elevation D							
Previous Fie	neasur	ement infor	mation Availa	ble (yes/no	Married Street, Street	f Di	:-I-I N 4				
Depth to	Motor		nII	Canaltia		s of Previous F		-	1 1 11		
			pH ard Units)	'	Conductance	Tempera			rbidity		Color
(ft) 9.5			5.39		hos/cm) 0.535	(°C	)		NTU)		
Notes:	9		1.39		1.535		9.35		Clear		
Notes.											
- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		V - 7 - 7	Fie	eld Observa	tions		YACOS.		Param	eters +/-	Sampling Information
Exterior Obs	ervations:	A11 000							Н	+/- 0.1	Sample ID: 5P-37-162614
		1111 90	,						Conductivi		Sample Time: 1000
Interior Obse	ervations	Al 000	0								# of Sample Containers: 9
									Turbidity		Duplicate Sample ID:
									ORP		Sample Analysis: VOCs 8260
Signs of Dar									DO		MNA PARAMETERS
Locked	yes/no)	Well Ca	p (yes/no)	Surfa	ace Seal Intact			urement:	SOBOM	Odors:	
1-11-12				FILL COLUMN	ALIEN VIEW	Well Qual	ity Data				
Date	Time	Depth to Water ft bgs	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (°C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
10-26-16	0933	8.92	0	6.19	231-9	14.2	15.9	Clear	0.95	25.2	Depth of Water: 7.87
	0950	8.90	0.50	6.0!	246.1	14.0	5,28	clear	0.51	121.8	Length of Water Column: // . 15
	1000	8.90	0.75	5.99	246.5	14.0	5.18	cua	0.55	127.0	Depth of Well: 19.02
	7000	8.70	1.00	2.71	2941	14, 4	5.02	cues	0.55	130.2	Sheen Observed: Y W
											DNAPL Observed: Y 44  Did Well Go Dry: Y (N)
											Other: / well val = 6.45 acl
											INUT @ 15
											21001
GZA GooEn		1 (1)									

	, figes 10	A 10 2				Historic Info	ormation				
Boring Log A	Available (y	<b>/es</b> /no/attac	ched):								
Installation L	₋og Availat	ole ( <b>yes</b> /no/a	attached)								
						Summ	ary				
Monitoring V	Vell:	SP-38			rface Elevation				reen Materia		
Installation D		9/27/2012			Casing Elevation				creen Depth		
Installed By:		TREC			Point Elevation	1		Bottom o	f Screen De	epth: 19 ft.	
				Elevation D							
Previous Fie	eld measur	ement Infor	mation Availa	ble (yes/ <b>no</b> /	/attached)						
					Ranges	s of Previous F	ield Measu	rements			
Depth to	Water		рН	Specific (	Conductance	Tempera	ature	Tur	bidity		Color
(ft)	)	(Standa	ard Units)	(uMl	nos/cm)	( °C)		(N	ITU)		
9.9	3	6	.72	0	.412	15.2		2	.12		Clear
Notes:											
						72					
			Fie	eld Observa	tions	0.00 (0.00)			Paramo	eters +/-	Sampling Information
Exterior Obs	servations:	ALC GO	0			pН	+/- 0.1	Sample ID: 5 P-38 - 102616			
			i						Conductivit	y +/- 3%	Sample Time: 07/5
Interior Obse	ervations	Allaco	d								# of Sample Containers: 7
									Turbidity	+/- 10%	Duplicate Sample ID: NA
									ORP		Sample Analysis: VOCs 8260
Signs of Dar			ne			<i></i>			DO		MNA PARAMETERS
Locked (	yes/no)	Well Ca	p (yes/no)	Surfa	ace Seal Intact		PID Measi	urement:	e copr	Odors: 🖊	one
		SEATON SERVICES	- 2		No. of Concession, Name of Street, or other party of the Concession, Name of Street, or other pa	Well Quali	ty Data	14-7-12			
Date	Time	Depth to	Cumulative	рН	Specific	Temperature	Turbidity	Color	Dissolved	0,,,,,,,,,	Notes
Date	I IIIIe	Water	Volume		Conductance		(NTU)	Color		Oxygen Reduction	notes
		ft bgs	Purged	Units)	(uMhos/cm)	(°C)	(1410)		Oxygen	Potential	
10-26-16	0850	8.40	O C	6.11	269-0	12.1	7.11	CLEGA	1.14		Depth of Water: 8.38
10-20-15	0900	8.41	0.5	6.70	433,9	14.3	8.21	(lear	0.28	20.0	Length of Water Column: 10,27
	0905	8.41	0.75	6.73	439.9	14.6	7.67	clear	0.25		Depth of Well: 18.65
	0910	8.41	1.00	6.79	9416	14.6	7.60	clear	0.25	-203	Sheen Observed: Y CV
	0915	8.41	1.25	6.75	443.9	14.8	7.69	close	0.23	-22.5	DNAPL Observed: Y (N
											Did Well Go Dry: Y(N
											Other: / well vol > G.92 gal
											Due 1 @ AIS'
											Que.

	100				tvorte dir i	Historic Info	ormation		X, 1		
Boring Log /	Available (	yes/no/attac	ched):								
Installation L	_og Availal	ole ( <b>yes</b> /no/	attached)								
						Summ	ary				
Monitoring V	Vell:	SP-43		Ground Su	rface Elevation	:		Riser/Sc	reen Materi	al: PVC	
Installation [	Date:	10/1/2012		Protective	Casing Elevation	on:		Top of S	creen Depti	n: 10 ft.	
Installed By:		TREC		Monitoring	Point Elevation	1:		Bottom o	of Screen De	epth: 20 ft.	
		"		Elevation [	Datum:			•			
Previous Fie	eld measur	ement Infor	mation Availa	ble (yes/no	/attached)		-				
					Ranges	s of Previous F	ield Measu	rements			
Depth to	Water		pН	Specific (	Conductance	Tempera			rbidity		Color
(ft	)	(Standa	ard Units)		hos/cm)	(°C			ITU)		
10.0			i.88		).513	18.4			.04		Clear
Notes:											
		S (Cally II)	Fie	eld Observa	tions			The state of the s	Param	eters +/-	Sampling Information
Exterior Obs	servations:	A11 000	d						рН	+/- 0.1	Sample ID: 5 P-43 - 102616
		,							Conductivi	ty +/- 3%	Sample Time: 0930
Interior Obse	ervations	A 1 900	0								# of Sample Containers: 9
		)							Turbidity		Duplicate Sample ID: NA
									ORP	+/- 10mV	Sample Analysis: VOCs 8260
Signs of Dar									DO		MNA PARAMETERS
Locked (	yes/no)	Well Ca	p (ýes/no)	Surfa	ace Seal Intact		PID Meas	urement:	2.coom	Odors: MA	one
						Well Quali	ty Data				
Date	Time	Depth to Water ft bgs	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (°C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
10-26-16	800	9.13	0	6.58	225.6	13.0	7.16	C'26,	3-10	1899	Depth of Water: 9,03
	1815	9.07	0.30	6.05	223.8	13,7	3.11	cieca	1.86	1886	Length of Water Column: イタ、タック
	0820	7.13	0.40	6.0Z	221.2	13.9	3.06	che co	1.05	186.7	Depth of Well: 19.92
	08.25	9.13	0.50	6.02	223.3	14,2	3.00	clear	1.99	185 1	Sheen Observed: Y 🕅
	0830	943	0.60	6,02	22411	14.2	3.12	cee-	1.16	184.3	DNAPL Observed: Y (M
											Did Well Go Dry: Y 'Y'
											Other: 1 well vol = 0.49 ga!
											Inkl P ~15'
GZA GeoEn	ı vironmenta	al of New Yo	ork								Page: 1 of 1

						Historic Info	ormation								
Boring Log A		•	•												
Installation L	_og Availat	ole ( <b>yes</b> /no/a	attached)												
						Summ	ary								
Monitoring V		SP-45			rface Elevation				reen Materia						
Installation [		10/1/2012			Casing Elevation				creen Depth						
Installed By:	:	TREC			Point Elevation	1:		Bottom o	of Screen De	epth: 19.2 ft.	8				
				Elevation D											
Previous Fie	eld measur	ement Infor	mation Availa	ble (yes/ <b>no</b> /											
						s of Previous F									
Depth to			рН		Conductance	Tempera	ature	Tui	rbidity		Color				
(ft			ard Units)		hos/cm)	( °C)			NTU)						
11.2	25	6	.83	0	.363	17.8			2.3		Clear				
Notes:															
				eld Observa	tions				Parame	eters +/-	Sampling Information				
Exterior Obs	servations:	All go	ed				pН	+/- 0.1	Sample ID: 5P-45 - 102616						
			- i						Conductivit		Sample Time: 1055				
Interior Obse	ervations	A11 000	o d								# of Sample Containers: 🕱				
									Turbidity		Duplicate Sample ID: 🔥				
0. 10	-		6						ORP		Sample Analysis: VOCs 8260				
Signs of Dar				Ct	and Carl Intent	(/->/>	DID Mass		DO	+/- 10%	MNA PARAMETERS				
Locked	yes <i>u</i> no)	well Ca	p (yes/no)	Surra	ace Seal Intact	(yes/no)	PID Meas	urement:	3.0000	Odors: No	~<				
						Well Quali	ty Data								
Date	Time	Depth to	Cumulative	pН	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes				
Date	I IIIIe	Water	Volume	(Standard	Conductance	(°C)	(NTU)	COIOI	Oxygen	Reduction	Notes				
		ft bgs	Purged	Units)	(uMhos/cm)	( ( )	(1410)		Oxygen	Potential					
10-26-16	1025	9.97		6-24	371.4	13.7	90.z	Gren	0.44	112.9	Depth of Water: 9,9 /				
10 26-10	1040	9.97	0.50	6.63	434.0	15.8	29.9	Culor	0 08	3,7	Length of Water Column: 7.69				
	1045	9.97	0.75	6.64	435.2	15.7	19.2	Cuer	0.07	0.4	Depth of Well: 19.00				
	1050	9.97	1,00	6.65	437.2	15.9	17.8	cier	0.08	-3,4	Sheen Observed: Y				
	1054	9.97	1.25	6.66	442.3	15.8	17,2	Cipa	0.06	-8.7	DNAPL Observed: Y				
	- 25	35.0									Did Well Go Dry: Y 'N'				
											Other: / wil vol = 0.37 cm				
											1 ALC + Q - 15'				
	L	إ													

	. W. Libinit					Historic Infe	ormation				
Boring Log A	Available (	yes/no/attac	ched):								
Installation L	.og Availal	ble ( <b>yes</b> /no/	attached)								
						Summ	nary				
Monitoring V	Vell:	EW-1.25	TP-11	Ground Su	rface Elevation	: 1532.29		Riser/Sc	reen Materia	al: Steel/Sta	ainless Steel
Installation [		7/90			Casing Elevation			Top of S	creen Depth	n: 15 ft.	
Installed By:		Empire So	ils		Point Elevation	n: 1531.96 ft.		Bottom of	of Screen De	epth: 25 ft.	
		C		Elevation D					-		
Previous Fie	eld measur	rement Infor	mation Availa	ble (yes/ <b>no</b>							
						s of Previous F	ield Measu	rements			
Depth to	Water		pН	Specific (	Conductance	Tempera	ature	Tu	rbidity		Color
(ft)	)	(Stand	ard Units)	(uM	hos/cm)	(°C	)	1)	NTU)		
Notes:											
	3/12		Fie	eld Observa	tions			-01 V	Parame	eters +/-	Sampling Information
Exterior Obs	ervations:								рН	+/- 0.1	Sample ID: E-W-1.25 7P-11-162516
									Conductivi		Sample Time: 13 50
Interior Obse	ervations								Temperatu		# of Sample Containers: 3
									Turbidity		Duplicate Sample ID: NA
Ciana at Day									ORP DO		Sample Analysis: VOCs 8260
Signs of Dar Locked (			p (yes/no)	C	011-44	(	PID Meas				MNA PARAMETERS
Locked	yes/no)	vven Ca	ip (yes/no)	Suria	ace Seal Intact	(yes/no) Well Qual		urement:		Odors:	
1000 1100				Diminia		well Qual	ity Data				
Date	Time	Depth to	Cumulative	pΗ	Specific	Temperature	Turbidity	Color	Dissolved	Oxygen	Notes
Date	111116	Water	Volume	(Standard		(°C)	(NTU)	COIOI	Oxygen	Reduction	Notes
		ft bgs	Purged	Units)	(uMhos/cm)	( C)	(1410)		Oxygen	Potential	
10-25-16	1322	9-88	C	6.93	503.3	13.1	92.0	Grey	3.21	60.0	Depth of Water: 9.83
, , , ,	1335	7.88	0.3	6-83	507.5	13.6	10.09	Cate	2.3	68.7	Length of Water Column: 9,67
	1340	9.88	0.6	6.82	506.7	13.5	9.72	cear	2.23		Depth of Well: 19,50
	1345	9.88	0.9	6.82	505.6	13.5	9.74	Cipar	2.20		Sheen Observed: Y (N
	1350	9.88	1.2	6.82	504.4	13,4	9.67	crec	2.24		DNAPL Observed: Y (M
											Did Well Go Dry: V(N)
											Other: I well vol = 0.40 gai.
											Inc. 10 ~14"



### **ATTACHMENT C**

**GROUNDWATER ANALYTICAL RESULTS SUMMARY** 

#### Attachment C October 2016 Post-Injection Groundwater Analytical Results Summary Former Signore Facility Ellicottville, New York BCP Site No. C905034

Sample Location		EW-1.25	EW-1.25	EW-1.25	EW-1.25	EW-1.25	EW-1.25	EW-1.25	EW-1.25	SP-32	SP-32	SP-32	SP-32	SP-32	SP-32	SP-32	SP-32
Sample Date	Class GA	6/25/2013	10/16/2013	6/10/2014	6/4/2015	8/21/2015	10/21/2015	6/15/2016	10/25/2016	10/3/2012	10/17/2013	6/10/2014	6/4/2015	8/21/2015	10/22/2015	6/15/2016	10/25/2016
	Criteria																
Volatile Organic Compounds - EP	A Mathad CW O	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
		40, 6200B (ug/L)	T T				3.8.1	0.01			240 D					0.01	
Acetone	50	<	<	<	<	<	3.8 J	2.3 J	<	<	240 D	<	<	<	<	2.8 J	<
Methylene Chloride	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Carbon disulfide	NV	< .	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Chloromethane	NV	0.77 J	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1-Dichloroethane	5	4.1	4.1	2.9	3	2.6	4.2	2.9	3.9	<	<	<	<	<	<	<	<
1,1-Dichloroethene	5	<	<	<	0.25 J	0.19 J	0.36 J	0.24 J	0.48 J	<	<	<	<	<	<	<	<
Vinyl chloride	2	4.6	5	2.4	2.6	<	3.3	3.2	6.6	<	<	<	0.18 J	0.23 J	<	<	<
2-Butanone	50	<	<	<	<	<	<	<	<	<	45	<	<	<	<	<	<
cis-1,2-Dichloroethene	5	31	32	23	29	28	44	28	98	<	26	11	4.5	4.7	2.7	3.3	<
Toluene	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1,1-Trichloroethane	5	<	<	<	<	0.82 J	<	<	0.7 J	<	<	<	<	<	<	<	<
Tetrachloroethene	5	3.3	3.8	3.6	<	1.4	1.8	3.1	<	2.1	<	<	0.25 J	0.46 J	0.62	0.44 J	0.42 J
Trichloroethene	5	51	59	41	47	42	58	47	0.27 J	120	3.4	6.4	5.8	6.5	6.7	14	1.2
trans-1,2-dichloroethene	5	<	<	<	<	<	<	<	0.79 J	<	<	<	<	<	<	<	<
Total VOCs	2	94.77	103.9	72.9	81.85	75.01	115.46	86.74	110.74	122.1	314.4	17.4	10.73	11.89	10.02	20.54	1.62
Field Parameters			<u> </u>				,			<u> </u>	<u> </u>		<u> </u>				
Temperature (Deg. C)	NV	13	13.5	10.4	9.1	13.1	13.4	12.4	13	13.2	16.5	13.1	11.0	17.7	16.6	15.8	15.1
Specific Conductance (mS/cm)	NV	0.7	0.68	0.7	0.757	0.67	0.68	0.653	0.612	0.418	0.65	0.392	0.326	0.272	0.223	0.232	0.181
Dissolved Oxygen (mg/L)	NV	0.05	0.18	0.06	0.17	0.12	0.22	0.29	0.23	4.92	0.18	0.12	0.15	0.16	0.48	0.53	1.67
Oxygen Reduction Potential (my)	NV	-88.5	-99.3	-91.2	-130.5	-86.2	-91.6	161.4	-125.1	50.3	-95.3	-21.9	104.4	57.7	169.9	236.7	153
pH (std. units)	NV	7.35	6.85	6.78	6.73	6.77	6.89	6.79	6.87	7.23	6.45	6.48	6.28	6.34	6.25	6.22	6.0
Turbidity (NTUs)	NV	9.12	3.31	11.71	7.7	14.2	10.7	20.1	11.87	35	6.76	4.95	0.6	7.15	4.42	7.6	4.96
Inorganics (ug/L)																	
Iron	300	NS	1.000	14.000	14.000	11.500	11.900	27.300	10.500	NS	3,480	16,000	339	246	206	541	66
Manganese	NV	NS	1,300	1,600	1,482	1,265	1,465	1.453	1,354	NS	24,600	19.000	6.468	8.331	2,897	2,668	1,144
Miscellaneous Water Quality Para			.,	.,	.,=	.,===	.,	1,100	.,		,000		2,122	0,00	_,	_,,,,,	.,
Methane (ug/L)	NV	NS	1,000	170	237	218	190	244	130	NS	120	660	725	932	208	205	3.31
Ethane (ug/L)	NV	NS	<	<	<	<	<	<	<	NS	<	<	0.659	0.841	<	<	<
Ethene (ug/L)	NV	NS NS	1.7	<	<	0.535	<	0.558	0.55	NS NS	1.7	<	<	<	<	<	<
Total Organic Carbon (mg/L)	NV	NS	<	<	2.07	2.47	1.92	2.26	1.56	NS	51	<	1.35	1.7	1.02	1.45	0.87
Chloride (mg/L)	NV	NS NS	66 B	69	62	57	56	49	45	NS NS	5 B	3.1	3.46	3.12	2.83	2.72	1.59
Nitrate (mg/L)	NV	NS NS			0.015 J	0.020 J		0	0.029 J	NS		J.1	1.92	0.93	4.2	3.9	4.8
Nitrite (mg/L)	NV	NS NS			NS	NS NS	NS	NS	NS NS	NS NS	<del>                                     </del>		NS.	NS NS	NS	NS	NS
Sulfate (mg/L)	NV	NS NS	7.6	7.4 B	12.8	10.3	10.5	10.2	11.7	NS NS	4.9 J	14 B	14.6	16.8	16.1	16.3	14.4

- Notes:

  1. Only compounds detected in one or more of the groundwater samples are presented in this table.

  2. \*c\* indicates compound was not detected above the method detection limit.

  3. Analytical testing completed by TestAmerica and Alpha Analytical.

  4. Criteria is a guidance value.

  5. Laboratory qualifiers: B = compound was found in the blank and sample; J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximation;

  \*- LCS or LCSD exceeds the control limits; D = value shown is result of dilution analysis; E = value above quantitation range.

  6. mg/L = parts per million; ug/L = parts per billion

  7. NYSDEC Class GA Groundwater Criteria as promulgated in 6 NYCRR 703; Table 1 in Technical and Operational Guidance Series (1.1.1): Ambient Water Quality

  Standards and Guidance Values and Groundwater Effluent Limitations, dated October 1993; revised June 1998; errata dated January 1999; addendum dated April 2000.

  8. NV = no value; NS = Not sampled.

  9. Shaded concentrations exceed Class GA criteria.

Page 1 of 3

#### Attachment C October 2016 Post-Injection Groundwater Analytical Results Summary

Former Signore Facility Ellicottville, New York BCP Site No. C905034

					_			_	1		1			1		
Sample Location		SP-37	SP-37	SP-37	SP-37	SP-37	SP-37	SP-37	SP-37	SP-38	SP-38	SP-38	SP-38	SP-38	SP-38	SP-38
Sample Date	Class GA	10/5/2012	10/17/2013	6/10/2014	6/4/2015	8/21/2015	10/23/2015	6/16/2016	10/26/2016	10/4/2012	10/17/2013	6/10/2014	8/21/2015	10/23/2015	6/15/2016	10/26/2016
	Criteria															ı
		Q	Q	C	Q	Q	С	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organic Compounds - EP																
Acetone	50	<	<	<	<	<	<	2.6 J	<	<	<	<	<	<	1.6 J	<
Methylene Chloride	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Carbon disulfide	NV	<	<	<	<	<	<	<	<	<	<	<	1.8 J	1.9	<	<
Chloromethane	NV	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1-Dichloroethane	5	<	<	<	<	<	<	<	<	<	<	<	2 J	1.9 J	<	<
1,1-Dichloroethene	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Vinyl chloride	2	<	<	<	<	<	0.21 J	0.42 J	<	<	<	<	<	22	0.39 J	4.0
2-Butanone	50	<	<	<	<	<	<	<	<	<	<	<	26	2.1 J	<	<
cis-1,2-Dichloroethene	5	1.8	7.3	0.99 J	3.4	9.9	9.4	6.7	12	<	1.5	1.2	46	0.82 J	<	<
Toluene	5	<	<	<	<	<	<	<	<	<	<	<	<	1 J	<	<
1,1,1-Trichloroethane	5	<	<	<	<	0.82 J	<	<	<	2.4	<	<	0.86 J	<	<	<
Tetrachloroethene	5	9.6	24	13	18	15	26	14	17	5	<	5.2	0.22 J	0.37 J	0.28 J	0.48 J
Trichloroethene	5	13	20	7.2	10	11	19	13	14	17	7.8	19	0.45 J	0.29 J	5.5 J	8.2
trans-1,2-dichloroethene	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Total VOCs	2	24.4	51.3	27.2	31.4	36.72	54.61	36.72	43	24.4	9.3	25.4	77.33	30.38	7.77	12.68
Field Parameters						,					<u> </u>					
Temperature (Deg. C)	NV	13.5	17	11.9	10	17	15.3	13.3	14.2	13.1	15.2	11.6	15.2	15.1	16.1	14.8
Specific Conductance (mS/cm)	NV	0.452	0.535	0.305	0.449	0.432	0.396	0.291	0.246	0.437	0.412	0.437	1.03	0.69	0.419	0.443
Dissolved Oxygen (mg/L)	NV	0.28	0.2	0.58	0.68	0.07	0.13	0.29	0.55	3.25	2.88	4.65	0.07	0.11	1,32	0.23
Oxygen Reduction Potential (my)	NV	-122.4	74.8	107.7	117.6	16.1	82.8	306.5	130.2	31.7	103.5	136	-124.2	-172.7	241.8	-22.5
pH (std. units)	NV	6.6	6.39	6.28	6.12	6.28	6.3	6.03	5.99	6.81	6.72	6.72	7.1	7.39	6.59	6.75
Turbidity (NTUs)	NV	2.5	9.35	12.5	1.4	5.27	2.3	5.93	5.02	27.4	2.12	19.2	12.3	2.12	6.39	7.69
Inorganics (ug/L)						,					<u> </u>					
Iron	300	NS	61.7 B	900	81.4	409	66	85	56	<	<	1,500	5.660	3,040	352	811
Manganese	NV	NS	336	150	1,021	6,015	2,035	1,137	1,445	5,100	41.1 B	180	24,820	12,680	2762	9031
Miscellaneous Water Quality Para	meters					-7.	,,,,,		,	.,			7	,,,,,,		
Methane (ug/L)	NV	NS	26	2.5	28	108	67.4	47.2	<	<	20	1.1	807.0	636.0	3.9	13.7
Ethane (ug/L)	NV	NS	<	<	<	<	<	<	<	NM	<	<	<	2.57	<	0.633
Ethene (ug/L)	NV	NS	<	<	<	<	<	<	<	NM	<	<	3.45	4.56	<	2.04
Total Organic Carbon (mg/L)	NV	NS	4 J	2.8 J	2.51	4.75	2.62	2.47	2,21	<	<	<	86.9	2.22	1.21	1.32
Chloride (mg/L)	NV	NS	12 B	3.8	28.8	16.4	14.7	7.11	5.79	31	40 B	34	29	27.1	36.1	27.7
Nitrate (mg/L)	NV	NS NS	4.8	5.2	2.98	0.04	0.27	1.40	3.20	4.7	1.4	3.3	0.0 J		0.6	0.24
Nitrite (mg/L)	NV	NS NS	<	<.	NS	NS	NS	NS	NS			5.0	5.0 0	NS	NS NS	NS.
Sulfate (mg/L)	NV	NS	36	24 B	23.3	18	21.1	18.3	21	23	11	13 B	0.063 J	5.99	11.5	16.1

- Notes:

  1. Only compounds detected in one or more of the groundwater samples are presented in this table.

  2. "<" indicates compound was not detected above the method detection limit.

  3. Analytical testing completed by TestAmerica and Alpha Analytical.

  4. Criteria is a guidance value.

  5. Laboratory qualifiers: B = compound was found in the blank and sample; J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximation;

  \* LCS or LCSD exceeds the control limits; D = value shown is result of dilution analysis; E = value above quantitation range.

  6. mg/L = parts per million; ug/L = parts per billion

  7. NYSDEC Class GA Groundwater Criteria as promulgated in 6 NYCRR 703; Table 1 in Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, dated October 1993; revised June 1998; errata dated January 1999; addendum dated April 2000.

  8. NV = no value; NS = Not sampled.

  9. Shaded concentrations exceed Class GA criteria.

#### Attachment C October 2016 Post-Injection Groundwater Analytical Results Summary Former Signore Facility Ellicottville, New York BCP Site No. C905034

	T			1		1	1			1			1	1	-	1		1			1
Sample Location		SP-43	SP-43	SP-43	SP-43	SP-43	SP-43	SP-43	SP-43	SP-45	SP-45	SP-45	SP-45	SP-45	SP-45	SP-45	SP-45	TP-11	TP-11	TP-11	TP-11
Sample Date	Class GA	10/4/2012	10/17/2013	6/10/2014	6/4/2015	8/21/2015	10/23/2015	6/16/2016	10/26/2016	10/4/2012	10/17/2013	6/10/2014	6/4/2015	8/21/2015	10/23/2015	6/16/2016	10/26/2016	6/3/2015	10/22/2015	6/16/2016	10/25/2016
Campio Bato	Criteria	10/ 1/2012	10/11/2010	0/10/2011	0/ 1/2010	0/21/2010	10/20/2010	0,10,2010		10/ 1/2012	10/1//2010	0,10,2011	0/ 1/2010	0/21/2010	10/20/2010	0,10,2010	10/20/2010	0/0/2010	10/22/2010	0/10/2010	10/20/2010
		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organic Compounds - EPA	Method SW-84																				
Acetone	50	<	53	<	<	<	<	1.9 J	<	<	<	<	<	<	<	1.5 J	<	<	<	2 J	<
Methylene Chloride	5	<	<	<	<	<	<	<	<	3.2 DJ	<	<	<	<	<	<	<	<	<	<	<
Carbon disulfide	NV	<	1.3	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Chloromethane	NV	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1-Dichloroethane	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1-Dichloroethene	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Vinyl chloride	2	<	<	<	<	0.48 J	6.6	<	<	<	<	<	<	<	6.3	5.5	7.5	<	<	<	<
2-Butanone	50	<	84	<	<	21	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
cis-1,2-Dichloroethene	5	<	5.4	3.9	1.1 J	9.4	9.2	4.6	2.1 J	6.8	1.1	1.9	2.9	1.4 J	5.7	3.7	13	19	12	18	13
Toluene	5	<	<	<	<	<	84.0	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1,1-Trichloroethane	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	5	93	24	14	14	10	17	7.7	11.0	260 D	69	130	160	16	45	16	170	0.58	1.5	0.53	1.2
Trichloroethene	5	5.2	2.6	<	0.72	2.20	8.30	0.71	0.70	13	3.6	6.4	8.5	1.5	7.5	7.2	53	88	74	77	58
trans-1,2-dichloroethene	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Total VOCs	2	98.2	170.3	17.9	15.82	43.08	125.10	14.91	13.80	283.0	73.7	138.3	171.4	18.9	171.4	33.9	243.5	107.58	87.50	97.53	72.20
Field Parameters																					
Temperature (Deg. C)	NV	14.1	18.4	13	12.2	16.6	15.9	14.6	14.2	14.6	17.8	16.5	14	19.1	15.8	15.2	15.8	9.1	14.4	12.4	13.4
Specific Conductance (mS/cm)	NV	0.445	0.513	0.304	0.773	0.66	0.68	0.237	0.224	0.543	0.363	0.391	0.584	0.6	0.62	0.503	0.442	0.574	0.535	0.493	0.504
Dissolved Oxygen (mg/L)	NV	1.48	0.22	0.23	1.1	0.12	0.12	1.23	1.96	1.07	5.21	3.02	3.58	0.09	0.07	0.5	0.06	5.27	1.57	2.84	2.24
Oxygen Reduction Potential (mv)	NV	44.2	-39.3	149	175.8	-15.1	-88.2	310.9	184.3	-29.5	88.3	143.1	73.3	-62.7	-61.7	250.7	-8.7	96.2	90.7	267.4	77.7
pH (std. units)	NV	6.55	5.88	6.13	5.82	6.31	6.83	5.87	6.02	6.48	6.83	6.71	6.71	7.05	7.05	6.91	6.66	6.91	7.04	6.9	6.8
Turbidity (NTUs)	NV	39.8	4.04	18	0.2	31.7	4.26	6.7	3.12	3.95	2.3	3.17	0.5	14.91	5.06	11.25	17.2	1.9	1.87	7.69	9.67
Inorganics (ug/L)																					
Iron	300	NS	6,150	7,100	54	5,780	6,220	127	114	NS	32.1 B	170 J	27.2 J	45 J	1,260	197	386	NS	NS	NS	NS
Manganese	NV	NS	5,510	1,600	1,254	8,919	10,240	171.8	190.4	NS	<	<	1.93	296.4	3,510	1447	1,340	NS	NS	NS	NS
Miscellaneous Water Quality Paran																					
Methane (ug/L)	NV	NS	16	12	0.756 J	2,490.000	6,520.000	0.612	<	NS	14	1.1	0.762 J	96.9	958	1500	3610	NS	NS	NS	NS
Ethane (ug/L)	NV	NS	2.4	<	<	<	<	<	<	NS	<	<	<	<	<	1.18	2.47	NS	NS	NS	NS
Ethene (ug/L)	NV	NS	3.7	<	<	<	2.13	<	<	NS	<	<	<	<	1.08	2.59	3.36	NS	NS	NS	NS
Total Organic Carbon (mg/L)	NV	NS	80	<	1.84	28.8	3.62	2.09	1.91	NS	<	<	1.64	3.93	1.86	1.69	1.49	NS	NS	NS	NS
Chloride (mg/L)	NV	NS	6.3 B	2.2	136.0	62.2	40.0	12.2	9.6	NS	5.1 B	4.2	35.0	9.4	17.3	15.4	12.6	NS	NS	NS	NS
Nitrate (mg/L)	NV	NS	0.36	8.30	8.65	0.59	0.21	2.10	4.10	NS	6	5.2	2.68	1.2	1.9	0.39	0.72	NS	NS	NS	NS
Nitrite (mg/L)	NV	NS	<	0.042 J	NS	NS	NS	NS	NS	NS	<	<	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sulfate (mg/L)	NV	NS	12	25 B	19.8	18.3	13.3	22	21.4	NS	39	33 B	32.7	43.4	22.4	24	23.8	NS	NS	NS	NS

- Notes:

  1. Only compounds detected in one or more of the groundwater samples are presented in this table.

  2. "<" indicates compound was not detected above the method detection limit.

  3. Analytical testing completed by TestAmerica and Alpha Analytical.

  4. Criteria is a guidance value.

  5. Laboratory qualifiers: B = compound was found in the blank and sample; J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximation;

  \*- LCS or LCSD exceeds the control limits; D = value shown is result of dilution analysis; E = value above quantitation range.

  6. mg/L = parts per million; ug/L = parts per billion

  7. NYSDEC Class GA Groundwater Criteria as promulgated in 6 NYCRR 703; Table 1 in Technical and Operational Guidance Series (1.1.1): Ambient Water Quality

  Standards and Guidance Values and Groundwater Effluent Limitations, dated October 1993; revised June 1998; errata dated January 1999; addendum dated April 2000.

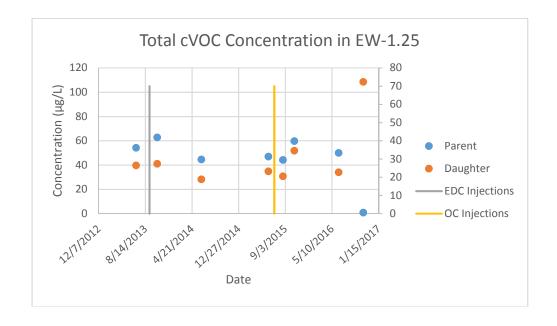
  8. NV = no value; NS = Not sampled.

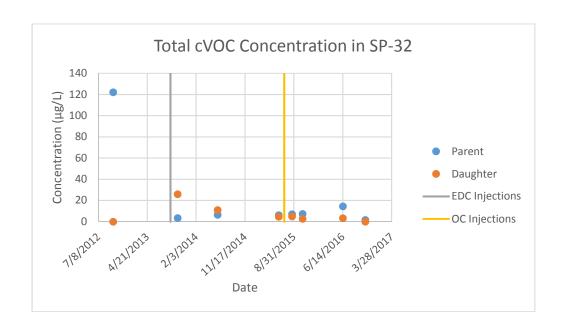
  9. Shaded concentrations exceed Class GA criteria.

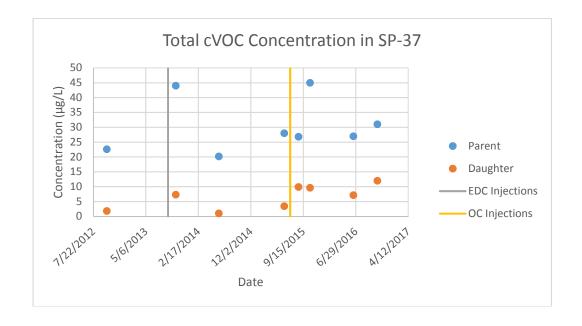


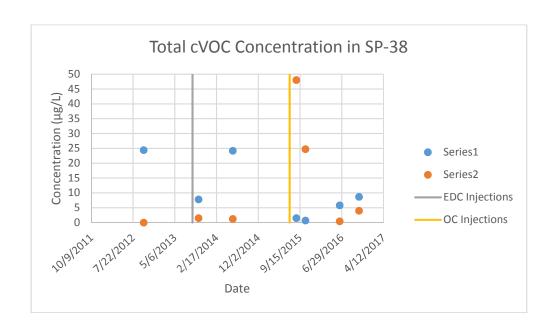
#### **ATTACHMENT D**

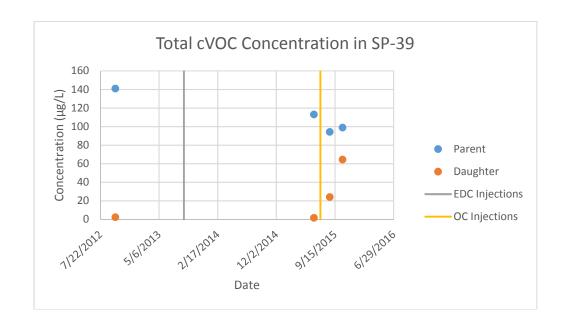
CONCENTRATIONS OF CVOC PARENT MATERIAL AND DAUGHTER PRODUCTS IN GROUNDWATER

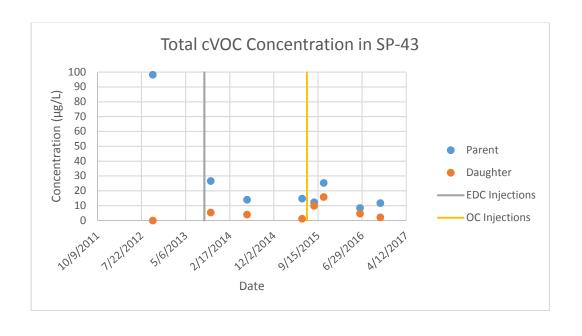


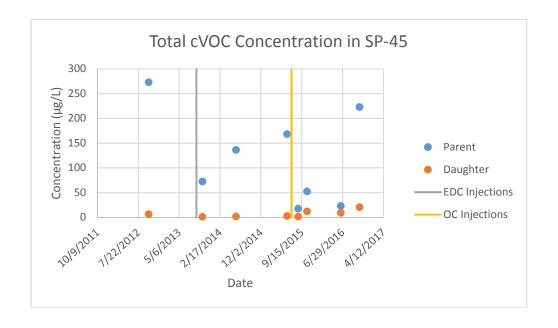


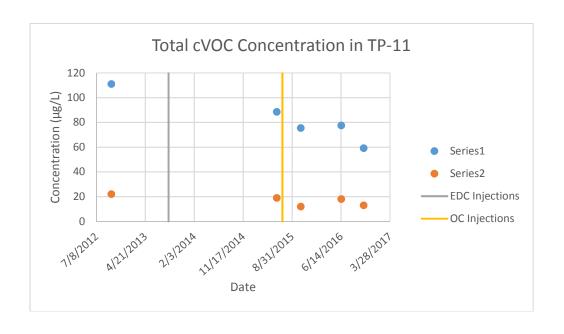














### **ATTACHMENT E**

**LABORATORY REPORT** 



#### ANALYTICAL REPORT

Lab Number: L1634559

Client: GZA GeoEnvironmental

535 Washington St. Buffalo, NY 14203

ATTN: James Richert Phone: (716) 685-2300

Project Name: FORMER SIGNORE

Project Number: 21.0056491.77

Report Date: 11/01/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



**Project Name:** FORMER SIGNORE

Project Number: 21.0056491.77 Lab Number:

L1634559

Report Date:

11/01/16

Alpha Sample ID Sample Location Collection Date/Time Client ID Matrix

L1634559-01

EW-1.25-102516

WATER

ELLICOTTVILLE, NY

10/25/16 11:45

**Receive Date** 

10/26/16



Project Name: FORMER SIGNORE Lab Number: L1634559

**Project Number:** 21.0056491.77 **Report Date:** 11/01/16

#### **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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### **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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.



Project Name:FORMER SIGNORELab Number:L1634559Project Number:21.0056491.77Report Date:11/01/16

#### **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.

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.

Michelle M. Morris

Authorized Signature:

Title: Technical Director/Representative

ANALYTICAL

Date: 11/01/16

## **ORGANICS**



### **VOLATILES**



Project Name: FORMER SIGNORE

**Project Number:** 21.0056491.77

**SAMPLE RESULTS** 

Lab Number: L1634559

**Report Date:** 11/01/16

Lab ID: L1634559-01

Client ID: EW-1.25-102516
Sample Location: ELLICOTTVILLE, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/31/16 12:53

Analyst: PD

Date Collected: 10/25/16 11:45

Date Received: 10/26/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - We	estborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1	
1,1-Dichloroethane	3.9		ug/l	2.5	0.70	1	
Chloroform	ND		ug/l	2.5	0.70	1	
Carbon tetrachloride	ND		ug/l	0.50	0.13	1	
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1	
Dibromochloromethane	ND		ug/l	0.50	0.15	1	
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1	
Tetrachloroethene	ND		ug/l	0.50	0.18	1	
Chlorobenzene	ND		ug/l	2.5	0.70	1	
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1	
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1	
1,1,1-Trichloroethane	0.70	J	ug/l	2.5	0.70	1	
Bromodichloromethane	ND		ug/l	0.50	0.19	1	
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1	
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1	
Bromoform	ND		ug/l	2.0	0.65	1	
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1	
Benzene	ND		ug/l	0.50	0.16	1	
Toluene	ND		ug/l	2.5	0.70	1	
Ethylbenzene	ND		ug/l	2.5	0.70	1	
Chloromethane	ND		ug/l	2.5	0.70	1	
Bromomethane	ND		ug/l	2.5	0.70	1	
Vinyl chloride	6.6		ug/l	1.0	0.07	1	
Chloroethane	ND		ug/l	2.5	0.70	1	
1,1-Dichloroethene	0.48	J	ug/l	0.50	0.17	1	
trans-1,2-Dichloroethene	0.79	J	ug/l	2.5	0.70	1	
Trichloroethene	0.27	J	ug/l	0.50	0.18	1	
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1	
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1	



Project Name: FORMER SIGNORE Lab Number: L1634559

**Project Number:** 21.0056491.77 **Report Date:** 11/01/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 10/25/16 11:45

Client ID: EW-1.25-102516 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westb	orough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	98		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	110		70-130	
Toluene-d8	102		70-130	
4-Bromofluorobenzene	105		70-130	
Dibromofluoromethane	103		70-130	



L1634559

Lab Number:

Project Name: FORMER SIGNORE

**Project Number:** 21.0056491.77 **Report Date:** 11/01/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 1,8260C 10/31/16 11:49

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS	- Westborough Lal	b for sample	(s): 0°	1 Batch:	WG947662-5
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70



L1634559

Lab Number:

Project Name: FORMER SIGNORE

**Project Number:** 21.0056491.77 **Report Date:** 11/01/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 1,8260C 10/31/16 11:49

Analyst: PD

A-Dichlorobenzene   ND   ug/   2.5   0.70   Methyl tert butyl ether   ND   ug/   2.5   0.70   ND   Ug/   2.0   0.65   ND   Ug/   2.0   0.65   ND   Ug/   2.5   0.70   ND   U	Parameter	Result	Qualifier	Units	RL	MDL	
Methyl tert butyl ether         ND         ug/l         2.5         0.70           p/m-Xylene         ND         ug/l         2.5         0.70           o-Xylene         ND         ug/l         2.5         0.70           cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70	/olatile Organics by GC/MS - V	Vestborough Lab	for samp	le(s): 01	Batch:	WG947662-5	
p/m-Xylene         ND         ug/l         2.5         0.70           o-Xylene         ND         ug/l         2.5         0.70           cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.70	1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	
o-Xylene         ND         ug/l         2.5         0.70           cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.7	Methyl tert butyl ether	ND		ug/l	2.5	0.70	
cis-1,2-Dichloroethene         ND         ug/l         2.5         0.70           Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         <	p/m-Xylene	ND		ug/l	2.5	0.70	
Styrene         ND         ug/l         2.5         0.70           Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.70           Tyclohoxane         ND         ug/l         2.5         0.70 <td>o-Xylene</td> <td>ND</td> <td></td> <td>ug/l</td> <td>2.5</td> <td>0.70</td> <td></td>	o-Xylene	ND		ug/l	2.5	0.70	
Dichlorodifluoromethane         ND         ug/l         5.0         1.0           Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         250         61           Freon-113         ND         ug/l         2.5         0.70 <td>cis-1,2-Dichloroethene</td> <td>ND</td> <td></td> <td>ug/l</td> <td>2.5</td> <td>0.70</td> <td></td>	cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	
Acetone         ND         ug/l         5.0         1.5           Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         2.0         0.23           Treon-113         ND         ug/l         2.5         0.70	Styrene	ND		ug/l	2.5	0.70	
Carbon disulfide         ND         ug/l         5.0         1.0           2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         2.5         0.70           1,5-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         <	Dichlorodifluoromethane	ND		ug/l	5.0	1.0	
2-Butanone         ND         ug/l         5.0         1.9           4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.5         0.70           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61           Freon-113         ND         ug/l         2.5         0.70	Acetone	ND		ug/l	5.0	1.5	
4-Methyl-2-pentanone         ND         ug/l         5.0         1.0           2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61           Freon-113         ND         ug/l         2.5         0.70	Carbon disulfide	ND		ug/l	5.0	1.0	
2-Hexanone         ND         ug/l         5.0         1.0           Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61           Freon-113         ND         ug/l         2.5         0.70	2-Butanone	ND		ug/l	5.0	1.9	
Bromochloromethane         ND         ug/l         2.5         0.70           1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61           Freon-113         ND         ug/l         2.5         0.70	4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	
1,2-Dibromoethane         ND         ug/l         2.0         0.65           1,2-Dibromo-3-chloropropane         ND         ug/l         2.5         0.70           Isopropylbenzene         ND         ug/l         2.5         0.70           1,2,3-Trichlorobenzene         ND         ug/l         2.5         0.70           1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61           Freon-113         ND         ug/l         2.5         0.70	2-Hexanone	ND		ug/l	5.0	1.0	
1,2-Dibromo-3-chloropropane       ND       ug/l       2.5       0.70         Isopropylbenzene       ND       ug/l       2.5       0.70         1,2,3-Trichlorobenzene       ND       ug/l       2.5       0.70         1,2,4-Trichlorobenzene       ND       ug/l       2.5       0.70         Methyl Acetate       ND       ug/l       2.0       0.23         Cyclohexane       ND       ug/l       10       0.27         1,4-Dioxane       ND       ug/l       250       61         Freon-113       ND       ug/l       2.5       0.70	Bromochloromethane	ND		ug/l	2.5	0.70	
Isopropylbenzene   ND   ug/l   2.5   0.70	1,2-Dibromoethane	ND		ug/l	2.0	0.65	
1,2,3-Trichlorobenzene       ND       ug/l       2.5       0.70         1,2,4-Trichlorobenzene       ND       ug/l       2.5       0.70         Methyl Acetate       ND       ug/l       2.0       0.23         Cyclohexane       ND       ug/l       10       0.27         1,4-Dioxane       ND       ug/l       250       61.         Freon-113       ND       ug/l       2.5       0.70	1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	
1,2,4-Trichlorobenzene         ND         ug/l         2.5         0.70           Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61.           Freon-113         ND         ug/l         2.5         0.70	Isopropylbenzene	ND		ug/l	2.5	0.70	
Methyl Acetate         ND         ug/l         2.0         0.23           Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61.           Freon-113         ND         ug/l         2.5         0.70	1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	
Cyclohexane         ND         ug/l         10         0.27           1,4-Dioxane         ND         ug/l         250         61.           Freon-113         ND         ug/l         2.5         0.70	1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	
1,4-Dioxane         ND         ug/l         250         61.           Freon-113         ND         ug/l         2.5         0.70	Methyl Acetate	ND		ug/l	2.0	0.23	
Freon-113 ND ug/l 2.5 0.70	Cyclohexane	ND		ug/l	10	0.27	
,5	1,4-Dioxane	ND		ug/l	250	61.	
Methyl cyclohexane ND ug/l 10 0.40	Freon-113	ND		ug/l	2.5	0.70	
	Methyl cyclohexane	ND		ug/l	10	0.40	



**Project Name:** FORMER SIGNORE Lab Number: L1634559

**Project Number:** 21.0056491.77 **Report Date:** 11/01/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 1,8260C 10/31/16 11:49

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - V	Vestborough La	ab for samp	e(s): 01	Batch: WO	G947662-5

			Acceptance				
Surrogate	%Recovery	Qualifier	Criteria				
1,2-Dichloroethane-d4	107		70-130				
Toluene-d8	102		70-130				
4-Bromofluorobenzene	108		70-130				
Dibromofluoromethane	102		70-130				



## Lab Control Sample Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.77

Lab Number: L1634559

**Report Date:** 11/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 01	Batch: WG9	947662-3	WG947662-4			
Methylene chloride	110		98		70-130	12	20	
1,1-Dichloroethane	120		100		70-130	18	20	
Chloroform	120		110		70-130	9	20	
2-Chloroethylvinyl ether	88		100		70-130	13	20	
Carbon tetrachloride	120		100		63-132	18	20	
1,2-Dichloropropane	110		100		70-130	10	20	
Dibromochloromethane	120		110		63-130	9	20	
1,1,2-Trichloroethane	110		110		70-130	0	20	
Tetrachloroethene	110		100		70-130	10	20	
Chlorobenzene	110		110		75-130	0	20	
Trichlorofluoromethane	110		99		62-150	11	20	
1,2-Dichloroethane	120		110		70-130	9	20	
1,1,1-Trichloroethane	120		100		67-130	18	20	
Bromodichloromethane	120		110		67-130	9	20	
trans-1,3-Dichloropropene	120		110		70-130	9	20	
cis-1,3-Dichloropropene	120		110		70-130	9	20	
1,1-Dichloropropene	110		99		70-130	11	20	
Bromoform	120		110		54-136	9	20	
1,1,2,2-Tetrachloroethane	110		110		67-130	0	20	
Benzene	110		100		70-130	10	20	
Toluene	110		110		70-130	0	20	



## Lab Control Sample Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.77

Lab Number: L1634559

**Report Date:** 11/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	01 Batch: WG9	47662-3	WG947662-4			
Ethylbenzene	120		110		70-130	9	20	
Chloromethane	85		72		64-130	17	20	
Bromomethane	110		95		39-139	15	20	
Vinyl chloride	96		88		55-140	9	20	
Chloroethane	110		100		55-138	10	20	
1,1-Dichloroethene	100		93		61-145	7	20	
trans-1,2-Dichloroethene	110		99		70-130	11	20	
Trichloroethene	120		100		70-130	18	20	
1,2-Dichlorobenzene	110		110		70-130	0	20	
1,3-Dichlorobenzene	110		110		70-130	0	20	
1,4-Dichlorobenzene	110		110		70-130	0	20	
Methyl tert butyl ether	110		100		63-130	10	20	
p/m-Xylene	115		110		70-130	4	20	
o-Xylene	115		110		70-130	4	20	
cis-1,2-Dichloroethene	120		100		70-130	18	20	
Dibromomethane	120		100		70-130	18	20	
1,2,3-Trichloropropane	110		110		64-130	0	20	
Acrylonitrile	110		100		70-130	10	20	
Isopropyl Ether	110		100		70-130	10	20	
tert-Butyl Alcohol	116		106		70-130	9	20	
Styrene	115		110		70-130	4	20	



## Lab Control Sample Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.77

Lab Number: L1634559

**Report Date:** 11/01/16

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
olatile Organics by GC/MS - Westborough	Lab Associated	sample(s): 0	1 Batch: WG9	47662-3	WG947662-4			
Dichlorodifluoromethane	68		62		36-147	9		20
Acetone	130		110		58-148	17		20
Carbon disulfide	110		87		51-130	23	Q	20
2-Butanone	120		100		63-138	18		20
Vinyl acetate	110		95		70-130	15		20
4-Methyl-2-pentanone	110		100		59-130	10		20
2-Hexanone	110		100		57-130	10		20
Acrolein	110		92		40-160	18		20
Bromochloromethane	130		110		70-130	17		20
2,2-Dichloropropane	120		100		63-133	18		20
1,2-Dibromoethane	110		100		70-130	10		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	120		110		64-130	9		20
Bromobenzene	110		110		70-130	0		20
n-Butylbenzene	120		110		53-136	9		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	120		120		70-130	0		20
p-Chlorotoluene	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	100		95		41-144	5		20
Hexachlorobutadiene	120		110		63-130	9		20



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.77

Lab Number: L16

L1634559

**Report Date:** 11/01/16

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
olatile Organics by GC/MS - Westborough I	_ab Associated	sample(s): (	)1 Batch: WG	947662-3	WG947662-4			
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	120		110		70-130	9		20
Naphthalene	100		100		70-130	0		20
n-Propylbenzene	120		110		69-130	9		20
1,2,3-Trichlorobenzene	110		100		70-130	10		20
1,2,4-Trichlorobenzene	110		110		70-130	0		20
1,3,5-Trimethylbenzene	120		110		64-130	9		20
1,2,4-Trimethylbenzene	120		110		70-130	9		20
Methyl Acetate	120		110		70-130	9		20
Ethyl Acetate	110		100		70-130	10		20
Cyclohexane	99		89		70-130	11		20
Ethyl-Tert-Butyl-Ether	110		100		70-130	10		20
Tertiary-Amyl Methyl Ether	110		100		66-130	10		20
1,4-Dioxane	126		102		56-162	21	Q	20
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		93		70-130	7		20
p-Diethylbenzene	120		110		70-130	9		20
p-Ethyltoluene	110		110		70-130	0		20
1,2,4,5-Tetramethylbenzene	120		110		70-130	9		20
Tetrahydrofuran	110		98		58-130	12		20
Ethyl ether	120		100		59-134	18		20
trans-1,4-Dichloro-2-butene	100		99		70-130	1		20



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056491.77

Lab Number:

L1634559

Report Date:

11/01/16

Parameter	LCS %Recovery	Qual	9	LCSD %Recove		%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborough I	_ab Associated	sample(s):	01	Batch:	WG947662-3	WG947662-4				
lodomethane	120			100		70-130	18		20	
Methyl cyclohexane	100			92		70-130	8		20	

	LCS		LCSD		Acceptance	
Surrogate	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	109		107		70-130	
Toluene-d8	98		102		70-130	
4-Bromofluorobenzene	102		105		70-130	
Dibromofluoromethane	109		106		70-130	



Project Name: Lab Number: L1634559 FORMER SIGNORE

**Project Number:** 21.0056491.77 **Report Date:** 11/01/16

# **Sample Receipt and Container Information**

YES Were project specific reporting limits specified?

**Cooler Information Custody Seal** 

Cooler

Α Absent

Container Info	ormation			Temp	Temp					
Container ID	Container Type	Cooler	рН	deg C	Pres	Seal	Analysis(*)			
L1634559-01A	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)			
L1634559-01B	Vial HCI preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)			
L1634559-01C	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)			



Project Name:FORMER SIGNORELab Number:L1634559Project Number:21.0056491.77Report Date:11/01/16

#### **GLOSSARY**

### **Acronyms**

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).

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.

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.

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.

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**

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

#### Terms

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

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.

#### **Data Qualifiers**

A - Spectra identified as "Aldol Condensation Product".

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

Report Format: DU Report with 'J' Qualifiers



Project Name:FORMER SIGNORELab Number:L1634559Project Number:21.0056491.77Report Date:11/01/16

#### **Data Qualifiers**

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- The lower value for the two columns has been reported due to obvious interference.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- 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).
- ND Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name:FORMER SIGNORELab Number:L1634559Project Number:21.0056491.77Report Date:11/01/16

### **REFERENCES**

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

## **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.



Alpha Analytical, Inc.
Facility: Company-wide

**Department: Quality Assurance** 

Title: Certificate/Approval Program Summary

ID No.:17873

Revision 7

Page 1 of 1

Published Date: 8/5/2016 11:25:56 AM

# **Certification Information**

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

### Westborough Facility

EPA 624: m/p-xylene, o-xylene

**EPA 8260C:** <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: 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 300: DW: Bromide

EPA 6860: NPW and SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide **EPA 9050A:** NPW: Specific Conductance

SM3500: NPW: Ferrous Iron

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

SM5310C: DW: Dissolved Organic Carbon

# Mansfield Facility

**SM 2540D**: TSS **EPA 3005A** NPW

**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: 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, SM4500CI-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, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, 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 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.

## **Mansfield Facility:**

## Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

#### 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, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

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

Document Type: Form Pre-Qualtrax Document ID: 08-113

Westborough, MA 01581  8 Walkup Dr.  TEL: 508-898-9220  FAX: 508-898-9193  Client Information  Client: GZA  Address: 535 WA.  TBUTALO NY  Phone: 716-685  Fax:  Email: Peter, Nyzi	-2366	Service Centers Mahwah, NJ 07430: 35 Whitney Albany, NY 12205: 14 Walker W Tonawanda, NY 14150: 275 Cod  Project Information  Project Name: Forww  Project Location: E[]  Project # Z] 0056  (Use Project name as Predict Manager: AlphaQuote #:  Turn-Around Time  Standard  Rush (only if pre approved)	Ner Sight cottyll- qq1,77 oject#)	ove		e f /	Deliv	erable ASP- EQuil Other Ilatory NY TO AWQ: NY Re NY Un	A S (1 File C I Require DGS Standard estricted to restricted Gewer Dis	ement  S  Use  Use	ηSDE	P-51	ile) ့	ALPHA Job #  // 3 455 9  Billing Information  Same as Client Info  Po #  21.605 6491.77  Disposal Site Information  Please identify below location of applicable disposal facilities.  Disposal Facility:  NJ NY  Other:
These samples have b				ANALYSIS			Sample Filtration T							
Other project specific		ents:					BZ60 TCL							Done t a a l l l l l l l l l l l l l l l l l
ALPHA Lab ID (Lab Use Only)	Sa	mple ID		ection	Sample Matrix	Sampler's Initials	20							t
34559-01	5111.125		Date	Time		AND RESIDENCE OF THE PARTY OF T	-		-	+	+-			Sample Specific Comments e
07337 01	EW-1:25-1	02516	10-25-16	1145	6-W	Pu	X	-	-		+		-	
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Preservative Code: A = None B = HCI C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup	Westboro: Certification No Mansfield: Certification No				tainer Type								Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are
F = MeOH $G = NaHSO_4$ $H = Na_2S_2O_3$	C = Cube O = Other E = Encore	Relinquished E		Date   かっzo すめ		Ball	Receiv	ed By:	ZL A	AC 10	Date (QG 10	/Time	io	resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES
K/E = Zn Ac/NaOH O = Other	D = BOD Bottle	John John	2 0 1	10/26/16	(700)	Sú	K	P			127/16	014	5	TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.
Form No: 01-25 HC (rev. 3	0-Sept-2013)													(See reverse side.)



## ANALYTICAL REPORT

Lab Number: L1634563

Client: GZA GeoEnvironmental

535 Washington St. Buffalo, NY 14203

ATTN: James Richert Phone: (716) 685-2300

Project Name: FORMER SIGNORE

Project Number: 21.0056367.62

Report Date: 11/02/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



L1634563

11/02/16

10/26/16

Lab Number:

Report Date:

10/26/16 00:00

Project Name: FORMER SIGNORE

Client ID

EW-1.25-102516

TP-11-102516

SP-32-102516

SP-43-102616

SP-38-102616

SP-37-102616

SP-45-102616

TRIP BLANK

**Matrix** WATER

WATER

WATER

WATER

WATER

WATER

WATER

WATER

ELLICOTTVILLE, NY

**Project Number:** 21.0056367.62

Alpha Sample ID

L1634563-01

L1634563-02

L1634563-03

L1634563-04

L1634563-05

L1634563-06

L1634563-07

L1634563-08

Sample Location	Collection Date/Time	Receive Date
ELLICOTTVILLE, NY	10/25/16 11:45	10/26/16
ELLICOTTVILLE, NY	10/25/16 13:50	10/26/16
ELLICOTTVILLE, NY	10/25/16 14:35	10/26/16
ELLICOTTVILLE, NY	10/26/16 08:30	10/26/16
ELLICOTTVILLE, NY	10/26/16 09:15	10/26/16
ELLICOTTVILLE, NY	10/26/16 10:00	10/26/16
ELLICOTTVILLE, NY	10/26/16 10:55	10/26/16



Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

## **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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.	



Project Name:FORMER SIGNORELab Number:L1634563Project Number:21.0056367.62Report Date:11/02/16

# **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.

Nitrogen, Nitrate

L1634563-01 and -03: The sample was analyzed for Nitrite within the method required holding time. An aliquot of sample was then preserved and analyzed for Nitrate.

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:

Title: Technical Director/Representative Date: 11/02/16

Mclusso Compps Melissa Cripps

# **ORGANICS**



# **VOLATILES**



Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 10/25/16 11:45

Client ID: EW-1.25-102516 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Matrix: Water Analytical Method: 117,-

Analytical Date: 10/28/16 11:06

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	130		ug/l	0.500	0.500	1	Α
Ethene	0.550		ug/l	0.500	0.500	1	Α
Ethane	ND		ug/l	0.500	0.500	1	Α



10/25/16 13:50

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

**SAMPLE RESULTS** 

Lab Number: L1634563

Report Date: 11/02/16

Lab ID: L1634563-02 Date Collected: Client ID: TP-11-102516

Date Received: 10/26/16

Sample Location: ELLICOTTVILLE, NY Matrix: Water

Field Prep: Not Specified

Analytical Method: 1,8260C

Analytical Date: 10/31/16 13:58

Analyst: KD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - W	estborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1	
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1	
Chloroform	ND		ug/l	2.5	0.70	1	
Carbon tetrachloride	ND		ug/l	0.50	0.13	1	
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1	
Dibromochloromethane	ND		ug/l	0.50	0.15	1	
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1	
Tetrachloroethene	1.2		ug/l	0.50	0.18	1	
Chlorobenzene	ND		ug/l	2.5	0.70	1	
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1	
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1	
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1	
Bromodichloromethane	ND		ug/l	0.50	0.19	1	
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1	
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1	
Bromoform	ND		ug/l	2.0	0.65	1	
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1	
Benzene	ND		ug/l	0.50	0.16	1	
Toluene	ND		ug/l	2.5	0.70	1	
Ethylbenzene	ND		ug/l	2.5	0.70	1	
Chloromethane	ND		ug/l	2.5	0.70	1	
Bromomethane	ND		ug/l	2.5	0.70	1	
Vinyl chloride	ND		ug/l	1.0	0.07	1	
Chloroethane	ND		ug/l	2.5	0.70	1	
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1	
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
Trichloroethene	58		ug/l	0.50	0.18	1	
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1	
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1	
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1	



Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 10/25/16 13:50

Client ID: TP-11-102516 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - Wes	tborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1	
p/m-Xylene	ND		ug/l	2.5	0.70	1	
o-Xylene	ND		ug/l	2.5	0.70	1	
cis-1,2-Dichloroethene	13		ug/l	2.5	0.70	1	
Styrene	ND		ug/l	2.5	0.70	1	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1	
Acetone	ND		ug/l	5.0	1.5	1	
Carbon disulfide	ND		ug/l	5.0	1.0	1	
2-Butanone	ND		ug/l	5.0	1.9	1	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1	
2-Hexanone	ND		ug/l	5.0	1.0	1	
Bromochloromethane	ND		ug/l	2.5	0.70	1	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1	
Isopropylbenzene	ND		ug/l	2.5	0.70	1	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
Methyl Acetate	ND		ug/l	2.0	0.23	1	
Cyclohexane	ND		ug/l	10	0.27	1	
1,4-Dioxane	ND		ug/l	250	61.	1	
Freon-113	ND		ug/l	2.5	0.70	1	
Methyl cyclohexane	ND		ug/l	10	0.40	1	

% Recovery	Qualifier	Acceptance Criteria	
112		70-130	
102		70-130	
107		70-130	
104		70-130	
	112 102 107	112 102 107	% Recovery         Qualifier         Criteria           112         70-130           102         70-130           107         70-130



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.62

**SAMPLE RESULTS** 

Lab Number: L1634563

**Report Date:** 11/02/16

Lab ID: L1634563-03
Client ID: SP-32-102516
Sample Location: ELLICOTTVILLE, NY

Matrix: Water

Analytical Method: 1,8260C Analytical Date: 10/31/16 14:30

Analyst: KD

Date Collected: 10/25/16 14:35

Date Received: 10/26/16
Field Prep: Not Specified

Result	Qualifier	Units	RL	MDL	Dilution Factor
oorough Lab					
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	0.50	0.13	1
ND		ug/l	1.0	0.14	1
ND		ug/l	0.50	0.15	1
ND		ug/l	1.5	0.50	1
0.42	J	ug/l	0.50	0.18	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	0.50	0.13	1
ND		ug/l	2.5	0.70	1
ND		ug/l	0.50	0.19	1
ND		ug/l	0.50	0.16	1
ND		ug/l	0.50	0.14	1
ND		ug/l	2.0	0.65	1
ND		ug/l	0.50	0.17	1
ND		ug/l	0.50	0.16	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	1.0	0.07	1
ND		ug/l	2.5	0.70	1
ND		ug/l	0.50	0.17	1
ND		ug/l	2.5	0.70	1
1.2		ug/l	0.50	0.18	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
ND		ug/l	2.5	0.70	1
	ND N	ND N	ND         ug/l           ND	ND	ND



**Project Name:** FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-03 Date Collected: 10/25/16 14:35

Client ID: SP-32-102516 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

•	·				•	•	
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - Wes	tborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1	
p/m-Xylene	ND		ug/l	2.5	0.70	1	
o-Xylene	ND		ug/l	2.5	0.70	1	
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
Styrene	ND		ug/l	2.5	0.70	1	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1	
Acetone	ND		ug/l	5.0	1.5	1	
Carbon disulfide	ND		ug/l	5.0	1.0	1	
2-Butanone	ND		ug/l	5.0	1.9	1	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1	
2-Hexanone	ND		ug/l	5.0	1.0	1	
Bromochloromethane	ND		ug/l	2.5	0.70	1	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1	
Isopropylbenzene	ND		ug/l	2.5	0.70	1	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
Methyl Acetate	ND		ug/l	2.0	0.23	1	
Cyclohexane	ND		ug/l	10	0.27	1	
1,4-Dioxane	ND		ug/l	250	61.	1	
Freon-113	ND		ug/l	2.5	0.70	1	
Methyl cyclohexane	ND		ug/l	10	0.40	1	

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	112		70-130	
Toluene-d8	102		70-130	
4-Bromofluorobenzene	107		70-130	
Dibromofluoromethane	103		70-130	
Toluene-d8 4-Bromofluorobenzene	102 107		70-130 70-130	



Not Specified

Field Prep:

Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 10/25/16 14:35
Client ID: SP-32-102516 Date Received: 10/26/16

Client ID: SP-32-102516
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 10/28/16 11:20

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	3.31		ug/l	0.500	0.500	1	Α
Ethene	ND		ug/l	0.500	0.500	1	А
Ethane	ND		ug/l	0.500	0.500	1	А



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number: L1634563

Report Date: 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-04

Client ID: SP-43-102616 Sample Location: ELLICOTTVILLE, NY

Matrix: Water

Analytical Method: 1,8260C Analytical Date: 10/31/16 15:02

Analyst: KD

Date Collected:	10/26/16 08:30
Date Received:	10/26/16
Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	stborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	11		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.70		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1634563

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

SAMPLE RESULTS

Lab ID: Date Collected: 10/26/16 08:30

Client ID: SP-43-102616 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

•					•	·
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	borough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.1	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

% Recovery	Qualifier	Acceptance Criteria	
116		70-130	
102		70-130	
106		70-130	
104		70-130	
	116 102 106	116 102 106	% Recovery         Qualifier         Criteria           116         70-130           102         70-130           106         70-130



Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-04 Date Collected: 10/26/16 08:30

Client ID: SP-43-102616 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Matrix: Water Analytical Method: 117,-

Analytical Date: 10/28/16 11:35

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	ND		ug/l	0.500	0.500	1	Α
Ethene	ND		ug/l	0.500	0.500	1	А
Ethane	ND		ug/l	0.500	0.500	1	Α



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.62

**SAMPLE RESULTS** 

Lab Number: L1634563

**Report Date:** 11/02/16

SAMPLE RESUL

Lab ID: L1634563-05 Client ID: SP-38-102616

Sample Location: ELLICOTTVILLE, NY

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/31/16 16:07

Analyst: KD

Date Collected: 10/26/16 09:15

Date Received: 10/26/16 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	stborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.48	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	4.0		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	8.2		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1634563

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 10/26/16 09:15

Client ID: SP-38-102616 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbor	ough Lab					
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Criteria	
70-130	
70-130	
70-130	
70-130	
	70-130 70-130



**Project Name:** FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-05 Date Collected: 10/26/16 09:15

Client ID: SP-38-102616
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 10/28/16 11:49

Analyst: LB

Date Collected:	10/26/16 09:15
Date Received:	10/26/16
Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	13.7		ug/l	0.500	0.500	1	Α
Ethene	2.04		ug/l	0.500	0.500	1	Α
Ethane	0.633		ug/l	0.500	0.500	1	Α

Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.62

**SAMPLE RESULTS** 

Lab Number: L1634563

**Report Date:** 11/02/16

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10/31/16 15:35

Lab ID: L1634563-06 Date Collected: 10/26/16 10:00

Client ID: SP-37-102616 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Spec

Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified Matrix: Water

Analytical Method: 1,8260C

Analyst: KD

Analytical Date:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westl	oorough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	17		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	14		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1634563

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-06 Date Collected: 10/26/16 10:00

Client ID: SP-37-102616 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - Westbo	rough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1	
p/m-Xylene	ND		ug/l	2.5	0.70	1	
o-Xylene	ND		ug/l	2.5	0.70	1	
cis-1,2-Dichloroethene	12		ug/l	2.5	0.70	1	
Styrene	ND		ug/l	2.5	0.70	1	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1	
Acetone	ND		ug/l	5.0	1.5	1	
Carbon disulfide	ND		ug/l	5.0	1.0	1	
2-Butanone	ND		ug/l	5.0	1.9	1	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1	
2-Hexanone	ND		ug/l	5.0	1.0	1	
Bromochloromethane	ND		ug/l	2.5	0.70	1	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1	
Isopropylbenzene	ND		ug/l	2.5	0.70	1	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
Methyl Acetate	ND		ug/l	2.0	0.23	1	
Cyclohexane	ND		ug/l	10	0.27	1	
1,4-Dioxane	ND		ug/l	250	61.	1	
Freon-113	ND		ug/l	2.5	0.70	1	
Methyl cyclohexane	ND		ug/l	10	0.40	1	

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	111		70-130	
Toluene-d8	101		70-130	
4-Bromofluorobenzene	107		70-130	
Dibromofluoromethane	104		70-130	



Not Specified

Field Prep:

Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

 Lab ID:
 L1634563-06
 Date Collected:
 10/26/16 10:00

 Client ID:
 SP-37-102616
 Date Received:
 10/26/16

Client ID: SP-37-102616
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 10/28/16 12:04

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	ND		ug/l	0.500	0.500	1	Α
Ethene	ND		ug/l	0.500	0.500	1	Α
Ethane	ND		ug/l	0.500	0.500	1	А



Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: 10/26/16 10:55

Client ID: SP-45-102616
Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 117,-

Analytical Date: 10/28/16 12:19

Analyst: LB

Date Collected: 10/26/16 10:55

Date Received: 10/26/16

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	3610		ug/l	0.500	0.500	1	Α
Ethene	3.36		ug/l	0.500	0.500	1	Α
Ethane	2.47		ug/l	0.500	0.500	1	Α

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

**SAMPLE RESULTS** 

Lab Number: L1634563

Report Date: 11/02/16

Lab ID: D L1634563-07

Client ID: SP-45-102616 Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 10/31/16 13:26

Analyst: PD

D	Date Collected:	10/26/16 10:55
	Date Received:	10/26/16
Υ	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbo	orough Lab					
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	170		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	ND		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	7.5		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Trichloroethene	53		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2



L1634563

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-07 D

Client ID: SP-45-102616 Sample Location: ELLICOTTVILLE, NY Date Collected: 10/26/16 10:55

Date Received: 10/26/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	borough Lab					
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	13		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	ND		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	ND		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	112		70-130	
Toluene-d8	102		70-130	
4-Bromofluorobenzene	106		70-130	
Dibromofluoromethane	102		70-130	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

**SAMPLE RESULTS** 

Lab Number: L1634563

Report Date: 11/02/16

Lab ID: L1634563-08

Client ID: TRIP BLANK

Sample Location: ELLICOTTVILLE, NY

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 10/31/16 16:39

Analyst: PD

Date Collected:	10/26/16 00:00
Date Received:	10/26/16
Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	estborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1



L1634563

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-08 Date Collected: 10/26/16 00:00

Client ID: TRIP BLANK Date Received: 10/26/16
Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - West	borough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1	
p/m-Xylene	ND		ug/l	2.5	0.70	1	
o-Xylene	ND		ug/l	2.5	0.70	1	
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1	
Styrene	ND		ug/l	2.5	0.70	1	
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1	
Acetone	ND		ug/l	5.0	1.5	1	
Carbon disulfide	ND		ug/l	5.0	1.0	1	
2-Butanone	ND		ug/l	5.0	1.9	1	
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1	
2-Hexanone	ND		ug/l	5.0	1.0	1	
Bromochloromethane	ND		ug/l	2.5	0.70	1	
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1	
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1	
Isopropylbenzene	ND		ug/l	2.5	0.70	1	
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1	
Methyl Acetate	ND		ug/l	2.0	0.23	1	
Cyclohexane	ND		ug/l	10	0.27	1	
1,4-Dioxane	ND		ug/l	250	61.	1	
Freon-113	ND		ug/l	2.5	0.70	1	
Methyl cyclohexane	ND		ug/l	10	0.40	1	

% Recovery	Qualifier	Acceptance Criteria	
114		70-130	
103		70-130	
106		70-130	
105		70-130	
	114 103 106	114 103 106	% Recovery         Qualifier         Criteria           114         70-130           103         70-130           106         70-130



**Project Name:** FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

Method Blank Analysis Batch Quality Control

Analytical Method: 117,-

Analytical Date: 10/28/16 10:33

Analyst: LB

Parameter	Result	Qualifier Uni	ts R	L MDL	
Dissolved Gases by GC - M	lansfield Lab for sa	mple(s): 01,03	07 Batch:	WG946825-3	
Methane	ND	uç	/I 0.5	0.500	А
Ethene	ND	uç	/I 0.5	0.500	Α
Ethane	ND	uç	/I 0.5	00 0.500	Α



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number: L1634563

**Report Date:** 11/02/16

# Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 1,8260C 10/31/16 11:49

Analyst: PD

Parameter	Result	Qualifier Units	s RL	MDL
Volatile Organics by GC/MS	- Westborough Lab	for sample(s):	02-08 Batch:	WG947662-5
Methylene chloride	ND	ug/l	2.5	0.70
1,1-Dichloroethane	ND	ug/l	2.5	0.70
Chloroform	ND	ug/l	2.5	0.70
Carbon tetrachloride	ND	ug/l	0.50	0.13
1,2-Dichloropropane	ND	ug/l	1.0	0.14
Dibromochloromethane	ND	ug/l	0.50	0.15
1,1,2-Trichloroethane	ND	ug/l	1.5	0.50
Tetrachloroethene	ND	ug/l	0.50	0.18
Chlorobenzene	ND	ug/l	2.5	0.70
Trichlorofluoromethane	ND	ug/l	2.5	0.70
1,2-Dichloroethane	ND	ug/l	0.50	0.13
1,1,1-Trichloroethane	ND	ug/l	2.5	0.70
Bromodichloromethane	ND	ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND	ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND	ug/l	0.50	0.14
Bromoform	ND	ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50	0.17
Benzene	ND	ug/l	0.50	0.16
Toluene	ND	ug/l	2.5	0.70
Ethylbenzene	ND	ug/l	2.5	0.70
Chloromethane	ND	ug/l	2.5	0.70
Bromomethane	ND	ug/l	2.5	0.70
Vinyl chloride	ND	ug/l	1.0	0.07
Chloroethane	ND	ug/l	2.5	0.70
1,1-Dichloroethene	ND	ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70
Trichloroethene	ND	ug/l	0.50	0.18
1,2-Dichlorobenzene	ND	ug/l	2.5	0.70
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number: L1634563

**Report Date:** 11/02/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 1,8260C 10/31/16 11:49

Analyst: PD

Parameter	Result	Qualifier Units	RL	MDL
Volatile Organics by GC/MS -	Westborough Lab	for sample(s): 02-08	Batch:	WG947662-5
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70
Methyl tert butyl ether	ND	ug/l	2.5	0.70
p/m-Xylene	ND	ug/l	2.5	0.70
o-Xylene	ND	ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND	ug/l	2.5	0.70
Styrene	ND	ug/l	2.5	0.70
Dichlorodifluoromethane	ND	ug/l	5.0	1.0
Acetone	ND	ug/l	5.0	1.5
Carbon disulfide	ND	ug/l	5.0	1.0
2-Butanone	ND	ug/l	5.0	1.9
4-Methyl-2-pentanone	ND	ug/l	5.0	1.0
2-Hexanone	ND	ug/l	5.0	1.0
Bromochloromethane	ND	ug/l	2.5	0.70
1,2-Dibromoethane	ND	ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	0.70
Isopropylbenzene	ND	ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND	ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND	ug/l	2.5	0.70
Methyl Acetate	ND	ug/l	2.0	0.23
Cyclohexane	ND	ug/l	10	0.27
1,4-Dioxane	ND	ug/l	250	61.
Freon-113	ND	ug/l	2.5	0.70
Methyl cyclohexane	ND	ug/l	10	0.40



L1634563

Project Name: FORMER SIGNORE Lab Number:

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 1,8260C 10/31/16 11:49

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - West	borough Lab	for sample	e(s): 02-08	Batch:	WG947662-5

			Acceptance	
Surrogate	%Recovery	Qualifier	Criteria	
•				
1,2-Dichloroethane-d4	107		70-130	
Toluene-d8	102		70-130	
4-Bromofluorobenzene	108		70-130	
Dibromofluoromethane	102		70-130	



**Project Name:** FORMER SIGNORE

**Project Number:** 

21.0056367.62

Lab Number:

L1634563

11/02/16

Report Date:

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab	Associated sample(s	3): 01,03-07	Batch: WG94	6825-2					
Methane	110		-		80-120	-		25	Α
Ethene	110		-		80-120	-		25	Α
Ethane	112		-		80-120	-		25	А

**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits	
olatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-08 Batch:	WG947662-3	WG947662-4			
Methylene chloride	110		98		70-130	12	20	
1,1-Dichloroethane	120		100		70-130	18	20	
Chloroform	120		110		70-130	9	20	
2-Chloroethylvinyl ether	88		100		70-130	13	20	
Carbon tetrachloride	120		100		63-132	18	20	
1,2-Dichloropropane	110		100		70-130	10	20	
Dibromochloromethane	120		110		63-130	9	20	
1,1,2-Trichloroethane	110		110		70-130	0	20	
Tetrachloroethene	110		100		70-130	10	20	
Chlorobenzene	110		110		75-130	0	20	
Trichlorofluoromethane	110		99		62-150	11	20	
1,2-Dichloroethane	120		110		70-130	9	20	
1,1,1-Trichloroethane	120		100		67-130	18	20	
Bromodichloromethane	120		110		67-130	9	20	
trans-1,3-Dichloropropene	120		110		70-130	9	20	
cis-1,3-Dichloropropene	120		110		70-130	9	20	
1,1-Dichloropropene	110		99		70-130	11	20	
Bromoform	120		110		54-136	9	20	
1,1,2,2-Tetrachloroethane	110		110		67-130	0	20	
Benzene	110		100		70-130	10	20	
Toluene	110		110		70-130	0	20	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RI Qual Lin	PD nits
olatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-08 Batch: '	WG947662-3	WG947662-4			
Ethylbenzene	120		110		70-130	9	2	0
Chloromethane	85		72		64-130	17	2	20
Bromomethane	110		95		39-139	15	2	0
Vinyl chloride	96		88		55-140	9	2	0
Chloroethane	110		100		55-138	10	2	0
1,1-Dichloroethene	100		93		61-145	7	2	20
trans-1,2-Dichloroethene	110		99		70-130	11	2	20
Trichloroethene	120		100		70-130	18	2	20
1,2-Dichlorobenzene	110		110		70-130	0	2	20
1,3-Dichlorobenzene	110		110		70-130	0	2	20
1,4-Dichlorobenzene	110		110		70-130	0	2	20
Methyl tert butyl ether	110		100		63-130	10	2	20
p/m-Xylene	115		110		70-130	4	2	20
o-Xylene	115		110		70-130	4	2	20
cis-1,2-Dichloroethene	120		100		70-130	18	2	20
Dibromomethane	120		100		70-130	18		20
1,2,3-Trichloropropane	110		110		64-130	0	2	20
Acrylonitrile	110		100		70-130	10	2	20
Isopropyl Ether	110		100		70-130	10		20
tert-Butyl Alcohol	116		106		70-130	9	2	20
Styrene	115		110		70-130	4		20



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number: L1634563

**Report Date:** 11/02/16

rameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
platile Organics by GC/MS - Westborou	ugh Lab Associated	sample(s):	02-08 Batch:	WG947662-3	WG947662-4				
Dichlorodifluoromethane	68		62		36-147	9		20	
Acetone	130		110		58-148	17		20	
Carbon disulfide	110		87		51-130	23	Q	20	
2-Butanone	120		100		63-138	18		20	
Vinyl acetate	110		95		70-130	15		20	
4-Methyl-2-pentanone	110		100		59-130	10		20	
2-Hexanone	110		100		57-130	10		20	
Acrolein	110		92		40-160	18		20	
Bromochloromethane	130		110		70-130	17		20	
2,2-Dichloropropane	120		100		63-133	18		20	
1,2-Dibromoethane	110		100		70-130	10		20	
1,3-Dichloropropane	110		110		70-130	0		20	
1,1,1,2-Tetrachloroethane	120		110		64-130	9		20	
Bromobenzene	110		110		70-130	0		20	
n-Butylbenzene	120		110		53-136	9		20	
sec-Butylbenzene	110		110		70-130	0		20	
tert-Butylbenzene	110		110		70-130	0		20	
o-Chlorotoluene	120		120		70-130	0		20	
p-Chlorotoluene	120		110		70-130	9		20	
1,2-Dibromo-3-chloropropane	100		95		41-144	5		20	
Hexachlorobutadiene	120		110		63-130	9		20	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number: L1634563

**Report Date:** 11/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	' Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-08 Batch:	WG947662-3	WG947662-4				
Isopropylbenzene	110		110		70-130	0		20	
p-Isopropyltoluene	120		110		70-130	9		20	
Naphthalene	100		100		70-130	0		20	
n-Propylbenzene	120		110		69-130	9		20	
1,2,3-Trichlorobenzene	110		100		70-130	10		20	
1,2,4-Trichlorobenzene	110		110		70-130	0		20	
1,3,5-Trimethylbenzene	120		110		64-130	9		20	
1,2,4-Trimethylbenzene	120		110		70-130	9		20	
Methyl Acetate	120		110		70-130	9		20	
Ethyl Acetate	110		100		70-130	10		20	
Cyclohexane	99		89		70-130	11		20	
Ethyl-Tert-Butyl-Ether	110		100		70-130	10		20	
Tertiary-Amyl Methyl Ether	110		100		66-130	10		20	
1,4-Dioxane	126		102		56-162	21	Q	20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	100		93		70-130	7		20	
p-Diethylbenzene	120		110		70-130	9		20	
p-Ethyltoluene	110		110		70-130	0		20	
1,2,4,5-Tetramethylbenzene	120		110		70-130	9		20	
Tetrahydrofuran	110		98		58-130	12		20	
Ethyl ether	120		100		59-134	18		20	
trans-1,4-Dichloro-2-butene	100		99		70-130	1		20	



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

Parameter	LCS %Recovery	Qual		LCSD ecovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	02-08	Batch:	WG947662-3	WG947662-4				
lodomethane	120			100		70-130	18		20	
Methyl cyclohexane	100			92		70-130	8		20	

	LCS		LCSD		Acceptance	
Surrogate	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	109		107		70-130	
Toluene-d8	98		102		70-130	
4-Bromofluorobenzene	102		105		70-130	
Dibromofluoromethane	109		106		70-130	



# Matrix Spike Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

**Project Number:** 

21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

Parameter	Native Sample	MS Added	MS Found %l	MS Recovery	Qual	MSD Found	MSD %Recovery		overy mits	RPD	RPD Qual Limi	ts Column
Dissolved Gases by GC -	Mansfield Lab	Associated sa	ample(s): 01,03-07	QC Bate	ch ID: WG	946825-5	QC Sample:	L1634563-0	3 Clie	ent ID:	SP-32-102516	
Methane	3.31	54.6	62.6	109		-	-	80	-120	-	25	Α
Ethene	ND	95.5	102	107		-	-	80	-120	-	25	А
Ethane	ND	102	110	107		-	-	80	-120	-	25	А



# Lab Duplicate Analysis Batch Quality Control

Lab Number:

L1634563

11/02/16

**Project Name:** FORMER SIGNORE **Project Number:** Report Date: 21.0056367.62

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Dissolved Gases by GC - Mansfield Lab A	ssociated sample(s): 01,03-07	QC Batch ID: WG946825-4	QC Sample	e: L163456	63-07 Client	ID: SP-45	-102616
Methane	3610	3780	ug/l	5		25	Α
Ethene	3.36	3.77	ug/l	12		25	Α
Ethane	2.47	2.93	ug/l	17		25	Α

# **METALS**



**Project Name:** Lab Number: FORMER SIGNORE L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: L1634563-01 10/25/16 11:45 Client ID: EW-1.25-102516 Date Received: 10/26/16

Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mar	nsfield Lab										
Iron, Total	10.5		mg/l	0.050	0.019	1	11/01/16 06:4	5 11/01/16 14:09	EPA 3005A	1,6020A	AM
Manganese, Total	1.354		mg/l	0.0010	0.0004	1	11/01/16 06:4	5 11/01/16 14:09	EPA 3005A	1,6020A	AM



**Project Name:** FORMER SIGNORE Lab Number: L1634563 **Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** Date Collected: 10/25/16 14:35

Lab ID: L1634563-03 Client ID: SP-32-102516 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mar	nsfield Lab										
Iron, Total	0.066		mg/l	0.050	0.019	1	11/01/16 06:4	5 11/01/16 14:23	EPA 3005A	1,6020A	AM
Manganese, Total	1.144		mg/l	0.0010	0.0004	1	11/01/16 06:4	5 11/01/16 14:23	EPA 3005A	1,6020A	AM



**Project Name:** FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

Lab ID: Date Collected: L1634563-04 10/26/16 08:30 Client ID: SP-43-102616 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Iron, Total	0.114		mg/l	0.050	0.019	1	11/01/16 06:4	5 11/01/16 14:26	EPA 3005A	1,6020A	AM
Manganese, Total	0.1904		mg/l	0.0010	0.0004	1	11/01/16 06:4	5 11/01/16 14:26	EPA 3005A	1,6020A	AM



Project Name: FORMER SIGNORE Lab Number: L1634563

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

**SAMPLE RESULTS** 

 Lab ID:
 L1634563-05
 Date Collected:
 10/26/16 09:15

 Client ID:
 SP-38-102616
 Date Received:
 10/26/16

Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Iron, Total	0.811		mg/l	0.050	0.019	1	11/01/16 06:4	5 11/01/16 14:29	EPA 3005A	1,6020A	AM
Manganese, Total	9.031		mg/l	0.0010	0.0004	1	11/01/16 06:4	5 11/01/16 14:29	EPA 3005A	1,6020A	AM



Project Name:FORMER SIGNORELab Number:L1634563Project Number:21.0056367.62Report Date:11/02/16

SAMPLE RESULTS

 Lab ID:
 L1634563-06
 Date Collected:
 10/26/16 10:00

 Client ID:
 SP-37-102616
 Date Received:
 10/26/16

Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mar	nsfield Lab										
Iron, Total	0.056		mg/l	0.050	0.019	1	11/01/16 06:4	5 11/01/16 14:32	EPA 3005A	1,6020A	AM
Manganese, Total	0.1445		mg/l	0.0010	0.0004	1	11/01/16 06:4	5 11/01/16 14:32	EPA 3005A	1,6020A	AM



**Project Name:** FORMER SIGNORE Lab Number: L1634563 **Project Number:** 21.0056367.62 11/02/16

**Report Date:** 

**SAMPLE RESULTS** 

Lab ID: Date Collected: L1634563-07 10/26/16 10:55 Client ID: SP-45-102616 Date Received: 10/26/16 Sample Location: ELLICOTTVILLE, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mar	nsfield Lab										
Iron, Total	0.386		mg/l	0.050	0.019	1	11/01/16 06:4	5 11/01/16 14:35	EPA 3005A	1,6020A	AM
Manganese, Total	1.340		mg/l	0.0010	0.0004	1	11/01/16 06:4	5 11/01/16 14:35	EPA 3005A	1,6020A	AM



Project Name: FORMER SIGNORE
Project Number: 21.0056367.62

**Lab Number:** L1634563 **Report Date:** 11/02/16

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansf	field Lab for sample(s):	01,03-07	Batch:	WG947	765-1				
Iron, Total	ND	mg/l	0.050	0.019	1	11/01/16 06:45	11/01/16 13:50	1,6020A	AM
Manganese, Total	ND	ma/l	0.0010	0.0004	1	11/01/16 06:45	11/01/16 13:50	1.6020A	AM

**Prep Information** 

Digestion Method: EPA 3005A



**Project Name:** FORMER SIGNORE

Lab Number:

L1634563

**Project Number:** 21.0056367.62

Report Date:

11/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample	e(s): 01,03-07	Batch: WG	947765-2					
Iron, Total	91		-		80-120	-		
Manganese, Total	94		-		80-120	-		



## Matrix Spike Analysis Batch Quality Control

Project Name: FORMER SIGNORE

Lab Number:

L1634563

**Project Number:** 21.0056367.62

**Report Date:** 11/02/16

<u>Parameter</u>	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery Qı	Recovery ual Limits	/ RPD Qual	RPD Limits
Total Metals - Mansfield Lab	Associated sam	ple(s): 01,0	3-07 QC I	Batch ID: WG9	47765-3	QC Sa	ample: L1634963-0	1 Client ID:	MS Sample	
Iron, Total	10.1	1	11.8	170	Q	-	-	75-125	-	20
Manganese, Total	0.6008	0.5	1.175	115		-	-	75-125	-	20

# INORGANICS & MISCELLANEOUS



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

### **SAMPLE RESULTS**

Lab ID: L1634563-01

Client ID:

EW-1.25-102516

Sample Location: ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

10/25/16 11:45

Date Received:

10/26/16

Field Prep:

Not Specified

Parameter	Resul	t Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - W	estborough La	ab								
Nitrogen, Nitrate	0.029	J	mg/l	0.10	0.019	1	-	10/27/16 19:58	44,353.2	MR
Total Organic Carbon	1.56		mg/l	0.500	0.114	1	-	10/31/16 07:16	121,5310C	DW
Anions by Ion Chromat	ography - We	stborough	Lab							
Chloride	44.6		mg/l	0.500	0.054	1	-	10/27/16 19:53	44,300.0	AU
Sulfate	11.7		mg/l	1.00	0.150	1	-	10/27/16 19:53	44.300.0	AU



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date: 11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-03

Client ID:

SP-32-102516

Sample Location: ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

10/25/16 14:35

Date Received:

10/26/16

Not Specified Field Prep:

Parameter	Result C	Qualifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab								
Nitrogen, Nitrate	4.8	mg/l	0.10	0.019	1	-	10/27/16 20:00	44,353.2	MR
Total Organic Carbon	0.870	mg/l	0.500	0.114	1	-	10/31/16 07:16	121,5310C	DW
Anions by Ion Chromato	graphy - Westbo	orough Lab							
Chloride	1.59	mg/l	0.500	0.054	1	-	10/27/16 20:05	44,300.0	AU
Sulfate	14.4	mg/l	1.00	0.150	1	-	10/27/16 20:05	44,300.0	AU



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

### **SAMPLE RESULTS**

Lab ID: L1634563-04

Client ID:

SP-43-102616

Sample Location: ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

10/26/16 08:30

Date Received:

10/26/16

Not Specified Field Prep:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab									
Nitrogen, Nitrate	4.1		mg/l	0.10	0.019	1	-	10/27/16 20:05	44,353.2	MR
Total Organic Carbon	1.91		mg/l	0.500	0.114	1	-	10/31/16 07:16	121,5310C	DW
Anions by Ion Chromatog	graphy - West	borough l	_ab							
Chloride	9.63		mg/l	0.500	0.054	1	-	10/27/16 20:17	44,300.0	AU
Sulfate	21.4		mg/l	1.00	0.150	1	-	10/27/16 20:17	44,300.0	AU



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

**SAMPLE RESULTS** 

Lab ID: L1634563-05

Client ID:

SP-38-102616

Sample Location: ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

10/26/16 09:15

Date Received:

10/26/16

Not Specified

Field Prep:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	tborough Lal	)								
Nitrogen, Nitrate	0.24		mg/l	0.10	0.019	1	-	10/27/16 20:06	44,353.2	MR
Total Organic Carbon	1.32		mg/l	1.00	0.228	2	-	10/31/16 07:16	121,5310C	DW
Anions by Ion Chromatog	raphy - Wes	tborough	Lab							
Chloride	27.7		mg/l	0.500	0.054	1	-	10/27/16 20:29	44,300.0	AU
Sulfate	16.1		mg/l	1.00	0.150	1	-	10/27/16 20:29	44,300.0	AU



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date: 11/02/16

**SAMPLE RESULTS** 

Lab ID:

L1634563-06

Client ID:

SP-37-102616 Sample Location: ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

10/26/16 10:00

Date Received:

10/26/16

Not Specified Field Prep:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	estborough Lab									
Nitrogen, Nitrate	3.2		mg/l	0.10	0.019	1	-	10/27/16 20:07	44,353.2	MR
Total Organic Carbon	2.21		mg/l	1.00	0.228	2	-	10/31/16 07:16	121,5310C	DW
Anions by Ion Chromate	ography - Westl	oorough	Lab							
Chloride	5.79		mg/l	0.500	0.054	1	-	10/27/16 20:41	44,300.0	AU
Sulfate	21.0		mg/l	1.00	0.150	1	-	10/27/16 20:41	44,300.0	AU



**Project Name:** FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

### **SAMPLE RESULTS**

Lab ID: L1634563-07

Client ID:

SP-45-102616

Sample Location: ELLICOTTVILLE, NY

Matrix:

Water

Date Collected:

10/26/16 10:55

Date Received:

10/26/16

Field Prep:

Not Specified

Parameter	Result C	Qualifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	estborough Lab								
Nitrogen, Nitrate	0.72	mg/l	0.10	0.019	1	-	10/27/16 20:09	44,353.2	MR
Total Organic Carbon	1.49	mg/l	0.500	0.114	1	-	10/31/16 07:16	121,5310C	DW
Anions by Ion Chromato	ography - Westbo	orough Lab							
Chloride	12.6	mg/l	0.500	0.054	1	-	10/27/16 20:53	44,300.0	AU
Sulfate	23.8	mg/l	1.00	0.150	1	-	10/27/16 20:53	44,300.0	AU



L1634563

Lab Number:

Project Name: FORMER SIGNORE

Report Date: **Project Number:** 21.0056367.62 11/02/16

<b>Method Blank Analysis</b>
<b>Batch Quality Control</b>

Parameter	Result Qualifie	er Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - V	Westborough Lab for sa	ample(s): 0	1,03-07	Batch:	WG946545	-1			
Nitrogen, Nitrate	ND	mg/l	0.10	0.019	1	-	10/27/16 18:53	44,353.2	MR
Anions by Ion Chroma	atography - Westboroug	jh Lab for s	ample(s)	: 01,03	-07 Batch:	WG947007-	1		
Chloride	ND	mg/l	0.500	0.054	1	-	10/27/16 17:53	44,300.0	AU
Sulfate	ND	mg/l	1.00	0.150	1	-	10/27/16 17:53	44,300.0	AU
General Chemistry - V	Westborough Lab for sa	ample(s): 0	1,03-07	Batch:	WG947435	-1			
Total Organic Carbon	ND	mg/l	0.500	0.114	1	-	10/31/16 07:16	121,5310C	DW



**Project Name:** FORMER SIGNORE

**Project Number:** 

21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Asse	ociated sample(s)	): 01,03-07	Batch: WG94	46545-2				
Nitrogen, Nitrate	102		-		90-110	-		
Anions by Ion Chromatography - Westborou	gh Lab Associate	ed sample(	(s): 01,03-07	Batch: WG	947007-2	_		
Sulfate	106		-		90-110	-		
General Chemistry - Westborough Lab Asse	ociated sample(s)	): 01,03-07	Batch: WG94	47435-2				
Total Organic Carbon	97		-		90-110	-		



L1634563

## Matrix Spike Analysis Batch Quality Control

**Project Name:** FORMER SIGNORE

IGNORE Lab Number:

**Project Number:** 21.0056367.62 **Report Date:** 11/02/16

Parameter	Native Sample	MS Added	MS Found %	MS Recovery	MSD Qual Foun	IVIOD	Recover Qual Limits	y RPD (	RPD Qual Limits
General Chemistry - Westbo	orough Lab Asso	ciated samp	ole(s): 01,03-07	7 QC Batc	h ID: WG9465	45-4 QC Sampl	e: L1634563-07	Client ID:	SP-45-10261
Nitrogen, Nitrate	0.72	4	4.9	104	-	-	83-113	-	6
Anions by Ion Chromatogra 32-102516	phy - Westborou	gh Lab Asso	ociated sample	e(s): 01,03-0	7 QC Batch	D: WG947007-3	QC Sample: L1	634563-03	Client ID: S
Chloride	1.59	4	5.94	109	-	-	40-151	-	18
Sulfate	14.4	8	22.6	102	-	-	60-140	-	20
General Chemistry - Westbo	orough Lab Asso	ciated samp	ole(s): 01,03-07	7 QC Batc	h ID: WG9474	35-4 QC Sampl	e: L1634945-02	Client ID:	MS Sample
Total Organic Carbon	2.17	4	5.52	84	-	-	80-120	-	20

# Lab Duplicate Analysis Batch Quality Control

Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.62

Lab Number:

L1634563

Report Date:

11/02/16

Parameter	Native Sample	Duplicate Sample	<u>Units</u>	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated samp	le(s): 01,03-07	QC Batch ID: WG946545-3	3 QC Sample:	L1634563-0	7 Client ID:	SP-45-102616
Nitrogen, Nitrate	0.72	0.73	mg/l	1		6
Anions by Ion Chromatography - Westborough Lab Asso 32-102516	ciated sample(s):	: 01,03-07 QC Batch ID: \	WG947007-4 C	QC Sample:	L1634563-0	3 Client ID: SP-
Chloride	1.59	1.60	mg/l	1		18
Sulfate	14.4	14.5	mg/l	1		20
General Chemistry - Westborough Lab Associated samp	le(s): 01,03-07	QC Batch ID: WG947435-3	3 QC Sample:	L1634945-0	1 Client ID:	DUP Sample
Total Organic Carbon	3.71	3.74	mg/l	1		20



Project Name:FORMER SIGNORELab Number: L1634563Project Number:21.0056367.62Report Date: 11/02/16

### **Sample Receipt and Container Information**

Were project specific reporting limits specified?

Cooler Information Custody Seal

Cooler

A Absent

Container Info	ormation			Temp			
Container ID	Container Type	Cooler	рН	deg C	Pres	Seal	Analysis(*)
L1634563-01A	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-01B	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-01C	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-01D	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-01E	Plastic 250ml unpreserved	Α	7	3.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1634563-01F	Plastic 250ml HNO3 preserved	Α	<2	3.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1634563-02A	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-02B	Vial HCI preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-02C	Vial HCI preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-03A	Vial HCI preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-03B	Vial HCI preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-03C	Vial HCI preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-03D	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-03E	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-03F	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-03G	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-03H	Plastic 250ml unpreserved	Α	7	3.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1634563-03I	Plastic 250ml HNO3 preserved	Α	<2	3.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1634563-04A	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-04B	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-04C	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-04D	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-04E	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-04F	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-04G	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-04H	Plastic 250ml unpreserved	Α	7	3.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1634563-04I	Plastic 250ml HNO3 preserved	Α	<2	3.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1634563-05A	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)



Project Name: FORMER SIGNORE

**Project Number:** 21.0056367.62

**Lab Number:** L1634563 **Report Date:** 11/02/16

Container Info	ormation			Temp			
Container ID	Container Type	Cooler	рΗ	deg C	Pres	Seal	Analysis(*)
L1634563-05B	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-05C	Vial HCI preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-05D	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-05E	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-05F	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-05G	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-05H	Plastic 250ml unpreserved	Α	7	3.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1634563-05I	Plastic 250ml HNO3 preserved	Α	<2	3.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1634563-06A	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-06B	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-06C	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-06D	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-06E	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-06F	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-06G	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-06H	Plastic 250ml unpreserved	Α	7	3.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1634563-06I	Plastic 250ml HNO3 preserved	Α	<2	3.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1634563-07A	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-07B	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-07C	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-07D	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-07E	Vial H2SO4 preserved	Α	N/A	3.1	Υ	Absent	TOC-5310(28)
L1634563-07F	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-07G	20ml Vial HCl preserved	Α	N/A	3.1	Υ	Absent	DISSGAS(14)
L1634563-07H	Plastic 250ml unpreserved	Α	7	3.1	Υ	Absent	SO4-300(28),CL-300(28),NO3- 353(2)
L1634563-07I	Plastic 250ml HNO3 preserved	Α	<2	3.1	Υ	Absent	FE-6020T(180),MN-6020T(180)
L1634563-08A	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)
L1634563-08B	Vial HCl preserved	Α	N/A	3.1	Υ	Absent	NYTCL-8260(14)



Project Name:FORMER SIGNORELab Number:L1634563Project Number:21.0056367.62Report Date:11/02/16

#### **GLOSSARY**

#### **Acronyms**

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).

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.

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.

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.

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**

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

#### Terms

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

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.

#### **Data Qualifiers**

A - Spectra identified as "Aldol Condensation Product".

-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

Report Format: DU Report with 'J' Qualifiers



Project Name:FORMER SIGNORELab Number:L1634563Project Number:21.0056367.62Report Date:11/02/16

#### **Data Qualifiers**

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- 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).
- ND Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name:FORMER SIGNORELab Number:L1634563Project Number:21.0056367.62Report Date:11/02/16

#### **REFERENCES**

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

- Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 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.



Alpha Analytical, Inc. Facility: Company-wide

**Department: Quality Assurance** 

Title: Certificate/Approval Program Summary

ID No.:17873 Revision 7

Published Date: 8/5/2016 11:25:56 AM

Page 1 of 1

### Certification Information

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

#### Westborough Facility

EPA 624: 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 300: DW: Bromide

EPA 6860: NPW and SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

EPA 9012B: NPW: Total Cyanide EPA 9050A: NPW: Specific Conductance

SM3500: NPW: Ferrous Iron

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

SM5310C: DW: Dissolved Organic Carbon

#### Mansfield Facility **SM 2540D:** TSS

EPA 3005A NPW

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: 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, SM4500CI-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, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, 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 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.

#### **Mansfield Facility:**

#### Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. EPA 245.1 Hg.

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, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

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

Pre-Qualtrax Document ID: 08-113 Document Type: Form

Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193  Client Information  Client: GZA  Address: 535 Wa  Buffalo, NY Phone: 716-685  Fax: Email: Peter, Ny	14703 5-2300	Service Centers Mahwah, NJ 07430: 35 Whitner, Albany, NY 12205: 14 Walker V Tonawanda, NY 14150: 275 Co  Project Information Project Name: Forward Project Location: Filippopulation Project H Z 1. 305 (Use Project name as Project Manager: J Called	Nay poper Ave, Suite 1  Er Signa  Cother   Le  Coso 7.6 z  roject #)  Richert	ove Ny		e f /	Regu	verable ASP- EQuI Othe ulatory NY TO	Requi OGS Standa estricted	ille)  iremer  irds  d Use  ted Use	\(\frac{1}{2}\) \(\frac{1}{2}	ASP-	B S (4 File) EDD A	ALPHA Job #  L / L 3 4 5 (  Billing Information  Same as Client In  PO #  2 1 · OO 5 G 3 G 7.  Disposal Site Informati  Please identify below locat applicable disposal facilitie  Disposal Facility:  NJ NY  Other:	ofo  C Z  ion  tion of es.
These samples have b	Stan: Stan: Email: Peter, Nyznyk@cza.com Rush (only if pre appropriate project specific requirements/comments:  Please specify Metals or TAL.  ALPHA Lab ID (Lab Use Only)  Sample ID						ANA	LYSIS						Sample Filtration	T
Please specify Metals	s or TAL.		Colli	ection	Sample	Sampler's	260 TCL	10	EN 30, 504	SK 175 015646	Total metals			□ Done □ Lab to do Preservation □ Lab to do  (Please Specify below	o t a l B o t t
	Sa	mple ID	Date	Time	Matrix	Initials	8		CL	72.5	101			Sample Specific Commer	nts e
34563-01	EW-1.25-	102516	10-25-16	1145	Gw	DV		Х	X	X	X			MNA ONLY	6
-02	TP-11-10Z	516	1	1350			×							VOC ONLY	3
-03	SP-32-102	516	1	1435	1	1	X	У	Х	×	X				9
-04	57-43-1026	***************************************	10-26-16	0830	6-W	PN	X	X	X	X	X				9
-05	SP-38-1026	16		0915		1	7	×	×	×	×				9
-06	5P-37-10261	Ь		1000			X	X	×	×	×				q
-07	57-45-1026	16		1055			X	X	X	X	4				9
-08	TRIP BLAN	IK	V		V	V	X								2
Preservative Code: A = None B = HCI C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	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 N Mansfield: Certification N  Relinquished E	By:	Date/ 10-26-16	Time / 1350	reservative	-	ved By:	C. Al		10/2	Date/	1350	Please print clearly, leand completely. Sam not be logged in and turnaround time clock start until any ambiguresolved. BY EXECUTHIS COC, THE CLIED HAS READ AND AGE	will not uities are TING
K/E = Zn Ac/NaOH O = Other Form No: 01-25 HC (rev. 3	D = BOD Bottle  0-Sept-2013)	Carles J. Col	Z-AA	(0/26/16	17ex (	101	1				10/2	7/16	0/45	TO BE BOUND BY A TERMS & CONDITIO (See reverse side.)	LPHA'S



GZA GeoEnvironmental, Inc.



### **APPENDIX D**

IC/EC CERTIFICATION FORM



# Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No.	C905034	Site Details	Box 1	
Sit	e Name For	mer Signore, Inc.			
Cit	e Address: 5 y/Town: Ellic unty: Cattara e Acreage: 8	ugus	Zip Code: 14731		
Re	porting Perio	d: December 11, 2015	to March 12, 2017		
				YES	NO
1.	Is the inform	nation above correct?		×	
	If NO, includ	de handwritten above o	r on a separate sheet.		
2.		or all of the site property endment during this Re	been sold, subdivided, merged, or eporting Period?	undergone a	<b>A</b>
3.		een any change of use RR 375-1.11(d))?	at the site during this Reporting Per	riod 🗆	×
4.		ederal, state, and/or local property during this Re	al permits (e.g., building, discharge) porting Period?	been issued	×
			s 2 thru 4, include documentation eviously submitted with this certif		
5.	Is the site co	urrently undergoing dev	velopment?		×
				Box 2	
				YES	NO
6.		nt site use consistent wi Residential, Commercia	ith the use(s) listed below? I, and Industrial	X	
7.	Are all ICs/E	ECs in place and function	oning as designed?	×	
			QUESTION 6 OR 7 IS NO, sign and HE REST OF THIS FORM. Otherwis		
A C	orrective Me	asures Work Plaл mus	t be submitted along with this form	to address these iss	uės.
Sigr	nature of Own	ner, Remedial Party or De	osignated Panracantativa		

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# Periodic Review Report (PRR) Certification Statements

Periodic Review Report (PRR) Certification Statements					
rtify by checking "YES" below that:					
<ul> <li>a) the Periodic Review report and all attachments were prepared under the direction</li> <li>reviewed by, the party making the certification;</li> </ul>	ection of	, and			
are in accordance with the requirements of the site remedial program, and generally a					
engineering practices, and the information presented is accurate and compete.		NO			
	义				
ngineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below the	r each Ir at all of t	nstitutional he			
(a) the Institutional Control and/or Engineering Control(s) employed at this site the date that the Control was put in-place, or was last approved by the Department	is uncha ent;	inged since			
(b) nothing has occurred that would impair the ability of such Control, to protect the environment;	public h	ealth and			
(c) access to the site will continue to be provided to the Department, to evaluate including access to evaluate the continued maintenance of this Control;	e the ren	nedy,			
(d) nothing has occurred that would constitute a violation or failure to comply w Management Plan for this Control; and	th the S	ite			
(e) if a financial assurance mechanism is required by the oversight document for mechanism remains valid and sufficient for its intended purpose established in the	or the sit	e, the ment.			
	YES	NO			
	×				
IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.					
ective Measures Work Plan must be submitted along with this form to address t	hese iss	ues.			
ure of Owner, Remedial Party or Designated Representative Date					
	b) to the best of my knowledge and belief, the work and conclusions described are in accordance with the requirements of the site remedial program, and gene engineering practices; and the information presented is accurate and compete.  is site has an IC/EC Plan (or equivalent as required in the Decision Document), for Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below the owing statements are true:  (a) the Institutional Control and/or Engineering Control(s) employed at this site the date that the Control was put in-place, or was last approved by the Departm (b) nothing has occurred that would impair the ability of such Control, to protect the environment;  (c) access to the site will continue to be provided to the Department, to evaluate including access to evaluate the continued maintenance of this Control;  (d) nothing has occurred that would constitute a violation or failure to comply will Management Plan for this Control; and  (e) if a financial assurance mechanism is required by the oversight document for mechanism remains valid and sufficient for its intended purpose established in the Decision of the Control of the Cont	a) the Periodic Review report and all attachments were prepared under the direction of reviewed by, the party making the certification;  b) to the best of my knowledge and belief, the work and conclusions described in this care in accordance with the requirements of the site remedial program, and generally accending practices; and the information presented is accurate and compete.  YES  is site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Ir inglineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the institutional Control and/or Engineering Control(s) employed at this site is unchatthed that the Control was put in-place, or was last approved by the Department;  (b) nothing has occurred that would impair the ability of such Control, to protect public in the environment;  (c) access to the site will continue to be provided to the Department, to evaluate the remincluding access to evaluate the continued maintenance of this Control;  (d) nothing has occurred that would constitute a violation or failure to comply with the S Management Plan for this Control; and  (e) if a financial assurance mechanism is required by the oversight document for the site mechanism remains valid and sufficient for its intended purpose established in the document mechanism remains valid and sufficient for its intended purpose established in the document DNOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			

				Box 2	2A
				YES	NO
8.		on revealed that assumptions ma offsite contamination are no long			义
		to question 8, include docume nas been previously submitted			
9.	Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)			N	
		o question 9, the Periodic Rev Exposure Assessment based o			
SITE	NO. C905034	-02-11		Bo	x 3
I	Description of Instituti	ional Controls			
Parce		<u>Owner</u>	Institutional Control		
55.43	-1-3.1	Iskalo Ellicottville Holdings, LLC	Ground Water Use Restr Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan	iction	
i) Prohibition of use of groundwater. ii) Site use restrictions. iii) Implementation of the Site Management Plan.					
			300-10-33	Bo	x 4
	Description of Engine	ering Controls			
	ne Required				
	·		41		
No	: Applicable/No EC's				

### IC CERTIFICATIONS SITE NO. C905034

Box 6

### SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Devid Chiazza print name	at <u>Tskalo Dovebow</u>	ent Corp.
am certifying as Menager		_(Owner or Remedial Party)
for the Site named in the Site Deta		4-3-17
Signature of Owner, Remedial Par Rendering Certification	ty, or Designated Representative	Date

#### IC/EC CERTIFICATIONS

Box 7

### **Qualified Environmental Professional Signature**

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

BART A. KLETTKE at 536 Washington ST., Buffalo, NY1420, print name print business address

am certifying as a Qualified Environmental Professional for the  $\overline{\it L5Kala}$ 

15 Ab. 069

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE) Date



GZA GeoEnvironmental, Inc.