#### PERIODIC REVIEW REPORT

Elks Plaza
189 West Merrick Road
Freeport, New York
Site #130193

Prepared for: Elks Plaza, LLC

28 Campbell Drive

Dix Hills, New York 11746

Prepared by: Tyll Engineering and Consulting, PC

169 Commack Road, Suite 173 Commack, New York 11725

**March 2017** 



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#### **EXECUTIVE SUMMARY**

The following Periodic Review Report (PRR) has been prepared by Tyll Engineering and Consulting PC., on behalf of Elks Plaza, LLC. The property is located at 189 West Merrick Road, in Freeport, New York (hereinafter referred to as "Site"). This document was prepared in accordance with the Site Management Plan (SMP) dated June 2014 for NYSDEC Site Number: 1-30-193.

Due to the Site's history of containing a dry cleaner, a pre-purchase site investigation was completed, which included a Phase II Subsurface Investigation which was performed in December of 2006. The Investigation included seven borings to collect both soil and groundwater samples. The soil samples had no detections of Perchlorethylene (PCE) but two of the groundwater samples in the southwest portion of the property (downgradient of former dry cleaner) had detections of PCE at 27 and 37 ug/L.

A Subsequent Site Characterization was completed in March 2010 which included a geophysical survey and the collection of soil samples. None of the soil samples had detections of PCE above Site Cleanup Objectives (SCOs). In addition, the two on-site supply wells used by the current laundromat were sampled along with an additional nine (9) groundwater samples that were collected using geoprobe technology. The results ranged between non-detected to the highest, 180 ug/L, found adjacent to a geophysical anomaly found in the parking lot.

Results from the soil vapor and indoor air vapor investigations yielded sub-slab detections that ranged from no detections to 54,000 ug/m<sup>3</sup> and indoor air results of no detections to 3.3 ug/m<sup>3</sup>.

A Pilot Test Report and Interim Remedial Measured Work Plan was completed in September 2011.

The remedy (engineering control) chosen for the Site was the installation of a SVE system (Figure 3) that was operated from June 2012 to January 2013 and then converted to a more efficient SSD system in January 2013 (Figure 4). The SSDS has been in operation since January 2013. In addition, an environmental easement (institutional control) was executed and recorded to restrict land use and prevent future exposure to any contamination remaining at the site.

The Engineering Controls have been and are continuing to be effective at reducing the contamination at the Site and meeting the Remedial Action Objectives for both groundwater and soil vapor.

We do not recommend any changes to the SMP, SSD system, or frequency of submittal of PRRs at this time. During the next reporting period, we would like to explore discontinuing the Site Management activities at the Site.

#### 1.0 INTRODUCTION

The following Periodic Review Report (PRR) has been prepared by Tyll Engineering and Consulting, PC (TEC) on behalf of Elks Plaza, LLC for the property located at 189 West Merrick Road in Freeport, New York (Site) (Figure 1). This PRR document was prepared in accordance with the Site Management requirement of the Site as detailed in DER-10 and the site specific SMP.

#### 1.1 Site Overview

The Site is located within the Village of Freeport, County of Nassau, New York and is identified as Section 62; Block114; and Lot 131 on the Nassau County Tax Map. The subject property (Site) is an approximate 3.41-acre area bounded by Merrick Road to the north, a vacant lot and Smith Street to the south, office buildings and Ocean Avenue to the east, and a private school, a bank and South Long Beach Avenue to the west (see Figures 1 and 2).

This Site consists of a tenant unit located in the southwest corner of a L-shaped, one-story concrete strip mall and includes the parking area to the south and west of the structure. The current use of the Site is an active, commercially zoned laundromat that does not perform dry cleaning. The surrounding properties are zoned commercial and residential.

#### **1.2 Site History**

As part of a pre-purchase site investigation, a Phase II Subsurface Investigation was performed in December of 2006 which included seven borings to collect both soil and groundwater samples. The soil samples had no detections of Perchlorethylene (PCE) but two of the groundwater samples in the southwest portion of the property (downgradient of former dry cleaner shown on Figure 2) had detections of PCE at 27 and 37 ug/L.

In March 2010, a Site Characterization was completed which included a geophysical survey and the collection of four (4) soil samples. The samples were collected one adjacent to a geophysical anomaly in the parking lot, one next to drywell, one below dumpster used by former dry cleaner and one below the location of the former dry cleaning machine. None of the four samples had detections of PCE above Site Cleanup Objectives (SCOs).

In addition, the two on-site supply wells used by the current laundromat were sampled along with an additional nine (9) groundwater samples that were collected using geoprobe technology. The results ranged between non-detected to the highest, 180 ug/L, found adjacent to the geophysical anomaly in the parking lot.

Also in March 2010, one sub-slab and one indoor air sample were collected within the laundromat and four other soil vapor and one outdoor air samples were also collected. The sub-slab results ranged from no detections to  $14,900 \text{ ug/m}^3$  within the laundromat with indoor air results at  $3.3 \text{ ug/m}^3$ .

In June 2010, a supplemental soil vapor investigation was completed that included two additional sub-slab vapor samples and three additional indoor air samples. The PCE was detected in sub-slab soil vapors ranging from 2.17 to 54,000 ug/m<sup>3</sup> and from 2.17 to 3.25 ug/m<sup>3</sup> in the indoor air samples.

A Pilot Test Report and Interim Remedial Measured Work Plan was completed in September 2011. The pilot test included a boring completed within the footprint of the former dry cleaning machine and four (4) vapor extraction vents were installed and pilot tested. The samples at the beginning of the pilot test were 94,990 ug/m³ of PCE and at the end of the test were 210,335 ug/m³ PCE. In November 2012, three groundwater monitoring wells were installed along with the sub-slab vapor vent in the basement of the Woodward Children's Center.

#### 1.3 Summary of Site Remedy

#### 1.3.1 IRM Remedy

The site was remediated in accordance with the NYSDEC-approved Pilot Test Report and Interim Remedial Measure Work Plan dated January 2012 and Addendum #1 dated March 2012.

The following is a summary of the Remedial Actions performed at the site in January 2013

- No removal of contaminated soil was required.
- Installation of a sub-slab venting system consisting of four, 4-inch diameter vents. Installation of duct work to extend the four vents to the roof.
- Installation and operation of a soil vapor extraction (SVE) system (Figure 3) with a moisture knockout drum, 1 HP blower, and carbon treatment unit to remove PCE vapors from beneath the slab of the building.
- Conversion of the SVE system to a more energy efficient sub-slab depressurization system (SSDS) and continued operation of the system (Figure 4).
- Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.
- Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;
- Periodic certification of the institutional and engineering controls.

#### 1.3.2 ROD Selected Remedy

Based on the results of the investigations at the site, the IRM that was completed, and the evaluation within the ROD, the Department proposed a No Further Action as the remedy for the

site. This No Further Action remedy includes the continued operation of the SSDS and the implementation of the ICs/ECs. The NYSDEC stated that they believe that this remedy is protective of human health and the environment and satisfies the RAOs described in Section 1.3 of this report which were taken from Section 6.5 of the ROD, Summary of the Remediation Objectives.

#### 1.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) are detailed in the Record of Decision (ROD) dated March 2014. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

#### 1.4.1 Groundwater RAOs

#### **RAOs for Public Health Protection**

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

#### RAOs for Environmental Protection

• Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.

#### 1.4.2 Soil Vapor RAOs

#### **RAOs for Public Health Protection**

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

#### **1.5 Site Closure Criteria**

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10 and discussed in Section 1.4.1 below.

#### 1.5.1 Sub-Slab Depressurization System (SSDS)]

As stated in Section 4.3.4 of the SMP, the active SSD system will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SSD

system is no longer required, a request to discontinue the SSD system will be submitted by the property owner to the NYSDEC and NYSDOH.

Operation of the SSD system will be terminated when the following are demonstrated in accordance with Indoor Air Matrix 2 of the NYSDOH's 2006 Guidance document:

- Indoor air concentrations of PCE in the Laundromat is less than 3 ug/m3; and,
- Sub-slab vapor concentration of PCE below the Laundromat is less than 100 ug/m3.
- This shall be demonstrated during the winter heating season, to represent the worst-case scenario, and after the SSD system has been turned off for a period of 30 days.

#### 1.6 Deviations from the Remedial Action Work Plan

No changes to the remedial design were reported.

#### 2.0 EVALUATE REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

Presently, an annual evaluation is completed at the site to document the operation and effectiveness of the SSDS. At a minimum, a site-wide inspection will be conducted annually.

The SSDS System is in operation at the Subject property. The objective of the SSDS is to remove any vapors from under the slab which assists in safeguarding the occupants from potentially harmful vapors.

Groundwater samples at the site have yielded detections but no exceedances over NYS groundwater standards within the reporting period.

Indoor air and sub-slab vapor sampling was completed at the off-site location, Woodward Center prior to the reporting period in February 2015 and then again during the reporting period on February 19, 2016. During discussions with the NYSDOH and NYSDEC, it was determined that further sub-slab and indoor air sampling is no longer required

The Site-wide inspection was conducted on March 20, 2017 by Karen Tyll, P.E. Viktor Padilla, from Galaxy Management, provided access to the laundromat and roof for the Site-wide inspection. The surrounding interior areas and surrounding parking lots were also inspected.

No additional inspections were conducted during this reporting period as there were no events that warranted inspections or emergency inspections. The Site-wide Inspection form is enclosed as Appendix A. Select photographs of the Site during the inspection are also enclosed within Appendix A.

The Engineering Controls have been and are continuing to be effective at reducing the contamination at the Site and meeting the Remedial Action Objectives for both groundwater and soil vapor.

#### 3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN COMPLIANCE REPORT

#### **3.1 Engineering Controls**

Engineering controls (ECs) at the Site consist of a sub-slab depressurization system. Assurance of the ECs developed for the Site will be achieved using a combination of site inspections, monitoring, and annual certifications. The engineering controls were inspected and evaluated on March 20, 2017 by Karen Tyll.

Initially, a Soil Vapor Extraction (SVE) was installed comprised of four vents connected to four vertical ducts connected to a regenerative blower, moisture knock-out drum and carbon units on the roof. In January 2013, the former SVE system was converted, with the NYSDEC's approval, to an active SSD system due to the reduction of the PCE concentrations detected in extracted soil vapor. The SSDS consists of a 6- inch diameter Fantech Model HP 220 vapor abatement fan that was mounted on top of the existing riser on the roof and the SVE system equipment was removed. The new SSDS system also included a vacuum gauge that has a visual alarm that illuminates a red light if the fan fails to operate located in the office of the Laundromat next to a sign that includes the phone number to call if the light turns on.

Procedures for monitoring, operating and maintaining the SSDS were provided in the Operation and Maintenance Plan in Section 4 of the Site Management Plan (SMP). The Monitoring Plan also addressed inspection procedures that must occur after any severe weather conditions that may affect the ECs.

#### **3.2 Institutional Controls**

Institutional Controls include an environmental easement on the property to (1) implement, maintain and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to commercial uses only.

The environmental easement for the site was executed by the Department on April 10, 2015, and filed with the Nassau County Nassau Clerk on May 6, 2015. The County Recording Identifier number for this filing is RE 017516 with a Control Number of 420. A copy of the easement and proof of filing was provided in Appendix B of the Site Management Plan (not attached).

#### 3.3 Status of Controls

At the time of this PRR, the Engineering controls in the form of the SSDS is operating as designed and the Institutional Control in the form of the environmental easement was obtained on May 6, 2015.

#### 3.3.1 Corrective Measures

There are no known deficiencies of the Engineering Controls or Institutional Controls at this time and as a result, no corrective measures are warranted.

#### 3.6 IC/EC Certification

The annual certification for the Site consists of a completed NYSDEC IC/EC Certification Form. The completed IC/EC Certification Form was signed on March 20, 2017 and is enclosed as Appendix B. The annual certification was prepared in accordance with the SMP and has been signed by the Owner, Elks Plaza, LLC and Karen Tyll, P.E., a professional engineer licensed to practice in New York State, as the Qualified Environmental Professional.

#### 4.0 MONITORING PLAN COMPLIANCE REPORT

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the site and all affected site media identified below. The Monitoring Plan may only be revised with the approval of NYSDEC.

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Annual monitoring of the performance of the remedy and overall reduction in contamination onsite and off-site will be conducted for the first five years. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in tabulation below:

Matrix	Frequency	Analysis	Compliance Date
Groundwater (MW-1, 2, & 3)	Annual	VOCs	May 28, 2016
Soil Vapor and Indoor Air (3 sub-slab and 3 indoor air)	Annual	VOC (TO-15 over 8 hours)	February 19, 2016
Soil	Once	TCL VOCs, SVOCs, PCBs, Pesticides, and TAL Metals	June 4, 2015
SSDS Operation Conditions	Annual during Site Wide Inspection	none	March 20, 2017

#### 4.1 Summary of Monitoring Completed During Reporting Period

On February 20, 2016, Seacliff Environmental collected sub-slab and indoor air samples from within the Woodward Children's Center, located at 201 West Merrick Road, adjacent to the Subject Property. Digital results of the sampling were provided to the NYSDEC and NYSDOH. The Air Sampling Results Letter from the NYSDOH dated May 24, 2016 can be found in Appendix D. The

On September 27, 2016, Seacliff Environmental submitted a SMP Sampling Results Report (Appendix E) that detailed an on-site groundwater sampling event. Results indicated detections in MW-2 of both cis-1,2 dichloroethene and PCE that were significantly below their respective NYS Groundwater Standards. There were no detections of other VOCs in MW-1 and MW-3 (other than the assumed lab artifacts acetone and methylene chloride). MW-1 and MW-3 results are consistent with 2015 groundwater data. The approval of the September 27, 2016 SMP Sampling Results Report can be found in Appendix F.

#### **Comparisons of Groundwater Data**

In August 2015, there were detections of cis-1,2 dichloroethene, trichloroethene, and PCE in MW-2 that were just above their respective NYS Groundwater Standards. In September 2016, there were detections in MW-2 of both cis-1,2 dichloroethene and PCE that were significantly below their respective Groundwater standards. This indicates a downward trend.

#### Comparisons of Sub-Slab Soil Vapor Data

In August 2015, the results of four sub-slab soil vapor samples and indoor air samples taken in two classrooms within the Woodward Children's Center did not indicate the presence of any of the chemicals of concern. In February 19, 2016, there were detections of PCE in Room B12 of 254 ug/m³ which were above the NYSDOH Air Guideline value of 30 ug/m³ but was not detected in the sub-slab vapor (Appendices C and D). It was determined that there must be an indoor air source of PCE that must be controlled. PCE was detected in other areas of the basement but well below the NYSDOH Air Guideline value. The 2016 and prior sampling events were reported to conclude the soil vapor intrusion is not affecting the indoor air quality of the school and that annual monitoring should be discontinued (Appendix D).

#### 5.0 OPERATION & MAINTENANCE (O&M) PLAN COMPLIANCE REPORT

#### 5.1 Sub-Slab Depressurization System

The Fantec fan installed on the SSDS does not require any maintenance. It has no filters and does not require lubrication. If the fan should fail to work in the future, it should be replaced by an electrician with a similar make and model fan.

#### **5.2 SSD System Monitoring Schedule**

Based on the manufactures literature, there are no maintenance requirements for the SSD fan. The system includes a vacuum gauge with a visual low vacuum alarm. If the fan fails to operate, a red light in the office of the Laundromat will illuminate. A sign with the phone number to call for service is posted next to the vacuum gauge and alarm.

The vacuum gauge, fan and duct work will be inspected on an annual basis to coincide with the soil vapor and groundwater monitoring.

Inspection frequency is subject to change with the approval of the NYSDEC. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

#### 5.3 SSD System General Equipment Monitoring

A visual inspection of the complete system will be conducted during the monitoring event. SSD system components to be monitored include, but are not limited to, the vacuum gauge/alarm, fan and duct work If any equipment readings are not within their typical range, any equipment is observed to be malfunctioning, or the system is not performing within specifications, maintenance and repair are required immediately, and the SSD system restarted.

#### **5.4 SSD System Operation and Maintenance Deficiencies**

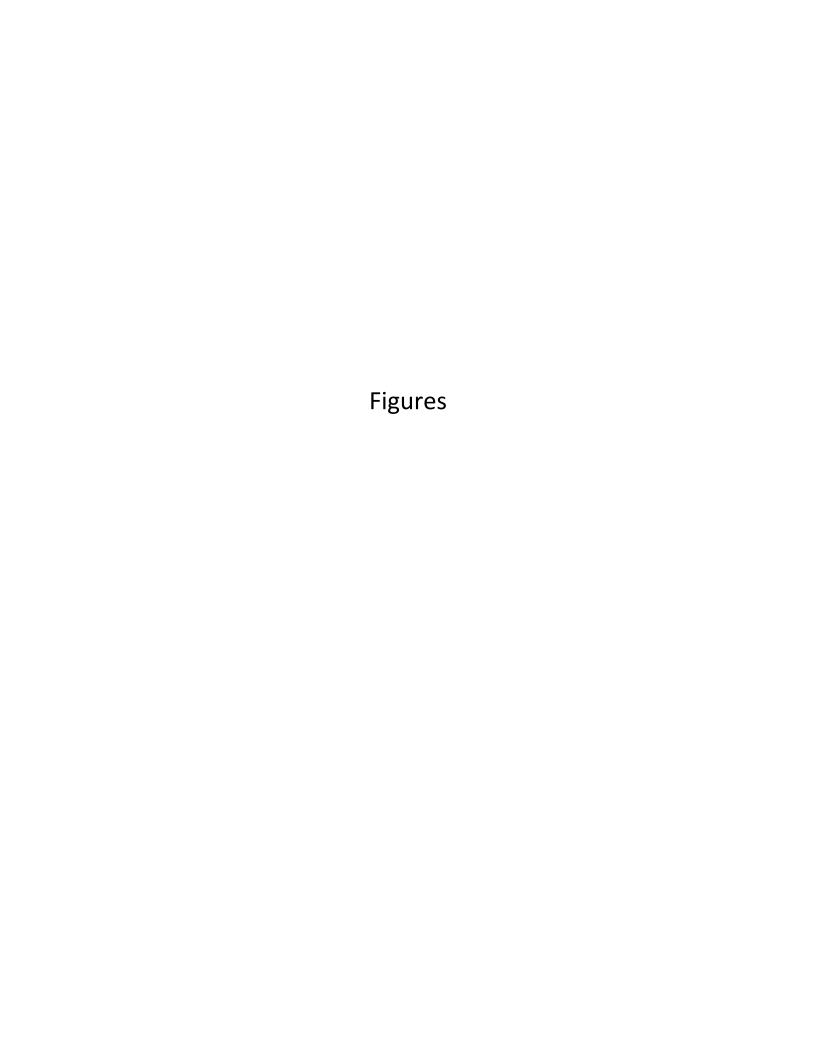
Due to the nature of the SSDS fan as discussed above, there are no deficiencies in the O&M of the system.

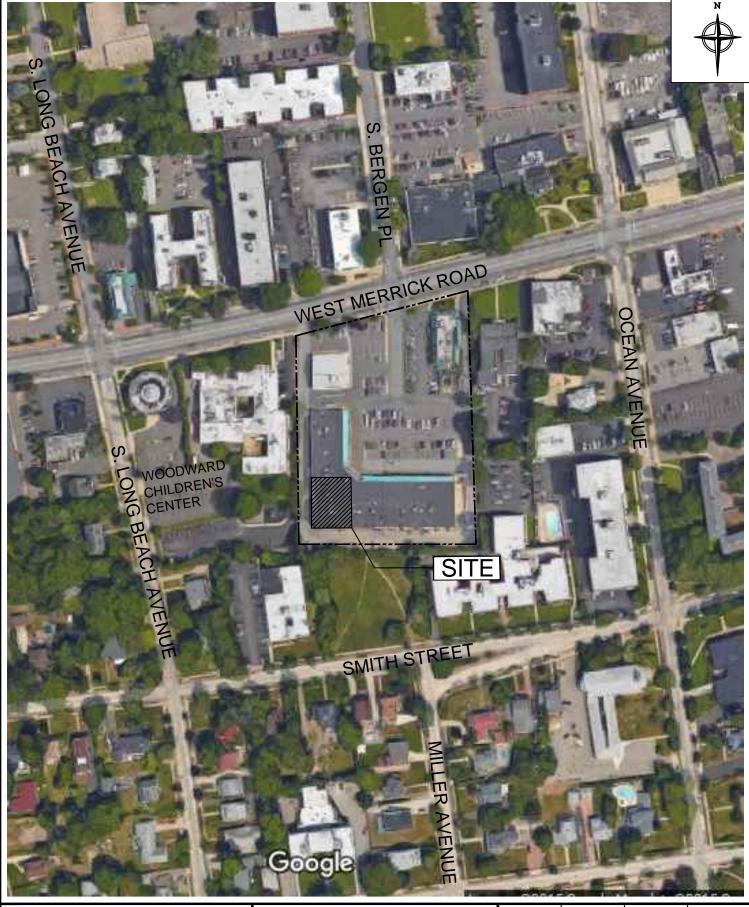
#### **5.4 SSD System Conclusions and Recommended Improvements**

We believe that O&M is being conducted correctly and no improvements need to be made to the current SSD System.

#### **6.0 CONCLUSIONS AND RECOMMENDATIONS**

Based upon the requirements of the SMP and the monitoring and O&M events, we believe that the operation of the SSD system shall continue; Operations and maintenance activities should continue in accordance with the schedule outlined in the approved SMP; Indoor air, sub-slab vapor, and groundwater samples should continue to be sampled and reported on an annual basis as required by NYCDEP; and the next Periodic Review Report should be submitted by March 31, 2018.





PREPARED BY:

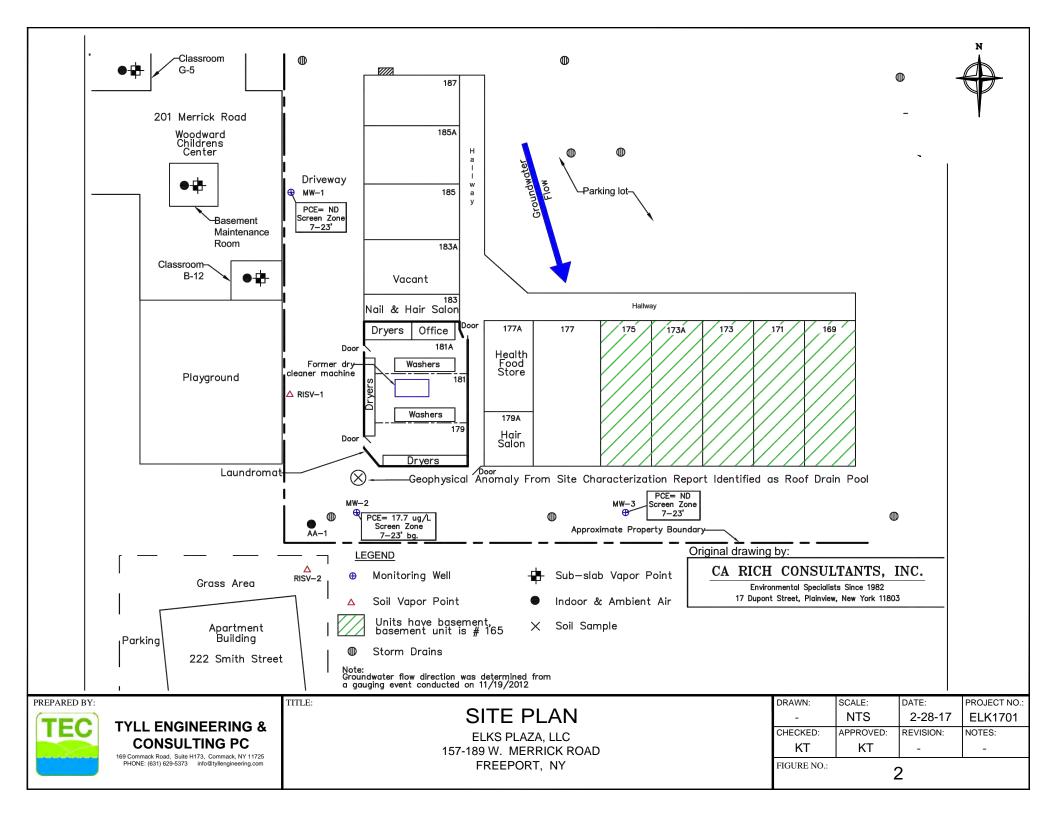


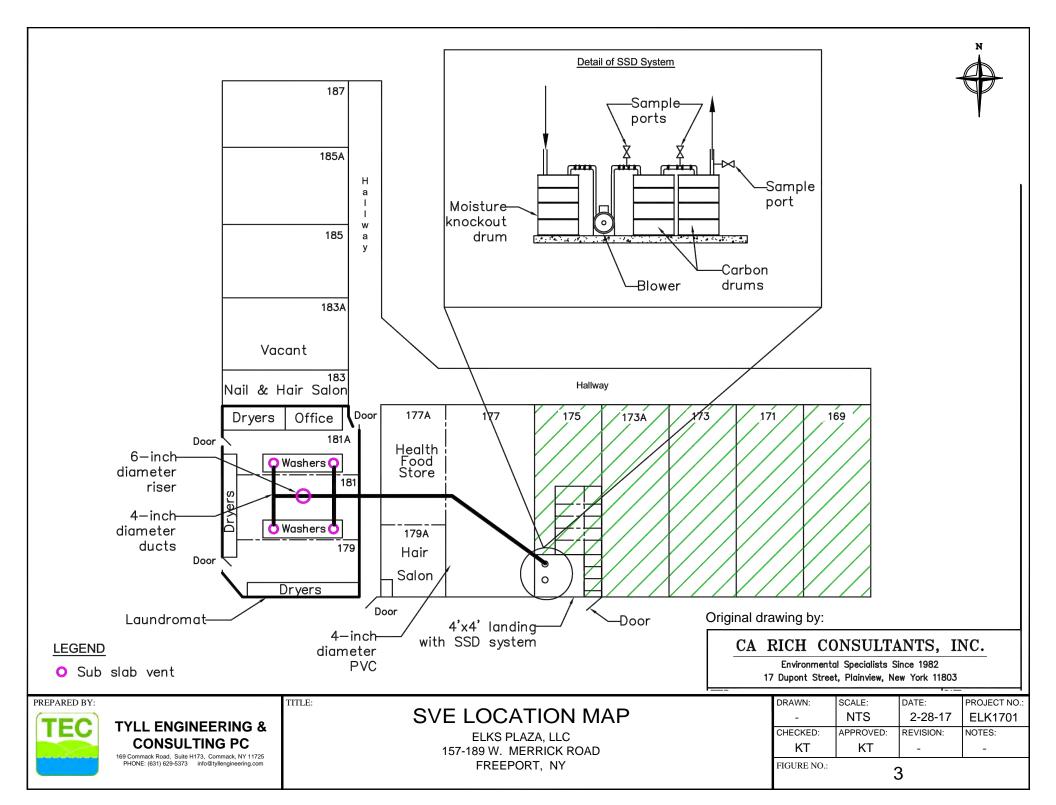
## TYLL ENGINEERING & CONSULTING PC

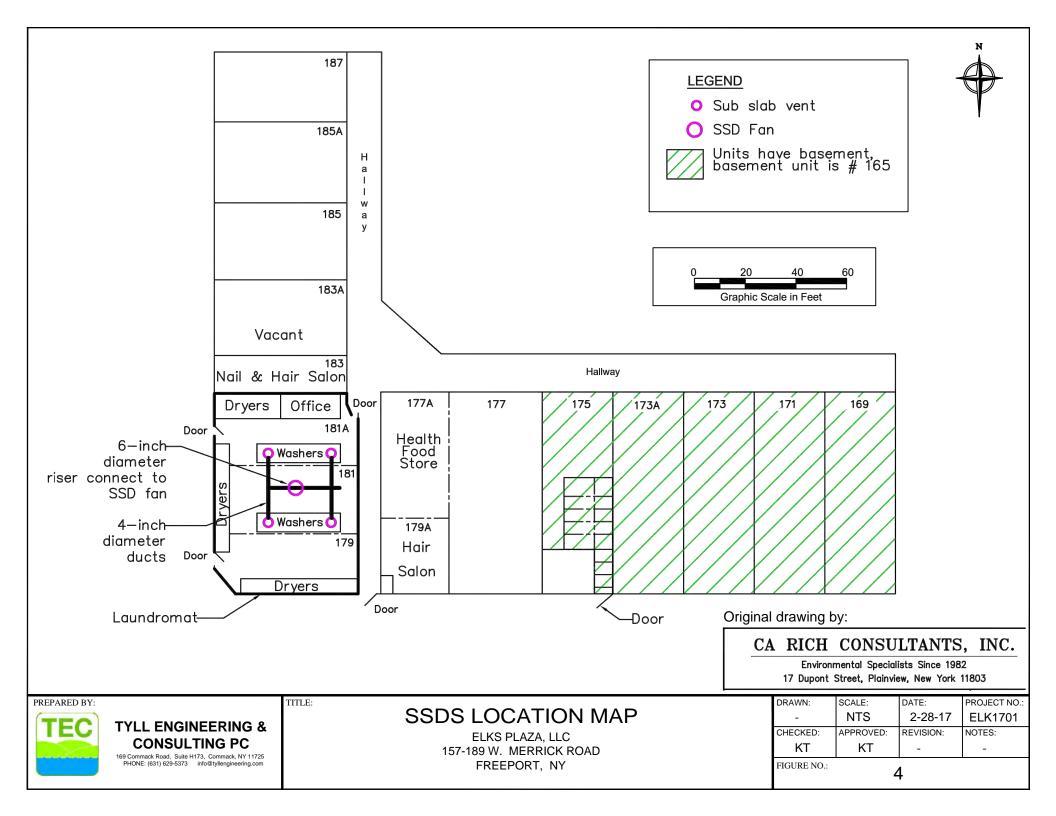
169 Commack Road, Suite H173, Commack, NY 11725 PHONE: (631) 629-5373 info@tyllengineering.com SITE LOCATION MAP

ELKS PLAZA, LLC 157-189 W. MERRICK ROAD FREEPORT, NY

DWN:	SCALE:	DATE:	PROJECT NO.:
-	NTS	2-28-2017	ELK1701
CHKD:	APPD:	REV.:	NOTES:
KT	KT	-	-
FIGURE NO.:	,		







# Appendix A Site-wide Inspection Form

#### **Annual Site-wide Inspection Form**

#### Elks Plaza, Freeport, New York

Date: <u>03/20/17</u>		Time:_	<u>11:30 AM</u>
Weather: Sunny 48º	<u>F</u>		
Reason for Inspection:	☐ Routine	☑ other <u>A</u>	Annual Site-wide Inspection and Certification

#### **Inspection Observations**

Check one of the following: Y: Yes N: No NA: Not Applicable

Che	ck one of the following: Y: Yes N: No NA: No	l Ap	phic	abie	
		У	N	NA	Remarks
	Records				
1	Based on site records, when was the last inspection, maintenance, or repair event?				
2	Based on site records, was the system not operating for any amount of time since the last inspection, maintenance, or repair event? For how long? Provide details.		X		
3	Has the site use changed to a type of use higher than the current commercial use (as allowed in environmental easement)?		Х		
	General System				
5	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the concrete floor slab?		N		Façade was changed within the last year but no change to the flooring was completed.
6	Are there any cracks in the concrete slab or concrete basement walls?		N		
7	If YES to number 6, is there documentation that the Soil Management Plan (SMP), HASP, and CAMP for the site was/is being followed?			N/A	
8	If YES to number 6, is there documentation that all breaches in the floor slab have been sealed?			N/A	
9	Does all visible SSDS piping appear intact and undamaged?	Υ			
10	Have any intake points been constructed at the roof near (less than 10 feet) the SSDS blower discharge point?		N		

		Were the one SSDS blower operational at the time of the inspection?	Υ			
	12	Is the SSDS System expelling Air from the exhaust on the roof of the building?	Υ			
		Is there dust and debris from the area surrounding the blowers on the roof.		Z	Roc	of was very clean.
Pe	erfo	rmed by: <u>Karen G. Tyll, PE</u> Printed Name			7	Signature
		Professional Engineer Title		]	/ll Engi	neering and Consulting, PC_ Company

# Appendix B PRR Certification Forms



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



Si	te No. 130193	Site Details	Box 1	
Si	te Name Elks Plaza			
Ci	te Address: 189 W. Merrick Road ty/Town: Freeport bunty:Nassau te Acreage: 0.2	Zip Code: 11520		
Re	eporting Period: December 07, 2015	to March 01, 2017		
			YES	NO
1.	Is the information above correct?		X	
	If NO, include handwritten above o	r on a separate sheet.		
2.	Has some or all of the site property tax map amendment during this Re	been sold, subdivided, merged porting Period?	i, or undergone a □	X
3.	Has there been any change of use (see 6NYCRR 375-1.11(d))?	at the site during this Reporting	; Period □	X
4.	Have any federal, state, and/or locator or at the property during this Re	al permits (e.g., building, discha porting Period?	arge) been issued	X
	If you answered YES to question that documentation has been pre	s 2 thru 4, include documents	ation or evidence certification form.	
5.	Is the site currently undergoing dev	/elopment?		X
		decederate design in the control of	Box 2	
			YES	NO
6.	Is the current site use consistent w Residential, Restricted-Residential,	ith the use(s) listed below? Commercial, and Industrial	X	
7.	Are all ICs/ECs in place and function	oning as designed?	×	
	IF THE ANSWER TO EITHER DO NOT COMPLETE TH	QUESTION 6 OR 7 IS NO, sign HE REST OF THIS FORM. Othe	and date below and rwise continue.	
A	Corrective Measures Work Plan mus	t be submitted along with this	form to address these iss	ues.
0:-	gnature of Owner, Remedial Party or D		Date	

SITE NO. 130193

Box 3

**Description of Institutional Controls** 

Parcel

Owner

62-114-131

George Tsillogianis

Institutional Control

Ground Water Use Restriction

Monitoring Plan

Site Management Plan

O&M Plan IC/EC Plan

The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Nassau County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

Monitoring of the groundwater and Soil vapor intrusion at the property next door shall be in accordance with the SMP.

Operation, Maintenance, and Monitoring of the SSDS shall be in accordance with the SMP.

Box 4

**Description of Engineering Controls** 

Parcel

**Engineering Control** 

62-114-131

Vapor Mitigation

There is a sub-slab depressurization system in place at the site.

В		

#### Periodic Review Report (PRR) Certification Statements

1.	I certify by checking "YES" below that:		
	<ul> <li>a) the Periodic Review report and all attachments were prepared under the directive reviewed by, the party making the certification;</li> </ul>	ction of	, and
	<ul> <li>b) to the best of my knowledge and belief, the work and conclusions described is are in accordance with the requirements of the site remedial program, and gener engineering practices; and the information presented is accurate and compete.</li> </ul>	in this corrally acc	ertification cepted
	criginating practices, and the information presented is accurate and compete.	YES	NO
		X	
2.	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below tha following statements are true:	each Ir it all of t	nstitutional the
	(a) the Institutional Control and/or Engineering Control(s) employed at this site is the date that the Control was put in-place, or was last approved by the Department	s uncha ent;	inged since
	(b) nothing has occurred that would impair the ability of such Control, to protect the environment;	public h	nealth and
	<ul> <li>(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;</li> </ul>	the rer	nedy,
	<ul> <li>(d) nothing has occurred that would constitute a violation or failure to comply with Management Plan for this Control; and</li> </ul>	th the S	ite
	(e) if a financial assurance mechanism is required by the oversight document fo mechanism remains valid and sufficient for its intended purpose established in the	r the sit	e, the ment.
		YES	NO
		X	
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.		
	A Corrective Measures Work Plan must be submitted along with this form to address the	nese iss	sues.
	Signature of Owner, Remedial Party or Designated Representative Date	•	
1			The source of

#### IC CERTIFICATIONS SITE NO. 130193

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.

print name at C	print business address	11746
am certifying as onack	(Owner	or Remedial Party)
or the Site named in the Site Details Section	n of this form.	
AND THE PERSON OF THE PERSON O		

#### IC/EC CERTIFICATIONS

Box 7

#### **Professional Engineer 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.

print name	print business address	169 Commack Rd. Sik HI Commack, NY 11725
m certifying as a Professional Engineer for the	Owner	Commack, NY 11725
	Öwner or I	Remedial Party)
	STATE OF THE STATE OF	O The second second
	* SUCTION	
1112	15 Ka 2/0+/17	EXT THE
La Syr		ist and a
7,30	OFFICE ONLY	S128/17
Signature of Professional Engineer, for the Owner of	or Standard	Date

### Appendix C

Pace Analytical - Sample Data Summary Package

Woodward Children's Center

February 19, 2016

Indoor Air and Soil Vapor Sampling



575 Broad Hollow Road Melville, NY 11747 tel 631.694.3040 fax 631.420.8436

#### **SAMPLE DATA SUMMARY PACKAGE**

#### **TABLE OF CONTENTS**

SEACLIFF ENVIRONMENTAL INC. SAMPLES RECEIVED: 2/19/16 AIR SAMPLES SDG NO.: SEI006

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- 3. SDG NARRATIVES
- **4. SAMPLE REPORTS** 4.1 VOLATILES
- 5. SURROGATE SPIKE ANALYSIS RESULTS 5.1 VOLATILES
- 6. MATRIX SPIKE / MATRIX SPIKE DUPLICATE SUMMARY
  6.1 VOLATILES
- 7. BLANK SUMMARY DATA & RESULTS
  7.1 VOLATILES
- 8. INTERNAL STANDARD AREA DATA 8.1 VOLATILES



575 Broad Hollow Road Melville, NY 11747 tel 631.694.3040 fax 631.420.8436

#### 1. NYS DEC SUMMARY FORMS

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

SDG: SEI006

**Analytical Requirements** 

JDG. JLIVO			
Customer	Laboratory	AIR	
Sample	Sample		
Code	Code		
SI BASEMENT INDOOR	1602E93-001	Х	
SI G-5 INDOOR	1602E93-002	Х	
SII B-12 INDOOR	1602E93-003	Х	
SSV B-12 SUB-SLAB	1602E93-004	Х	
SSV BASEMENT SUB-SLAB	1602E93-005	Х	
SSV G-5 SUB-SLAB	1602E93-006	Х	

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA)

SDG: SEI006

**ANALYSES** 

Laboratory Samp ID	Client Sample ID	Matrix	Analytical Protocol	Date Collected	DateRecd at Lab	 Date Analyzed	Extraction Method	DF	Level	Aux Cleanup
1602E93-001A	BASEMENT INDOOR	Air	ETO-15	19-Feb-16	19-Feb-16	23-Feb-16		1	LOW	
1602E93-002A	G-5 INDOOR	Air	ETO-15	19-Feb-16	19-Feb-16	23-Feb-16		1	LOW	
1602E93-002ADL	G-5 INDOORDL	Air	ETO-15	19 <b>-</b> Feb-16	19-Feb-16	23-Feb-16		5	LOW	
1602E93-003A	B-12 INDOOR	Air	ETO-15	19-Feb-16	19-Feb-16	23-Feb-16		1	LOW	
1602E93-004A	B-12 SUB-SLAB	Air	ETO-15	19-Feb-16	19-Feb-16	23-Feb-16	!	1	LOW	
1602E93-005A	BASEMENT SUB-SLAB	Air	ETO-15	19-Feb-16	19-Feb-16	23-Feb-16		1	LOW	
1602E93-005ADL	BASEMENT SUB-SLAB	Air	ETO-15	19-Feb-16	19-Feb-16	23-Feb-16		5	LOW	
1602E93-006A	G-5 SUB-SLAB	Air	ETO-15	19-Feb-16	19-Feb-16	23-Feb-16		1	LOW	



575 Broad Hollow Road Melville, NY 11747 tel 631.694.3040 fax 631.420.8436

#### 2. CHAIN OF CUSTODY DOCUMENTATION



# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

SEI006

Section A Section B Required Client Information: Required Project In	nformation:	Section C Invoice Information	n:			Page: of
Address: Box 2085 Copy To:		Attention: Company Name: P1 ( Address:	Demarkins liff		•	Emissions Clean Air Act
Email To: Seach Efenviron mental Purchase Order No	vara, Freeport	Pace Quote Refere Pace Project Mana, Pace Profile #:			Voluntary Clean Up Dry  Location of Sampling by State  Report Level IIIII	Reporting Units ug/m² mg/m² / PPBV PPMV Other
Section D Required Client Information  AIR SAMPLE ID Sample IDs MUST BE UNIQUE  Biler Summa Can ell.c Low Volume Puff LVP Hight Volume Puff HVP Other PM10	COLLECT START  COMPOSITE START ENDIGRAB  DATE TIME D	STOP  COMPOSITE TIME	Canister Pressure (Initial Field - psig) Canister Pressure (Final Field - psig) Canister Pressure (Initial Lab) Canister Pressure (Final Lab)	Summa Flow Can Control Number Number	Method:	2) Pace Lab ID
1 SSV B-12 Sub-slab	2/19/16 6:43-		30"1" 30"	850 916		1602 E93-00
1 SSV B-12 Sub-slab 2 SMF B-12 Indoor 3 SI G-5 Indoor 4 SSV G-5 Sub-slab 5 SI Basement Indoor	2/19/16 6:45-	-2:45	28" 0 30"	856 1020		1 -603
3 SI G-5 Indoor 4 SSV G-5 Sub-5lab	2/19/16 6:57 -	1	30"17" 30"	858 1023	X	-002
1 55V G-5 Sub-5/ab	2/19/16 6:56 -		30" /" 30"	862 1162	<u> </u>	-006
	17 . 11 1 1 1		30'(4" 30"	863 1416	-1	-00+
7 B B 10	2/19/167:34 -		30'4" 30"	3421 2070		-0.5
11	· · · · · · · · · · · · · · · · · · ·					
Comments:	RELINQUISHED BY / AF	FILIATION 7	DATE TIME	ACCEPTED BY / AFFILIATION	DATE TIME	SAMPLE CONDITIONS
	Jan-MJD)	Mart 2	2/19/16 15:56	Your What	a119116 15:56	93
		•			, ,,	Z Z >
						N, N,
		400000000000000000000000000000000000000		alama sa jaranda alia aliah 1 dalam 1 dan alia ang di Alah 1 da		7 Y/N X/N
		PRINT Name	R NAME AND SIGNATURE  e of SAMPLER:  for SAMPLER:	DATE Signed (MM / DD		Temp in °C Custody Sealed Cooler Samples Intact



# PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747

TEL: (631) 694-3040 FAX: (631) 420-8436

Website: www.pacelabs.com

# Sample Receipt Checklist

Client Name SEI Date and Time Received: 2/19/2016 3:56:00 PM RcptNo: 1 Received by Paige Doherty Work Order Number: 1602E93 POUNDE K. Druken Completed by: Completed Date: 2/19/2016 8:50:31 PM Reviewed Date: 2/22/2016 12:40:09 PM Carrier name: Client Yes 🗸 No 🖂 Chain of custody present? **V** No 🗌 Chain of custody signed when relinquished and received? Yes Chain of custody agrees with sample labels? Yes Yes 🗸 Are matrices correctly identified on Chain of custody? No Yes 🗹 Is it clear what analyses were requested? No L **V** Custody seals intact on sample bottles? Yes No 🗀 Not Present Samples in proper container/bottle? Yes 🗹 No 🗀 Yes 🗹 No 🗌 Were correct preservatives used and noted? NA Preservative added to bottles: **V** Broken Sample Condition? Intact Leaking **V** No 🗌 Sufficient sample volume for indicated test? Yes V No 🗌 Were container labels complete (ID, Pres, Date)? Yes Yes 🗹 All samples received within holding time? No 🗔 Yes 🗹 No 🗔 Was an attempt made to cool the samples? NA All samples received at a temp. of > 0° C to 6.0° C? Yes No 🔽 NA Response when temperature is outside of range: Not required No 🗸 Sample Temp. taken and recorded upon receipt? Yes 🗀 To **V** Water - Were bubbles absent in VOC vials? Yes No Vials **V** Water - Was there Chlorine Present? Yes **V** Yes No Water Water - pH acceptable upon receipt? Yes 🗹 Are Samples considered acceptable? No 🗹 Custody Seals present? Yes Not Present 🗹 Air Bil Sticker 🗀 Airbill or Sticker? Airbill No: Case Number: SDG: SAS: SE1006 Any No response should be detailed in the comments section below, if applicable. \_\_\_\_\_\_ **✓** NA Yes ☐ No Person Contacted: Client Contacted? Contact Mode: Phone: Fax: Email: In Person: Client Instructions: Date Contacted: Contacted By: Regarding: Comments: Sample -005 did not have an end time of collection, sample was logged as per the date indicated on the chain without a time of collection. CorrectiveAction: Client was contacted. End time for sample -005 was received and added to chain of custody upon 2/22/16. - CD

# INTERNAL CHAIN OF CUSTODY

CLIENT: SET	DELIVERAL	bles: <u>B05</u> -	7 <u>0</u> tur	Ņ AŖOUŅĪ	DIME: S. CLUYS
SDG: SET/106	CASE#:	MATRIX	:: <u> </u>	F	H CHECK Y or N
REMARKS:					
RECEIVED BY: // SI	GNATURE:	ariga Dah	fulf D	ATE: <u>0/19/</u>	16 TIME! 5:56
CLIENT SAMPLE ID	LAB#	DATE COLLECTED	BOTTLE TYPE	# OF BOTTLES	TESTS REQUESTED
1. SI Basement Indan	1600 E93 -001 A	2/19/16-	Canister	.  -	TO=15
2SIG-S INDOOR	-002			-	
3.SII B-12 Inclar	-003		7 P. C.		
4.SSV B-12 SUBSIAB	-204				
-s.SSV Basment Sub-slab	005				
6.SSV G-5 SUB-5/ab	1 -00leV	· J			
7.			-		
8.					
9.		210	111		
10.	\	Moth	+		
11.					
12.					
13.				,	
14.					
15.					
16.					
17/					·
√s					
9.					
20.					

CLIENT:	SET
SDG:	SEI006

# INTERNAL CHAIN OF CUSTODY

DATE	RELINQUISHED BY		SAMPLE RECEIVED BY	BOTTLE TYPE	PURPOSE OF CHANGE OF CUSTODY	INIT.
2/19/16	18:00	Away Delreoty	1313 Lagula	canister	analytis	
					· · · · · · · · · · · · · · · · · · ·	
	-					
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					1	
					•	
11011						



tel 631.694.3040 fax 631.420.8436

# 3. SDG NARRATIVES



tel 631.694.3040 fax 631.420.8436

# SDG NARRATIVE FOR VOLATILE ANALYSES SAMPLES RECEIVED: 2/19/2016 SDG#: SEI006

For Sample(s):

SI BASEMENT INDOOR
SI G-5 INDOOR
SII B-12 INDOOR
SSV B-12 SUB-SLAB
SSV BASEMENT SUB-SLAB
SSV G-5 SUB-SLAB

The above air sample(s) was/were analyzed for a specific list of volatile organic analytes and for tentatively identified compounds (TICs) according to the requirements of EPA method TO-15 and reported with the deliverables of ASP 2000, Category B.

All quality control and calibration requirements were met unless discussed below. The following should be noted:

No matrix spike/matrix spike duplicate (MS/MSD) was submitted. A lab-fortified blank (LFB) was analyzed. All percent recoveries were within or above QC limits.

Analytes that exceeded the variability of 30% in the calibration are flagged with a "Z" qualifier. To indicate that the results are regarded estimated.

Samples were analyzed at a dilution if required, due to concentration levels of targeted analytes.

TICs identified as alkanes are not counted as TICs, but are included in the TIC report on Form 1F.

TICs identified as siloxanes are suspected column/septa bleed and are flagged with an "X" qualifier.

Results for targeted analytes are reported in both ppbv and ug/m3 units and TICs are reported as ppbv.



tel 631.694.3040 fax 631.420.8436

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: March 4, 2016

General Manager

Joann Slavin



tel 631.694.3040 fax 631.420.8436

# 4. SAMPLE REPORTS

4.1 VOLATILES



tel 631.694.3040 fax 631.420.8436

# **QUALIFIERS FOR REPORTING ORGANICS DATA**

Value - If the result is a value greater than or equal to the quantification limit, report the value.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(300 \text{ U})}{D} \times \text{df where D} = \frac{100\% \text{moisture}}{100}$$
and df - dilution factor

For example, at 24% moisture, 
$$D = \frac{100 - 24}{100} = 0.76$$

$$\frac{(300 \text{ U})}{.76}$$
 x 10 - 4300 U rounded to the appropriate number of significant figures

For semivolatile soil samples, the extract must be concentrated to 0.5 mL, and the sensitivity of the analysis is not compromised by the cleanup procedures. Similarly, pesticide samples subjected to GPC are concentrated to 5.0 mL. Therefore, the CRQL values in Exhibit C will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume (see Exhibit C), this fact must be accounted for in reporting the sample quantitation limit.

- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified quantification limit but greater than zero. (e.g.: If limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.) The sample quantitation limit must be adjusted for dilution as discussed for the U flag.
- N Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported of Form I with a "P".
- C This flag applies to pesticide results when the <u>identification</u> has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a Laboratory defined flag, discussed below.



575 Broad Hollow Road

Melville, NY 11747

tel. 631.694.3040

fax. 631.420.8436

- B This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.
- E This flag identified compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration ranges in the second analysis, then the results of both analyses shall be reported on separate copies of Form I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g. a diluted analysis is not required for total xylenes unless the concentration of the peak representing the single isomer exceed 200 ug/L or the peak representing the two coeluting isomers on that GC column exceed 400 ug/L. Similarly, if the two 1,2-Dichloroethene isomers coelute, a diluted analysis is not required unless the concentration exceed 400 ug/L.
- D This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- X Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG narrative. Begin by using "X". If more than one flag is required use "Y" and "Z" as needed. If more than five qualifiers are required for a sample result, used the "X" flag to combine several flags as needed. For instance, the "X" flag might combine "A", "B", and "D" flags for some samples. The laboratory defined flags limited to the letters "X", "Y" and "Z".

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are detected in the sample.

Z - Identifies compounds that have positive results and > 20% D for the CCV on the day of analysis. This qualifier is also used for positive compounds that have > 20 % RSD in the ICAL and for which no acceptable function was found. These results are regarded estimated.



tel 631.694.3040 fax 631.420.8436

# 4.1 VOLATILES



NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To:

Jim DeMartinis

Collected : 2/19/2016 3:35:00 PM Received : 2/19/2016 3:56:00 PM

Collected By CLIENT

# LABORATORY RESULTS

Results for the samples and analytes requested

Lab No. : 1602E93-001

Client Sample ID: SI BASEMENT INDOOR

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 2:02 A
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	µg/m³	02/23/2016 2:02 A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.10	ppbv	J	1	0.77	μg/m³	02/23/2016 2:02 A
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 2:02 A
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	02/23/2016 2:02 A
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 2:02 A
1,2,4-Trichlorobenzene	< 0.20	ppbv		1	< 1.48	μg/m³	02/23/2016 2:02 /
1,2,4-Trimethylbenzene	0.38	ppbv		1	1.87	μg/m³	02/23/2016 2:02 /
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	μg/m³	02/23/2016 2:02 /
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 2:02
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	μg/m³	02/23/2016 2:02 /
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 2:02
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 2:02
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 2:02
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	μg/m³	02/23/2016 2:02
1,3,5-Trimethylbenzene	0.15	ppbv	J	1	0.74	μg/m³	02/23/2016 2:02
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 2:02
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	µg/m³	02/23/2016 2:02
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 2:02
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	µg/m³	02/23/2016 2:02
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 2:02
Acetone	7.57	ppbv		1	18.0	μg/m³	02/23/2016 2:02
Benzene	0.41	ppbv		1	1.31	μg/m³	02/23/2016 2:02
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	μg/m³	02/23/2016 2:02
Bromoform	< 0.20	ppbv	1	1	< 2.07	μg/m³	02/23/2016 2:02
Bromomethane	< 0.20	ppbv		1	< 0.78	μg/m³	02/23/2016 2:02
Carbon disulfide	< 0.20	ppbv		1	< 0.62	μg/m³	02/23/2016 2:02
Carbon tetrachloride	0.10	ppbv	J	1	0.63	μg/m³	02/23/2016 2:02
Chlorobenzene	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 2:02
Chloroethane	< 0.20	ppbv		1	< 0.53	μg/m³	02/23/2016 2:02
	0.27	ppbv		1	1.32	μg/m³	02/23/2016 2:02
Chloromethane	0.53	ppbv	1	1	1,09	μg/m³	02/23/2016 2:02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.



NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To: Jim DeMartinis Collected : 2/19/2016 3:35:00 PM

Received : 2/19/2016 3:56:00 PM

Collegted By CLIENT

# LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	µg/m³	02/23/2016 2:02 AM
Dichlorodifluoromethane	1.06	ppbv		1	5.24	µg/m³	02/23/2016 2:02 AM
Ethylbenzene	0.14	ppbv	J	1	0.61	μg/m³	02/23/2016 2:02 AN
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	μg/m³	02/23/2016 2:02 AM
Methyl ethyl ketone	0.34	ppbv		1	1.00	μg/m³	02/23/2016 2:02 AM
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	μg/m³	02/23/2016 2:02 AN
Methyl tert-butyl ether	< 0.20	ppbv		1	< 0.72	μg/m³	02/23/2016 2:02 AN
Methylene chloride	0.85	ppbv		1	3.30	μg/m³	02/23/2016 2:02 AN
Styrene	0.17	ppbv	J	1	0.72	μg/m³	02/23/2016 2:02 AN
Tetrachloroethene	0.31	ppbv		1	2.10	μg/m³	02/23/2016 2:02 AN
Toluene	0.52	ppbv		1	1.96	μg/m³	02/23/2016 2:02 AN
Trichloroethene	< 0.20	ppbv		1	< 1.07	μg/m³	02/23/2016 2:02 AM
Trichlorofluoromethane	0.46	ppbv		1	2.59	μg/m³	02/23/2016 2:02 AM
Vinyl acetate	< 0.20	ppbv	·	1	< 0.70	μg/m³	02/23/2016 2:02 AM
Vinyl chloride	< 0.20	ppbv		1	< 0.51	μg/m³	02/23/2016 2:02 AM
Xylenes (m&p)	0.41	ppbv		1	1.78	μg/m³	02/23/2016 2:02 A
Xylenes (o)	0.18	ppbv	J	1	0.78	μg/m³	02/23/2016 2:02 A
Surr: 4-Bromofluorobenzene	88.0	%Rec	Limit	70-130	No M.W. Data		02/23/2016 2:02 At

Lab No. : 1602E93-001

Client Sample ID: SI BASEMENT INDOOR

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COUNTE K. Duller

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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Page 2 of 12

#### 1F

# VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BASEMENT INDOOR

Lab Name:	PACE ANALYTICA	T		Contract	Z:				
Lab Code:	10478	Case No.: SE	<u>I</u> SA	S No.: _		SDG No	.: <u>SEI00</u>	<u>6</u>	
Matrix: (soil	/water)	AIR			Lab Sample I	D:	1602E93-0	01A	
Sample wt/vol	: 400	(g/m	nL) <u>ML</u>		Lab File ID:		<u>6\I17803.</u>	D	
Level: (low	n/med) <u>LOW</u>				Date Receive	d:	02/19/16		
% Moisture: n	ot dec.	•			Date Analyze	d:	02/23/16		
GC Column: R	xi-1MS	ID: <u>.32</u> (mm)			Dilution Fac	tor:	1.00		
Soil Extract	Volume:		(µl)		Soil Aliquot	Volume	:	<u>0</u>	(µL
				CONCENTI	RATION UNITS:				
Number TICs f	found:	1		(µg/L oː	r µg/Kg)		opbv		

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 000064-17-5	Ethanol (3.1)	3.12	3.7	JN



NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To: Jim DeMartinis :2/19/2016 2:57:00 PM Collected Received :2/19/2016 3:56:00 PM

Collected By CLIENT

### LABORATORY RESULTS

Results for the samples and analytes requested

Lab No.: 1602E93-002

Client Sample ID: SI G-5 INDOOR

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppby		1	< 1.09	µg/m³	02/23/2016 2:35 A
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	µg/m³	02/23/2016 2:35 A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.09	ppbv	J	1	0.69	μg/m³	02/23/2016 2:35 A
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 2:35 A
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	02/23/2016 2:35 /
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 2:35 /
1,2,4-Trichlorobenzene	< 0.20	ppbv	1	1	< 1.48	µg/m³	02/23/2016 2:35
1,2,4-Trimethylbenzene	1.00	ppbv		1	4.92	μg/m³	02/23/2016 2:35
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	μg/m³	02/23/2016 2:35
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 2:35
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	μg/m³	02/23/2016 2:35
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 2:35
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 2:35
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 2:35
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	μg/m³	02/23/2016 2:35
1,3,5-Trimethylbenzene	0.30	ppbv		1	1.47	μg/m³	02/23/2016 2:35
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 2:35
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 2:35
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 2:35
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	μg/m³	02/23/2016 2:35
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 2:35
Acetone	133	ppbv	D	5	315	μg/m³	02/23/2016 9:51
Benzene	0.88	ppbv		1	2.81	μg/m³	02/23/2016 2:35
Bromodichioromethane	< 0.20	ppbv		1	< 1.34	μg/m³	02/23/2016 2:35
Bromoform	< 0.20	ppbv		1	< 2.07	μg/m³	02/23/2016 2:35
Bromomethane	< 0.20	ppbv		1	< 0.78	μg/m³	02/23/2016 2:35
Carbon disulfide	0.15	ppbv	J	1	0.47	μg/m³	02/23/2016 2:35
Carbon tetrachloride	0.10	ppbv	J	1	0.63	µg/m³	02/23/2016 2:35
Chlorobenzene	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 2:35
Chloroethane	< 0.20	ppbv		1	< 0.53	μg/m³	02/23/2016 2:35
	0.82	ppbv		1	4.00	µg/m³	02/23/2016 2:35
Chloromethane	0.69	ppbv		1	1.43	μg/m <sup>3</sup>	02/23/2016 2:35

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COUNTE K. Duly

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To: Jim DeMartinis Collected : 2/19/2016 2:57:00 PM Received : 2/19/2016 3:56:00 PM

Collected By CLIENT

# LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppbv	"`	1	< 1.70	μg/m³	02/23/2016 2:35 AM
Dichlorodifluoromethane	2.30	ppbv		1	11.4	μg/m³	02/23/2016 2:35 AM
Ethylbenzene	0.64	ppbv		1	2.78	µg/m³	02/23/2016 2:35 AN
Methyl butyl ketone	0.14	ppbv	J +	1	0.57	μg/m³	02/23/2016 2:35 AN
Methyl ethyl ketone	3.76	ppbv		1	11.1	µg/m³	02/23/2016 2:35 AM
Methyl isobutyl ketone	0.24	ppbv		1	0.98	μg/m³	02/23/2016 2:35 AM
Methyl tert-butyl ether	0.22	ppbv		1	0.79	µg/m³	02/23/2016 2:35 AM
Methylene chloride	1.80	ppbv		1	6.99	μg/m³	02/23/2016 2:35 AM
Styrene	1.72	ppbv		1	7.33	μg/m³	02/23/2016 2:35 A
Tetrachloroethene	0.24	ppbv		1	1.63	μg/m³	02/23/2016 2:35 A
Toluene	2.32	ppbv		1	8.74	μg/m³	02/23/2016 2:35 A
Trichloroethene	< 0.20	ppbv		1	< 1.07	μg/m³	02/23/2016 2:35 A
Trichlorofluoromethane	0.91	ppbv		1	5.11	μg/m³	02/23/2016 2:35 AM
Vinyl acetate	< 0.20	ppb∨		1	< 0.70	μg/m³	02/23/2016 2:35 Af
Vinyl chloride	< 0.20	ppbv		1	< 0.51	µg/m³	02/23/2016 2:35 Al
Xylenes (m&p)	2.49	ppbv		1	10.8	µg/m³	02/23/2016 2:35 AI
Xylenes (o)	0.69	ppbv	<u> </u>	1	3.00	µg/m³	02/23/2016 2:35 A
Surr: 4-Bromofluorobenzene	89.0	%Rec	Limit	70-130	No M.W. Data		02/23/2016 2:35 AI

Lab No. : 1602E93-002

Client Sample ID: SI G-5 INDOOR

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COUNTE K. Druken

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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Page 4 of 12

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

G-5 INDOOR

Lab Name: PACE ANALYTICAL

Contract:

Lab Code: <u>10478</u>

Case No.: SEI SAS No.: SDG No.: SEI006

Matrix: (soil/water) AIR

Lab Sample ID:

1602E93-002A

(g/mL) ML

Sample wt/vol: 400

Lab File ID: 6\I17804.D

Level: (low/med) LOW

Date Received: 02/19/16

% Moisture: not dec.

Date Analyzed: 02/23/16

GC Column: Rxi-1MS ID: .32 (mm)

Dilution Factor: 1.00

Soil Extract Volume:

(µl)

Soil Aliquot Volume:  $\underline{0}$  ( $\mu L$ )

#### CONCENTRATION UNITS:

Number TICs found:

(µg/L or µg/Kg) ppbv

		· i	· · · · · · · · · · · · · · · · · · ·	
CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q ,
1.	unknown	2:67	7.3	J
2	(DEL) Alkane: Straight-Chain (2.95)	2.95	1.4	J
3. 000064-17-5	Ethanol (3.1)	3.13	20	JN
4.	unknown alcohol	4.89	31	J
5,	Pentanone,dimethyl- isomer	6.99	1.3	J
6.	(DEL) Alkane: Straight-Chain (11.12)	11.12	1.1	J

#### 1F

# VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

G-5 INDOORDL

Lab Name: PACE ANA	LYTICAL	Contrac	t:	
Lab Code: <u>10478</u>	Case No.: <u>SEI</u>	SAS No.:	SDG No	SEI006
Matrix: (soil/water)	AIR		Lab Sample ID:	1602E93-002ADL
Sample wt/vol: 80	(g/mL)	ML	Lab File ID:	6\I17815.D
Level: (low/med)	LOW		Date Received:	02/19/16
% Moisture: not dec.			Date Analyzed:	02/23/16
GC Column: Rxi-1MS	ID: <u>.32</u> (mm)		Dilution Factor:	5.00
Soil Extract Volume:	(µ1)	!	Soil Aliquot Volume	: <u>0</u> (µL)
		CONCENT	RATION UNITS:	

Number	TICs found:	2	(µg/L or µg/Kg)	vdqq	
	CAS NUMBER	COMPOUND NAM	E RT	EST.CONC.	Q
	1. 000064-17-5	Ethanol (3.1)	3.13	15	JND
	2.	unknown alcohol	4.89	21	JD



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To:

Jim DeMartinis

Received : 2/19/2016 3:56:00 PM

Collected : 2/19/2016 2:45:00 PM

Collected By CLIENT

### LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No.: 1602E93-003

Client Sample ID: SII B-12 INDOOR

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	vdqq	1	< 1.09	µg/m³	02/23/2016 3:06 A
1,1,2,2-Tetrachloroethane	< 0.20	ydgg	1	< 1.37	µg/m³	02/23/2016 3:06 A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.10	ppbv	J 1	0.77	µg/m³	02/23/2016 3:06 A
1,1,2-Trichloroethane	< 0.20	ppbv	1	< 1.09	μg/m³	02/23/2016 3:06 A
1,1-Dichloroethane	< 0.20	ppbv	1	< 0.81	μg/m³	02/23/2016 3:06 A
1,1-Dichloroethene	< 0.20	ppbv	1	< 0.79	μg/m³	02/23/2016 3:06 A
1,2,4-Trichlorobenzene	< 0.20	ppbv	1	< 1.48	μg/m³	02/23/2016 3:06 A
1,2,4-Trimethylbenzene	< 0.20	ppbv	1	< 0.98	µg/m³	02/23/2016 3:06 A
1,2-Dibromoethane	< 0.20	ppbv	1	< 1.54	µg/m³	02/23/2016 3:06 A
1,2-Dichlorobenzene	< 0.20	ppbv	1	< 1.20	µg/m³	02/23/2016 3:06 A
1,2-Dichloroethane	< 0.20	ppbv	1	< 0.81	µg/m³	02/23/2016 3:06 A
1,2-Dichloroethene (cis)	< 0.20	ppby	1	< 0.79	μg/m³	02/23/2016 3:06 A
1,2-Dichloroethene (trans)	< 0.20	ppbv	1	< 0.79	μg/m³	02/23/2016 3:06 A
1,2-Dichloropropane	< 0.20	ppbv	1	< 0.92	μg/m³	02/23/2016 3:06 A
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv	1	< 1.40	μg/m³	02/23/2016 3:06 A
1,3,5-Trimethylbenzene	< 0.20	ppbv	1	< 0.98	µg/m³	02/23/2016 3:06 A
1,3-Dichlorobenzene	< 0.20	ppbv	1	< 1.20	μ <b>g</b> /m³	02/23/2016 3:06 A
1,3-Dichloropropene (cis)	< 0.20	ppbv	1	< 0.91	µg/m³	02/23/2016 3:06 A
1,3-Dichloropropene (trans)	< 0.20	ppbv	1	< 0.91	μg/m³	02/23/2016 3:06 A
1,3-Hexachlorobutadiene	< 0.20	ppbv	1	< 2.13	μg/m³	02/23/2016 3:06 A
1,4-Dichlorobenzene	< 0.20	ppbv	1	< 1.20	μg/m³	02/23/2016 3:06 A
Acetone	2.82	ppbv	1	6.70	μg/m³	02/23/2016 3:06 A
Benzene	0.25	ppbv	1	0.80	μg/m³	02/23/2016 3:06 A
Bromodichloromethane	< 0.20	ppbv	1	< 1.34	μg/m³	02/23/2016 3:06 A
Bromoform	< 0.20	ppbv	1	< 2.07	μg/m³	02/23/2016 3:06 A
Bromomethane	< 0.20	ppbv	1	< 0.78	μg/m³	02/23/2016 3:06 /
Carbon disulfide	< 0.20	ppbv	1	< 0.62	μg/m³	02/23/2016 3:06 /
Carbon tetrachloride	< 0.20	ppbv	1	< 1.26	μg/m³	02/23/2016 3:06 A
Chlorobenzene	< 0.20	ppbv	1	< 0.92	μg/m³	02/23/2016 3:06 A
Chloroethane	< 0.20	ppbv	1	< 0.53	μg/m³	02/23/2016 3:06 /
Chloroform	0.56	ppbv	1	2.73	μg/m³	02/23/2016 3:06 /
Chloromethane	0.26	ppbv	1	0.54	μg/m³	02/23/2016 3:06

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COUNTE K. Druken

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To:

Jim DeMartinis

Collected : 2/19/2016 2:45:00 PM Received : 2/19/2016 3:56:00 PM

Collected By CLIENT

#### LABORATORY RESULTS

Lab No. : 1602E93-003

Client Sample ID: SII B-12 INDOOR

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppb∨		1	< 1.70	µg/m³	02/23/2016 3:06 AM
Dichlorodifluoromethane	0.80	ppbv		1	3.96	µg/m³	02/23/2016 3:06 AM
Ethylbenzene	0.18	ppbv	J	1	0.78	μg/m³	02/23/2016 3:06 AM
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	µg/m³	02/23/2016 3:06 AM
Methyl ethyl ketone	0.48	ppbv		1	1.42	µg/m³	02/23/2016 3:06 AM
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	μg/m³	02/23/2016 3:06 AM
Methyl tert-butyl ether	0.17	ppbv	J	1	0.61	µg/m³	02/23/2016 3:06 AM
Methylene chloride	1.08	ppbv		1	4.19	μg/m³	02/23/2016 3:06 AM
Styrene	< 0.20	ppbv		1	< 0.85	μg/m³	02/23/2016 3:06 AM
Tetrachloroethene	37.5	ppbv		1	254	μg/m³	02/23/2016 3:06 AM
Toluene	0.86	ppbv		1	3.24	μg/m³	02/23/2016 3:06 AM
Trichloroethene	< 0.20	ppbv		1	< 1.07	μg/m³	02/23/2016 3:06 AM
Trichlorofluoromethane	0.77	ppbv		1	4.33	μg/m³	02/23/2016 3:06 AM
Vinyl acetate	< 0.20	ppbv		1	< 0.70	μg/m³	02/23/2016 3:06 AM
Vinyl chloride	< 0.20	ppbv		1	< 0.51	μg/m³	02/23/2016 3:06 AM
Xylenes (m&p)	0.68	ppbv		1	2.95	μg/m³	02/23/2016 3:06 AN
Xylenes (o)	0.17	ppbv	J	1	0.74	µg/m³	02/23/2016 3:06 AN
Surr: 4-Bromofluorobenzene	88.1	%Rec	Limit	70-130	No M.W. Data		02/23/2016 3:06 AN

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COURSE K. Druken

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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Page 6 of 12

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B-12 INDOOR

Lab Nam	e: PACE ANALYTIC	AL	Contract	•			
Lab Cod	le: <u>10478</u>	Case No.: SEI	SAS No.:		SDG No.:	SEI006	
Matrix:	(soil/water)	AIR		Lab Sample	e ID: <u>1</u>	602E93-003A	
Sample	wt/vol: <u>400</u>	(g/mL)	ML	Lab File	ID: 6	\I17805.D	
Level:	(low/med) <u>LOW</u>			Date Rece	ived: 0	2/19/16	
% Moist	ure: not dec.			Date Anal	yzed: <u>0</u>	2/23/16	
GC Colu	ımn: <u>Rxi-1MS</u>	ID: <u>.32</u> (mm)		Dilution :	Factor: 1	.00	
Soil Ex	tract Volume:	(µ1)		Soil Aliq	uot Volume:	<u>0</u>	(µL)
			CONCENTR	ATION UNI	TS:		
Number	TICs found:	0	(µg/L or	μg/Kg)	pp	bv	
	CAS NUMBER	COMPOUND	NAME	RT	EST.CONC	2. Q	



NYSDOH ID#10478

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To: Collected

Jim DeMartinis :2/19/2016 2:43:00 PM

Received : 2/19/2016 3:56:00 PM

Collected By CLIENT

### LABORATORY RESULTS

Results for the samples and analytes requested

Lab No. : 1602E93-004

Client Sample ID: SSV B-12 SUB-SLAB

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 3:38 A
1,1,2,2-Tetrachloroethane	< 0.20	ppbv	+	1	< 1.37	µg/m³	02/23/2016 3:38 A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.10	ppbv	J	1	0.77	μg/m³	02/23/2016 3:38 A
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 3:38 A
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	μg/m³	02/23/2016 3:38 A
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	µg/m³	02/23/2016 3:38
1,2,4-Trichlorobenzene	< 0.20	ppbv		1	< 1.48	μg/m³	02/23/2016 3:38 A
1,2,4-Trimethylbenzene	0.18	ppbv	J	1	0.88	μg/m³	02/23/2016 3:38 A
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	μg/m³	02/23/2016 3:38
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 3:38 /
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	μg/m³	02/23/2016 3:38
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	µg/m³	02/23/2016 3:38 /
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 3:38 /
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	µg/m³	02/23/2016 3:38
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	µg/m³	02/23/2016 3:38
1,3,5-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	02/23/2016 3:38 /
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	02/23/2016 3:38
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 3:38
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	µg/m³	02/23/2016 3:38
1,3-Hexachlorobutadiene	< 0.20	ppbv	,	1	< 2.13	µg/m³	02/23/2016 3:38
1,4-Dichlorobenzene	< 0.20	ppbv		1 ,	< 1.20	μg/m³	02/23/2016 3:38
Acetone	< 0.20	ppbv		<b>1</b> i	< 0.48	μg/m³	02/23/2016 3:38 /
Benzene	0.37	ppbv		1	1.18	μg/m³	02/23/2016 3:38 /
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	μg/m³	02/23/2016 3:38 /
Bromoform	< 0.20	ppbv		1	< 2.07	μg/m³	02/23/2016 3:38 /
Bromomethane	< 0.20	ppbv		1	< 0.78	μg/m³	02/23/2016 3:38
Carbon disulfide	< 0.20	ppbv	1	1	< 0.62	μg/m³	02/23/2016 3:38
Carbon tetrachloride	0.13	ppbv	J	1	0.82	μg/m³	02/23/2016 3:38
Chlorobenzene	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 3:38
Chloroethane	< 0.20	ppbv		1	< 0.53	μg/m³	02/23/2016 3:38
Chloroform	< 0.20	ppbv		1	< 0.98	μg/m³	02/23/2016 3:38
Chloromethane	0.60	ppbv		1	1.24	μg/m³	02/23/2016 3:38

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To: Received

Jim DeMartinis Collected : 2/19/2016 2:43:00 PM :2/19/2016 3:56:00 PM

Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1602E93-004

Client Sample ID: SSV B-12 SUB-SLAB

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	μg/m³	02/23/2016 3:38 AM
Dichlorodifluoromethane	1.06	ppbv		1	5.24	μg/m³	02/23/2016 3:38 AM
Ethylbenzene	0.11	ppbv	J	1	0.48	μg/m³	02/23/2016 3:38 AM
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	µg/m³	02/23/2016 3:38 AM
Methyl ethyl ketone	0.49	ppbv		1	1.45	μg/m³	02/23/2016 3:38 AM
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	μg/m³	02/23/2016 3:38 AM
Methyl tert-butyl ether	< 0.20	ppbv		1	< 0.72	μg/m³	02/23/2016 3:38 AM
Methylene chloride	1.19	ppbv		1	4.62	µg/m³	02/23/2016 3:38 AM
Styrene	< 0.20	ppbv		1	< 0.85	µg/m³	02/23/2016 3:38 AM
Tetrachloroethene	< 0.20	ppbv		1	< 1.36	μg/m³	02/23/2016 3:38 AM
Toluene	0.45	ppbv		1	1.70	μg/m³	02/23/2016 3:38 AM
Trichloroethene	< 0.20	ppbv		1	< 1.07	μg/m³	02/23/2016 3:38 AM
Trichlorofluoromethane	0.47	ppbv	<u> </u>	1	2.64	µg/m³	02/23/2016 3:38 AM
Vinyl acetate	< 0.20	ppbv		1	< 0.70	μg/m³	02/23/2016 3:38 AM
Vinyl chloride	< 0.20	ppbv		1	< 0.51	µg/m³	02/23/2016 3:38 AM
Xylenes (m&p)	0.30	ppbv		1	1.30	μg/m³	02/23/2016 3:38 AM
Xylenes (o)	0.12	ppbv	J	1	0.52	µg/m³	02/23/2016 3:38 AM
Surr: 4-Bromofluorobenzene	89.7	%Rec	Limit	70-130	No M.W. Data		02/23/2016 3:38 AM

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COURSE K. Duly

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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Page 8 of 12

EPA SAMPLE NO.

# VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

B-12 SUB-SLAB

Lab Name: PACE ANALYTICAL

Contract:

Lab Code: <u>10478</u>

Case No.: SEI SAS No.: SDG No.: SEI006

Matrix: (soil/water)

AIR

Lab Sample ID:

1602E93-004A

Sample wt/vol: 400

Lab File ID: 6\I17806.D

Level: (low/med) LOW

(g/mL) ML

Date Analyzed: 02/23/16

Date Received: 02/19/16

% Moisture: not dec.

GC Column: Rxi~1MS ID: .32 (mm)

Dilution Factor: 1.00

Soil Extract Volume:

(µl)

Soil Aliquot Volume:  $\underline{0}$  ( $\mu$ L)

### CONCENTRATION UNITS:

Number TICs found: 0

(µg/L or µg/Kg)

ppbv

		Tracte and the second s		
CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q ,
1.	(DEL) Alkane: Straight-Chain (3.42)	3.42	7.3	J
2.	(DEL) Alkane: Branched (3.69)	3.69	5.3	J
3.	(DEL) Alkane: Branched (3.96)	3.96	31	J
4.	(DEL) Alkane: Branched (4.11)	4.11	17	J
5	(DEL) Alkane: Cyclic (4.64)	4.64	14	J
6.	(DEL) Alkane: Branched (5.18)	5.18	28	J
7.	(DEL) Alkane: Branched (5.26)	5.26	28	J
8.	(DEL) Alkane: Cyclic (5.42)	5.42	16	J
9.	(DEL) Alkane: Branched (5.5)	5.50	66	J
10.	(DEL) Alkane: Straight-Chain (5.6)	5.60	12	J
11.	(DEL) Alkane: Cyclic (6.07)	6.07	7.7	J
12.	(DEL) Alkane: Branched (6.13)	6.13	8.1	J
13.	(DEL) Alkane: Branched (6.18)	6.18	11	J
14	(DEL) Alkane: Cyclic (6.23)	6.23	2.8	J
15.	(DEL) Alkane: Cyclic (6.35)	6.35	5.8	J
16	(DEL) Alkane: Branched (6.51)	6.51	15	J
17	(DEL) Alkane: Branched (6.71)	6.71	3.4	J
18	(DEL) Alkane: Branched (6.86)	6.86	6.0	J
19	(DEL) Alkane: Branched (7.06)	7.06	3.2	J



NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To:

Jim DeMartinis

Collected : 2/19/2016 3:34:00 PM Received : 2/19/2016 3:56:00 PM

Collected By CLIENT

### LABORATORY RESULTS

Results for the samples and analytes requested

Lab No. : 1602E93-005

Client Sample ID: SSV BASEMENT SUB-SLAB

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 4:10 A
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	μg/m³	02/23/2016 4:10 A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.11	ppbv	J	1	0.84	μg/m³	02/23/2016 4:10 A
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 4:10 A
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	μg/m³	02/23/2016 4:10 A
1,1-Dichloroethene	< 0.20	vdqq		1	< 0.79	μg/m³	02/23/2016 4:10 A
1,2,4-Trichlorobenzene	< 0.20	ppbv		1	< 1.48	μg/m³	02/23/2016 4:10 A
1,2,4-Trimethylbenzene	4.65	ppbv		1	22.9	μg/m³	02/23/2016 4:10
1,2-Dibromoethane	< 0.20	ppbv	1	1	< 1.54	μg/m³	02/23/2016 4:10 /
1,2-Dichlorobenzene	< 0.20	ppbv	<u> </u>	1	< 1.20	μg/m³	02/23/2016 4:10
1,2-Dichloroethane	< 0.20	ppbv	1	1	< 0.81	μg/m³	02/23/2016 4:10
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 4:10
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 4:10
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 4:10
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	μg/m³	02/23/2016 4:10
1,3,5-Trimethylbenzene	1.37	ppbv		1	6.74	μg/m³	02/23/2016 4:10
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 4:10
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 4:10
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 4:10
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	μg/m³	02/23/2016 4:10
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	02/23/2016 4:10
Acetone	63.9	ppbv	D	5	152	μg/m³	02/23/2016 9:02
Benzene	1.76	ppbv		1	5.62	µg/m³	02/23/2016 4:10
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	µg/m³	02/23/2016 4:10
Bromoform	< 0.20	ppbv		1	< 2.07	µg/m³	02/23/2016 4:10
Bromomethane	< 0.20	ppbv		1	< 0.78	µg/m³	02/23/2016 4:10
Carbon disulfide	0.39	ppbv		1	1,21	µg/m³	02/23/2016 4:10
Carbon tetrachloride	0.12	ppbv	J	1	0.76	µg/m³	02/23/2016 4:10
Chlorobenzene	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 4:10
Chloroethane	< 0.20	ppbv		1	< 0.53	µg/m³	02/23/2016 4:10
Chloroform	0.45	ppbv	<u> </u>	1	2.20	μg/m³	02/23/2016 4:10 /
Chloromethane	0.68	ppbv		1	1.40	µg/m³	02/23/2016 4:10 /

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COUNTE K. Druken

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To:

Jim DeMartinis

Received

Collected : 2/19/2016 3:34:00 PM :2/19/2016 3:56:00 PM

Collected By CLIENT

### LABORATORY RESULTS

Results for the samples and analytes requested

Lab No. : 1602E93-005

Client Sample ID: SSV BASEMENT SUB-SLAB

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	μg/m³	02/23/2016 4:10 AM
Dichlorodifluoromethane	1.44	ppbv		1	7.12	μg/m³	02/23/2016 4:10 AM
Ethylbenzene	3.42	ppbv		1	14.9	μg/m³	02/23/2016 4:10 AM
Methyl butyl ketone	0.84	ppbv	+	1	3.44	μg/m³	02/23/2016 4:10 AM
Methyl ethyl ketone	7.30	ppbv		1	21.5	μg/m³	02/23/2016 4:10 AM
Methyl isobutyl ketone	2.27	ppbv		1	9.30	μg/m³	02/23/2016 4:10 AM
Methyl tert-butyl ether	0.13	ppbv	J	1	0.47	μg/m³	02/23/2016 4:10 AM
Methylene chloride	1.06	ppbv		1	4.12	μg/m³	02/23/2016 4:10 AN
Styrene	1.22	ppbv		1	5.20	µg/m³	02/23/2016 4:10 AN
Tetrachloroethene	0.16	ppbv	J	1	1.09	μg/m³	02/23/2016 4:10 AN
Toluene	11.3	ppbv		1	42.4	μg/m³	02/23/2016 4:10 AN
Trichloroethene	< 0.20	ppbv		1	< 1.07	µg/m³	02/23/2016 4:10 AN
Trichlorofluoromethane	0.60	ppbv		1	3.37	μg/m³	02/23/2016 4:10 AN
Vinyl acetate	< 0.20	ppbv		1	< 0.70	μg/m³	02/23/2016 4:10 AN
Vinyl chloride	< 0.20	ppbv		1	< 0.51	µg/m³	02/23/2016 4:10 AN
Xylenes (m&p)	15.8	ppbv		1	68.6	μg/m³	02/23/2016 4:10 AN
Xylenes (o)	5.99	ppbv	1	1	26.0	μg/m³	02/23/2016 4:10 AN
Surr: 4-Bromofluorobenzene	95.2	%Rec	Limit	70-130	No M.W. Data		02/23/2016 4:10 AN

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COURSE K. Duller

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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Page 10 of 12

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

BASEMENT SUB-SLAB

Lab Name: PACE ANALYTICAL

Contract:

Lab Code: <u>10478</u>

Case No.: SEI SAS No.: SDG No.: SEI006

Matrix: (soil/water)

AIR

Lab Sample ID: 1602E93-005A

Sample wt/vol: 400

(g/mL) <u>ML</u>

Lab File ID: 6\I17807.D

Level: (low/med) LOW

Date Received: 02/19/16

% Moisture: not dec.

Date Analyzed: 02/23/16

GC Column: Rxi-1MS ID: .32 (mm)

Dilution Factor: 1.00

Soil Extract Volume:

(µl)

Soil Aliquot Volume:  $\underline{0}$  (µL)

#### CONCENTRATION UNITS:

Number TICs found: 7

(µg/L or µg/Kg) ppbv

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 000064-17-5	Ethanol (3.1)	3.13	6.0	JN
2,	unknown alcohol (4.17)	4.17	46	J
3.	unknown alcohol (4.9)	4.90	17	J
4.	c3-subs.benzene	10.31	4.6	J
5.	(DEL) Alkane: Branched (11.12)	11.12	6.5	J
6.	(DEL) Alkane: Branched (11.43)	11.43	7.4	J
7.	(DEL) Alkane: Branched (12.19)	12.19	5.3	J
8.	(DEL) Alkane: Branched (12.6)	12.60	13	J
9.	(DEL) Alkane: Straight-Chain (12.66)	12.66		J
10.	unknown	12.73	17	J
11.	(DEL) Alkane: Branched (12.8)	12.80	5.6	J
12.	(DEL) Alkane: Branched (12.91)	12.91	34	J
13.	(DEL) Alkane: Branched (12.98)	12.98	4.7	J
14.	c4-subs.benzene (13.09)	13.09	4.8	J
15.	c4-subs.benzene (13.34)	13.34	8.8	J
16.	(DEL) Alkane: Branched (13.46)	13.46	6.0	J
17.	(DEL) Alkane: Straight-Chain (13.88)	13.88	15	J
18.	(DEL) Alkane: Branched (14.08)	14.08	5.7	J

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

BASEMENT SUB-SLABDL

Lab Name: PACE ANALYTICAL

Contract:

Lab Code: 10478

Case No.: SEI SAS No.: SDG No.: SEI006

Matrix: (soil/water)

AIR

Lab Sample ID: 1602E93-005ADL

Sample wt/vol: 80

(g/mL) <u>ML</u>

Lab File ID: 6\I17814.D

Level: (low/med) LOW

Date Received: 02/19/16

% Moisture: not dec.

Date Analyzed: 02/23/16

GC Column: Rxi-1MS ID: .32 (mm)

Dilution Factor: 5.00

Soil Extract Volume:

(µl)

Soil Aliquot Volume:  $\underline{0}$  ( $\mu L$ )

#### CONCENTRATION UNITS:

Number TICs found: 3

(µg/L or µg/Kg)

ppbv

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1,	unknown alcohol (4.17)	4.17	31	JD
2,	unknown alcohol (4.9)	4.90	12	JD
3.	(DEL) Alkane: Branched (12.59)	12.59	9.0	JD
4.	(DEL) Alkane: Straight-Chain	12.65	25	JD
5.	unknown	12.73	11	JD
6.	(DEL) Alkane: Branched (12.91)	12.91	24	JD
7.	(DEL) Alkane: Branched (13.34)	13.34	7.0	JD
8.	(DEL) Alkane: Branched (13.87)	13.87	11	JD



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To:

Jim DeMartinis

Received :2/19/2016 3:56:00 PM

Collected : 2/19/2016 2:57:00 PM

### **LABORATORY RESULTS**

Lab No. : 1602E93-006

Client Sample ID: SSV G-5 SUB-SLAB

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier [	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppbv		1	< 1.09	μg/m³	02/23/2016 4:42 A
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	μg/m³	02/23/2016 4:42 A
1,1,2-Trichloro-1,2,2-trifluoroethane	0.11	ppbv	J	1	0.84	μg/m³	02/23/2016 4:42 A
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	02/23/2016 4:42 A
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	μg/m³	02/23/2016 4:42
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 4:42
1,2,4-Trichlorobenzene	< 0.20	ppbv		1	< 1.48	μg/m³	02/23/2016 4:42
1,2,4-Trimethylbenzene	0.29	ppbv		1	1.43	μg/m³	02/23/2016 4:42
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	μg/m³	02/23/2016 4:42
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 4:42
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	μg/m³	02/23/2016 4:42
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 4:42
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	μg/m³	02/23/2016 4:42
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	μg/m³	02/23/2016 4:42
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	µg/m³	02/23/2016 4:42
1,3,5-Trimethylbenzene	0.12	ppbv	J	1	0.59	μg/m³	02/23/2016 4:42
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 4:42
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 4:42
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	μg/m³	02/23/2016 4:42
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	μg/m³	02/23/2016 4:42
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	μg/m³	02/23/2016 4:42
Acetone	5.70	ppbv		1	13.5	μg/m³	02/23/2016 4:42
Benzene	0.40	ppbv		1	1.28	μg/m³	02/23/2016 4:42
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	μg/m³	02/23/2016 4:42
Bromoform	< 0.20	ppbv		1	< 2.07	μg/m³	02/23/2016 4:42
Bromomethane	< 0.20	ppbv		1	< 0.78	μg/m³	02/23/2016 4:42
Carbon disulfide	< 0.20	ppbv		1	< 0.62	μg/m³	02/23/2016 4:42
Carbon tetrachloride	0.11	ppbv	J	1	0.69	μg/m³	02/23/2016 4:42
Chlorobenzene	< 0.20	ppbv		1	< 0.92	µg/m³	02/23/2016 4:42
Chloroethane	< 0.20	ppbv		1	< 0.53	μg/m³	02/23/2016 4:42
Chloroform	0.33	ppbv		1	1.61	µg/m³	02/23/2016 4:42
Chloromethane	0.68	ppbv		1	1.40	μg/m³	02/23/2016 4:42

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COUNDE K. Druken

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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NYSDOH ID#10478 www.paceiabs.com

Seacliff Environmental, Inc.

P.O. Box 2085

Miller Place, NY 11764

Attn To:

Jim DeMartinis Collected : 2/19/2016 2:57:00 PM

Received : 2/19/2016 3:56:00 PM Collected By CLIENT

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1602E93-006

Client Sample ID: SSV G-5 SUB-SLAB

Sample Information:

Type: Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	μg/m³	02/23/2016 4:42 AM
Dichlorodifluoromethane	1.18	ppb∨		1	5.83	μg/m³	02/23/2016 4:42 AN
Ethylbenzene	0.13	ppbv	J	1	0.56	μg/m³	02/23/2016 4:42 AM
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	μg/m³	02/23/2016 4:42 A
Methyl ethyl ketone	0.46	ppbv		1	1.36	μg/m³	02/23/2016 4:42 Al
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	μg/m³	02/23/2016 4:42 A
Methyl tert-butyl ether	< 0.20	ppbv		1	< 0.72	μg/m³	02/23/2016 4:42 A
Methylene chloride	0.74	ppbv		1	2.87	μg/m³	02/23/2016 4:42 A
Styrene	0.39	ppbv		1	1.66	μg/m³	02/23/2016 4:42 A
Tetrachloroethene	< 0.20	ppbv		1	< 1.36	μg/m³	02/23/2016 4:42 A
Toluene	0.53	ppbv		1	2.00	μg/m³	02/23/2016 4:42 A
Trichloroethene	< 0.20	ppbv		1	< 1.07	µg/m³	02/23/2016 4:42 A
Trichlorofluoromethane	0.52	ppbv		1	2.92	μg/m³	02/23/2016 4:42 A
Vinyl acetate	< 0.20	ppbv		1	< 0.70	μg/m³	02/23/2016 4:42 A
Vinyl chloride	< 0.20	ppbv		1	< 0.51	μg/m³	02/23/2016 4:42 A
Xylenes (m&p)	0.30	ppbv		1	1.30	µg/m³	02/23/2016 4:42 A
Xylenes (o)	0.12	ppbv	J	1	0.52	μg/m³	02/23/2016 4:42 A
Surr: 4-Bromofluorobenzene	88.0	%Rec	Limit	70-130	No M.W. Data		02/23/2016 4:42 A

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported:

3/7/2016

COURSE K. Duly

Project Manager: ConnorDruhm

Test results meet the requirements of NELAC unless otherwise noted.

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

G-5 SUB-SLAB

Lab Name: PACE ANALYTICAL

Contract:

Matrix: (soil/water)

AIR

Lab Sample ID: 1602E93-006A

Sample wt/vol: 400

(g/mL) ML

Lab File ID: 6\I17808.D

Level: (low/med) LOW

Date Received: 02/19/16

% Moisture: not dec.

Date Analyzed: 02/23/16

GC Column: Rxi-1MS ID: .32 (mm)

Dilution Factor: 1.00

Soil Extract Volume:

(µ1)

Soil Aliquot Volume:  $\underline{0}$  ( $\mu L$ )

# CONCENTRATION UNITS:

Number TICs found: 2

(µg/L or µg/Kg) ppbv

CAS NUMBER	NUMBER COMPOUND NAME		RT EST.CONC.	
1.	(DEL) Alkane: Straight-Chain	2.95	1.1	J
2. 000064-17-5	Ethanol (3.1)	3.13	3.5	JN
3.	.alphaMethylstyrene isomer	10.63	1.2	J



tel 631.694.3040 fax 631.420.8436

5. SURROGATE SPIKE ANALYSIS RESULTS 5.1 VOLATILES

Lab Name: PACE ANALYTICAL

Contract:

Level: (low/med) LOW

EPA	1		OTHER	TOT
SAMPLE NO.	BFB#			OUT
01VBLK022216	88			0
02 LFB022216	97			0
03 BASEMENT INDOOR	88			0
04G-5 INDOOR	89			0
05B-12 INDOOR	88			0
06B-12 SUB-SLAB	90			0
07 BASEMENT SUB-SLA	95			0
08G-5 SUB-SLAB	88			0
09 BASEMENT SUB-SLA	87			0
10 G-5 INDOORDL	85			.0

QC Limit

= 4-Bromofluorobenzene

(70-130)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

page 1 of 1

FORM II

OLM04.2



 575 Broad Hollow Road
 tel
 631.694.3040

 Melville, NY 11747
 fax
 631.420.8436

MATRIX SPIKE / MATRIX SPIKE DUPLICATE SUMMARY 6. 6.1 VOLATILES

### 3A SYSTEM MONITORING SPIKE RECOVERY

Lab Name: PACE ANALYTICAL		Contract:			
Lab Code:	10478 Case No.: SEI	SAS No.:	SDG No.: SEI006		
Sample ID	LFB022216		Level: (low/med) LOW		
Column ID	Rxi-1MS		Column Diam .32		

Analysis Date: 02/22/16 20:13

\* Values outside of QC limits

Inst. ID HP5973I

01/29/16 1:42

Init. Calib. Date(s): 01/28/16 20:40

1,2-Dichlorotetrafluoroethane         10         0         11.8         118         70-130           Chloromethane         10         0         11.2         112         70-130           Bromomethane         10         0         13.1         131*         70-130           Vinyl chloride         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Methylene chloride         10         0         10.1         101         70-130           Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12         120         70-130           Carbon disulfide         10         0         12.8         128         70-130           1,1,2-Trichloro-1,2,2-trifluoroethane         10         0         12.8         128         70-130           1,1-Dichloroethane         10         0         12.3         123         70-130           Trichloroffuororethane         10         0         7.96         80 </th <th>Analysis Date: 02/22/16 20</th> <th>0:13</th> <th></th> <th><u>0</u></th> <th>1/29/16</th> <th>5 1:42</th>	Analysis Date: 02/22/16 20	0:13		<u>0</u>	1/29/16	5 1:42
COMPOUND         (ppbv)         (ppbv)         (ppbv)         REC # REC.           Dichlorodifluoromethane         10         0         12.4         124         70-130           1,2-Dichlorotetrafluoroethane         10         0         11.8         118         70-130           Chloromethane         10         0         11.2         112         70-130           Bromomethane         10         0         11.9         119         70-130           Vinyl chloride         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Chloroethane         10         0         10.1         101         70-130           Methylene chloride         10         0         10.1         101         70-130           Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12.8         122         70-130           L1,2-Trichloro-1,2,2-trifluoroethane         10         0         12.8         128         70-130           L1,2-Dichloroethene         10         0         12.3         12.3		SPIKE	SAMPLE	SPIKE	SPIKE	QC.
Dichlorodifluoromethane         10         0         12.4         124         70-130           1,2-Dichlorotetrafluoroethane         10         0         11.8         118         70-130           Chloromethane         10         0         11.2         11.2         70-130           Bromomethane         10         0         11.9         119         70-130           Vinyl chloride         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Chloroethane         10         0         10.1         10.1         70-130           Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12.1         120         70-130           Carbon disulfide         10         0         12.8         128         70-130           L1,2-Trichloro-1,2;2-trifluoroethane         10         0         12.8         128         128         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           1,1-Dichloroethane         10         0         12		ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
1,2-Dichlorotetrafluoroethane         10         0         11.8         118         70-130           Chloromethane         10         0         11.2         112         70-130           Bromomethane         10         0         13.1         131*         70-130           Vinyl chloride         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Acetone         10         0         7.67         77         70-130           Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12         120         70-130           Carbon disulfide         10         0         12.8         128         70-130           1,1-2-Tirichloro-1,2,2-trifluoroethane         10         0         12.8         128         70-130           1,1-1-Dichloroethane         10         0         11.5         115         70-130           1,1-1-Dichloroethane         10         0         7.96         80	COMPOUND	(ppbv)	(ppbv)	(ppbv)	REC#	REC.
Chloromethane         10         0         11.2         112         70-130           Bromomethane         10         0         13.1         131*         70-130           Vinyl chloride         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Methylene chloride         10         0         10.1         101         70-130           Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12         120         70-130           Carbon disulfide         10         0         12.8         128         70-130           L1,2-Trichloro-1,2,2-trifluoroethane         10         0         12.8         128         70-130           1,1,2-Trichloro-thene         10         0         12.3         123         70-130           1,1,2-Trichloroethane         10         0         11.5         115         70-130           1,1-Dichloroethane         10         0         12.8         128         70-130           Vinyl acetate         10         0         7.96         80	Dichlorodifluoromethane	10	0	12.4	124	70-130
Bromomethane	1,2-Dichlorotetrafluoroethane	10	. 0	11.8	118	70-130
Vinyl chloride         10         0         11.9         119         70-130           Chloroethane         10         0         11.9         119         70-130           Methylene chloride         10         0         10.1         101         70-130           Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12         120         70-130           Lactone         10         0         12         120         70-130           Carbon disulfide         10         0         12.8         128         70-130           1,1-2-Trichloro-1,2,2-trifluoroethane         10         0         12.3         123         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           1,1-Dichloroethane         10         0         11.8         128         70-130           Vinyl acetate         10         0         7.96         80         70-130           Methyl tetr-butyl ether         10         0         9.53         95         70-130           1,2-Dichloroethene (trans)         10         0         11.9         119	Chloromethane	10	0 .	11.2	112	70-130
Chloroethane         10         0         11.9         119         70-130           Methylene chloride         10         0         10.1         101         70-130           Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12         120         70-130           1,1-2-Trichloro-1,2,2-trifluoroethane         10         0         12.8         128         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           1,1-Dichloroethane         10         0         12.8         128         70-130           Vinyl acetate         10         0         7.96         80         70-130           Methyl tetr-butyl ether         10         0         9.53         95         70-130           1,2-Dichloroethene (trans)         10         0         11.9         119         70-130           1,2-Dichloroethene (cis)         10         0         7.67         77         70-130           Chloroform         10         0         7.67	Bromomethane	10	0	13,1	131*	70-130
Methylene chloride         10         0         10.1         101         70.130           Acetone         10         0         7.67         77         70.130           Carbon disulfide         10         0         12         120         70.130           1,1,2-Trichloro-1,2,2-trifluoroethane         10         0         12.8         128         70.130           1,1-Dichloroethene         10         0         12.3         123         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           Trichlorofluoromethane         10         0         12.8         128         70-130           Vinyl acetate         10         0         7.96         80         70-130           Winyl acetate         10         0         7.96         80         70-130           Methyl tert-butyl ether         10         0         9.53         95         70-130           1,2-Dichloroethene (trans)         10         0         11.9         119         70-130           Methyl tert-butyl ether         10         0         7.67	Vinyl chloride	10	0	11.9	119	70-130
Acetone         10         0         7.67         77         70-130           Carbon disulfide         10         0         12         120         70-130           1,1,2-Trichloro-1,2,2-trifluoroethane         10         0         12.8         128         70-130           1,1-Dichloroethene         10         0         12.3         123         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           Trichlorofluoromethane         10         0         12.8         128         70-130           Trichlorofluoromethane         10         0         12.8         128         70-130           Vinyl acetate         10         0         7.96         80         70-130           Methyl tert-butyl ether         10         0         9.53         95         70-130           Methyl tert-butyl ether         10         0         12         120         70-130           1,2-Dichloroethene (trans)         10         0         11.9         119         70-130           Methyl tert-butyl ether         10         0         7.67         77         70-130           Chichicroethene (cis)         10         0	Chloroethane	10	0	11.9	119	70-130
Carbon disulfide         10         0         12         120         70-130           1,1,2-Trichloro-1,2,2-triffuoroethane         10         0         12.8         128         70-130           1,1-Dichloroethane         10         0         12.3         123         70-130           1,1-Dichloroethane         10         0         11.5         115         70-130           1,1-Dichloroethane         10         0         12.8         128         70-130           Trichloroffuoromethane         10         0         7.96         80         70-130           Vinyl acetate         10         0         7.96         80         70-130           Methyl tert-butyl ether         10         0         9.53         95         70-130           1,2-Dichloroethene (trans)         10         0         12         120         70-130           1,2-Dichloroethene (cis)         10         0         7.67         77         70-130           Chloroform         10         0         7.67         77         70-130           Chloroform         10         0         11.3         113         70-130           1,1,1-Trichloroethane         10         0         13.	Methylene chloride	10	. 0	10.1	101	70-130
1,1,2-Trichloro-1,2,2-trifluoroethane       10       0       12.8       128       70-130         1,1-Dichloroethene       10       0       12.3       123       70-130         1,1-Dichloroethane       10       0       11.5       115       70-130         Trichlorofluoromethane       10       0       12.8       128       70-130         Vinyl acetate       10       0       7.96       80       70-130         Methyl tert-butyl ether       10       0       9.53       95       70-130         1,2-Dichloroethene (trans)       10       0       12       120       70-130         1,2-Dichloroethene (cis)       10       0       11.9       119       70-130         Methyl ethyl ketone       10       0       7.67       77       70-130         Chloroform       10       0       12       120       70-130         1,2-Dichloroethane       10       0       11.3       113       70-130         1,1,1-Trichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       14.6       146*       70-130         Bromodichloromethane       10	Acetone	10	0	7.67	77	70-130
1,1-Dichloroethene       10       0       12.3       123       70-130         1,1-Dichloroethane       10       0       11.5       115       70-130         Trichloroffuoromethane       10       0       12.8       128       70-130         Vinyl acetate       10       0       7.96       80       70-130         Methyl tert-butyl ether       10       0       9.53       95       70-130         1,2-Dichloroethene (trans)       10       0       12       120       70-130         1,2-Dichloroethene (cis)       10       0       11.9       119       70-130         Methyl ethyl ketone       10       0       7.67       77       70-130         Chloroform       10       0       12       120       70-130         Chloroform       10       0       11.3       113       70-130         1,2-Dichloroethane       10       0       13.4       134*       70-130         1,1,1-Trichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       13.7       137*       70-130         Bromodichloromethane       10       0       12.	Carbon disulfide	10	0	12	120	70-130
1,1-Dichloroethane       10       0       11.5       115       70-130         Trichloroffluoromethane       10       0       12.8       128       70-130         Vinyl acetate       10       0       7.96       80       70-130         Methyl tert-butyl ether       10       0       9.53       95       70-130         1,2-Dichloroethene (trans)       10       0       12       120       70-130         1,2-Dichloroethene (cis)       10       0       11.9       119       70-130         Methyl ethyl ketone       10       0       7.67       77       70-130         Chloroform       10       0       12       120       70-130         Methyl ethyl ketone       10       0       12       120       70-130         Chloroform       10       0       12       120       70-130         Methyl ethyl ketone       10       0       11.3       113       70-130         Chloroform       10       0       12       120       70-130         1,2-Dichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       13.7       1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	0	12.8	128	70-130
Trichlorofluoromethane         10         0         12.8         128         70-130           Vinyl acetate         10         0         7.96         80         70-130           Methyl tert-butyl ether         10         0         9.53         95         70-130           1,2-Dichloroethene (trans)         10         0         12         120         70-130           1,2-Dichloroethene (cis)         10         0         11.9         119         70-130           Methyl ethyl ketone         10         0         7.67         77         70-130           Chloroform         10         0         12         120         70-130           1,2-Dichloroethane         10         0         11.3         113         70-130           1,1,1-Trichloroethane         10         0         13.4         134*         70-130           Carbon tetrachloride         10         0         14.6         146*         70-130           Bromodichloromethane         10         0         13.7         137*         70-130           1,3-Dichloropropene (cis)         10         0         12.6         126         70-130           Trichloroethene         10         0 <t< td=""><td>1,1-Dichloroethene</td><td>10</td><td>0</td><td>12.3</td><td>123</td><td>70-130</td></t<>	1,1-Dichloroethene	10	0	12.3	123	70-130
Vinyl acetate         10         0         7.96         80         70-130           Methyl tert-butyl ether         10         0         9.53         95         70-130           1,2-Dichloroethene (trans)         10         0         12         120         70-130           1,2-Dichloroethene (cis)         10         0         11.9         119         70-130           Methyl ethyl ketone         10         0         7.67         77         70-130           Chloroform         10         0         12         120         70-130           1,2-Dichloroethane         10         0         11.3         113         70-130           1,1,1-Trichloroethane         10         0         13.4         134*         70-130           1,1,1-Trichloroethane         10         0         14.6         146*         70-130           Carbon tetrachloride         10         0         13.7         137*         70-130           Bromodichloromethane         10         0         11.6         116         70-130           1,3-Dichloropropane         10         0         12.6         126         70-130           Trichloroethene         10         0         14.9<	1,1-Dichloroethane	10	0	11.5	115	70-130
Methyl tert-butyl ether       10       0       9.53       95       70-130         1,2-Dichloroethene (trans)       10       0       12       120       70-130         1,2-Dichloroethene (cis)       10       0       11.9       119       70-130         Methyl ethyl ketone       10       0       7.67       77       70-130         Chloroform       10       0       12       120       70-130         1,2-Dichloroethane       10       0       11.3       113       70-130         1,2-Dichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       14.6       146*       70-130         Bromodichloromethane       10       0       13.7       137*       70-130         1,2-Dichloropropane       10       0       11.6       116       70-130         1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0 <td< td=""><td>Trichlorofluoromethane</td><td>10</td><td>0.</td><td>12.8</td><td>128</td><td>70-130</td></td<>	Trichlorofluoromethane	10	0.	12.8	128	70-130
1,2-Dichloroethene (trans)       10       0       12       120       70-130         1,2-Dichloroethene (cis)       10       0       11.9       119       70-130         Methyl ethyl ketone       10       0       7.67       77       70-130         Chloroform       10       0       12       120       70-130         1,2-Dichloroethane       10       0       11.3       113       70-130         1,1,1-Trichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       14.6       146*       70-130         Bromodichloromethane       10       0       13.7       137*       70-130         1,2-Dichloropropane       10       0       11.6       116       70-130         1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0       13.8       138*       70-130         1,3-Dichloropropene (trans)       10       0	Vinyl acetate	10	. 0	7.96	80	70-130
1,2-Dichloroethene (cis)       10       0       11.9       119       70-130         Methyl ethyl ketone       10       0       7.67       77       70-130         Chloroform       10       0       12       120       70-130         1,2-Dichloroethane       10       0       11.3       113       70-130         1,1,1-Trichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       14.6       146*       70-130         Bromodichloromethane       10       0       13.7       137*       70-130         1,2-Dichloropropane       10       0       11.6       116       70-130         1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0       13.8       138*       70-130         1,3-Dichloropropene (trans)       10       0       12.4       124       70-130	Methyl tert-butyl ether	10	0	9.53	95	70-130
Methyl ethyl ketone       10       0       7.67       77       70-130         Chloroform       10       0       12       120       70-130         1,2-Dichloroethane       10       0       11.3       113       70-130         1,1,1-Trichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       14.6       146*       70-130         Bromodichloromethane       10       0       13.7       137*       70-130         1,2-Dichloropropane       10       0       11.6       116       70-130         1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0       13.8       138*       70-130         1,3-Dichloropropene (trans)       10       0       12.4       124       70-130	1,2-Dichloroethene (trans)	. 10	0	12	120	70-130
Chloroform         10         0         12         120         70-130           1,2-Dichloroethane         10         0         11.3         113         70-130           1,1,1-Trichloroethane         10         0         13.4         134*         70-130           Carbon tetrachloride         10         0         14.6         146*         70-130           Bromodichloromethane         10         0         13.7         137*         70-130           1,2-Dichloropropane         10         0         11.6         116         70-130           1,3-Dichloropropene (cis)         10         0         12.6         126         70-130           Trichloroethene         10         0         14.9         149*         70-130           Benzene         10         0         12.9         129         70-130           Dibromochloromethane         10         0         13.8         138*         70-130           1,3-Dichloropropene (trans)         10         0         12.4         124         70-130	1,2-Dichloroethene (cis)	10	0	11.9	119	70-130
1,2-Dichloroethane       10       0       11.3       113       70-130         1,1,1-Trichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       14.6       146*       70-130         Bromodichloromethane       10       0       13.7       137*       70-130         1,2-Dichloropropane       10       0       11.6       116       70-130         1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0       13.8       138*       70-130         1,3-Dichloropropene (trans)       10       0       12.4       124       70-130	Methyl ethyl ketone	10	0	7.67	77	70-130
1,1,1-Trichloroethane       10       0       13.4       134*       70-130         Carbon tetrachloride       10       0       14.6       146*       70-130         Bromodichloromethane       10       0       13.7       137*       70-130         1,2-Dichloropropane       10       0       11.6       116       70-130         1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0       13.8       138*       70-130         1,3-Dichloropropene (trans)       10       0       12.4       124       70-130	Chloroform	10	0	12	120	70-130
Carbon tetrachloride         10         0         14.6         146*         70-130           Bromodichloromethane         10         0         13.7         137*         70-130           1,2-Dichloropropane         10         0         11.6         116         70-130           1,3-Dichloropropene (cis)         10         0         12.6         126         70-130           Trichloroethene         10         0         14.9         149*         70-130           Benzene         10         0         12.9         129         70-130           Dibromochloromethane         10         0         13.8         138*         70-130           1,3-Dichloropropene (trans)         10         0         12.4         124         70-130	1,2-Dichloroethane	10	0	11.3	113	70-130
Bromodichloromethane         10         0         13.7         137*         70-130           1,2-Dichloropropane         10         0         11.6         116         70-130           1,3-Dichloropropene (cis)         10         0         12.6         126         70-130           Trichloroethene         10         0         14.9         149*         70-130           Benzene         10         0         12.9         129         70-130           Dibromochloromethane         10         0         13.8         138*         70-130           1,3-Dichloropropene (trans)         10         0         12.4         124         70-130	1,1,1-Trichloroethane	10	0	13.4	134*	70-130
1,2-Dichloropropane       10       0       11.6       116       70-130         1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0       13.8       138*       70-130         1,3-Dichloropropene (trans)       10       0       12.4       124       70-130	Carbon tetrachloride	10	0	14.6	146*	70-130
1,3-Dichloropropene (cis)       10       0       12.6       126       70-130         Trichloroethene       10       0       14.9       149*       70-130         Benzene       10       0       12.9       129       70-130         Dibromochloromethane       10       0       13.8       138*       70-130         1,3-Dichloropropene (trans)       10       0       12.4       124       70-130	Bromodichloromethane	10	0	13.7	137*	70-130
Trichloroethene         10         0         14.9         149*         70-130           Benzene         10         0         12.9         129         70-130           Dibromochloromethane         10         0         13.8         138*         70-130           1,3-Dichloropropene (trans)         10         0         12.4         124         70-130	1,2-Dichloropropane	10	0	11.6	116	70-130
Benzene         10         0         12.9         129         70-130           Dibromochloromethane         10         0         13.8         138*         70-130           1,3-Dichloropropene (trans)         10         0         12.4         124         70-130	1,3-Dichloropropene (cis)	10	0	12.6	126	70-130
Dibromochloromethane         10         0         13.8         138*         70-130           1,3-Dichloropropene (trans)         10         0         12.4         124         70-130	Trichloroethene	10	. 0	14.9	149*	70-130
1,3-Dichloropropene (trans) 10 0 12.4 124 70-130	Benzene	10	0	12.9	129	70-130
	Dibromochloromethane	10	0	13.8	138*	70-130
1,1,2-Trichloroethane 10 0 12.6 126 70-130	1,3-Dichloropropene (trans)	10	0	12.4	124	70-130
	1,1,2-Trichloroethane	10	0	12.6	126	70-130

 $\ensuremath{\text{\#}}$  Column to be used to flag recovery and RPD values with an asterisk

Spike Recovery	7: <u>7</u>	out of	49 outside	e limits		
COMMENTS:		· · · · · · · · · · · · · · · · · · ·				

FORM III

### 3A SYSTEM MONITORING SPIKE RECOVERY

ab Name: PACE ANALYTICAL		Contract	:		
Lab Code: 10478 Ca	se No.: SEI	SAS No.:	SDG	No.:	SEI006
Sample ID LFB022216			Level: (lo	w/med)	LOW
Column ID Rxi-1MS			Colum	n Diam	.32
Inst. ID HP5973I		Init. Ca	lib. Date(s):	01/28/1	6 20:40
Analysis Date: 02/22/16	20:13		· <u> </u>	01/29/1	6 1:42
Bromoform	10	0	14.3	143*	70-130
Methyl isobutyl ketone	10	0	8.47	85	70-130
Methyl butyl ketone	10	0	7.77	78	70-130
1,2-Dibromoethane	10	0	11.3	113	70-130
Tetrachloroethene	10	0	11.8	118	70-130
1,1,2,2-Tetrachloroethane	10	0 .	10.5	105	70-130
Toluene	10	0	10.3	103	70-130
Chlorobenzene	10	0	10.6	106	70-130
Ethylbenzene	10	0 -	- 10	100	70-130
Styrene	10	0	10.4	104	70-130
Xylenes (m&p)	20	0	19.9	99	70-130
Xylenes (o)	10	0	10	100	70-130
1,3,5-Trimethylbenzene	10	0	9.89	99	70-130
1,2,4-Trimethylbenzene	10	0	9.44	94	70-130
1,3-Dichlorobenzene	10	0	10.8	108	70-130
1,4-Dichlorobenzene	10	0	10.2	102	70-130
1,2-Dichtorobenzene	10	0	10.5	105	70-130
1,3-Hexachlorobutadiene	10	0	10.9	109	70-130
1.2.4-Trichlorobenzene	10	0	9.19	92	70-130

# Column to be used	to flag recovery and RPD values with an asterisk	
* Values outside of	QC limits	
Spike Recovery:	7 out of 49 outside limits	
COMMENTS:		

FORM III



575 Broad Hollow Road Melville, NY 11747 tel 631.694.3040 fax 631.420.8436

# 7. BLANK SUMMARY DATA & RESULTS 7.1 VOLATILES

### VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK022216

Lab Name: PACE ANALYTICAL

Contract: \_\_\_

Lab Code: 10478 Case No.: SEI

SAS No.: SDG No.: SEI006

Lab File ID: 6\I17790.D

Lab Sample ID: VBLK022216

Date Analyzed: 02/22/16 Time Analyzed: 18:53

GC Column:  $\underline{\text{Rxi-1MS}}$  ID:  $\underline{.32}$  (mm) Heated Purge: (Y/N) N

Instrument ID: <u>HP5973I</u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LFB022216	LFB022216	6\I17792.D	20:13
02	BASEMENT INDOOF	1602E93-001A	6\I17803.D	2:02
03	G-5 INDOOR	1602E93-002A	6\I17804.D	2:35
04	B-12 INDOOR	1602E93-003A	6\I17805.D	3:06
05	B-12 SUB-SLAB	1602E93-004A	6\I17806.D	3:38
06	ASEMENT SUB-SLA	1602E93-005A	6\I17807.D	4:10
07	G-5 SUB-SLAB	1602E93-006A	6\I17808.D	4:42
08	SEMENT SUB-SLAB	1602E93-005ADL	6\I17814.D	9:02
09	G-5 INDOORDL	1602E93-002ADL	6\I17815.D	9:51

COMMENTS:			

page  $\underline{1}$  of  $\underline{1}$ 

### VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK022216

Lab Na	ame:	Contract:	

Matrix: (soil/water) AIR Lab Sample ID: VBLK022216

Sample wt/vol:  $\underline{400}$  (g/mL)  $\underline{\text{ML}}$  Lab File ID:  $\underline{6}$ \I17790.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 02/22/16

GC Column: Rxi-1MS ID: .32 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µL) Soil Aliquot Volume (µL)

### CONCENTRATION UNITS:

		ONCENTRATION UNITS:	-
CAS NO.		μg/L or μg/Kg) <u>ppbv</u>	Q
75-71-8	Dichlorodifluoromethane	0.2	Ū
76-14-2	1,2-Dichlorotetrafluoroethane	0.2	Ū
74-87-3	Chloromethane	0.2	Ū
74-83-9	Bromomethane	0.2	Ū
75-01-4	Vinyl chloride	0.2	U
75-00-3	Chloroethane	0.2	Ŭ
75-09-2	Methylene chloride	0.2	U
67-64-1	Acetone	0.2	Ū
75-15-0	Carbon disulfide	0.2	Ū
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.2	U
75-35-4	1,1-Dichloroethene	0.2	U
75-34-3	1,1-Dichloroethane	0.2	U
75-69-4	Trichlorofluoromethane	0.2	Ū
108-05-4	Vinyl acetate	0.2	Ū
1634-04-4	Methyl tert-butyl ether	0.2	Ū
156-60-5	1,2-Dichloroethene (trans)	0.2	U
156-59-2	1,2-Dichloroethene (cis)	0.2	Ū
78-93-3	Methyl ethyl ketone	0.2	Ū
67-66-3	Chloroform	0.2	Ū
107-06-2	1,2-Dichloroethane	0.2	U
71-55-6	1,1,1-Trichloroethane	0.2	U
56-23-5	Carbon tetrachloride	0.2	Ū
75-27-4	Bromodichloromethane	0.2	U
78-87-5	1,2-Dichloropropane	0.2	U
10061-01-5	1,3-Dichloropropene (cis)	0.2	U
79-01-6	Trichloroethene	0.2	U
71-43-2	Benzene	0.2	U
124-48-1	Dibromochloromethane	0.2	Ū
10061-02-6	1,3-Dichloropropene (trans)	0.2	U
79-00-5	1,1,2-Trichloroethane	0.2	Ū
75-25-2	Bromoform	0.2	U
108-10-1	Methyl isobutyl ketone	0.2	U
591-78-6	Methyl butyl ketone	0.2	U
106-93-4	1,2-Dibromoethane	0.2	Ū
127-18-4	Tetrachloroethene	0.2	U

# VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK022216		

Lab Name: PACE ANALYTICAL	Contract:
Lab Code: 10478 Case No.: SEI	SAS No.: SDG No.: SEI006
Matrix: (soil/water) AIR	Lab Sample ID: <u>VBLK022216</u>
Sample wt/vol: $\underline{400}$ (g/mL) $\underline{\text{ML}}$	Lab File ID: 6\I17790.D
Level: (low/med) <u>LOW</u>	Date Received:
% Moisture: not dec.	Date Analyzed: 02/22/16
GC Column: Rxi-1MS ID: .32	(mm) Dilution Factor: 1.00
Soil Extract Volume: (µL)	) Soil Aliquot Volume (μL)

# CONCENTRATION UNITS:

	· ·		
CAS NO.	COMPOUND	(µg/L or µg/Kg) ppbv	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.2	. U
108-88-3	Toluene	0.2	U
108-90-7	Chlorobenzene	0.2	U
100-41-4	Ethylbenzene	0.2	Ū
100-42-5	Styrene	0.2	U
108-38-3/106-42-3	Xylenes (m&p)	0.2	Ū
95-47-6	Xylenes (o)	0.2	U
108-67-8	1,3,5-Trimethylbenzene	0.2	U
95-63-6	1,2,4-Trimethylbenzene	0.2	U
541-73-1	1,3-Dichlorobenzene	0.2	U
106-46-7	1,4-Dichlorobenzene	0.2	U
95-50-1	1,2-Dichlorobenzene	0.2	U
87-68-3	1,3-Hexachlorobutadiene	0.2	U
120-82-1	1,2,4-Trichlorobenzene	0.2	Ū

1F

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK022216

Lab Name: PACE ANALYTICAL Contract: Case No.: SEI SAS No.: SDG No.: SEI006 Lab Code: <u>10478</u> Lab Sample ID: VBLK022216 AIR Matrix: (soil/water) Sample wt/vol: 400 (g/mL) ML Lab File ID:  $6\I17790.D$ Level: (low/med) LOW Date Received: Date Analyzed: 02/22/16% Moisture: not dec. Dilution Factor: 1.00GC Column: Rxi-1MS ID: .32 (mm) Soil Aliquot Volume: 0 (µL) Soil Extract Volume: (µl) CONCENTRATION UNITS: (µg/L or µg/Kg) Number TICs found: 0 ppbv RT EST.CONC. CAS NUMBER COMPOUND NAME



575 Broad Hollow Road Melville, NY 11747 tel 631.694.3040 fax 631.420.8436

8. INTERNAL STANDARD AREA DATA 8.1 VOLATILES

### 8A

### VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: PACE ANALYTICAL

Contract:

Lab File ID (Standard): 6\I17788.D Date Analyzed: 02/22/16

EPA Sample No.(VSTD050##): VSTD010

Time Analyzed: 17:01

Instrument ID: HP5973I

Heated Purge: (Y/N) N

GC Column: Rxi-1MS ID: .32 (mm)

		IS1		IS2		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	122585	4.269	638427	5.08	671200	8.007
	UPPER LIMIT	171619	4.599	893797.8	5.41	939680	8.337
	LOWER LIMIT	73551	3.939	383056	4.75	402720	7.677
	EPA SAMPLE						
01	VBLK022216	129781	4.27	707150	5.07	663486	8.00
02	LFB022216	132878	4.28	660446	5.08	657354	8.01
03	BASEMENT INDO	121969	4.28	642561	5.08	607986	8.00
04	G-5 INDOOR	109033	4.28	601771	5.09	575327	8.01
05	B-12 INDOOR	116146	4.28	533861	5.08	546956	8.01
06	B-12 SUB-SLAB	105347	4.28	584570	5.09	558411	8.01
07	BASEMENT SUB-S	110005	4.28	524116	5.09	485223	8.01
08	G-5 SUB-SLAB	107671	4.28	569886	5.08	544861	8.01
09	BASEMENT SUB-S	92303	4.28	489467	5.08	452174	8.01
10	G-5 INDOORDL	91753	4.28	494275	5.09	453990	8.01

IS1 = Bromochloromethane

IS2 = 1,4-Difluorobenzene

IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +40% of internal standard area

AREA LOWER LIMIT = -40% of internal standard area

RT UPPER LIMIT = +0.33 minutes of internal standard RT

RT LOWER LIMIT = -0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

page  $\underline{1}$  of  $\underline{1}$ 

# Appendix D Air Sampling Results Letter Woodward Children's Center May 24, 2016 Indoor Air and Soil Vapor Sampling



ANDREW M. CUOMO Governor HOWARD A. ZUCKER, M.D., J.D. Commissioner SALLY DRESLIN, M.S., R.N. Executive Deputy Commissioner

May 24, 2016

Mr. Gregory Ingeno, Executive Director Woodward Community Mental Health Co. Inc. 201 West Merrick Road Freeport, NY 11520

Re: Air Sampling Results
Woodward Children's Center

Dear Mr. Ingeno:

On February 19, 2016, personnel from Seacliff Environmental collected air samples from beneath and within the building located at 201 West Merrick Road. The samples were collected as a component of the Site Management Plan for the Elks' Plaza site to confirm that additional actions to address exposures via the process known as soil vapor intrusion (see enclosed fact sheet) are not required. I have summarized your results in Figure 1 and have provided the laboratory data sheets.

Based on my review of your data, actions are recommended to reduce the concentration of tetrachloroethene (PCE) found in the indoor air of Room B12. PCE was detected in the indoor air at a concentration of 254 micrograms per cubic meter (mcg/m3). Compared to previous sampling data, it was unusual to detect this concentration of PCE in B12 's indoor air and not detect it underneath the floor. This level of PCE is above the New York State Department of Health (NYSDOH) Air Guideline Value of 30 mcg/m3. Based on a photograph and the observations of the sampling team, it was noted that Room B12 is currently being used for storage and as a copy room. A product or items containing PCE may have been in use and may have contributed to the indoor air concentration. In the interim, to reduce this concentration of PCE in the indoor air, the NYSDOH recommends that products containing PCE be kept in their original containers (tightly capped) and used in a well ventilated area. PCE was detected at a low level of 2.1 mcg/m3 in the Basement indoor air sample and at 1.63 mcg/m3 in Classroom G-5 indoor air. These levels of PCE in the indoor air are well below the Air Guideline Value of 30 mcg/m3. TCE was not detected in any of the indoor air and sub-slab soil vapor samples that were collected. Prior sampling events (2012 – 2015) and data from the 2016 event indicate that soil vapor intrusion is not affecting the indoor air quality of the school and yearly monitoring can be discontinued.

As expected, low levels of other volatile organic compounds (VOCs) were detected in the indoor air samples collected because they are part of our everyday lives. They are present in the products we store and use in residences, businesses, and in the outdoor air that enters our buildings (see enclosed fact sheet: Volatile Organic Compounds (VOCs) in Commonly Used Products). The concentrations of the VOCs detected in the indoor air are consistent with those usually found in homes and businesses and do not pose a health concern.

Thank you for allowing Seacliff Environmental access to your building to evaluate the air quality. Should you have any questions, please contact me at (518) 402-7860.

Sincerely,

Renata E. Ockerby

Public Health Specialist II

Forale E. Ochory

Bureau of Environmental Exposure Investigation

Ec: C. Bethoney/e-File

C. Westerman – NYSDOH MDO
J. DeFranco-NCDOH
J. Swartwout/M. Sweet – NYSDEC Central Office

J. Swartwout/M. Sweet – NYSDEC Central Office
W. Parish-NYSDEC Region 1

CC: R. Z. Volkell –Attorney at Law

(w/out enclosures) (w/out enclosures) (w/out enclosures)

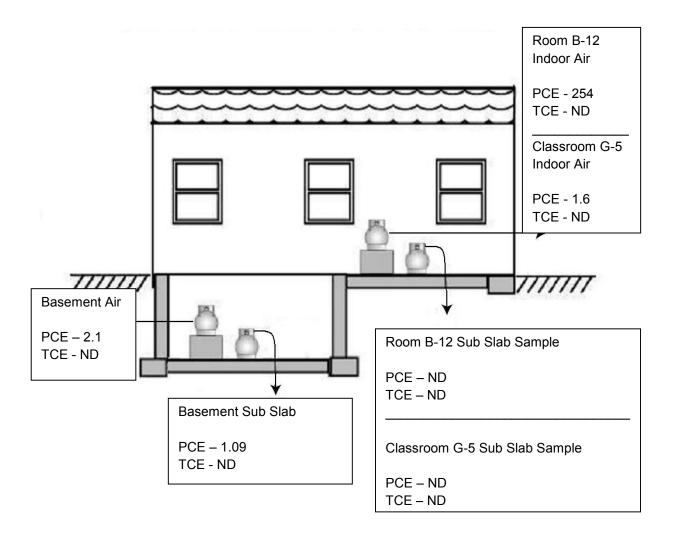
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### **Enclosures:**

- Laboratory Data Sheets.
- New York State Department of Health Soil Vapor Intrusion; Frequently Asked Questions Fact Sheet.
- New York State Department of Health *Volatile Organic Compounds (VOCs) in Commonly Used Products* Fact Sheet.

Figure 1
West Merrick Road
PCE/TCE Sampling Results
February 19, 2016



### Notes:

- 1). Figure 1 is a representative figure, not to scale. Room B-12 is located in the southeast corner of the building; Classroom G-5 is located in the northwest corner of the building. The diagram is intended to provide a quick reference to illustrate the sample results for tetrachloroethene (PCE) and trichloroethene (TCE) in air samples collected from the inside the building and beneath the building slab.
- 2). Detections are reported in micrograms per cubic meter (mcg/m3).
- 3). ND denotes that the analyte is not found above laboratory detection limits, which were slightly higher than typically found.

# Appendix E SMP Sampling Results Letter September 27, 2016 Groundwater Sampling



September 27, 2016

Melissa L. Sweet Project Manager Remedial Section C, Remedial Bureau A Division of Environmental Remediation 625 Broadway-12<sup>th</sup> Floor Albany, New York 12233-7015

Re: SMP Sampling Results Site # 130193 Elks Plaza Freeport, New York

Dear Ms. Sweet:

Seacliff Environmental, Inc. (Seacliff) has prepared this progress report to summarize the groundwater sampling at the above referenced property in accordance with the Site Management Plan (SMP) approved by the NYSDEC on May 1, 2015.

The three on-site monitoring wells were purged and sampled by an experienced Seacliff sampling crew on June 28, 2016. The site and monitoring well locations are shown on Figures 1 and 2 respectively.

Seacliff measured water levels and collected groundwater samples from the monitoring wells using low-flow sampling methods. An inertial pump with per-well dedicated tubing was used for both purging of at least three casing volumes and sample collection. This was performed to ensure representative samples from the formation surrounding the wells and to eliminate standing water in the wells. Between sampling locations, the pump was cleaned internally and externally with an Alconox and water solution, followed by a fresh water rinse.

Temperature, pH, dissolved oxygen, turbidity, and specific conductivity measurements were collected and recorded after the removal of each casing volume. Individual well sampling logs were prepared and are provided as Attachment A to this report.

The samples were hand delivered to American Analytical Laboratories, Farmingdale, New York (NYSDOH ID #11418). All groundwater samples were analyzed by EPA Method 8260 – the complete list of volatile organic chemicals (VOCs) - with Category B deliverables.

Elks Plaza Freeport, New York September 2016

The groundwater analytical data are summarized on Table 1 and the laboratory report is included in Attachment B. Groundwater analytical results were compared to the New York State Groundwater Standards specified in the NYSDEC TOGS 1.1.1 guidance document. To summarize as follows:

- Acetone and methylene chloride were detected at low concentrations. However, both of these compounds were detected in the laboratory blank samples indicating they are likely lab artifacts.
- Cis 1, 2 dichloroethene, was detected at 0.94 ug/l and tetrachloroethene was detected at 0.66 ug/l in the sample collected from MW-2. Both detections are laboratory-estimated concentrations and both are significantly below their respective NYS Groundwater Standards.
- There were no detections of VOCs (other than the assumed lab artifacts) in the samples collected from MW-1 and MW-3 consistent with 2015 data.

Data validation services for the groundwater samples were provided by Premier Environmental Services of Merrick, New York. The Data Usability Report (DUSR) is included in Attachment C.

Please call or email me if you have any questions.

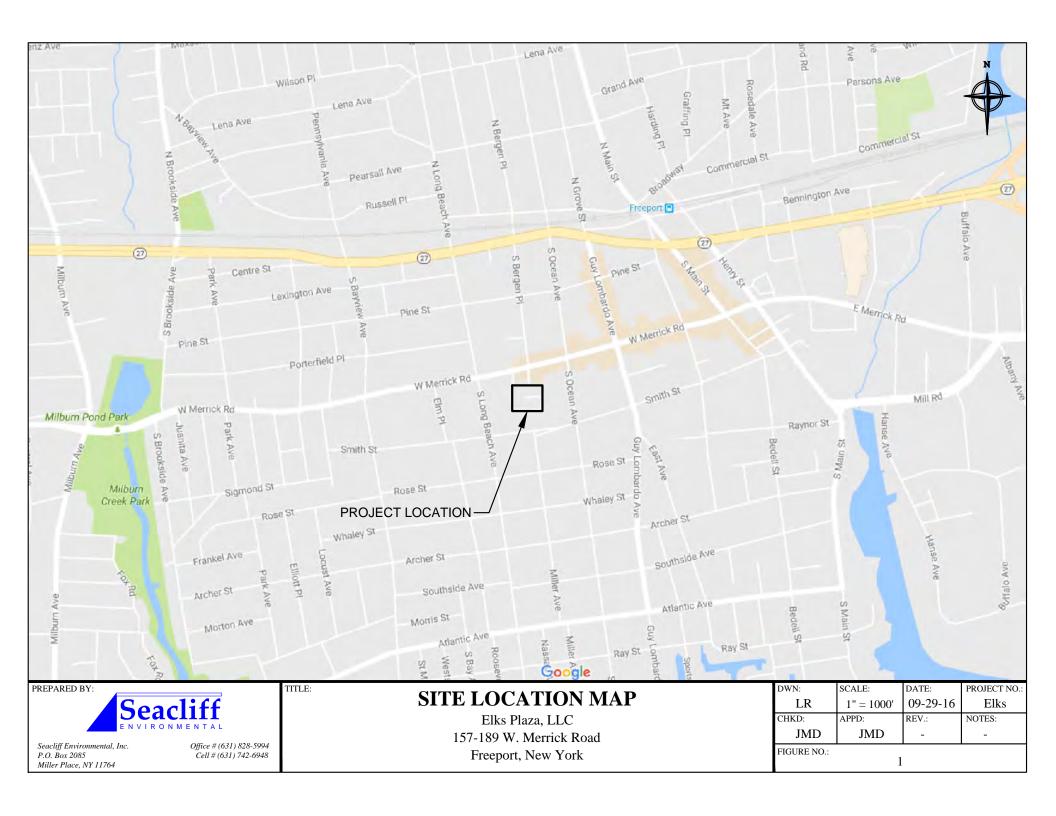
Very Truly Yours,

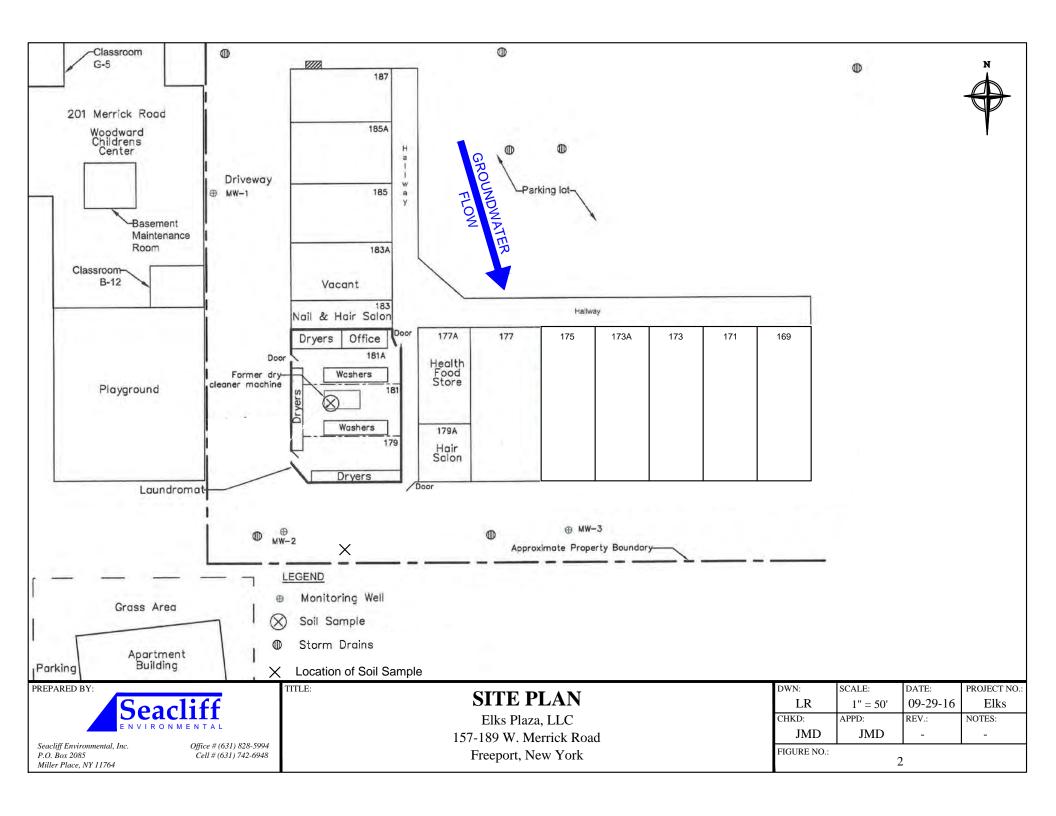
James M. DeMartinis

James M. DeMartinis Senior Hydrogeologist

CC Lois Reisman, Elks Plaza LLC

# Figures





# Tables



# Elks Plaza, Freeport;

# 157-189 W. Merrick Road, Freeport, NY

# New York State Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values - Class GA Table 1

# Volatile Organic Compounds Ground Water SW 846 8260C

	Client SampleID:			MW-1			MW-2		MW-3		
		oling Date:		06/28/2016			06/28/201		06/28/2016		
Analyte	Units	Limits			Q			Q			Q
1,1,1,2-Tetrachloroethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,1,1-Trichloroethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,1,2,2-Tetrachloroethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroeth	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,1,2-Trichloroethane	ug/L	1	<	0.50	U	<	0.50	U	<	0.50	U
1,1-Dichloroethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,1-Dichloroethene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,1-Dichloropropene	ug/L	1	<	0.50	U	<	0.50	U	<	0.50	U
1,2,3-Trichlorobenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,2,3-Trichloropropane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,2,4,5-Tetramethylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,2,4-Trichlorobenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,2,4-Trimethylbenzene	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
1,2-Dibromo-3-chloropropane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,2-Dibromoethane	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
1,2-Dichlorobenzene	ug/L	3	<	0.50	U	<	0.50	U	<	0.50	U
1,2-Dichloroethane	ug/L	0.6	<	0.50	U	<	0.50	U	<	0.50	U
1,2-Dichloropropane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,3,5-Trimethylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,3-Dichlorobenzene	ug/L	3	<	0.50	U	<	0.50	U	<	0.50	U
1,3-dichloropropane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
1,4-Dichlorobenzene	ug/L	3	<	0.50	U	<	0.50	U	<	0.50	U
1,4-Dioxane	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
2,2-Dichloropropane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
2-Butanone	ug/L	NA	<	1.0	U	<	1.0	U	<	1.0	U
2-Chloroethyl vinyl ether	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
2-Chlorotoluene	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
2-Hexanone	ug/L	NA	<	1.0	U	<	1.0	U	<	1.0	U
2-Propanol	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
4-Chlorotoluene	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
4-Isopropyltoluene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
4-Methyl-2-pentanone	ug/L	NA	<	1.0	U	<	1.0	U	<	1.0	U
Acetone	ug/L	50		1.6	BJ		1.7	BJ		1.7	BJ
Acrolein	ug/L	NA	<	5.0	U	<	5.0	U	<	5.0	U
Acrylonitrile	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Benzene	ug/L	1	<	0.50	U	<	0.50	U	<	0.50	U
Bromobenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U

### Notes:

B - Analyte detected in Method Blank

J - Laboratory estimated concentration

NA - Not available, no value specified in NYS TOGS Limits

ND - Not detected



# Elks Plaza, Freeport;

# 157-189 W. Merrick Road, Freeport, NY

# New York State Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values - Class GA Table 1

# Volatile Organic Compounds Ground Water SW 846 8260C

	Client SampleID:			MW-1			MW-2	_	MW-3		
	-	oling Date:	4	06/28/2010		06/28/2016			06/28/2016		
Analyte	Units	Limits			Q			Q			Q
Bromochloromethane	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Bromodichloromethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Bromoform	ug/L	50	<	0.50	U	<	0.50	U	<	0.50	U
Bromomethane	ug/L	5	<	1.0	U	<	1.0	U	<	1.0	U
Carbon disulfide	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Carbon tetrachloride	ug/L	5	<b>\</b>	0.50	U	<	0.50	U	<	0.50	U
Chlorobenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Chlorodifluoromethane	ug/L	NA	<	0.30	U	<	0.30	U	<	0.30	U
Chloroethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Chloroform	ug/L	7	<	0.50	U	<	0.50	U	<	0.50	U
Chloromethane	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
cis-1,2-Dichloroethene	ug/L	5	<	0.50	U		0.94	J	<	0.50	U
cis-1,3-Dichloropropene	ug/L	0.4	<	0.50	U	<	0.50	U	<	0.50	U
Cyclohexane	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Dibromochloromethane	ug/L	50	<	0.50	U	<	0.50	U	<	0.50	U
Dibromomethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Dichlorodifluoromethane	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Diisopropyl ether	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Ethanol	ug/L	NA	<	2.5	U	<	2.5	U	<	2.5	U
Ethylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Freon-114	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Hexachlorobutadiene	ug/L	0.5	<	0.50	U	<	0.50	U	<	0.50	U
Isopropylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
m,p-Xylene	ug/L	5	<	1.0	U	<	1.0	U	<	1.0	U
Methyl Acetate	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Methyl tert-butyl ether	ug/L	10	<	0.50	U	<	0.50	U	<	0.50	U
Methylene chloride	ug/L	5		6.7	В		7.4	В		7.3	В
Naphthalene	ug/L	10	<	0.50	U	<	0.50	U	<	0.50	U
n-Butylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
n-Propylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
o-Xylene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
p-Diethylbenzene	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
p-Ethyltoluene	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
sec-Butylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Styrene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
t-Butyl alcohol	ug/L	NA	<	2.5	U	<	2.5	U	<	2.5	U
tert-Butylbenzene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U

### Notes:

B - Analyte detected in Method Blank

J - Laboratory estimated concentration

NA - Not available, no value specified in NYS TOGS Limits

ND - Not detected



# Elks Plaza, Freeport;

# 157-189 W. Merrick Road, Freeport, NY

# New York State Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values - Class GA Table 1

# Volatile Organic Compounds Ground Water SW 846 8260C

		Client SampleID: Sampling Date:		MW-1 06/28/2016		MW-2 06/28/2016			MW-3 06/28/2016		
Analyte	Units	Limits			Q			Q			Q
Tetrachloroethene	ug/L	5	<	0.50	U		0.66	J	<	0.50	U
Toluene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
trans-1,2-Dichloroethene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
trans-1,3-Dichloropropene	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Trichloroethene	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Trichlorofluoromethane	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Vinyl acetate	ug/L	NA	<	0.50	U	<	0.50	U	<	0.50	U
Vinyl chloride	ug/L	5	<	0.50	U	<	0.50	U	<	0.50	U
Xylenes, Total	ug/L	NA	<	1.5	U	<	1.5	U	<	1.5	U
Total Volatile Organics	ug/L	NA		8.3			10.7	•		9	

### Notes:

B - Analyte detected in Method Blank

J - Laboratory estimated concentration

NA - Not available, no value specified in NYS TOGS Limits

ND - Not detected

# Attachment A

# **GROUNDWATER SAMPLING LOG**

# 157-189 W Merrick Road Freeport, New York

Well ID:	MW-1
Date:	6/28/16
Sampling Personnel:	AJS & JC
Weather:	Showers 80°F

# **WELL INFORMATION**

Well Diameter (in):

# Well Depth (ft): 22.37 Water Level Depth (ft): 13.55

# **WELL WATER INFORMATION**

Length of Water Column (ft):	8.82
Volume of Water in Well (gal):	1.44
Total Volume Purged (gal):	5.0
Duration of Pumping (min):	7

# **EVACUATION INFORMATION**

Pump On: 10:55 Pump Off: 11:02

Time:	10:56	10:57	10:58	10:59		
Parameter						
DO (mg/L)	5.50	5.50	5.79	5.82		
Temperature (°C)	17.62	17.62	17.62	17.59		
рН	6.55	6.36	6.31	6.30		
Cond (umho's/cm)	530	525	529	530		
Turbidity (NTU)	75.8	68.8	50.7	56.2		

# **GROUNDWATER SAMPLING LOG**

# 157-189 W Merrick Road Freeport, New York

	MVV-2
Date:	6/28/16
Sampling Personnel:	AJS & JC
Weather:	Showers 80°F

# **WELL INFORMATION**

# **WELL WATER INFORMATION**

Well Depth (ft):	22.20
Water Level Depth (ft):	12.86
Well Diameter (in):	2

Length of Water Column (ft):	9.34
Volume of Water in Well (ga	1.52
Total Volume Purged (gal):	5.0
Duration of Pumping (min):	7

# **EVACUATION INFORMATION**

 Pump On:
 10:40
 Pump Off:
 10:47

Time:	10:41	10:42	10;43	10:44		
Parameter						
DO (mg/L)	4.51	4.13	4.06	4.04		
Temperature (°C)	17.61	17.52	17.56	17.00		
рН	6.92	6.74	6.58	6.55		
Cond (umho's/cm)	999	960	702	703		
Turbidity (NTU)	603.0	461.0	178.0	162.0		

# **GROUNDWATER SAMPLING LOG**

# 157-189 W Merrick Road Freeport, New York

Well ID:	MW-3
Date:	6/28/16
Sampling Personnel:	AJS & JC
Weather:	Showers 80°F

# **WELL INFORMATION**

# WELL WATER INFORMATION

Well Depth (ft):	22.40
Water Level Depth (ft):	12.80
Well Diameter (in):	2

Length of Water Column (ft):	9.60
Volume of Water in Well (gal	1.56
Total Volume Purged (gal):	5.0
Duration of Pumping (min):	7

# **EVACUATION INFORMATION**

 Pump On:
 10:25
 Pump Off:
 10:32

Time:	10:26	10:27	10:28	10:29		
Parameter						
DO (mg/L)	1.42	1.32	1.31	1.30		
Temperature (°C)	18.15	18.13	18.13	18.12		
рН	7.08	6.98	6.93	6.90		
Cond (umho's/cm)	434	436	438	438		
Turbidity (NTU)	52.3	39.6	39.1	35.0		

# Attachment B



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

June 30, 2016

Jim DeMartinis Seacliff Environmental PO Box 2085 Miller Place, NY 11764 TEL: FAX

RE: Elks Plaza, Freeport; 157-189 W. Merrick R Order No.: 1606203

Dear Jim DeMartinis:

American Analytical Laboratories, LLC. received 3 sample(s) on 6/28/2016 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer

Lab Director

Sou Beyer

American Analytical Laboratories, LLC.



American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

# Workorder Sample Summary

WO#: **1606203** 

30-Jun-16

**CLIENT:** Seacliff Environmental

**Project:** Elks Plaza, Freeport; 157-189 W. Merrick Road,

Lab SampleID	Client Sample ID	Tag No	<b>Date Collected</b>	Date Received	Matrix
1606203-001A	MW-1		6/28/2016 11:00:00 AM	6/28/2016 11:20:00 AM	Liquid
1606203-002A	MW-2		6/28/2016 10:45:00 AM	6/28/2016 11:20:00 AM	Liquid
1606203-003A	MW-3		6/28/2016 10:30:00 AM	6/28/2016 11:20:00 AM	Liquid



CHAIN OF CISTONY

CERTIFICATIONS  NY ELAP - 11418 PA DEP - 68-00573  NJ DEP - NY050 CT DOH - PH-0205	Onalytical Information		יְתּפּנִי		<u> </u>	;n)[cn	m 0	T	VITURO	X	×	<b>X</b>				of the second of	COMMISSION			Cooler Temp:	1 - 1/-	J	DATE PRINTED NAME
USIOUY ale NY 11735 331-454-8027	Project Information	Project Name EIKS Plaze FreePort	Street 157-189 12 MPTrick Kond	Freeport IV-1 8	Project#	Sampler's Name / Company NFC Fullmittee 178		Sample Collection Sample Containers	Date Time Glass / Total # H P P P P P P P P P P P P P P P P P P	C 2 7 0011 918819	1 1045 1 1 1	T 1030 7 7 7				MATRIX CODES	L = Liquid PC = Paint Chip		O = Oil SD = Solid	W = Wipe M = Miscellaneous	DATE 61.2.0   16   PRINTED NAME	at	RECEIVED
eet, Farmingd -6100 (F) 6		P	ets.	State Zip City	Pr	Sa	Sa	_	Sample Matrix Code	7		7				SAMPLE TYPE	G = Grab	C = Composite	B = Blank		st be documented below, e	AJ 6	PRINTED NAME
CAL CAL TORIES	Client Information	PF Environment	20	Place No State	DelMartinis	8 5494		Sample Information	Client Sample ID	MW-	477	MM-3				Turnaround Time ( Business Days)	ays 3 Day RUSH	2 Day RUSH	1 Day RUSH			TIME 1130	ATURE) DATE 1
AMERIO FINITAL SENEOR		Company Name Seacliff	Address P.O. Box	ر	Project Contact	828 159 #mond	E-mail	LAB SAMPLE#	(LAB USE ONLY)	1606203-001	300	0 003				Turnaroun	Standard 7-10 Business Days	5 Day RUSH	4 Day RUSH		RELINQUISHEBBY (SIGNATURE)	1	RELINQUISHED BY (SIGNATURE)



Temp <sup>o</sup>C

Cooler No

Condition | Seal Intact

American Analytical Laboratories, LLC. 56 Toledo Street Farmingdale, New York 11735 TEL: (631) 454-6100 FAX: (631) 454-8027 Website: www.American-Analytical.com

# Sample Log-In Check List

Clier	nt Name:	SEACLIFF E	NV	Work Order Nu	ımber: 10	60620	)3		RcptN	No: 1
Logg	ged by:	Lori Beyer		6/28/2016 11:36	:49 AM			You Beye	(	
Com	npleted By:	Lori Beyer		6/28/2016 11:38	:13 AM			Ялі Влуе Ялі Влуе Кант Ка		
Revi	iewed By:	Karen Kelly		6/28/2016				Karen Ke	lly	
<u>Cha</u>	in of Cus	stody								
1.	Is Chain of	Custody comp	lete?			Yes	✓	No 🗌	Not Present	
2.	How was th	ne sample deliv	vered?			Clien	<u>t</u>			
Log	In									
_	Coolers are	e present?				Yes	<b>✓</b>	No $\square$	NA [	
1	Shipping co	ontainer/cooler	in good condition	2		Yes	•	No 🗆		
•••			nipping container/			Yes		No $\square$	Not Present [	<b>✓</b>
	No.	alo il itaot on oi	Seal Date:		•		ed By:		1101110001111	
		empt made to	cool the samples	?		Yes		No 🗆	NA I	
6.	Were all sa	amples receive	d at a temperature	e of >0° C to 6.0°	С	Yes	<b>✓</b>	No 🗌	NA I	
7.	Sample(s)	in proper conta	ainer(s)?			Yes	<b>✓</b>	No 🗌		
8.	Sufficient s	ample volume	for indicated test(	(s)?		Yes	<b>✓</b>	No 🗌		
9.	Are sample	es (except VOA	and ONG) prope	erly preserved?		Yes	<b>✓</b>	No 🗌		
10.	Was prese	rvative added t	o bottles?			Yes		No 🗸	NA	
11.	Is the head	space in the V	OA vials less thar	n 1/4 inch or 6 mm	1?	Yes	<b>✓</b>	No 🗌	No VOA Vials	
12.	Were any s	sample contain	ers received brok	en?		Yes		No 🗸		
13.		rwork match bo epancies on ch	ottle labels? nain of custody)			Yes	✓	No 🗌		
14.	Are matrice	es correctly ide	ntified on Chain o	f Custody?		Yes	<b>✓</b>	No 🗌		
15.	Is it clear w	hat analyses v	vere requested?			Yes	<b>✓</b>	No 🗌		
		olding times ab y customer for				Yes	✓	No 🗌		
Spe	cial Hand	dling (if app	olicable)							
-			liscrepancies with	this order?		Yes		No $\square$	NA	✓
	Perso	n Notified:			Date					
	By WI	hom:			/ia: □	eMa	il 🗆 F	Phone  Fax	☐ In Person	
	Regar					,	<u> </u>			7
	_	Instructions:								-
1Ω	Additional r		1							
COOLE	<u>er Informati</u>	<u>IUII</u>								

Seal No

Seal Date Signed By



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**Case Narrative** 

WO#: **1606203**Date: **6/30/2016** 

**CLIENT:** Seacliff Environmental

**Project:** Elks Plaza, Freeport; 157-189 W. Merrick Road,

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers. Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results. Batch MS/MSD results are provided in the QC section of the lab report unless the MS/MSD summary forms indicate one of your sample identifications. MS/MSD results relate only to the parent sample that was spiked.

Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate, n-Propyl Acetate.

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.



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**Definition Only** 

WO#: **1606203**Date: **6/30/2016** 

### **Definitions:**

Sample Result and QC Summary Qualifiers - Level I and Level II Reports ND - Not detected at the reporting limit/Limit of Quantitation

- B The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.
- E The value is above the quantitation range
- D Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.
- J The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.
- U The compound was analyzed for but not detected.
- H Holding time for preparation or analysis has been exceeded.
- S Spike recovery is outside accepted recovery limits.
- R RPD is outside accepted recovery range.
- P Secondary column exceeds 40% difference for GC test.
- \* Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.
- LOD Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.
- LOQ Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accurary.
- m Analyte was manually integrated for GC/MS.
- + Concentration exceeds regulatory level for TCLP

**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-1

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 11:00:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-001A

# **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260				3260C	SW5030C		Analyst: <b>LA</b>
1,1,1,2-Tetrachloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,1,1-Trichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,1,2,2-Tetrachloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethan	( ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,1,2-Trichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,1-Dichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,1-Dichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,1-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2,3-Trichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2,3-Trichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2,4,5-Tetramethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2,4-Trichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2,4-Trimethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2-Dibromo-3-chloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2-Dibromoethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2-Dichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,2-Dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,3,5-Trimethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,3-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,3-dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,4-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
1,4-Dioxane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
2,2-Dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
2-Butanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 3:55:00 PM
2-Chloroethyl vinyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
2-Chlorotoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
2-Hexanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 3:55:00 PM
2-Propanol	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
4-Chlorotoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
4-Isopropyltoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
4-Methyl-2-pentanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 3:55:00 PM
Acetone	1.6	1.0	4.0	BJ	μg/L	1	6/28/2016 3:55:00 PM

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**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-1

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 11:00:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-001A

# **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260				260C	SW5030C		Analyst: <b>LA</b>
Benzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Bromobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Bromochloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Bromodichloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Bromoform	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Bromomethane	ND	1.0	4.0	U	μg/L	1	6/28/2016 3:55:00 PM
Carbon disulfide	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Carbon tetrachloride	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Chlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Chlorodifluoromethane	ND	0.30	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Chloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Chloroform	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Chloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
cis-1,2-Dichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
cis-1,3-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Cyclohexane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Dibromochloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Dibromomethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Dichlorodifluoromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Diisopropyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Ethanol	ND	2.5	10	U	μg/L	1	6/28/2016 3:55:00 PM
Ethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Freon-114	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Hexachlorobutadiene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Isopropylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
m,p-Xylene	ND	1.0	4.0	U	μg/L	1	6/28/2016 3:55:00 PM
Methyl Acetate	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Methyl tert-butyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Methylene chloride	6.7	1.0	4.0	В	μg/L	1	6/28/2016 3:55:00 PM
n-Butylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
n-Propylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Naphthalene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
o-Xylene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM

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**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-1

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 11:00:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-001A

# **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260				3260C	SW50	30C	Analyst: <b>LA</b>
p-Diethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
p-Ethyltoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
sec-Butylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Styrene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
t-Butyl alcohol	ND	2.5	10	U	μg/L	1	6/28/2016 3:55:00 PM
tert-Butylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Tetrachloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Toluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
trans-1,2-Dichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
trans-1,3-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Trichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Trichlorofluoromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Vinyl acetate	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Vinyl chloride	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Xylenes, Total	ND	1.5	6.0	U	μg/L	1	6/28/2016 3:55:00 PM
Acrolein	ND	5.0	10	U	μg/L	1	6/28/2016 3:55:00 PM
Acrylonitrile	ND	0.50	2.0	U	μg/L	1	6/28/2016 3:55:00 PM
Surr: 4-Bromofluorobenzene	102	0	62-132		%Rec	1	6/28/2016 3:55:00 PM
Surr: Dibromofluoromethane	92.2	0	72-131		%Rec	1	6/28/2016 3:55:00 PM
Surr: Toluene-d8	98.2	0	58-131		%Rec	1	6/28/2016 3:55:00 PM





**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-2

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 10:45:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-002A

# **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8260				3260C	SW5030C		Analyst: <b>LA</b>
1,1,1,2-Tetrachloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,1,1-Trichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,1,2,2-Tetrachloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethan	, ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,1,2-Trichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,1-Dichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,1-Dichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,1-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2,3-Trichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2,3-Trichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2,4,5-Tetramethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2,4-Trichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2,4-Trimethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2-Dibromo-3-chloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2-Dibromoethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2-Dichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,2-Dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,3,5-Trimethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,3-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,3-dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,4-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
1,4-Dioxane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
2,2-Dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
2-Butanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:23:00 PM
2-Chloroethyl vinyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
2-Chlorotoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
2-Hexanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:23:00 PM
2-Propanol	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
4-Chlorotoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
4-Isopropyltoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
4-Methyl-2-pentanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:23:00 PM
Acetone	1.7	1.0	4.0	BJ	μg/L	1	6/28/2016 4:23:00 PM

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**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-2

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 10:45:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-002A

#### **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHO	D 8260		SW8	260C	SW50	30C	Analyst: <b>LA</b>
Benzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Bromobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Bromochloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Bromodichloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Bromoform	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Bromomethane	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:23:00 PM
Carbon disulfide	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Carbon tetrachloride	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Chlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Chlorodifluoromethane	ND	0.30	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Chloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Chloroform	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Chloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
cis-1,2-Dichloroethene	0.94	0.50	2.0	J	μg/L	1	6/28/2016 4:23:00 PM
cis-1,3-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Cyclohexane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Dibromochloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Dibromomethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Dichlorodifluoromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Diisopropyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Ethanol	ND	2.5	10	U	μg/L	1	6/28/2016 4:23:00 PM
Ethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Freon-114	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Hexachlorobutadiene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Isopropylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
m,p-Xylene	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:23:00 PM
Methyl Acetate	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Methyl tert-butyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Methylene chloride	7.4	1.0	4.0	В	μg/L	1	6/28/2016 4:23:00 PM
n-Butylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
n-Propylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
Naphthalene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
o-Xylene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM

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**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-2

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 10:45:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-002A

#### **Certificate of Results**

**Date:** 30-Jun-16

			Quai	Units	DF	Date/Time Analyzed
		SW8	260C	SW5030	С	Analyst: <b>LA</b>
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	2.5	10	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
0.66	0.50	2.0	J	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	1.5	6.0	U	μg/L	1	6/28/2016 4:23:00 PM
ND	5.0	10	U	μg/L	1	6/28/2016 4:23:00 PM
ND	0.50	2.0	U	μg/L	1	6/28/2016 4:23:00 PM
101	0	62-132		%Rec	1	6/28/2016 4:23:00 PM
95.4	0	72-131		%Rec	1	6/28/2016 4:23:00 PM
98.1	0	58-131		%Rec	1	6/28/2016 4:23:00 PM
	ND ND ND ND O.666 ND	ND 0.50	ND 0.50 2.0  ND 0.50 2.0	ND 0.50 2.0 U	ND 0.50 2.0 U μg/L	ND 0.50 2.0 U μg/L 1





**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-3

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 10:30:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-003A

#### **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD 8	260		SW8	3260C	SW50	30C	Analyst: <b>LA</b>
1,1,1,2-Tetrachloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,1,1-Trichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,1,2,2-Tetrachloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethan	ND ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,1,2-Trichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,1-Dichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,1-Dichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,1-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2,3-Trichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2,3-Trichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2,4,5-Tetramethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2,4-Trichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2,4-Trimethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2-Dibromo-3-chloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2-Dibromoethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2-Dichloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,2-Dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,3,5-Trimethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,3-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,3-dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,4-Dichlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
1,4-Dioxane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
2,2-Dichloropropane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
2-Butanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:51:00 PM
2-Chloroethyl vinyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
2-Chlorotoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
2-Hexanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:51:00 PM
2-Propanol	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
4-Chlorotoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
4-Isopropyltoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
4-Methyl-2-pentanone	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:51:00 PM
Acetone	1.7	1.0	4.0	BJ	μg/L	1	6/28/2016 4:51:00 PM

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**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-3

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 10:30:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-003A

#### **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD	D 8260		SW8	260C	SW50	30C	Analyst: <b>LA</b>
Benzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Bromobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Bromochloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Bromodichloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Bromoform	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Bromomethane	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:51:00 PM
Carbon disulfide	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Carbon tetrachloride	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Chlorobenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Chlorodifluoromethane	ND	0.30	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Chloroethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Chloroform	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Chloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
cis-1,2-Dichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
cis-1,3-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Cyclohexane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Dibromochloromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Dibromomethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Dichlorodifluoromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Diisopropyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Ethanol	ND	2.5	10	U	μg/L	1	6/28/2016 4:51:00 PM
Ethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Freon-114	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Hexachlorobutadiene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Isopropylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
m,p-Xylene	ND	1.0	4.0	U	μg/L	1	6/28/2016 4:51:00 PM
Methyl Acetate	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Methyl tert-butyl ether	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Methylene chloride	7.3	1.0	4.0	В	μg/L	1	6/28/2016 4:51:00 PM
n-Butylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
n-Propylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Naphthalene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
o-Xylene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM

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**ELAP ID: 11418** 

CLIENT: Seacliff Environmental Client Sample ID: MW-3

**Lab Order:** 1606203 **Collection Date:** 6/28/2016 10:30:00 AM

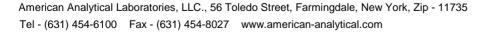
Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Matrix: LIQUID

**Lab ID:** 1606203-003A

#### **Certificate of Results**

**Date:** 30-Jun-16

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE SW-846 METHOD	8260		SW8	3260C	SW5030	C	Analyst: <b>LA</b>
p-Diethylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
p-Ethyltoluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
sec-Butylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Styrene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
t-Butyl alcohol	ND	2.5	10	U	μg/L	1	6/28/2016 4:51:00 PM
tert-Butylbenzene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Tetrachloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Toluene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
trans-1,2-Dichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
trans-1,3-Dichloropropene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Trichloroethene	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Trichlorofluoromethane	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Vinyl acetate	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Vinyl chloride	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Xylenes, Total	ND	1.5	6.0	U	μg/L	1	6/28/2016 4:51:00 PM
Acrolein	ND	5.0	10	U	μg/L	1	6/28/2016 4:51:00 PM
Acrylonitrile	ND	0.50	2.0	U	μg/L	1	6/28/2016 4:51:00 PM
Surr: 4-Bromofluorobenzene	99.8	0	62-132		%Rec	1	6/28/2016 4:51:00 PM
Surr: Dibromofluoromethane	104	0	72-131		%Rec	1	6/28/2016 4:51:00 PM
Surr: Toluene-d8	99.9	0	58-131		%Rec	1	6/28/2016 4:51:00 PM







## **QC SUMMARY REPORT**

9747

WO#: **1606203** 

30-Jun-16

**Client:** Seacliff Environmental

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, BatchID:

Sample ID LCS-9747	SampType: <b>LCS</b>	TestCod	de: <b>8260_W</b>	Units: µg/L		Prep Dat	te: <b>6/28/2</b> 0	16	RunNo: <b>17</b> 1	197	
Client ID: LCSW	Batch ID: 9747	TestN	lo: <b>SW8260C</b>	SW5030C		Analysis Dat	te: <b>6/28/20</b>	16	SeqNo: 315	5133	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	41	2.0	50.00	0	81.5	54	134				
1,1,2,2-Tetrachloroethane	32	2.0	50.00	0	63.2	38	133				
1,1,2-Trichloroethane	36	2.0	50.00	0	71.6	53	132				
1,1-Dichloroethane	38	2.0	50.00	0	76.8	46	138				
1,1-Dichloroethene	43	2.0	50.00	0	86.0	47	137				
1,2-Dichlorobenzene	37	2.0	50.00	0	73.9	47	134				
1,2-Dichloroethane	38	2.0	50.00	0	77.0	52	136				
1,2-Dichloropropane	37	2.0	50.00	0	74.0	47	145				
1,3-Dichlorobenzene	39	2.0	50.00	0	77.3	47	136				
1,4-Dichlorobenzene	38	2.0	50.00	0	76.7	44	134				
2-Chloroethyl vinyl ether	ND	2.0	50.00	0	0	40	130				SU
Benzene	41	2.0	50.00	0	81.4	51	138				
Bromodichloromethane	38	2.0	50.00	0	75.5	48	143				
Bromoform	33	2.0	50.00	0	66.5	34	138				
Bromomethane	31	4.0	50.00	0	62.7	28	152				
Carbon tetrachloride	42	2.0	50.00	0	83.3	52	138				
Chlorobenzene	40	2.0	50.00	0	79.5	48	133				
Chloroethane	40	2.0	50.00	0	79.4	51	147				
Chloroform	39	2.0	50.00	0	78.3	54	136				
Chloromethane	34	2.0	50.00	0	68.2	58	146				
cis-1,3-Dichloropropene	37	2.0	50.00	0	73.2	52	138				
Dibromochloromethane	36	2.0	50.00	0	71.4	53	131				
Ethylbenzene	44	2.0	50.00	0	87.9	50	125				
Methylene chloride	25	4.0	50.00	0	49.8	13	100				В
Tetrachloroethene	36	2.0	50.00	0	72.2	44	126				
Toluene	43	2.0	50.00	0	85.2	54	134				

Qualifiers: S Spike Recovery outside accepted recovery limits

W Sample container temperature is out of limit as specified at testcode



## QC SUMMARY REPORT

9747

**BatchID:** 

WO#: **1606203** 

30-Jun-16

**Client:** Seacliff Environmental

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road,

Sample ID LCS-9747 Client ID: LCSW	SampType: LCS Batch ID: 9747		le: <b>8260_W</b> lo: <b>SW8260C</b>	Units: µg/L SW5030C	Prep Date: <b>6/28/2016</b> Analysis Date: <b>6/28/2016</b>			RunNo: <b>17197</b> SeqNo: <b>315133</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	39	2.0	50.00	0	78.8	44	138				
trans-1,3-Dichloropropene	36	2.0	50.00	0	71.4	46	137				
Trichloroethene	39	2.0	50.00	0	78.6	52	134				
Trichlorofluoromethane	46	2.0	50.00	0	92.1	56	151				
Vinyl chloride	44	2.0	50.00	0	87.6	55	151				
Surr: 4-Bromofluorobenzene	50		50.00		99.9	62	132				
Surr: Dibromofluoromethane	51		50.00		102	72	131				
Surr: Toluene-d8	50		50.00		100	58	131				
Sample ID MB-9747	SampType: <b>MBLK</b>	TestCod	le: <b>8260_W</b>	Units: µg/L		Prep Dat	e: <b>6/28/20</b>	16	RunNo: 17	197	

Sample ID MB-9747	SampType: MBLK	TestCo	de: <b>8260_W</b>	Units: µg/L		Prep Da	te: 6/28/20	016	RunNo: <b>17</b>	197	
Client ID: PBW	Batch ID: 9747	Testi	No: <b>SW8260C</b>	SW5030C	Analysis Date: 6/28/2016			SeqNo: 31			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	2.0									U
1,1,1-Trichloroethane	ND	2.0									U
1,1,2,2-Tetrachloroethane	ND	2.0									U
1,1,2-Trichloro-1,2,2-trifluoroethan	e ND	2.0									U
1,1,2-Trichloroethane	ND	2.0									U
1,1-Dichloroethane	ND	2.0									U
1,1-Dichloroethene	ND	2.0									U
1,1-Dichloropropene	ND	2.0									U
1,2,3-Trichlorobenzene	ND	2.0									U
1,2,3-Trichloropropane	ND	2.0									U
1,2,4,5-Tetramethylbenzene	ND	2.0									U
1,2,4-Trichlorobenzene	ND	2.0									U

Qualifiers: S Spike Recovery outside accepted recovery limits

Sample container temperature is out of limit as specified at testcode



## **QC SUMMARY REPORT**

9747

**BatchID:** 

WO#:

1606203

30-Jun-16

**Client:** Seacliff Environmental

**Project:** Elks Plaza, Freeport; 157-189 W. Merrick Road,

Sample ID MB-9747	SampType: MBLK	TestCode: 8260_W	Units: µg/L	Prep Date: 6/28/2016	RunNo: <b>17197</b>
Client ID: PBW	Batch ID: 9747	TestNo: SW82600	SW5030C	Analysis Date: 6/28/2016	SeqNo: <b>315134</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
1,2,4-Trimethylbenzene	ND	2.0			U
1,2-Dibromo-3-chloropropane	ND	2.0			U
1,2-Dibromoethane	ND	2.0			U
1,2-Dichlorobenzene	ND	2.0			U
1,2-Dichloroethane	ND	2.0			U
1,2-Dichloropropane	ND	2.0			U
1,3,5-Trimethylbenzene	ND	2.0			U
1,3-Dichlorobenzene	ND	2.0			U
1,3-dichloropropane	ND	2.0			U
1,4-Dichlorobenzene	ND	2.0			U
1,4-Dioxane	ND	2.0			U
2,2-Dichloropropane	ND	2.0			U
2-Butanone	ND	4.0			U
2-Chloroethyl vinyl ether	ND	2.0			U
2-Chlorotoluene	ND	2.0			U
2-Hexanone	ND	4.0			U
2-Propanol	ND	2.0			U
4-Chlorotoluene	ND	2.0			U
4-Isopropyltoluene	ND	2.0			U
4-Methyl-2-pentanone	ND	4.0			U
Acetone	1.6	4.0			J
Benzene	ND	2.0			U
Bromobenzene	ND	2.0			U
Bromochloromethane	ND	2.0			U
Bromodichloromethane	ND	2.0			U
Bromoform	ND	2.0			U

Qualifiers:

Spike Recovery outside accepted recovery limits

Sample container temperature is out of limit as specified at testcode



## QC SUMMARY REPORT

9747

**BatchID:** 

WO#:

1606203

30-Jun-16

**Client:** Seacliff Environmental

**Project:** Elks Plaza, Freeport; 157-189 W. Merrick Road,

Sample ID MB-9747	SampType: MBLK	TestCode	e: <b>8260_W</b>	Units: µg/L		Prep Da	ite: 6/28/2	016	RunNo: 17	197	
Client ID: PBW	Batch ID: 9747	TestNo	o: <b>SW8260C</b>	SW5030C	Analysis Date: 6/28/2016			016	SeqNo: <b>315134</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	4.0									U
Carbon disulfide	ND	2.0									U
Carbon tetrachloride	ND	2.0									U
Chlorobenzene	ND	2.0									U
Chlorodifluoromethane	ND	2.0									U
Chloroethane	ND	2.0									U
Chloroform	ND	2.0									U
Chloromethane	ND	2.0									U
cis-1,2-Dichloroethene	ND	2.0									U
cis-1,3-Dichloropropene	ND	2.0									U
Cyclohexane	ND	2.0									U
Dibromochloromethane	ND	2.0									U
Dibromomethane	ND	2.0									U
Dichlorodifluoromethane	ND	2.0									U
Diisopropyl ether	ND	2.0									U
Ethanol	ND	10									U
Ethylbenzene	ND	2.0									U
Freon-114	ND	2.0									U
Hexachlorobutadiene	ND	2.0									U
Isopropylbenzene	ND	2.0									U
m,p-Xylene	ND	4.0									U
Methyl Acetate	ND	2.0									U
Methyl tert-butyl ether	ND	2.0									U
Methylene chloride	7.8	4.0									
n-Butylbenzene	ND	2.0									U
n-Propylbenzene	ND	2.0									U

Qualifiers:

Spike Recovery outside accepted recovery limits

Sample container temperature is out of limit as specified at testcode



## QC SUMMARY REPORT

9747

**BatchID:** 

WO#:

1606203

30-Jun-16

**Client:** Seacliff Environmental

**Project:** Elks Plaza, Freeport; 157-189 W. Merrick Road,

Sample ID MB-9747	SampType: <b>MBLK</b>	TestCode: 8260_W	Units: µg/L	Pr	rep Date: 6	6/28/201	6	RunNo: <b>17</b> 1	97	
Client ID: PBW	Batch ID: 9747	TestNo: SW82600	SW5030C	Analy	/sis Date: 6	6/28/201	6	SeqNo: 315	5134	
Analyte	Result	PQL SPK value	SPK Ref Val	%REC Low	vLimit High	nLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0								U
o-Xylene	ND	2.0								U
p-Diethylbenzene	ND	2.0								U
p-Ethyltoluene	ND	2.0								U
sec-Butylbenzene	ND	2.0								U
Styrene	ND	2.0								U
t-Butyl alcohol	ND	10								U
tert-Butylbenzene	ND	2.0								U
Tetrachloroethene	ND	2.0								U
Toluene	ND	2.0								U
trans-1,2-Dichloroethene	ND	2.0								U
trans-1,3-Dichloropropene	ND	2.0								U
Trichloroethene	ND	2.0								U
Trichlorofluoromethane	ND	2.0								U
Vinyl acetate	ND	2.0								U
Vinyl chloride	ND	2.0								U
Xylenes, Total	ND	6.0								U
Acrolein	ND	10								U
Acrylonitrile	ND	2.0								U
Surr: 4-Bromofluorobenzene	50	50.00		99.2	62	132				
Surr: Dibromofluoromethane	50	50.00		99.6	72	131				
Surr: Toluene-d8	49	50.00		98.5	58	131				



## **QC SUMMARY REPORT**

WO#: **1606203** 

30-Jun-16

Client: Seacliff Environmental

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, BatchID: 9747

Sample ID 1606203-003AMS	SampType: <b>MS</b>	TestCo	de: <b>8260_W</b>	Units: µg/L	Prep Date: 6/28/2		e: <b>6/28/20</b>	16	RunNo: 17	197	
Client ID: MW-3	Batch ID: 9747	TestN	lo: <b>SW8260C</b>	SW5030C		Analysis Dat	e: <b>6/28/20</b>	16	SeqNo: 31	5138	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	40	2.0	50.00	0	80.2	50	134				
1,1,2,2-Tetrachloroethane	33	2.0	50.00	0	66.1	37	128				
1,1,2-Trichloroethane	39	2.0	50.00	0	78.8	50	134				
1,1-Dichloroethane	40	2.0	50.00	0	80.2	49	138				
1,1-Dichloroethene	42	2.0	50.00	0	84.0	44	140				
1,2-Dichlorobenzene	39	2.0	50.00	0	78.9	53	121				
1,2-Dichloroethane	43	2.0	50.00	0	86.0	49	139				
1,2-Dichloropropane	40	2.0	50.00	0	80.1	54	128				
1,3-Dichlorobenzene	40	2.0	50.00	0	80.8	54	120				
1,4-Dichlorobenzene	40	2.0	50.00	0	79.4	52	121				
2-Chloroethyl vinyl ether	ND	2.0	50.00	0	0	20	128				SU
Benzene	43	2.0	50.00	0	85.3	53	133				
Bromodichloromethane	42	2.0	50.00	0	83.2	53	129				
Bromoform	35	2.0	50.00	0	69.4	49	121				
Bromomethane	33	4.0	50.00	0	66.6	20	147				
Carbon tetrachloride	40	2.0	50.00	0	81.0	47	134				
Chlorobenzene	40	2.0	50.00	0	80.4	54	122				
Chloroethane	40	2.0	50.00	0	80.7	46	146				
Chloroform	43	2.0	50.00	0	85.4	56	131				
Chloromethane	30	2.0	50.00	0	60.5	48	152				
cis-1,3-Dichloropropene	40	2.0	50.00	0	80.1	40	133				
Dibromochloromethane	40	2.0	50.00	0	79.4	54	131				
Ethylbenzene	42	2.0	50.00	0	84.8	38	142				
Methylene chloride	26	4.0	50.00	7.280	36.4	10	120				В
Tetrachloroethene	35	2.0	50.00	0	69.3	29	123				
Toluene	43	2.0	50.00	0	87.0	54	134				

Qualifiers: S Spike Recovery outside accepted recovery limits

V Sample container temperature is out of limit as specified at testcode



## **QC SUMMARY REPORT**

9747

WO#: **1606203** 

30-Jun-16

Client: Seacliff Environmental

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, BatchID:

Sample ID 1606203-003AMS Client ID: MW-3	SampType: MS Batch ID: 9747		de: <b>8260_W</b> No: <b>SW8260C</b>	Units: µg/L SW5030C	Prep Date: 6/28 Analysis Date: 6/28				197 5138		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	40	2.0	50.00	0	79.0	49	133				
trans-1,3-Dichloropropene	39	2.0	50.00	0	77.4	45	133				
Trichloroethene	39	2.0	50.00	0	78.0	50	130				
Trichlorofluoromethane	44	2.0	50.00	0	88.1	53	151				
Vinyl chloride	39	2.0	50.00	0	78.8	58	151				
Surr: 4-Bromofluorobenzene	49		50.00		98.8	62	132				
Surr: Dibromofluoromethane	55		50.00		110	72	131				
Surr: Toluene-d8	51		50.00		102	58	131				

Sample ID 1606203-003AMSD	SampType: MSD	TestCod	de: <b>8260_W</b>	Units: µg/L		Prep Da	te: <b>6/28/2</b> 0	)16	RunNo: 17		
Client ID: MW-3	Batch ID: 9747	TestN	lo: <b>SW8260C</b>	SW5030C	Analysis Date: 6/28/2016			)16	SeqNo: 31		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	42	2.0	50.00	0	83.3	50	134	40.09	3.77	20	
1,1,2,2-Tetrachloroethane	33	2.0	50.00	0	66.2	37	128	33.07	0.151	20	
1,1,2-Trichloroethane	40	2.0	50.00	0	79.1	50	134	39.42	0.355	20	
1,1-Dichloroethane	42	2.0	50.00	0	83.4	49	138	40.09	3.98	20	
1,1-Dichloroethene	42	2.0	50.00	0	83.9	44	140	42.00	0.0953	20	
1,2-Dichlorobenzene	39	2.0	50.00	0	78.2	53	121	39.44	0.815	20	
1,2-Dichloroethane	44	2.0	50.00	0	88.9	49	139	43.01	3.34	20	
1,2-Dichloropropane	41	2.0	50.00	0	81.4	54	128	40.04	1.68	20	
1,3-Dichlorobenzene	40	2.0	50.00	0	80.8	54	120	40.40	0.0495	20	
1,4-Dichlorobenzene	40	2.0	50.00	0	79.4	52	121	39.70	0.0252	20	
2-Chloroethyl vinyl ether	ND	2.0	50.00	0	0	20	128	0	0	20	SU
Benzene	45	2.0	50.00	0	89.4	53	133	42.64	4.67	20	

Qualifiers: S Spike Recovery outside accepted recovery limits

W Sample container temperature is out of limit as specified at testcode



## QC SUMMARY REPORT

9747

**BatchID:** 

WO#: **1606203** 

30-Jun-16

Client: Seacliff Environmental

**Project:** Elks Plaza, Freeport; 157-189 W. Merrick Road,

Sample ID 1606203-003AMSD	SampType: MSD	TestCod	de: <b>8260_W</b>	Units: µg/L		Prep Date	e: <b>6/28/2</b> 0	)16	RunNo: <b>17197</b>			
Client ID: MW-3	Batch ID: 9747	TestN	lo: <b>SW8260C</b>	SW5030C	Analysis Date: 6/28			6/28/2016 SeqNo: 315				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Bromodichloromethane	42	2.0	50.00	0	84.1	53	129	41.61	1.03	20		
Bromoform	35	2.0	50.00	0	70.9	49	121	34.70	2.14	20		
Bromomethane	36	4.0	50.00	0	71.7	20	147	33.29	7.35	20		
Carbon tetrachloride	42	2.0	50.00	0	84.4	47	134	40.48	4.11	20		
Chlorobenzene	42	2.0	50.00	0	83.2	54	122	40.20	3.37	20		
Chloroethane	41	2.0	50.00	0	81.4	46	146	40.35	0.864	20		
Chloroform	44	2.0	50.00	0	88.1	56	131	42.69	3.11	20		
Chloromethane	31	2.0	50.00	0	61.9	48	152	30.27	2.29	20		
cis-1,3-Dichloropropene	40	2.0	50.00	0	80.7	40	133	40.05	0.771	20		
Dibromochloromethane	40	2.0	50.00	0	80.5	54	131	39.68	1.48	20		
Ethylbenzene	44	2.0	50.00	0	87.7	38	142	42.42	3.34	20		
Methylene chloride	26	4.0	50.00	7.280	38.4	10	120	25.50	3.81	20	В	
Tetrachloroethene	35	2.0	50.00	0	69.7	29	123	34.66	0.547	20		
Toluene	44	2.0	50.00	0	88.5	54	134	43.49	1.71	20		
trans-1,2-Dichloroethene	41	2.0	50.00	0	82.2	49	133	39.52	3.90	20		
trans-1,3-Dichloropropene	39	2.0	50.00	0	78.4	45	133	38.72	1.26	20		
Trichloroethene	40	2.0	50.00	0	79.4	50	130	39.02	1.70	20		
Trichlorofluoromethane	45	2.0	50.00	0	89.8	53	151	44.03	1.96	20		
Vinyl chloride	41	2.0	50.00	0	81.1	58	151	39.42	2.80	20		
Surr: 4-Bromofluorobenzene	50		50.00		100	62	132		0	20		
Surr: Dibromofluoromethane	55		50.00		111	72	131		0	20		
Surr: Toluene-d8	51		50.00		101	58	131		0	20		

## Attachment C

# PREMIER ENVIRONMENTAL SERVICES, INC.

#### DATA USABILITY SUMMARY REPORT

ELKS PLAZA 157-189 MERRICK ROAD FREEPORT, NEW YORK

ORGANIC ANALYSES IN AQUEOUS SAMPLES

AMERICAN ANALYTICAL LABORATORIES, LLC. FARMINGDALE, NY

REPORT NUMBER: 1606203

September, 2016

Prepared for Seacliff Environmental Miller Place, New York

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

**DATA VALIDATION FOR:** 

Volatile Organic Compounds (VOC's)

SITE:

Elks Plaza

157-189 W. Merrick Road

Freeport, NY

LABORATORY REPORT NO:

1606203

**CONTRACT LAB:** 

American Analytical Laboratories

Farmingdale, NY

**REVIEWER:** 

Renee Cohen

DATE REVIEW COMPLETED:

September, 2016

**MATRIX:** 

Aquèous

The data validation was performed according to the guidelines in the USEPA National Functional Guidelines for Organic Data Review and the USEPA Region II SOPs where applicable. In addition, method and QC criteria specified in the NYSDEC ASP documents were cited. All data are considered valid and acceptable except those analytes which have been deemed unusable "R" (unreliable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on the attached sheets.

Table 1 of this report includes a cross reference between the field sample ID and laboratory sample ID's. Copies of the data qualifiers that may be used in this report are located in Appendix A of this report. Qualified data result pages are located in Appendix B of this report. Copies of the Chain of Custody (COC) documents are located in Appendix C of this report.

This data assessment is for three (3) aqueous samples that are listed on the COC documents that accompanied the samples to the laboratory. The sample was collected and received at the laboratory on June 28, 2016 for the analyses requested on the COC documentation. This sample was analyzed for Volatile Organic Analytes (VOA) per the COC documents that accompanied the samples to the laboratory.

#### 1. OVERVIEW:

This data review report is for the samples analyzed for Volatile Organic Analytes (VOA's). Analysis was performed in accordance with USEPA SW846 methodologies. Data validation will utilize the validation guidelines listed above, however, QA/QC requirements of SW846 will supersede CLP requirements in terms of calibration and holding time where applicable. The soil samples associated with this data set were analyzed and reported for Volatile Organics via the SW846-Method 8260C. American Analytical Laboratories, Inc. generated a stand-alone report for each fraction in compliance with the NYS DEC ASP Category B deliverables. A summary of the applicable QC will be discussed at each section of the report.

#### 2. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. The NYS DEC ASP criteria specifies holding times for solid and soil samples. These holding times are based on Validated Time of Sample Receipt (VTSR). The holding times cited in the NY ASP were reviewed.

Three aqueous samples were collected and delivered to the laboratory on June 28, 2016. The samples were analyzed June 28, 2016. The samples and associated QC analyses were analyzed within the method holding time.

#### 3. SURROGATES:

Samples to be analyzed for Volatile Organic Analytes (VOA) are fortified with three (3) method recommended surrogate compounds. These include Dibromofluoromethane, Toluene d8 and 4-Bromofluorobenzene prior to analysis to evaluate the overall laboratory performance and the efficiency of the analytical technique. The laboratory reported in-house surrogate recovery QC limits for the Volatile Organic surrogates compounds. The field sample and QC sample surrogate percent recoveries were summarized in this data report.

The percent recovery of each surrogate compound met in-house QC criteria in each of the field samples and QC samples associated with this data set.

#### 4. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis.

In addition a blank spike sample/reference sample/LCS was prepared and analyzed with each sample batch/analysis reported in this data set.

Sample MW-3 was prepared and analyzed as the site specific MS/MSD with this data set. In-house percent recovery limits were applied to each target analyte. The % recovery of each target analyte met QC criteria in the MS and MSD sample. The RPD limit of 0-20 was applied to each target analyte. The RPD of each target analyte met QC criteria.

A laboratory control sample (LCS) is associated with this data set. In-house QC limits were applied. The percent recovery of the each target analyte met QC criteria in the LCS sample with the exception of 2-Chloroethyl vinyl ether (2-CEVE). 2-CEVE is a poor performer compound and was detected in the samples reported in this data set. 2-CEVE was not recovered (0%) in the LCS sample. 2-CEVE has been deemed unusable "R" qualified.

Qualified data result pages are located in Appendix B of this report.

#### 5. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Samples were only qualified with those QC samples associated with the particular blank.

#### A) Method Blank contamination

Volatile Organic Analyses (EPA Method 8260C) – One (1) method blank sample is associated with the samples in this data set. Methylene Chloride (7.8 ug/L) and Acetone (1.6 ug/L) were detected in the associated method blank sample.

Acetone and Methylene Chloride were detected in each of the samples reported in this data set and were "B" qualified by the laboratory. Acetone and Methylene Chloride have been negated "U" qualified from these samples during data review.

Qualified data result pages are located in Appendix B of this report.

#### B) Field or Equipment Rinse Blank (ERB) contamination

A Field Blank sample is not associated with this data set.

#### C) Trip Blank contamination

A Trip Blank samples is not associated with this data set.

#### 6. GC/MS CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument is giving satisfactory daily performance. Region USEPA and Region II criteria is the sample for analytes in both GC/MS Volatile and GC/MS Semivolatile Organic analyses is the same, therefore, all text discussion is for VOA and SVOA samples analyses.

#### A) RESPONSE FACTOR

The response factor measures the instrument's response to specific chemical compounds. Region II data review requires that the response factor of all analytes be greater than or equal to 0.05 in both initial and continuing calibration analyses. A value less than 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Region II data validation criteria states that if the minimum RRF criteria is not met in an initial calibration the positive results are qualified "J". Non-detect results in the initial calibration with a RRF <0.05 are qualified "R", unusable. If RRF criteria is not met in the continuing calibration curve analysis, affected positive analytes will be qualified "J" estimated. Those analytes not detected are not qualified. The SW-846 Methods cite specific analytes known as System Performance Check Compounds (SPCC). Minimum response criteria is set for these analytes. If the minimum criteria is not met, analyses must stop and the source of problems must be found and corrected. Data associated with this set has been reviewed for the criteria in the cited in the EPA Method and the Region II criteria.

Volatile Organic Analyses (EPA Method 8260C) – One (1) initial calibration curve analysis is associated with these sample analyses. The laboratory performed an initial multilevel calibration on June 23, 2016 (Inst. 5977V2). The RRF of reported target compounds met QC criteria in this initial calibration curve analysis.

One (1) continuing calibration standard is associated with the calibration curve analyses. Continuing calibration curve analysis was performed June 28, 2016 (V23007.D). The RRF of reported target compounds met QC criteria in the continuing calibration standard analysis.

#### 6. GC/MS CALIBRATION (cont'd):

## B) PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the compounds in the continuing calibration standard to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Region II data validation criteria states that the percent RSD of the initial calibration curve must be less than or equal to 20%. The %D must be <20% in the continuing calibration standard. The criteria has been applied to all target analytes. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgment. If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable. Data associated with this set has been reviewed for the criteria in the cited in the USEPA Data Validation Guidelines and the USEPA Region II criteria.

Volatile Organic Analyses (EPA Method 8260C) – One (1) initial calibration curve analysis is associated with these sample analyses. The laboratory performed an initial multilevel calibration on June 23, 2016 (Inst. 5977V2). The RSD (%) met QC criteria for each target analyte with the exception of Acetone (39.5%), Methylene Chloride (53.9%), n-Propylbenzene (23.5%) and sec-Butylbenzene (20.5%). These target analytes have been estimated "J/UJ" qualified in each of the samples reported in this data set.

One (1) continuing calibration standard analysis is associated with this data set. The % difference of the reported target compounds met QC criteria in the continuing calibration standard with the analysis with the exception of the following:

Date/File ID	Analyte	%Difference
6/28/16 V23007.D	2-Butanone	38.1
	Acetone	33.5
	Methylene Chloride	46.8

These target analytes have been estimated "UJ/J" qualified in the samples associated with this data set.

Qualified data result pages are located in Appendix B of this report.

#### 7. GC/MS INTERNAL STANDARDS PERFORMANCE:

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every run. The method recommends that the internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The method recommends that the retention time of the internal standard must not vary more than  $\pm 30$  seconds from the associated continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non-detects above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard evaluation criteria is applied to all field and QC samples.

Volatile Organic Analyses (EPA Method 8260C) - Samples were spiked with the method specific internal standards prior to analysis. The area counts and retention time of each internal standard met QC criteria in each of the field samples and QC samples reported in this data set.

#### 8. GC/MS MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB). If the mass calibration is in error, or missing, all associated data will be classified as unusable, "R".

Volatile Organic Analyses - The tune criteria listed in the data report met or exceeded that required by the method. All tuning criteria associated with these sample analyses were met.

#### 9. COMPOUND IDENTIFICATION:

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within  $\pm$  0.06 RRT units of the standard compound, and have an ion spectra which has a ratio of the primary and secondary ion intensities with 20% of that in the standard compound. Target compounds are identified on the GC by using the analytes retention time. Concentration is quantitated from the initial calibration curve.

Volatile Organic Analyses – Three (3) aqueous samples was analyzed and reported within this data set. The samples in this data set were analyzed and reported without dilution. Results reported between the laboratory detection limit and the laboratory quantitation limit (LOQ) have been reported and qualified "J" by the laboratory. The volatile organic data associated with this sample set is acceptable for use with the noted data qualifiers.

#### 10. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

Analytical QC criteria were met for these analyses with the exception of what was described in the above report. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

All data provided for this data set is acceptable for use, with noted data qualifiers. The qualified data result pages are located in Appendix B of this report.

## TABLE 1



## Workorder Sample Summary

WO#:

1606203 30-Jun-16

CLIENT: Seacliff Environmental

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road,

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1606203-001A	MW-1		6/28/2016 11:00:00 AM	6/28/2016 11:20:00 AM	Liquid
1606203-002A	MW-2		6/28/2016 10:45:00 AM	6/28/2016 11:20:00 AM	Liquid
1606203-003A	MW-3		6/28/2016 10:30:00 AM	6/28/2016 11:20:00 AM	Liquid

## APPENDIX A

#### **DATA QUALIFIER DEFINITIONS**

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are unreliable/unusable. The presence or absence of the analyte cannot be verified.

## APPENDIX B

Date Reported: 6/30/2016

6/28/2016 11:00:00 AM

**Collection Date:** 

Revision v1

WO#: 1606203

Client: Seacliff Environmental

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Freeport, NY

Lab ID: 1606203-001 Matrix: Liquid

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
VOLATILE SW-846 METHOD 8260		IV	lethod:	8260	SW	/5030C		Analyst: LA
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,1-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,1-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,1-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2-Dibromoethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,3-dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
1,4-Dioxane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
2,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
2-Butanone	1.0	UUT	1.0	1.0	4.0	μg/L	1	6/28/2016 3:55 PM
2-Chloroethyl vinyl ether	0.50	UR	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
2-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
2-Hexanone	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 3:55 PM
2-Propanol	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
4-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
4-Isopropyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 3:55 PM
Acetone	1.6	BJ U	1.0	1.0	4.0	μg/L	1	6/28/2016 3:55 PM
Benzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Bromobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Bromochloromethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Bromodichloromethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Bromoform	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Bromomethane	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 3:55 PM
Carbon disulfide	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Carbon tetrachloride	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Chlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Chlorodifluoromethane	0.30	U	0.30	0.30	2.0	µg/L	1	6/28/2016 3:55 PM
Chloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
				75-50-0		e 7 of 18		

Date Reported: 6/30/2016 Revision v1

WO#: 1606203

Client: Seacliff Environmental Collection Date: 6/28/2016 11:00:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Freeport, NY

Lab ID: 1606203-001 Matrix: Liquid

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Chloroform	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Chloromethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Cyclohexane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Dibromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Dibromomethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Diisopropyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Ethanol	2.5	U	2.5	2.5	10	µg/L	1	6/28/2016 3:55 PM
Ethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Freon-114	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Isopropylbenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
m,p-Xylene	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 3:55 PM
Methyl Acetate	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Methylene chloride	6.7	BU	T 1.0	1.0	4.0	μg/L	1	6/28/2016 3:55 PM
n-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
n-Propylbenzene	0.50	UUJ	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Naphthalene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
o-Xylene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
p-Diethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
p-Ethyltoluene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
sec-Butylbenzene	0.50	UUJ	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Styrene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
t-Butyl alcohol	2.5	U	2.5	2.5	10	μg/L	1	6/28/2016 3:55 PM
tert-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Tetrachloroethene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Toluene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Trichloroethene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Trichlorofluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Vinyl acetate	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 3:55 PM
Vinyl chloride	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Xylenes, Total	1.5	U	1.5	1.5	6.0	μg/L	1	6/28/2016 3:55 PM
Acrolein	5.0	U	5.0	5.0	10	µg/L	1	6/28/2016 3:55 PM
Acrylonitrile	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 3:55 PM
Surr: 4-Bromofluorobenzene	102			62-132	-181	%Rec	1	6/28/2016 3:55 PM
Surr: Dibromofluoromethane	92.2			72-131		%Rec	1	6/28/2016 3:55 PM
Surr: Toluene-d8	98.2			58-131		%Rec	1	6/28/2016 3:55 PM

Date Reported: 6/30/2016

Revision v1

WO#: 1606203

Client: Seacliff Environmental Collection Date: 6/28/2016 10:45:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Freeport, NY

Lab ID: 1606203-002 Matrix: Liquid

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
VOLATILE SW-846 METHOD 8260		Me	ethod:	8260	SW	/5030C		Analyst: LA
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,1-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,1-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,1-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2-Dibromoethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,3-dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
1,4-Dioxane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
2,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
2-Butanone	1.0	UUJ	1.0	1.0	4.0	µg/L	1	6/28/2016 4:23 PM
2-Chloroethyl vinyl ether	0.50	UR	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
2-Chlorotoluene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
2-Hexanone	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:23 PM
2-Propanol	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
4-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
4-Isopropyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:23 PM
Acetone	1.7	BJUJ	1.0	1.0	4.0	μg/L	1	6/28/2016 4:23 PM
Benzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Bromobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Bromochloromethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Bromodichloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Bromoform	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Bromomethane	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:23 PM
Carbon disulfide	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Carbon tetrachloride	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Chlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Chlorodifluoromethane	0.30	U	0.30	0.30	2.0	µg/L	1	6/28/2016 4:23 PM
Chloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
					Pag	e 9 of 18		

WO#: 1606203

Date Reported: 6/30/2016

Revision v1

Client: Seacliff Environmental Collection Date: 6/28/2016 10:45:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Freeport, NY

Lab ID: 1606203-002 Matrix: Liquid

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Chloroform	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Chloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
cis-1,2-Dichloroethene	0.94	J	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Cyclohexane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Dibromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Dibromomethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Diisopropyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Ethanol	2.5	U	2.5	2.5	10	μg/L	1	6/28/2016 4:23 PM
Ethylbenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Freon-114	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Isopropylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
m,p-Xylene	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:23 PM
Methyl Acetate	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Methylene chloride	7.4	BU		1.0	4.0	µg/L	1	6/28/2016 4:23 PM
n-Butylbenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
n-Propylbenzene	0.50	בטט		0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Naphthalene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
o-Xylene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
p-Diethylbenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
p-Ethyltoluene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
sec-Butylbenzene	0.50	UUT		0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Styrene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
t-Butyl alcohol	2.5	U	2.5	2.5	10	μg/L	1	6/28/2016 4:23 PM
tert-Butylbenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Tetrachloroethene	0.66	J	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Toluene	0.50	Ü	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Trichloroethene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Trichlorofluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:23 PM
Vinyl acetate	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Vinyl chloride	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Xylenes, Total	1.5	U	1.5	1.5	6.0	μg/L	1	6/28/2016 4:23 PM
Acrolein	5.0	u	5.0	5.0	10	μg/L	1	6/28/2016 4:23 PM
Acrylonitrile	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:23 PM
Surr: 4-Bromofluorobenzene	101	- <del>-</del>	0.00	62-132	2.0	%Rec	1	6/28/2016 4:23 PM
Surr: Dibromofluoromethane	95.4			72-131		%Rec	1	6/28/2016 4:23 PM
Surr: Toluene-d8	98.1			58-131		%Rec	1	6/28/2016 4:23 PM

WO#: 1606203

Date Reported: 6/30/2016

Revision v1

Client: Seacliff Environmental Collection Date: 6/28/2016 10:30:00 AM

Project: Elks Plaza, Freeport; 157-189 W. Merrick Road, Freeport, NY

Lab ID: 1606203-003 Matrix: Liquid

Client Sample ID: MW-3

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
VOLATILE SW-846 METHOD 8260		N	lethod:	8260	SW	/5030C		Analyst: LA
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,1,1-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,1,2-Trichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,1-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,1-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,1-Dichloropropene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
1,2,3-Trichlorobenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
1,2,3-Trichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2,4,5-Tetramethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2,4-Trimethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2-Dibromo-3-chloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2-Dibromoethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2-Dichlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2-Dichloroethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,3,5-Trimethylbenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
1,3-Dichlorobenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
1,3-dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
1,4-Dichlorobenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
1,4-Dioxane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
2,2-Dichloropropane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
2-Butanone	1.0	UUJ	1.0	1.0	4.0	µg/L	1	6/28/2016 4:51 PM
2-Chloroethyl vinyl ether	0.50	UR	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
2-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
2-Hexanone	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:51 PM
2-Propanol	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
4-Chlorotoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
4-Isopropyltoluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
4-Methyl-2-pentanone	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:51 PM
Acetone	1.7	BJU	1.0	1.0	4.0	µg/L	1	6/28/2016 4:51 PM
Benzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Bromobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Bromochloromethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Bromodichloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Bromoform	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Bromomethane	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:51 PM
Carbon disulfide	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Carbon tetrachloride	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Chlorobenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Chlorodifluoromethane	0.30	U	0.30	0.30	2.0	µg/L	1	6/28/2016 4:51 PM
Chloroethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
					Dog	e 11 of 1	96	

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WO#: 1606203

Date Reported: 6/30/2016

Revision v1

Client:

Seacliff Environmental

Collection Date:

6/28/2016 10:30:00 AM

Project: Lab ID:

Elks Plaza, Freeport; 157-189 W. Merrick Road, Freeport, NY 1606203-003

Client Sample ID:

MW-3

Matrix:

Liquid

Analysis	Result	Qual	DL	LOD	LOQ	Units	DF	Date Analyzed
Chloroform	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Chloromethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
cis-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
cis-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Cyclohexane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Dibromochloromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Dibromomethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Dichlorodifluoromethane	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Diisopropyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Ethanol	2.5	U	2.5	2.5	10	μg/L	1	6/28/2016 4:51 PM
Ethylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Freon-114	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Hexachlorobutadiene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Isopropylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
m,p-Xylene	1.0	U	1.0	1.0	4.0	µg/L	1	6/28/2016 4:51 PM
Methyl Acetate	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Methyl tert-butyl ether	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Methylene chloride	7.3	B-UT	1.0	1.0	4.0	µg/L	1	6/28/2016 4:51 PM
n-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
n-Propylbenzene	0.50	UUT	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Naphthalene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
o-Xylene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
p-Diethylbenzene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
p-Ethyltoluene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
sec-Butylbenzene	0.50	UUI	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Styrene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
t-Butyl alcohol	2.5	U	2.5	2.5	10	µg/L	1	6/28/2016 4:51 PM
tert-Butylbenzene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Tetrachloroethene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Toluene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
trans-1,2-Dichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
trans-1,3-Dichloropropene	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Trichloroethene	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Trichlorofluoromethane	0.50	U	0.50	0.50	2.0	μg/L	1	6/28/2016 4:51 PM
Vinyl acetate	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Vinyl chloride	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Xylenes, Total	1.5	U	1.5	1.5	6.0	µg/L	1	6/28/2016 4:51 PM
Acrolein	5.0	U	5.0	5.0	10	μg/L	1	6/28/2016 4:51 PM
Acrylonitrile	0.50	U	0.50	0.50	2.0	µg/L	1	6/28/2016 4:51 PM
Surr: 4-Bromofluorobenzene	99.8			62-132		%Rec	1	6/28/2016 4:51 PM
Surr: Dibromofluoromethane	104			72-131		%Rec	1	6/28/2016 4:51 PM
Surr: Toluene-d8	99.9			58-131		%Rec	1	6/28/2016 4:51 PM

## APPENDIX C

#### AMERICAN ANALYTICAL ELABORATORIES

#### CHAIN OF CUSTODY

56 Toledo Street, Farmingdale NY 11735 (T) 631-454-6100 (F) 631-454-8027 CERTIFICATIONS

NY ELAP - 11418 PA DEP - 68-00573 NJ DEP - NY050 CT DOH - PH-0205

www.american-analytical.com Client Information Project Information Analytical Information Project Name Environmental deliverable aza Freerost Address Street Merrick Road City State Zip City State Frecent 11764 Project Contact 2 Project # lartinis W/Cut Phone # Sampler's Name / Company Atc Polmition UTD AT JUSCH E-mail Sampler's Signature 8360 LAB Sample Information Sample Collection Sample Containers SAMPLE # Number of Each Preserved Bottle FUL Total# (LAB USE ONLY) Sample Client Sample ID Glass Matrix Code Date Time Type Plastic bottles 1606203-001 MW-6-100 2 X MW-2-1045 × 1030 1 Turnaround Time ( Business Days) SAMPLE TYPE MATRIX CODES Comments / Remarks Standard 7-10 Business Days 3 Day RUSH G = Grab L = Liquid PC = Paint Chip 5 Day RUSH 2 Day RUSH C = Composite S = Soil SL = Sludge 4 Day RUSH 1 Day RUSH B = Blank IIO = O SD = Solid W = Wipe M = Miscellaneous Sample custody must be documented below, each time samples change possession, with a signature, date, and time. RELINQUISHER BY (SIGNATURE) DATE 6/28/16 PRINTED NAME RECEIVED BY LAB (SIGNATURE) DATE 6 28/1 6 PRINTED NAME mass TIME RELINQUISHED BY (SIGNATURE) PRINTED NAME RECEIVED BY LAB (SIGNATURE) DATE TIME TIME

Appendix F

SMP Sampling Results

Approval Letter

November 22, 2016

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau A 625 Broadway, 12th Floor, Albany, NY 12233-7015 P: (518) 402-9625 I F: (518) 402-9627 www.dec.ny.gov

November 22, 2016

Jim DeMartinis, Senior Hydrogeologist Seacliff Environmental, Inc. P.O. Box 2085 Miller Place, New York 11764

Re: SMP Sampling Results

Elks Plaza, Site No. 130193

Dear Mr. DeMartinis:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the SMP Sampling Results report dated September 27, 2016. In this report on-site groundwater samples were analyzed and results presented. Following our review of this report, the NYSDEC and NYSDOH approve this report. We look forward to reviewing data from next year's groundwater monitoring report as required by the Site Management Plan.

Should you have any questions please contact me at (518) 402-9614 or melissa.sweet@dec.ny.gov.

Thank You,

Melissa L. Sweet Environmental Engineer Bureau A. Section C

Melisso J. Sweet

Division of Environmental Remediation

ec: R. Ockerby, NYSDOH

C. Bethoney, NYSDOH

J. Swartwout, NYSDEC

