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Subject: 223 East 4th Street, San Leandro, California
Groundwater Monitoring Report – Second Quarter 2017

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's Geotracker Website.

Martha Vallejo

Ms. Martha Vallejo
201 East 14th Street
Oakland, California, 94577

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By Alameda County Environmental Health 11:20 am, Jul 10, 2017

Groundwater Monitoring Report – Second Quarter 2017
SUNSHINE CLEANERS
223 East 14th Street, San Leandro, California

06 June 2017
AGE-Project No. 16-3802

PREPARED FOR:

Ms. Marth Vallejo & Mr. Valentin Reynoso

PREPARED BY:



Environmental • Compliance • Industrial Hygiene • Geotechnical

Phone: 800-511-9300

Fax: 888-445-8786

www.advgeoenv.com

“Working in Partnership with People, Business and the Environment”

Groundwater Monitoring Report – Second Quarter 2017
SUNSHINE CLEANERS
6025-6045 Pacific Avenue, Stockton, California

06 June 2017
AGE-Project No. 16-3802

AdvancedGeo
Environmental



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Environmental • Compliance • Industrial Hygiene • Geotechnical

Phone: 800-511-9300

Fax: 888-445-8786

www.advgeoenv.com

"Working in Partnership with People, Business and the Environment"

PREPARED BY:

Daniel J. Villanueva
Senior Project Geologist

PROJECT MANAGER:

Daniel J. Villanueva
Senior Project Geologist

REVIEWED BY:

William R. Little
Senior Project Geologist
California Professional Geologist No. 7473



Groundwater Monitoring Report – Second Quarter 2017
SUNSHINE CLEANERS
223 East 14th Street, San Leandro, California

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Groundwater Monitoring Report – Second Quarter 2017
SUNSHINE CLEANERS
223 East 14th Street, San Leandro, California

1.0. INTRODUCTION

At the request of Ms. Martha Vallejo and Mr. Valentin Reynoso, Advanced GeoEnvironmental, Inc. (AGE) has prepared this *Groundwater Monitoring Report – Second Quarter 2017* for 223 East 14th Street, San Leandro, California (site). The scope of work included the monitoring and sampling of all four of the site's monitoring wells (MW-1 through MW-4), four wells associated from the adjacent German Autocraft site (MW-1A, MW-9, MW-11, MW-12), the sampling of the domestic water well located at 141 Farrelly Drive and preparation of this report. Site features, boring and monitoring well locations are in Figure 1.

2.0. PROCEDURES

On 02 May 2017, a periodic groundwater monitoring event was conducted utilizing site wells MW-1 through MWF-4, adjacent site wells MW-1A, MW-9, MW-11, MW-12 and domestic well 141 Farrelly Drive. All wells were sampled during the second quarter 2017 monitoring event. Monitoring was performed in accordance with AGE's standard groundwater monitoring and sampling procedures, provided in Appendix A. Field data and logs are provided in Appendix B. Purge water from the sampling activities was containerized in a 55-gallon drum and stored onsite pending disposal.

3.0. FINDINGS

Groundwater depth was determined from field data collected on 02 May 2017; groundwater elevation and gradient and flow could not be calculated for the site as wells have yet to be surveyed. Contaminant impact to groundwater was quantified from laboratory analytical data.

Shallow-screened wells: MW-1 through MW-3, GA-1A, GA-MW-9 and GA-MW-11

- Depth to groundwater ranged from 17.53 feet below the top of the casing (btoc; MW-2) to 18.51 btoc (MW-) in shallow monitoring wells. Groundwater elevations for site wells could not be calculated as casing elevations have not yet been surveyed. (Table 1);
- Tetrachloroethene (PCE) was detected in wells MW-1, GA-MW-1A, GA-MW-11 and the domestic well located at 141 Farrelly Drive. PCE detections ranged from 0.98 micrograms per liter ($\mu\text{g/l}$; 141 Farrelly Drive) to 12 $\mu\text{g/l}$ (MW-1). The estimated lateral extent of dissolved PCE in shallow groundwater is illustrated in Figure 2;

- Benzene was detected in well GA-MW-9 and GA-MW-12 at concentrations of 7.2 µg/l and 93 µg/l;
- n-butyl benzene was detected in wells GA-MW-1A, GA-MW-9 and GA-MW-12 at a maximum concentration of 39 µg/l (GA-MW-12);
- sec-butyl benzene was detected in wells GA-MW-1A, GA-MW-9 and GA-MW-12 at a maximum concentration of 21 µg/l (GA-MW-12);
- cis-1,2,dichloroethene was detected in well GA-MW-1A at a concentration of 0.67 µg/l;
- Chloroform was detected in wells MW-2 and MW-3 at a maximum concentration of 3.4 µg/l (MW-3);
- Ethylbenzene was detected in wells GA-MW-1A and MW-12 at concentrations of 1.6 µg/l and 27 µg/l;
- Isopropylbenzene was detected in wells GA-MW-1A, GA-MW-9 and GA-MW-12 at a maximum concentration of 110 µg/l (GA-MW-12);
- 4-isopropyl toluene was detected in well GA-MW-1A at a concentration of 0.51 µg/l;
- Naphthalene was detected in wells GA-MW-1A and GA-MW-12 at a maximum concentration of 14 µg/l (MW-12);
- n-propylbenzene was detected in wells GA-MW-1A, GA-MW-9 and GA-MW-12 at a maximum concentration of 230 µg/l (GA-MW-12);
- Toluene was detected in well MW-1, MW-2, and GA-MW-12 at a maximum concentration of 7.4 µg/l (GA-MW-12);
- Total xylenes were detected in wells MW-1, MW-2, GA-MW-1A and GA-MW-12 at a maximum concentration of 10 µg/l; and
- No other constituents of concern were reported in samples collected from shallow-screened wells during the May 2017 monitoring event.

Deep-screened well MW-4

- Depth to groundwater was measured at a depth of 17.69 feet btoc (Table 2);
- PCE was detected at a concentration of 0.53 µg/l;
- Toluene as detected at a concentration of 2.8 µg/l; and
- Total xylenes were detected at a concentration of 2.5 µg/l

Analytical results of groundwater samples are summarized in Table 2. The laboratory report (McC Campbell Analytical Inc. work order No. 1705138), Quality Assurance/Quality Control (QA/QC) report and chain-of-custody form are included in Appendix C. Laboratory

electronic deliverable format (EDF) files and depth-to-water measurements will be uploaded following authorization to the State GeoTracker database.

4.0. CONCLUSIONS

Based upon the results of the May 2017 groundwater monitoring event, AGE concludes:

- Shallow groundwater flow and gradient were not inferred during the May 2017 monitoring event. However, a significant increase in groundwater was observed in all wells monitored during the second quarter 2017 groundwater monitoring event;
- PCE concentrations remained stable or showed a slight decrease in comparison to detections reported during the November 2016 monitoring event;
- Dissolved PCE appears to be most concentrated near the west end of the Sunshine Cleaners building and near the boiler room (Figure 2). The shallow plume appears to be defined to the northeast and southeast. Further the dissolved plume appears to decrease significantly in concentration away from the core area (near MW-1; Figure 2);
- PCE was detected at a low concentration in the sample collected from deep groundwater monitoring well MW-4. PCE concentrations have been reported at low levels within the well but should not warrant additional vertical delineation at this time; and
- A low concentration of PCE was detected in the groundwater sample from the domestic well located at 141 Farrelly Drive. The concentration is below the San Francisco Bay Area Regional Water Quality Control Board screening level of 3.0 µg/l (shallow residential groundwater).

5.0. RECOMMENDATIONS

Based on the findings of the environmental activities performed to date at the site, AGE recommends the following:

- Continuation of the semi-annual groundwater monitoring program for the site during the second and fourth quarters of each calendar year.
- Performance of a monitoring well head survey should be performed on site wells in order to evaluate groundwater flow direction and gradient.
- Approval of the AGE-prepared, *Site Assessment Work Plan*, which proposes the advancement of several borings to delineate the lateral extents of chlorinated hydrocarbon impact in soil, soil-vapor and groundwater.

6.0. LIMITATIONS

Our professional services were performed using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. Findings were based upon analytical results provided by an independent laboratory. Evaluation of the geologic/hydrogeologic conditions at the site for the purpose of this investigation was made from a limited number of available data points (groundwater samples) and subsurface conditions may vary away from these data points. No other warranty, expressed or implied, is made as to the professional interpretations, opinions, and recommendations contained in this report.

FIGURES



LEGEND	
MW-11	SUNSHINE CLEANERS GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION (approximated)
MW-1	GERMAN AUTOCRAFT GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION (approximated)
[Green Square]	DOMESTIC WELL LOCATION (approximated)
B1	SOIL BORING LOCATIONS AND DESIGNATIONS (approximated)
VP-1	SOIL-VAPOR SAMPLING LOCATION
[Red Triangle]	CONTINGENT SOIL-VAPOR SAMPLING LOCATION

DISSOLVED PCE - SHALLOW WELLS
SUNSHINE CLEANERS
223 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA



LEGEND

- MW-4 3.6 SUNSHINE CLEANERS GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION (approximated) & DISSOLVED PCE CONCENTRATION (ug/L)
- MW-1A 3.4 GERMAN AUTOCRAFT GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION (approximated) & DISSOLVED PCE CONCENTRATION (ug/L)
- DOMESTIC WELL LOCATION (approximated) & DISSOLVED PCE CONCENTRATION (ug/L)
- PCE: TETRACHLOROETHENE
- ESTIMATED LATERAL EXTENTS OF DISSOLVED PCE IMPACT - SHALLOW WELLS

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
Sunshine Cleaners
223 East 14th Street, San Leandro, California
(feet)

Well Designation	Date	Depth to Groundwater (btoc)	Groundwater Elevation (NAVD88)	Groundwater Flow and Gradient	
				Quarter/Year	Direction and Gradient (ft/ft)
MW-1	02-01-2016	23.85	-	1ST/2016	-
	11-08-2016	25.69	-	4TH/2016	-
	05-02-2017	18.21	-	2ND/2017	-
MW-2	02-16-2016	23.22	-		
	11-08-2016	25.05	-		
	05/2/217	17.53	-		
MW-3	02-01-2016	23.15	-		
	11-08-2016	25.02	-		
	05-02-2017	18.51	-		
MW-4	02-01-2016	23.30	-		
	11-08-2016	25.19	-		
	05-02-2017	17.69	-		

TABLE 1
GROUNDWATER ELEVATIONS
Sunshine Cleaners
223 East 14th Street, San Leandro, California
(feet)

Well Designation	Date	Depth to Groundwater (btoc)	Groundwater Elevation (NAVD88)	Groundwater Flow and Gradient	
				Quarter/Year	Direction and Gradient (ft/ft)
GA-MW-1A	11-08-2016	25.10	-		
	05-02-2017	17.73	-		
GA-MW-9	11-08-2016	25.50	-		
	05-02-2017	18.04	-		
GA-MW-11	11-08-2016	24.70	-		
	05-02-2017	17.20	-		
GA-MW-12	05-02-2017	18.19	-		

Notes:

bsg: below surface grade

btoc: below top of casing

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
Sunshine Cleaners
223 East 14th Street, San Leandro, California
(ug/l)

Sample ID (screened interval ft bsg)	Date	Depth to Groundwater (btoc)	EPA SW 5030B/8260B							
			Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1- Dichloroethene (1,1-DCE)	Trans 1,2- Dichloroethene (Trans 1,2-DCE)	Cis 1,2- Dichloroethene (Cis 1,2-DCE)	Vinyl Chloride (VC)	Chloroform	Acetone
141 Farrelly Drive (Domestic Well)	11-08-2016	-	1.70	<1	<1	<1	<1	<1	<1	<10
	05-02-2017	-	0.98	<1	<1	<1	<1	<1	<1	<10
SFBRWCB ESL			5	5	6	10	6	0.5	80	1,500

Notes:

<: Indicates constituents were not detected at a concentration greater than the reporting limit shown

µg/l: micrograms per liter

SFBRWCB ESL: San Francisco Bay Area Regional Water Quality Control Board Environmental Screening Levels

btoc: below top of casing

bsg: below surface grade

APPENDIX A

APPENDIX A
Monitoring and Sampling Procedures
SUNSHINE CLEANERS
223 East 14th Street, San Leandro, California

STATIC WATER LEVEL MEASUREMENTS

Before sampling and during groundwater monitoring, static water levels are measured using an electric water level indicator. Water level data is recorded to the nearest 0.01-foot from a reference point marked on the top of the PVC well casing.

WELL PURGING

Subsequent to measurement of depth to water and prior to sampling, each well is purged to ensure samples are representative of the formation, rather than standing water in the well casing. Wells are purged using a Waterra inertial pump and dedicated 5/8-inch plastic tubing or disposable plastic bailer.

Wells are purged until a minimum of three casing-water volumes are removed from the well and/or the field-measured ground water parameters (pH, temperature, and conductivity) are stabilized. However, if a well is purged dry prior to evacuating three casing volumes, a sample is collected following 80 percent recovery of ground water within the well, or after a minimum of one hour, but within eight hours, of purging activities.

SAMPLE WITHDRAWAL

Water samples are collected from each monitoring well using either an inertia pump with dedicated plastic/Teflon tubing or a disposable polyethylene bailer. Bailers are disposed of after a single use (sample) and require no decontaminating; plastic tubing used with the inertia pump is either dedicated to each well point or changed at each sampling event, thereby minimizing cross contamination due to sampling devices. Samples are drawn and collected in such a manner that agitation and exposure of the ground water to the atmosphere is minimal.

SAMPLE HANDLING

Ground water samples are collected into laboratory-supplied 40-ml volatile organic analysis (VOA) vials with preservative; samples are collected with no visible air bubbles present in the vials after filling and capping. Following collection, samples are appropriately labeled, placed on ice, and kept in a cooler until delivered to Alpha Scientific Corporation (Alpha) of Cerritos, California, a State of California Department of Public Health-certified analytical laboratory for analysis. Samples are analyzed for volatile organic compounds by EPA method 8260B.

EQUIPMENT DECONTAMINATION AND WASTE MANAGEMENT

Any non-disposable equipment used for sample collection is thoroughly rinsed with clean water after being washed with a solution of Alconox. Purge water generated during sampling activities was contained on-site in an appropriately labeled 55-gallon drum.

APPENDIX B

AdvancedGeo Environmental

FIELD LOG GROUNDWATER DEPTH / DISSOLVED OXYGEN / ORP

PROJECT: <i>Sunshine Cleaners</i>	DATE: <i>5-2-17</i>
FIELD PERSONNEL: <i>ILL</i>	PAGE <i>1</i> OF <i>1</i>

Well I.D.	Time	Casing Elevation	Depth to Free Product	Depth to Water	Ground Water Elevation	Measured Depth	Total Depth	ORP	Dissolved Oxygen		
									mg/l	%	°C
MW-1	<i>0757</i>			<i>18.21</i>		<i>34.75</i>					
MW-2	<i>0753</i>			<i>17.53</i>		<i>33.30</i>					
MW-3	<i>0749</i>			<i>18.51</i>		<i>34.40</i>					
MW-4	<i>0745</i>			<i>18.51</i> <i>17.69</i>		<i>50.25</i>					



Advanced Geo Environmental

Well Data

Project Name: SUNSHINE CLEANERS	Project No.:	Date: 5-2-17
Pre-Purge DTW: 18.21 Time: 0757	Well I.D.: MW-1	
Post-Purge DTW: 18.90 Time: 0906		
Total Depth of Well: 34.75 Well Volume: 33	Casing Diameter: 0.5" 2" 4" 6" <u>3/4"</u> Gal./Ft.: 0.01074 0.16 0.65 1.47 <u>1.02</u>	
Sampler(s): KL	Sample Containers: 3 VOAS	
Sample I.D.: MW-1	Analysis: VOCs	

Stabilization Data

Time	Volume (gallons)	pH	Temp.	Cond μ S/cm	Color/ Turbidity	Notes
0856	0	6.98	19.8	533	Brown	
0859	.35	6.98	19.5	537	"	
0901	.70	6.98	19.2	522	"	
0904	1.0	7.00	19.2	524	"	

Notes

Purge Method:	<input type="checkbox"/> WATERRA PUMP	<input type="checkbox"/> DISPOSABLE BAILER
Sample Method:	SAME	Well Integrity:
Sample Time:	0907	Dissolved O ₂ :
Water Analyzer: YSI 556	%	mg/L

Version 2016-REM



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Advanced Geo Environmental

Well Data

Project Name: SUNSHINE CLEANERS		Project No.:	Date: 5-2-17
Pre-Purge DTW: 17.53 Time: 0753		Well I.D.: MW- 2	
Post-Purge DTW: 17.90 Time: 0843			
Total Depth of Well: 33.30	Well Volume: 31	Casing Diameter: 0.5" 3" 4" 6" 3/4" .02	Gal./Ft.: 0.01074 0.16 0.85 1.47
Sampler(s): KL		Sample Containers: 3 VOAS	
Sample I.D.: MW- 2		Analysis: VOCs	

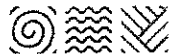
Stabilization Data

Time	Volume (gallons)	pH	Temp.	Cond μ S/cm	Color/ Turbidity	Notes
0832	0	7.25	19.6	525	Brown	
0835	.35	7.24	19.1	509	"	
0838	.70	7.22	18.9	502	"	
0841	1.0	7.18	18.9	502	"	

Notes

Purge Method:	<input type="checkbox"/> WATERRA PUMP	<input checked="" type="checkbox"/> DISPOSABLE BAILER	3/8" tubing
Sample Method:	SAME		Well Integrity:
Sample Time:	0844		Dissolved O ₂ :
Water Analyzer: YSI 556			% mg/L

Version 2016-REM



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Well Data

Project Name: SUNSHINE CLEANERS	Project No.: _____ Date: 5-2-17
Pre-Purge DTW: 18.51 Time: 0749	Well I.D.: MW- 3
Post-Purge DTW: 18.55 Time: 0939	
Total Depth of Well: 34.40 Well Volume: 10.32	Casing Diameter: 0.5" 2" 4" 6" Gal./Ft.: 0.01074 0.16 0.65 1.47
Sampler(s): KL	Sample Containers: 3 VOAS
Sample I.D.: MW- 3	Analysis: VOCs

Stabilization Data

Time	Volume (gallons)	pH	Temp.	Cond μ S/cm	Color/ Turbidity	Notes
0919	0	7.11	19.3	208	clear	
0925	10	6.87	18.9	463	"	
0931	20	6.90	18.9	507	"	
0938	31	6.92	18.8	512	"	

Notes

Purge Method:	<input type="checkbox"/> WATERRA PUMP	<input checked="" type="checkbox"/> DISPOSABLE BAILER X2	
Sample Method:	SAME	Well Integrity:	
Sample Time:	0940	Dissolved O ₂ :	
Water Analyzer: YSI 556		%	mg/L

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Well Data

Project Name: SUNSHINE CLEANERS	Project No.:	Date: 5-2-17
Pre-Purge DTW: 17.6A Time: 0745	Well I.D.: MW-4	
Post-Purge DTW: 23.10 Time: 0823		
Total Depth of Well: 50.25 Well Volume: .65	Casing Diameter: 0.5" 2" 4" 6" 3/4" .02	
Gal./Ft.: 0.01074 0.16 0.65 1.47	Sample Containers: 3 VOAS	
Sampler(s): KL	Analysis: VOCs	
Sample I.D.: MW-4		

Stabilization Data

Time	Volume (gallons)	pH	Temp.	Cond μ S/cm	Color/Turbidity	Notes
0806	0	7.42	19.7	652	Brown	
0810	.75	7.33	19.2	621	"	
0814	1.25	7.34	19.2	518	"	
0818	2.0	7.32	19.4	604	"	

Notes

Purge Method:	<input checked="" type="checkbox"/> WATERRA PUMP	<input type="checkbox"/> DISPOSABLE BAILER	ϕ 3/8" tubing
Sample Method:	SAME	Well Integrity:	
Sample Time:	0824	Dissolved O ₂ :	
Water Analyzer: YSI 556		%	mg/L

Version 2/16-REM



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Site Address 301 E. 14th Street
 City San Leandro
 Sampled by: _____
 Signature C. H. L.

Site Number German Auto
 Project Number _____
 Project PM T. W. W.
 DATE 5-2-17

ORIGINAL

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	3 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
MW 2						2	.5										
MW 2	0854		18.97	34.11	15.14	2	.5	7	7		X			18.99	MW 2	0932	1.64
MW 3	0853		18.20	35.35	17.15	2	.5	8	8		X			18.25	MW 3	0920	2.17
MW 7	0857		18.41	26.00	7.59	2	.5	4	4		X			18.47	MW 5	1020	1.44
MW 8	0622		18.59	29.50	10.91	2	.5	5	5		X			18.63	MW 8	0635	2.17
MW 9	0717		18.04	33.10	15.06	2	.5	7	7		X			18.11	MW 9	0740	1.56
MW 10	0752		19.51	38.13	18.62	2	.5	9	9		X			19.55	MW 10	0815	1.37
MW 11	0451		17.20	33.38	16.18	2	.5	8	8		X			17.25	MW 11	0514	2.89
MW 12	0817		18.19	37.85	19.66	2	.5	10	10		X			18.26	MW 12	0840	1.46
MW 13	0540		19.67	37.22	17.55	2	.5	9	9		X			19.68	MW 13	0557	2.62
MW 14	0604		19.11	30.30	11.19	2	.5	6	6		X			19.13	MW 14	0617	4.15
MW 1A	0518		17.73	33.25	15.52	2	.5	8	8		X			17.76	MW 1A	0535	3.84
MW 15	0645		17.71	33.60	15.89	2	.5	8	8		X			17.76	MW 15	0705	1.54
Farrelly															141 Farrelly	0958	

Multiplier
 2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures
 pH/Conductivity/temperature Meter - Oakton Model PC-10
 DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE
 pH 4.2817
 Conductivity _____
 DO _____

APPENDIX C



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1705138

Report Created for: Advanced GeoEnvironmental, Inc.

837 Shaw Road
Stockton, CA 95215

Project Contact: Daniel Villanueva

Project P.O.:

Project Name: Sunshine Cleaners

Project Received: 05/03/2017

Analytical Report reviewed & approved for release on 05/11/2017 by:

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Advanced GeoEnvironmental, Inc.
Project: Sunshine Cleaners
WorkOrder: 1705138

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
IGN1	Sample is non metallic
IGN2	Sample is metallic
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: Advanced GeoEnvironmental, Inc.
Project: Sunshine Cleaners
WorkOrder: 1705138

Analytical Qualifiers

b1 aqueous sample that contains greater than ~1 vol. % sediment



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1705138-001A	Water	05/02/2017 09:07	GC16	138422
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/05/2017 17:06
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/05/2017 17:06
Benzene	ND		0.50	1	05/05/2017 17:06
Bromobenzene	ND		0.50	1	05/05/2017 17:06
Bromochloromethane	ND		0.50	1	05/05/2017 17:06
Bromodichloromethane	ND		0.50	1	05/05/2017 17:06
Bromoform	ND		0.50	1	05/05/2017 17:06
Bromomethane	ND		0.50	1	05/05/2017 17:06
2-Butanone (MEK)	ND		2.0	1	05/05/2017 17:06
t-Butyl alcohol (TBA)	ND		2.0	1	05/05/2017 17:06
n-Butyl benzene	ND		0.50	1	05/05/2017 17:06
sec-Butyl benzene	ND		0.50	1	05/05/2017 17:06
tert-Butyl benzene	ND		0.50	1	05/05/2017 17:06
Carbon Disulfide	ND		0.50	1	05/05/2017 17:06
Carbon Tetrachloride	ND		0.50	1	05/05/2017 17:06
Chlorobenzene	ND		0.50	1	05/05/2017 17:06
Chloroethane	ND		0.50	1	05/05/2017 17:06
Chloroform	0.95		0.50	1	05/05/2017 17:06
Chloromethane	ND		0.50	1	05/05/2017 17:06
2-Chlorotoluene	ND		0.50	1	05/05/2017 17:06
4-Chlorotoluene	ND		0.50	1	05/05/2017 17:06
Dibromochloromethane	ND		0.50	1	05/05/2017 17:06
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/05/2017 17:06
1,2-Dibromoethane (EDB)	ND		0.50	1	05/05/2017 17:06
Dibromomethane	ND		0.50	1	05/05/2017 17:06
1,2-Dichlorobenzene	ND		0.50	1	05/05/2017 17:06
1,3-Dichlorobenzene	ND		0.50	1	05/05/2017 17:06
1,4-Dichlorobenzene	ND		0.50	1	05/05/2017 17:06
Dichlorodifluoromethane	ND		0.50	1	05/05/2017 17:06
1,1-Dichloroethane	ND		0.50	1	05/05/2017 17:06
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/05/2017 17:06
1,1-Dichloroethene	ND		0.50	1	05/05/2017 17:06
cis-1,2-Dichloroethene	ND		0.50	1	05/05/2017 17:06
trans-1,2-Dichloroethene	ND		0.50	1	05/05/2017 17:06
1,2-Dichloropropane	ND		0.50	1	05/05/2017 17:06
1,3-Dichloropropane	ND		0.50	1	05/05/2017 17:06
2,2-Dichloropropane	ND		0.50	1	05/05/2017 17:06

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1705138-001A	Water	05/02/2017 09:07	GC16	138422
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		0.50	1	05/05/2017 17:06
cis-1,3-Dichloropropene	ND		0.50	1	05/05/2017 17:06
trans-1,3-Dichloropropene	ND		0.50	1	05/05/2017 17:06
Diisopropyl ether (DIPE)	ND		0.50	1	05/05/2017 17:06
Ethylbenzene	ND		0.50	1	05/05/2017 17:06
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/05/2017 17:06
Freon 113	ND		0.50	1	05/05/2017 17:06
Hexachlorobutadiene	ND		0.50	1	05/05/2017 17:06
Hexachloroethane	ND		0.50	1	05/05/2017 17:06
2-Hexanone	ND		0.50	1	05/05/2017 17:06
Isopropylbenzene	ND		0.50	1	05/05/2017 17:06
4-Isopropyl toluene	ND		0.50	1	05/05/2017 17:06
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/05/2017 17:06
Methylene chloride	ND		0.50	1	05/05/2017 17:06
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/05/2017 17:06
Naphthalene	ND		0.50	1	05/05/2017 17:06
n-Propyl benzene	ND		0.50	1	05/05/2017 17:06
Styrene	ND		0.50	1	05/05/2017 17:06
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/05/2017 17:06
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/05/2017 17:06
Tetrachloroethene	12		0.50	1	05/05/2017 17:06
Toluene	1.5		0.50	1	05/05/2017 17:06
1,2,3-Trichlorobenzene	ND		0.50	1	05/05/2017 17:06
1,2,4-Trichlorobenzene	ND		0.50	1	05/05/2017 17:06
1,1,1-Trichloroethane	ND		0.50	1	05/05/2017 17:06
1,1,2-Trichloroethane	ND		0.50	1	05/05/2017 17:06
Trichloroethene	ND		0.50	1	05/05/2017 17:06
Trichlorofluoromethane	ND		0.50	1	05/05/2017 17:06
1,2,3-Trichloropropane	ND		0.50	1	05/05/2017 17:06
1,2,4-Trimethylbenzene	ND		0.50	1	05/05/2017 17:06
1,3,5-Trimethylbenzene	ND		0.50	1	05/05/2017 17:06
Vinyl Chloride	ND		0.50	1	05/05/2017 17:06
Xylenes, Total	0.89		0.50	1	05/05/2017 17:06

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1705138-001A	Water	05/02/2017 09:07	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	96	70-130		05/05/2017 17:06
Toluene-d8	95	70-130		05/05/2017 17:06
4-BFB	87	70-130		05/05/2017 17:06

Analyst(s): AK

Analytical Comments: b1



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1705138-002A	Water	05/02/2017 08:44	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	05/05/2017 17:47
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/05/2017 17:47
Benzene	ND	0.50	1	05/05/2017 17:47
Bromobenzene	ND	0.50	1	05/05/2017 17:47
Bromochloromethane	ND	0.50	1	05/05/2017 17:47
Bromodichloromethane	ND	0.50	1	05/05/2017 17:47
Bromoform	ND	0.50	1	05/05/2017 17:47
Bromomethane	ND	0.50	1	05/05/2017 17:47
2-Butanone (MEK)	ND	2.0	1	05/05/2017 17:47
t-Butyl alcohol (TBA)	ND	2.0	1	05/05/2017 17:47
n-Butyl benzene	ND	0.50	1	05/05/2017 17:47
sec-Butyl benzene	ND	0.50	1	05/05/2017 17:47
tert-Butyl benzene	ND	0.50	1	05/05/2017 17:47
Carbon Disulfide	ND	0.50	1	05/05/2017 17:47
Carbon Tetrachloride	ND	0.50	1	05/05/2017 17:47
Chlorobenzene	ND	0.50	1	05/05/2017 17:47
Chloroethane	ND	0.50	1	05/05/2017 17:47
Chloroform	3.4	0.50	1	05/05/2017 17:47
Chloromethane	ND	0.50	1	05/05/2017 17:47
2-Chlorotoluene	ND	0.50	1	05/05/2017 17:47
4-Chlorotoluene	ND	0.50	1	05/05/2017 17:47
Dibromochloromethane	ND	0.50	1	05/05/2017 17:47
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/05/2017 17:47
1,2-Dibromoethane (EDB)	ND	0.50	1	05/05/2017 17:47
Dibromomethane	ND	0.50	1	05/05/2017 17:47
1,2-Dichlorobenzene	ND	0.50	1	05/05/2017 17:47
1,3-Dichlorobenzene	ND	0.50	1	05/05/2017 17:47
1,4-Dichlorobenzene	ND	0.50	1	05/05/2017 17:47
Dichlorodifluoromethane	ND	0.50	1	05/05/2017 17:47
1,1-Dichloroethane	ND	0.50	1	05/05/2017 17:47
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/05/2017 17:47
1,1-Dichloroethene	ND	0.50	1	05/05/2017 17:47
cis-1,2-Dichloroethene	ND	0.50	1	05/05/2017 17:47
trans-1,2-Dichloroethene	ND	0.50	1	05/05/2017 17:47
1,2-Dichloropropane	ND	0.50	1	05/05/2017 17:47
1,3-Dichloropropane	ND	0.50	1	05/05/2017 17:47
2,2-Dichloropropane	ND	0.50	1	05/05/2017 17:47

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1705138-002A	Water	05/02/2017 08:44	GC16	138422
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		0.50	1	05/05/2017 17:47
cis-1,3-Dichloropropene	ND		0.50	1	05/05/2017 17:47
trans-1,3-Dichloropropene	ND		0.50	1	05/05/2017 17:47
Diisopropyl ether (DIPE)	ND		0.50	1	05/05/2017 17:47
Ethylbenzene	ND		0.50	1	05/05/2017 17:47
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/05/2017 17:47
Freon 113	ND		0.50	1	05/05/2017 17:47
Hexachlorobutadiene	ND		0.50	1	05/05/2017 17:47
Hexachloroethane	ND		0.50	1	05/05/2017 17:47
2-Hexanone	ND		0.50	1	05/05/2017 17:47
Isopropylbenzene	ND		0.50	1	05/05/2017 17:47
4-Isopropyl toluene	ND		0.50	1	05/05/2017 17:47
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/05/2017 17:47
Methylene chloride	ND		0.50	1	05/05/2017 17:47
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/05/2017 17:47
Naphthalene	ND		0.50	1	05/05/2017 17:47
n-Propyl benzene	ND		0.50	1	05/05/2017 17:47
Styrene	ND		0.50	1	05/05/2017 17:47
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/05/2017 17:47
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/05/2017 17:47
Tetrachloroethene	ND		0.50	1	05/05/2017 17:47
Toluene	1.0		0.50	1	05/05/2017 17:47
1,2,3-Trichlorobenzene	ND		0.50	1	05/05/2017 17:47
1,2,4-Trichlorobenzene	ND		0.50	1	05/05/2017 17:47
1,1,1-Trichloroethane	ND		0.50	1	05/05/2017 17:47
1,1,2-Trichloroethane	ND		0.50	1	05/05/2017 17:47
Trichloroethene	ND		0.50	1	05/05/2017 17:47
Trichlorofluoromethane	ND		0.50	1	05/05/2017 17:47
1,2,3-Trichloropropane	ND		0.50	1	05/05/2017 17:47
1,2,4-Trimethylbenzene	ND		0.50	1	05/05/2017 17:47
1,3,5-Trimethylbenzene	ND		0.50	1	05/05/2017 17:47
Vinyl Chloride	ND		0.50	1	05/05/2017 17:47
Xylenes, Total	0.83		0.50	1	05/05/2017 17:47

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2	1705138-002A	Water	05/02/2017 08:44	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	93	70-130		05/05/2017 17:47
Toluene-d8	93	70-130		05/05/2017 17:47
4-BFB	97	70-130		05/05/2017 17:47

Analyst(s): AK

Analytical Comments: b1



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1705138-003A	Water	05/02/2017 09:40	GC16	138422
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/05/2017 21:54
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/05/2017 21:54
Benzene	ND		0.50	1	05/05/2017 21:54
Bromobenzene	ND		0.50	1	05/05/2017 21:54
Bromochloromethane	ND		0.50	1	05/05/2017 21:54
Bromodichloromethane	ND		0.50	1	05/05/2017 21:54
Bromoform	ND		0.50	1	05/05/2017 21:54
Bromomethane	ND		0.50	1	05/05/2017 21:54
2-Butanone (MEK)	ND		2.0	1	05/05/2017 21:54
t-Butyl alcohol (TBA)	ND		2.0	1	05/05/2017 21:54
n-Butyl benzene	ND		0.50	1	05/05/2017 21:54
sec-Butyl benzene	ND		0.50	1	05/05/2017 21:54
tert-Butyl benzene	ND		0.50	1	05/05/2017 21:54
Carbon Disulfide	ND		0.50	1	05/05/2017 21:54
Carbon Tetrachloride	ND		0.50	1	05/05/2017 21:54
Chlorobenzene	ND		0.50	1	05/05/2017 21:54
Chloroethane	ND		0.50	1	05/05/2017 21:54
Chloroform	3.0		0.50	1	05/05/2017 21:54
Chloromethane	ND		0.50	1	05/05/2017 21:54
2-Chlorotoluene	ND		0.50	1	05/05/2017 21:54
4-Chlorotoluene	ND		0.50	1	05/05/2017 21:54
Dibromochloromethane	ND		0.50	1	05/05/2017 21:54
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/05/2017 21:54
1,2-Dibromoethane (EDB)	ND		0.50	1	05/05/2017 21:54
Dibromomethane	ND		0.50	1	05/05/2017 21:54
1,2-Dichlorobenzene	ND		0.50	1	05/05/2017 21:54
1,3-Dichlorobenzene	ND		0.50	1	05/05/2017 21:54
1,4-Dichlorobenzene	ND		0.50	1	05/05/2017 21:54
Dichlorodifluoromethane	ND		0.50	1	05/05/2017 21:54
1,1-Dichloroethane	ND		0.50	1	05/05/2017 21:54
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/05/2017 21:54
1,1-Dichloroethene	ND		0.50	1	05/05/2017 21:54
cis-1,2-Dichloroethene	ND		0.50	1	05/05/2017 21:54
trans-1,2-Dichloroethene	ND		0.50	1	05/05/2017 21:54
1,2-Dichloropropane	ND		0.50	1	05/05/2017 21:54
1,3-Dichloropropane	ND		0.50	1	05/05/2017 21:54
2,2-Dichloropropane	ND		0.50	1	05/05/2017 21:54

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1705138-003A	Water	05/02/2017 09:40	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/05/2017 21:54
cis-1,3-Dichloropropene	ND	0.50	1	05/05/2017 21:54
trans-1,3-Dichloropropene	ND	0.50	1	05/05/2017 21:54
Diisopropyl ether (DIPE)	ND	0.50	1	05/05/2017 21:54
Ethylbenzene	ND	0.50	1	05/05/2017 21:54
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/05/2017 21:54
Freon 113	ND	0.50	1	05/05/2017 21:54
Hexachlorobutadiene	ND	0.50	1	05/05/2017 21:54
Hexachloroethane	ND	0.50	1	05/05/2017 21:54
2-Hexanone	ND	0.50	1	05/05/2017 21:54
Isopropylbenzene	ND	0.50	1	05/05/2017 21:54
4-Isopropyl toluene	ND	0.50	1	05/05/2017 21:54
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/05/2017 21:54
Methylene chloride	ND	0.50	1	05/05/2017 21:54
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/05/2017 21:54
Naphthalene	ND	0.50	1	05/05/2017 21:54
n-Propyl benzene	ND	0.50	1	05/05/2017 21:54
Styrene	ND	0.50	1	05/05/2017 21:54
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/05/2017 21:54
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/05/2017 21:54
Tetrachloroethene	ND	0.50	1	05/05/2017 21:54
Toluene	ND	0.50	1	05/05/2017 21:54
1,2,3-Trichlorobenzene	ND	0.50	1	05/05/2017 21:54
1,2,4-Trichlorobenzene	ND	0.50	1	05/05/2017 21:54
1,1,1-Trichloroethane	ND	0.50	1	05/05/2017 21:54
1,1,2-Trichloroethane	ND	0.50	1	05/05/2017 21:54
Trichloroethene	ND	0.50	1	05/05/2017 21:54
Trichlorofluoromethane	ND	0.50	1	05/05/2017 21:54
1,2,3-Trichloropropane	ND	0.50	1	05/05/2017 21:54
1,2,4-Trimethylbenzene	ND	0.50	1	05/05/2017 21:54
1,3,5-Trimethylbenzene	ND	0.50	1	05/05/2017 21:54
Vinyl Chloride	ND	0.50	1	05/05/2017 21:54
Xylenes, Total	ND	0.50	1	05/05/2017 21:54

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3	1705138-003A	Water	05/02/2017 09:40	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	93	70-130		05/05/2017 21:54
Toluene-d8	91	70-130		05/05/2017 21:54
4-BFB	91	70-130		05/05/2017 21:54

Analyst(s): AK



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4	1705138-004A	Water	05/02/2017 08:24	GC16	138422
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	10	1	05/05/2017 22:35	
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/05/2017 22:35	
Benzene	ND	0.50	1	05/05/2017 22:35	
Bromobenzene	ND	0.50	1	05/05/2017 22:35	
Bromochloromethane	ND	0.50	1	05/05/2017 22:35	
Bromodichloromethane	ND	0.50	1	05/05/2017 22:35	
Bromoform	ND	0.50	1	05/05/2017 22:35	
Bromomethane	ND	0.50	1	05/05/2017 22:35	
2-Butanone (MEK)	ND	2.0	1	05/05/2017 22:35	
t-Butyl alcohol (TBA)	ND	2.0	1	05/05/2017 22:35	
n-Butyl benzene	ND	0.50	1	05/05/2017 22:35	
sec-Butyl benzene	ND	0.50	1	05/05/2017 22:35	
tert-Butyl benzene	ND	0.50	1	05/05/2017 22:35	
Carbon Disulfide	ND	0.50	1	05/05/2017 22:35	
Carbon Tetrachloride	ND	0.50	1	05/05/2017 22:35	
Chlorobenzene	ND	0.50	1	05/05/2017 22:35	
Chloroethane	ND	0.50	1	05/05/2017 22:35	
Chloroform	ND	0.50	1	05/05/2017 22:35	
Chloromethane	ND	0.50	1	05/05/2017 22:35	
2-Chlorotoluene	ND	0.50	1	05/05/2017 22:35	
4-Chlorotoluene	ND	0.50	1	05/05/2017 22:35	
Dibromochloromethane	ND	0.50	1	05/05/2017 22:35	
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/05/2017 22:35	
1,2-Dibromoethane (EDB)	ND	0.50	1	05/05/2017 22:35	
Dibromomethane	ND	0.50	1	05/05/2017 22:35	
1,2-Dichlorobenzene	ND	0.50	1	05/05/2017 22:35	
1,3-Dichlorobenzene	ND	0.50	1	05/05/2017 22:35	
1,4-Dichlorobenzene	ND	0.50	1	05/05/2017 22:35	
Dichlorodifluoromethane	ND	0.50	1	05/05/2017 22:35	
1,1-Dichloroethane	ND	0.50	1	05/05/2017 22:35	
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/05/2017 22:35	
1,1-Dichloroethene	ND	0.50	1	05/05/2017 22:35	
cis-1,2-Dichloroethene	ND	0.50	1	05/05/2017 22:35	
trans-1,2-Dichloroethene	ND	0.50	1	05/05/2017 22:35	
1,2-Dichloropropane	ND	0.50	1	05/05/2017 22:35	
1,3-Dichloropropane	ND	0.50	1	05/05/2017 22:35	
2,2-Dichloropropane	ND	0.50	1	05/05/2017 22:35	

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4	1705138-004A	Water	05/02/2017 08:24	GC16	138422
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1-Dichloropropene	ND		0.50	1	05/05/2017 22:35
cis-1,3-Dichloropropene	ND		0.50	1	05/05/2017 22:35
trans-1,3-Dichloropropene	ND		0.50	1	05/05/2017 22:35
Diisopropyl ether (DIPE)	ND		0.50	1	05/05/2017 22:35
Ethylbenzene	ND		0.50	1	05/05/2017 22:35
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/05/2017 22:35
Freon 113	ND		0.50	1	05/05/2017 22:35
Hexachlorobutadiene	ND		0.50	1	05/05/2017 22:35
Hexachloroethane	ND		0.50	1	05/05/2017 22:35
2-Hexanone	ND		0.50	1	05/05/2017 22:35
Isopropylbenzene	ND		0.50	1	05/05/2017 22:35
4-Isopropyl toluene	ND		0.50	1	05/05/2017 22:35
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/05/2017 22:35
Methylene chloride	ND		0.50	1	05/05/2017 22:35
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/05/2017 22:35
Naphthalene	ND		0.50	1	05/05/2017 22:35
n-Propyl benzene	ND		0.50	1	05/05/2017 22:35
Styrene	ND		0.50	1	05/05/2017 22:35
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/05/2017 22:35
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/05/2017 22:35
Tetrachloroethene	0.53		0.50	1	05/05/2017 22:35
Toluene	2.8		0.50	1	05/05/2017 22:35
1,2,3-Trichlorobenzene	ND		0.50	1	05/05/2017 22:35
1,2,4-Trichlorobenzene	ND		0.50	1	05/05/2017 22:35
1,1,1-Trichloroethane	ND		0.50	1	05/05/2017 22:35
1,1,2-Trichloroethane	ND		0.50	1	05/05/2017 22:35
Trichloroethene	ND		0.50	1	05/05/2017 22:35
Trichlorofluoromethane	ND		0.50	1	05/05/2017 22:35
1,2,3-Trichloropropane	ND		0.50	1	05/05/2017 22:35
1,2,4-Trimethylbenzene	ND		0.50	1	05/05/2017 22:35
1,3,5-Trimethylbenzene	ND		0.50	1	05/05/2017 22:35
Vinyl Chloride	ND		0.50	1	05/05/2017 22:35
Xylenes, Total	2.5		0.50	1	05/05/2017 22:35

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-4	1705138-004A	Water	05/02/2017 08:24	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
Surrogates	REC (%)	Limits		
Dibromofluoromethane	92	70-130		05/05/2017 22:35
Toluene-d8	91	70-130		05/05/2017 22:35
4-BFB	95	70-130		05/05/2017 22:35

Analyst(s): AK

Analytical Comments: b1



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-1A	1705138-005A	Water	05/02/2017 10:50	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	05/05/2017 23:15
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/05/2017 23:15
Benzene	ND	0.50	1	05/05/2017 23:15
Bromobenzene	ND	0.50	1	05/05/2017 23:15
Bromochloromethane	ND	0.50	1	05/05/2017 23:15
Bromodichloromethane	ND	0.50	1	05/05/2017 23:15
Bromoform	ND	0.50	1	05/05/2017 23:15
Bromomethane	ND	0.50	1	05/05/2017 23:15
2-Butanone (MEK)	ND	2.0	1	05/05/2017 23:15
t-Butyl alcohol (TBA)	ND	2.0	1	05/05/2017 23:15
n-Butyl benzene	3.7	0.50	1	05/05/2017 23:15
sec-Butyl benzene	3.6	0.50	1	05/05/2017 23:15
tert-Butyl benzene	ND	0.50	1	05/05/2017 23:15
Carbon Disulfide	ND	0.50	1	05/05/2017 23:15
Carbon Tetrachloride	ND	0.50	1	05/05/2017 23:15
Chlorobenzene	ND	0.50	1	05/05/2017 23:15
Chloroethane	ND	0.50	1	05/05/2017 23:15
Chloroform	ND	0.50	1	05/05/2017 23:15
Chloromethane	ND	0.50	1	05/05/2017 23:15
2-Chlorotoluene	ND	0.50	1	05/05/2017 23:15
4-Chlorotoluene	ND	0.50	1	05/05/2017 23:15
Dibromochloromethane	ND	0.50	1	05/05/2017 23:15
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/05/2017 23:15
1,2-Dibromoethane (EDB)	ND	0.50	1	05/05/2017 23:15
Dibromomethane	ND	0.50	1	05/05/2017 23:15
1,2-Dichlorobenzene	ND	0.50	1	05/05/2017 23:15
1,3-Dichlorobenzene	ND	0.50	1	05/05/2017 23:15
1,4-Dichlorobenzene	ND	0.50	1	05/05/2017 23:15
Dichlorodifluoromethane	ND	0.50	1	05/05/2017 23:15
1,1-Dichloroethane	ND	0.50	1	05/05/2017 23:15
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/05/2017 23:15
1,1-Dichloroethene	ND	0.50	1	05/05/2017 23:15
cis-1,2-Dichloroethene	0.67	0.50	1	05/05/2017 23:15
trans-1,2-Dichloroethene	ND	0.50	1	05/05/2017 23:15
1,2-Dichloropropane	ND	0.50	1	05/05/2017 23:15
1,3-Dichloropropane	ND	0.50	1	05/05/2017 23:15
2,2-Dichloropropane	ND	0.50	1	05/05/2017 23:15

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-1A	1705138-005A	Water	05/02/2017 10:50	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/05/2017 23:15
cis-1,3-Dichloropropene	ND	0.50	1	05/05/2017 23:15
trans-1,3-Dichloropropene	ND	0.50	1	05/05/2017 23:15
Diisopropyl ether (DIPE)	ND	0.50	1	05/05/2017 23:15
Ethylbenzene	1.6	0.50	1	05/05/2017 23:15
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/05/2017 23:15
Freon 113	ND	0.50	1	05/05/2017 23:15
Hexachlorobutadiene	ND	0.50	1	05/05/2017 23:15
Hexachloroethane	ND	0.50	1	05/05/2017 23:15
2-Hexanone	ND	0.50	1	05/05/2017 23:15
Isopropylbenzene	4.9	0.50	1	05/05/2017 23:15
4-Isopropyl toluene	0.51	0.50	1	05/05/2017 23:15
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/05/2017 23:15
Methylene chloride	ND	0.50	1	05/05/2017 23:15
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/05/2017 23:15
Naphthalene	3.0	0.50	1	05/05/2017 23:15
n-Propyl benzene	11	0.50	1	05/05/2017 23:15
Styrene	ND	0.50	1	05/05/2017 23:15
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/05/2017 23:15
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/05/2017 23:15
Tetrachloroethene	4.4	0.50	1	05/05/2017 23:15
Toluene	ND	0.50	1	05/05/2017 23:15
1,2,3-Trichlorobenzene	ND	0.50	1	05/05/2017 23:15
1,2,4-Trichlorobenzene	ND	0.50	1	05/05/2017 23:15
1,1,1-Trichloroethane	ND	0.50	1	05/05/2017 23:15
1,1,2-Trichloroethane	ND	0.50	1	05/05/2017 23:15
Trichloroethene	ND	0.50	1	05/05/2017 23:15
Trichlorofluoromethane	ND	0.50	1	05/05/2017 23:15
1,2,3-Trichloropropane	ND	0.50	1	05/05/2017 23:15
1,2,4-Trimethylbenzene	ND	0.50	1	05/05/2017 23:15
1,3,5-Trimethylbenzene	ND	0.50	1	05/05/2017 23:15
Vinyl Chloride	ND	0.50	1	05/05/2017 23:15
Xylenes, Total	0.76	0.50	1	05/05/2017 23:15

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-1A	1705138-005A	Water	05/02/2017 10:50	GC16	138422

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	91	70-130		05/05/2017 23:15
Toluene-d8	92	70-130		05/05/2017 23:15
4-BFB	86	70-130		05/05/2017 23:15

Analyst(s): AK



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-9	1705138-006A	Water	05/02/2017 10:20	GC10	138525
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		50	5	05/10/2017 01:44
tert-Amyl methyl ether (TAME)	ND		2.5	5	05/10/2017 01:44
Benzene	7.2		2.5	5	05/10/2017 01:44
Bromobenzene	ND		2.5	5	05/10/2017 01:44
Bromochloromethane	ND		2.5	5	05/10/2017 01:44
Bromodichloromethane	ND		2.5	5	05/10/2017 01:44
Bromoform	ND		2.5	5	05/10/2017 01:44
Bromomethane	ND		2.5	5	05/10/2017 01:44
2-Butanone (MEK)	ND		10	5	05/10/2017 01:44
t-Butyl alcohol (TBA)	ND		10	5	05/10/2017 01:44
n-Butyl benzene	19		2.5	5	05/10/2017 01:44
sec-Butyl benzene	14		2.5	5	05/10/2017 01:44
tert-Butyl benzene	ND		2.5	5	05/10/2017 01:44
Carbon Disulfide	ND		2.5	5	05/10/2017 01:44
Carbon Tetrachloride	ND		2.5	5	05/10/2017 01:44
Chlorobenzene	ND		2.5	5	05/10/2017 01:44
Chloroethane	ND		2.5	5	05/10/2017 01:44
Chloroform	ND		2.5	5	05/10/2017 01:44
Chloromethane	ND		2.5	5	05/10/2017 01:44
2-Chlorotoluene	ND		2.5	5	05/10/2017 01:44
4-Chlorotoluene	ND		2.5	5	05/10/2017 01:44
Dibromochloromethane	ND		2.5	5	05/10/2017 01:44
1,2-Dibromo-3-chloropropane	ND		1.0	5	05/10/2017 01:44
1,2-Dibromoethane (EDB)	ND		2.5	5	05/10/2017 01:44
Dibromomethane	ND		2.5	5	05/10/2017 01:44
1,2-Dichlorobenzene	ND		2.5	5	05/10/2017 01:44
1,3-Dichlorobenzene	ND		2.5	5	05/10/2017 01:44
1,4-Dichlorobenzene	ND		2.5	5	05/10/2017 01:44
Dichlorodifluoromethane	ND		2.5	5	05/10/2017 01:44
1,1-Dichloroethane	ND		2.5	5	05/10/2017 01:44
1,2-Dichloroethane (1,2-DCA)	ND		2.5	5	05/10/2017 01:44
1,1-Dichloroethene	ND		2.5	5	05/10/2017 01:44
cis-1,2-Dichloroethene	ND		2.5	5	05/10/2017 01:44
trans-1,2-Dichloroethene	ND		2.5	5	05/10/2017 01:44
1,2-Dichloropropane	ND		2.5	5	05/10/2017 01:44
1,3-Dichloropropane	ND		2.5	5	05/10/2017 01:44
2,2-Dichloropropane	ND		2.5	5	05/10/2017 01:44

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-9	1705138-006A	Water	05/02/2017 10:20	GC10	138525

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	2.5	5	05/10/2017 01:44
cis-1,3-Dichloropropene	ND	2.5	5	05/10/2017 01:44
trans-1,3-Dichloropropene	ND	2.5	5	05/10/2017 01:44
Diisopropyl ether (DIPE)	ND	2.5	5	05/10/2017 01:44
Ethylbenzene	ND	2.5	5	05/10/2017 01:44
Ethyl tert-butyl ether (ETBE)	ND	2.5	5	05/10/2017 01:44
Freon 113	ND	2.5	5	05/10/2017 01:44
Hexachlorobutadiene	ND	2.5	5	05/10/2017 01:44
Hexachloroethane	ND	2.5	5	05/10/2017 01:44
2-Hexanone	ND	2.5	5	05/10/2017 01:44
Isopropylbenzene	22	2.5	5	05/10/2017 01:44
4-Isopropyl toluene	ND	2.5	5	05/10/2017 01:44
Methyl-t-butyl ether (MTBE)	ND	2.5	5	05/10/2017 01:44
Methylene chloride	ND	2.5	5	05/10/2017 01:44
4-Methyl-2-pentanone (MIBK)	ND	2.5	5	05/10/2017 01:44
Naphthalene	ND	2.5	5	05/10/2017 01:44
n-Propyl benzene	92	2.5	5	05/10/2017 01:44
Styrene	ND	2.5	5	05/10/2017 01:44
1,1,1,2-Tetrachloroethane	ND	2.5	5	05/10/2017 01:44
1,1,2,2-Tetrachloroethane	ND	2.5	5	05/10/2017 01:44
Tetrachloroethene	ND	2.5	5	05/10/2017 01:44
Toluene	ND	2.5	5	05/10/2017 01:44
1,2,3-Trichlorobenzene	ND	2.5	5	05/10/2017 01:44
1,2,4-Trichlorobenzene	ND	2.5	5	05/10/2017 01:44
1,1,1-Trichloroethane	ND	2.5	5	05/10/2017 01:44
1,1,2-Trichloroethane	ND	2.5	5	05/10/2017 01:44
Trichloroethene	ND	2.5	5	05/10/2017 01:44
Trichlorofluoromethane	ND	2.5	5	05/10/2017 01:44
1,2,3-Trichloropropane	ND	2.5	5	05/10/2017 01:44
1,2,4-Trimethylbenzene	ND	2.5	5	05/10/2017 01:44
1,3,5-Trimethylbenzene	ND	2.5	5	05/10/2017 01:44
Vinyl Chloride	ND	2.5	5	05/10/2017 01:44
Xylenes, Total	ND	2.5	5	05/10/2017 01:44

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-9	1705138-006A	Water	05/02/2017 10:20	GC10	138525

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	102	70-130		05/10/2017 01:44
Toluene-d8	105	70-130		05/10/2017 01:44
4-BFB	103	70-130		05/10/2017 01:44

Analyst(s): KF



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-11	1705138-007A	Water	05/02/2017 11:05	GC10	138525

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	05/09/2017 05:36
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/09/2017 05:36
Benzene	ND	0.50	1	05/09/2017 05:36
Bromobenzene	ND	0.50	1	05/09/2017 05:36
Bromochloromethane	ND	0.50	1	05/09/2017 05:36
Bromodichloromethane	ND	0.50	1	05/09/2017 05:36
Bromoform	ND	0.50	1	05/09/2017 05:36
Bromomethane	ND	0.50	1	05/09/2017 05:36
2-Butanone (MEK)	ND	2.0	1	05/09/2017 05:36
t-Butyl alcohol (TBA)	ND	2.0	1	05/09/2017 05:36
n-Butyl benzene	ND	0.50	1	05/09/2017 05:36
sec-Butyl benzene	ND	0.50	1	05/09/2017 05:36
tert-Butyl benzene	ND	0.50	1	05/09/2017 05:36
Carbon Disulfide	ND	0.50	1	05/09/2017 05:36
Carbon Tetrachloride	ND	0.50	1	05/09/2017 05:36
Chlorobenzene	ND	0.50	1	05/09/2017 05:36
Chloroethane	ND	0.50	1	05/09/2017 05:36
Chloroform	4.8	0.50	1	05/09/2017 05:36
Chloromethane	ND	0.50	1	05/09/2017 05:36
2-Chlorotoluene	ND	0.50	1	05/09/2017 05:36
4-Chlorotoluene	ND	0.50	1	05/09/2017 05:36
Dibromochloromethane	ND	0.50	1	05/09/2017 05:36
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/09/2017 05:36
1,2-Dibromoethane (EDB)	ND	0.50	1	05/09/2017 05:36
Dibromomethane	ND	0.50	1	05/09/2017 05:36
1,2-Dichlorobenzene	ND	0.50	1	05/09/2017 05:36
1,3-Dichlorobenzene	ND	0.50	1	05/09/2017 05:36
1,4-Dichlorobenzene	ND	0.50	1	05/09/2017 05:36
Dichlorodifluoromethane	ND	0.50	1	05/09/2017 05:36
1,1-Dichloroethane	ND	0.50	1	05/09/2017 05:36
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/09/2017 05:36
1,1-Dichloroethene	ND	0.50	1	05/09/2017 05:36
cis-1,2-Dichloroethene	ND	0.50	1	05/09/2017 05:36
trans-1,2-Dichloroethene	ND	0.50	1	05/09/2017 05:36
1,2-Dichloropropane	ND	0.50	1	05/09/2017 05:36
1,3-Dichloropropane	ND	0.50	1	05/09/2017 05:36
2,2-Dichloropropane	ND	0.50	1	05/09/2017 05:36

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-11	1705138-007A	Water	05/02/2017 11:05	GC10	138525

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/09/2017 05:36
cis-1,3-Dichloropropene	ND	0.50	1	05/09/2017 05:36
trans-1,3-Dichloropropene	ND	0.50	1	05/09/2017 05:36
Diisopropyl ether (DIPE)	ND	0.50	1	05/09/2017 05:36
Ethylbenzene	ND	0.50	1	05/09/2017 05:36
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/09/2017 05:36
Freon 113	ND	0.50	1	05/09/2017 05:36
Hexachlorobutadiene	ND	0.50	1	05/09/2017 05:36
Hexachloroethane	ND	0.50	1	05/09/2017 05:36
2-Hexanone	ND	0.50	1	05/09/2017 05:36
Isopropylbenzene	ND	0.50	1	05/09/2017 05:36
4-Isopropyl toluene	ND	0.50	1	05/09/2017 05:36
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/09/2017 05:36
Methylene chloride	ND	0.50	1	05/09/2017 05:36
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/09/2017 05:36
Naphthalene	ND	0.50	1	05/09/2017 05:36
n-Propyl benzene	ND	0.50	1	05/09/2017 05:36
Styrene	ND	0.50	1	05/09/2017 05:36
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/09/2017 05:36
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/09/2017 05:36
Tetrachloroethene	4.7	0.50	1	05/09/2017 05:36
Toluene	ND	0.50	1	05/09/2017 05:36
1,2,3-Trichlorobenzene	ND	0.50	1	05/09/2017 05:36
1,2,4-Trichlorobenzene	ND	0.50	1	05/09/2017 05:36
1,1,1-Trichloroethane	ND	0.50	1	05/09/2017 05:36
1,1,2-Trichloroethane	ND	0.50	1	05/09/2017 05:36
Trichloroethene	ND	0.50	1	05/09/2017 05:36
Trichlorofluoromethane	ND	0.50	1	05/09/2017 05:36
1,2,3-Trichloropropane	ND	0.50	1	05/09/2017 05:36
1,2,4-Trimethylbenzene	ND	0.50	1	05/09/2017 05:36
1,3,5-Trimethylbenzene	ND	0.50	1	05/09/2017 05:36
Vinyl Chloride	ND	0.50	1	05/09/2017 05:36
Xylenes, Total	ND	0.50	1	05/09/2017 05:36

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-11	1705138-007A	Water	05/02/2017 11:05	GC10	138525

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	108	70-130		05/09/2017 05:36
Toluene-d8	105	70-130		05/09/2017 05:36
4-BFB	105	70-130		05/09/2017 05:36

Analyst(s): KF



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-12	1705138-008A	Water	05/02/2017 10:40	GC16	138646
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		100	10	05/10/2017 13:24
tert-Amyl methyl ether (TAME)	ND		5.0	10	05/10/2017 13:24
Benzene	93		5.0	10	05/10/2017 13:24
Bromobenzene	ND		5.0	10	05/10/2017 13:24
Bromochloromethane	ND		5.0	10	05/10/2017 13:24
Bromodichloromethane	ND		5.0	10	05/10/2017 13:24
Bromoform	ND		5.0	10	05/10/2017 13:24
Bromomethane	ND		5.0	10	05/10/2017 13:24
2-Butanone (MEK)	ND		20	10	05/10/2017 13:24
t-Butyl alcohol (TBA)	ND		20	10	05/10/2017 13:24
n-Butyl benzene	39		5.0	10	05/10/2017 13:24
sec-Butyl benzene	21		5.0	10	05/10/2017 13:24
tert-Butyl benzene	ND		5.0	10	05/10/2017 13:24
Carbon Disulfide	ND		5.0	10	05/10/2017 13:24
Carbon Tetrachloride	ND		5.0	10	05/10/2017 13:24
Chlorobenzene	ND		5.0	10	05/10/2017 13:24
Chloroethane	ND		5.0	10	05/10/2017 13:24
Chloroform	ND		5.0	10	05/10/2017 13:24
Chloromethane	ND		5.0	10	05/10/2017 13:24
2-Chlorotoluene	ND		5.0	10	05/10/2017 13:24
4-Chlorotoluene	ND		5.0	10	05/10/2017 13:24
Dibromochloromethane	ND		5.0	10	05/10/2017 13:24
1,2-Dibromo-3-chloropropane	ND		2.0	10	05/10/2017 13:24
1,2-Dibromoethane (EDB)	ND		5.0	10	05/10/2017 13:24
Dibromomethane	ND		5.0	10	05/10/2017 13:24
1,2-Dichlorobenzene	ND		5.0	10	05/10/2017 13:24
1,3-Dichlorobenzene	ND		5.0	10	05/10/2017 13:24
1,4-Dichlorobenzene	ND		5.0	10	05/10/2017 13:24
Dichlorodifluoromethane	ND		5.0	10	05/10/2017 13:24
1,1-Dichloroethane	ND		5.0	10	05/10/2017 13:24
1,2-Dichloroethane (1,2-DCA)	ND		5.0	10	05/10/2017 13:24
1,1-Dichloroethene	ND		5.0	10	05/10/2017 13:24
cis-1,2-Dichloroethene	ND		5.0	10	05/10/2017 13:24
trans-1,2-Dichloroethene	ND		5.0	10	05/10/2017 13:24
1,2-Dichloropropane	ND		5.0	10	05/10/2017 13:24
1,3-Dichloropropane	ND		5.0	10	05/10/2017 13:24
2,2-Dichloropropane	ND		5.0	10	05/10/2017 13:24

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-12	1705138-008A	Water	05/02/2017 10:40	GC16	138646

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	5.0	10	05/10/2017 13:24
cis-1,3-Dichloropropene	ND	5.0	10	05/10/2017 13:24
trans-1,3-Dichloropropene	ND	5.0	10	05/10/2017 13:24
Diisopropyl ether (DIPE)	ND	5.0	10	05/10/2017 13:24
Ethylbenzene	27	5.0	10	05/10/2017 13:24
Ethyl tert-butyl ether (ETBE)	ND	5.0	10	05/10/2017 13:24
Freon 113	ND	5.0	10	05/10/2017 13:24
Hexachlorobutadiene	ND	5.0	10	05/10/2017 13:24
Hexachloroethane	ND	5.0	10	05/10/2017 13:24
2-Hexanone	ND	5.0	10	05/10/2017 13:24
Isopropylbenzene	110	5.0	10	05/10/2017 13:24
4-Isopropyl toluene	ND	5.0	10	05/10/2017 13:24
Methyl-t-butyl ether (MTBE)	ND	5.0	10	05/10/2017 13:24
Methylene chloride	ND	5.0	10	05/10/2017 13:24
4-Methyl-2-pentanone (MIBK)	ND	5.0	10	05/10/2017 13:24
Naphthalene	14	5.0	10	05/10/2017 13:24
n-Propyl benzene	230	5.0	10	05/10/2017 13:24
Styrene	ND	5.0	10	05/10/2017 13:24
1,1,1,2-Tetrachloroethane	ND	5.0	10	05/10/2017 13:24
1,1,2,2-Tetrachloroethane	ND	5.0	10	05/10/2017 13:24
Tetrachloroethene	ND	5.0	10	05/10/2017 13:24
Toluene	7.4	5.0	10	05/10/2017 13:24
1,2,3-Trichlorobenzene	ND	5.0	10	05/10/2017 13:24
1,2,4-Trichlorobenzene	ND	5.0	10	05/10/2017 13:24
1,1,1-Trichloroethane	ND	5.0	10	05/10/2017 13:24
1,1,2-Trichloroethane	ND	5.0	10	05/10/2017 13:24
Trichloroethene	ND	5.0	10	05/10/2017 13:24
Trichlorofluoromethane	ND	5.0	10	05/10/2017 13:24
1,2,3-Trichloropropane	ND	5.0	10	05/10/2017 13:24
1,2,4-Trimethylbenzene	ND	5.0	10	05/10/2017 13:24
1,3,5-Trimethylbenzene	ND	5.0	10	05/10/2017 13:24
Vinyl Chloride	ND	5.0	10	05/10/2017 13:24
Xylenes, Total	10	5.0	10	05/10/2017 13:24

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-MW-12	1705138-008A	Water	05/02/2017 10:40	GC16	138646

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	96	70-130		05/10/2017 13:24
Toluene-d8	94	70-130		05/10/2017 13:24
4-BFB	97	70-130		05/10/2017 13:24

Analyst(s): HK



Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-141 Farrelly Drive	1705138-009A	Water	05/02/2017 10:02	GC16	138646

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	10	1	05/10/2017 14:46
tert-Amyl methyl ether (TAME)	ND	0.50	1	05/10/2017 14:46
Benzene	ND	0.50	1	05/10/2017 14:46
Bromobenzene	ND	0.50	1	05/10/2017 14:46
Bromochloromethane	ND	0.50	1	05/10/2017 14:46
Bromodichloromethane	ND	0.50	1	05/10/2017 14:46
Bromoform	ND	0.50	1	05/10/2017 14:46
Bromomethane	ND	0.50	1	05/10/2017 14:46
2-Butanone (MEK)	ND	2.0	1	05/10/2017 14:46
t-Butyl alcohol (TBA)	ND	2.0	1	05/10/2017 14:46
n-Butyl benzene	ND	0.50	1	05/10/2017 14:46
sec-Butyl benzene	ND	0.50	1	05/10/2017 14:46
tert-Butyl benzene	ND	0.50	1	05/10/2017 14:46
Carbon Disulfide	ND	0.50	1	05/10/2017 14:46
Carbon Tetrachloride	ND	0.50	1	05/10/2017 14:46
Chlorobenzene	ND	0.50	1	05/10/2017 14:46
Chloroethane	ND	0.50	1	05/10/2017 14:46
Chloroform	ND	0.50	1	05/10/2017 14:46
Chloromethane	ND	0.50	1	05/10/2017 14:46
2-Chlorotoluene	ND	0.50	1	05/10/2017 14:46
4-Chlorotoluene	ND	0.50	1	05/10/2017 14:46
Dibromochloromethane	ND	0.50	1	05/10/2017 14:46
1,2-Dibromo-3-chloropropane	ND	0.20	1	05/10/2017 14:46
1,2-Dibromoethane (EDB)	ND	0.50	1	05/10/2017 14:46
Dibromomethane	ND	0.50	1	05/10/2017 14:46
1,2-Dichlorobenzene	ND	0.50	1	05/10/2017 14:46
1,3-Dichlorobenzene	ND	0.50	1	05/10/2017 14:46
1,4-Dichlorobenzene	ND	0.50	1	05/10/2017 14:46
Dichlorodifluoromethane	ND	0.50	1	05/10/2017 14:46
1,1-Dichloroethane	ND	0.50	1	05/10/2017 14:46
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	05/10/2017 14:46
1,1-Dichloroethene	ND	0.50	1	05/10/2017 14:46
cis-1,2-Dichloroethene	ND	0.50	1	05/10/2017 14:46
trans-1,2-Dichloroethene	ND	0.50	1	05/10/2017 14:46
1,2-Dichloropropane	ND	0.50	1	05/10/2017 14:46
1,3-Dichloropropane	ND	0.50	1	05/10/2017 14:46
2,2-Dichloropropane	ND	0.50	1	05/10/2017 14:46

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-141 Farrelly Drive	1705138-009A	Water	05/02/2017 10:02	GC16	138646

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloropropene	ND	0.50	1	05/10/2017 14:46
cis-1,3-Dichloropropene	ND	0.50	1	05/10/2017 14:46
trans-1,3-Dichloropropene	ND	0.50	1	05/10/2017 14:46
Diisopropyl ether (DIPE)	ND	0.50	1	05/10/2017 14:46
Ethylbenzene	ND	0.50	1	05/10/2017 14:46
Ethyl tert-butyl ether (ETBE)	ND	0.50	1	05/10/2017 14:46
Freon 113	ND	0.50	1	05/10/2017 14:46
Hexachlorobutadiene	ND	0.50	1	05/10/2017 14:46
Hexachloroethane	ND	0.50	1	05/10/2017 14:46
2-Hexanone	ND	0.50	1	05/10/2017 14:46
Isopropylbenzene	ND	0.50	1	05/10/2017 14:46
4-Isopropyl toluene	ND	0.50	1	05/10/2017 14:46
Methyl-t-butyl ether (MTBE)	ND	0.50	1	05/10/2017 14:46
Methylene chloride	ND	0.50	1	05/10/2017 14:46
4-Methyl-2-pentanone (MIBK)	ND	0.50	1	05/10/2017 14:46
Naphthalene	ND	0.50	1	05/10/2017 14:46
n-Propyl benzene	ND	0.50	1	05/10/2017 14:46
Styrene	ND	0.50	1	05/10/2017 14:46
1,1,1,2-Tetrachloroethane	ND	0.50	1	05/10/2017 14:46
1,1,2,2-Tetrachloroethane	ND	0.50	1	05/10/2017 14:46
Tetrachloroethene	0.98	0.50	1	05/10/2017 14:46
Toluene	ND	0.50	1	05/10/2017 14:46
1,2,3-Trichlorobenzene	ND	0.50	1	05/10/2017 14:46
1,2,4-Trichlorobenzene	ND	0.50	1	05/10/2017 14:46
1,1,1-Trichloroethane	ND	0.50	1	05/10/2017 14:46
1,1,2-Trichloroethane	ND	0.50	1	05/10/2017 14:46
Trichloroethene	ND	0.50	1	05/10/2017 14:46
Trichlorofluoromethane	ND	0.50	1	05/10/2017 14:46
1,2,3-Trichloropropane	ND	0.50	1	05/10/2017 14:46
1,2,4-Trimethylbenzene	ND	0.50	1	05/10/2017 14:46
1,3,5-Trimethylbenzene	ND	0.50	1	05/10/2017 14:46
Vinyl Chloride	ND	0.50	1	05/10/2017 14:46
Xylenes, Total	ND	0.50	1	05/10/2017 14:46

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Analytical Report

Client: Advanced GeoEnvironmental, Inc.
Date Received: 5/3/17 15:40
Date Prepared: 5/5/17-5/10/17
Project: Sunshine Cleaners

WorkOrder: 1705138
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
GA-141 Farrelly Drive	1705138-009A	Water	05/02/2017 10:02	GC16	138646

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	
Dibromofluoromethane	100	70-130		05/10/2017 14:46
Toluene-d8	92	70-130		05/10/2017 14:46
4-BFB	99	70-130		05/10/2017 14:46

Analyst(s): HK



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/5/17
Date Analyzed: 5/5/17
Instrument: GC16
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138422
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-138422
 1705121-005BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	9.20	0.50	10	-	92	54-140
Benzene	ND	9.92	0.50	10	-	99	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	33.9	2.0	40	-	85	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	8.89	0.50	10	-	89	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	9.72	0.50	10	-	97	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	9.00	0.50	10	-	90	66-125
1,1-Dichloroethene	ND	9.66	0.50	10	-	97	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-

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Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/5/17
Date Analyzed: 5/5/17
Instrument: GC16
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138422
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-138422
 1705121-005BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	10.2	0.50	10	-	103	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.73	0.50	10	-	97	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	8.99	0.50	10	-	90	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.04	0.50	10	-	90	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.21	0.50	10	-	92	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/5/17
Date Analyzed: 5/5/17
Instrument: GC16
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138422
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-138422
 1705121-005BMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	22.68	22.9		25	91	92	70-130
Toluene-d8	23.57	23.6		25	94	94	70-130
4-BFB	2.433	2.36		2.5	97	94	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	10.2	10.4	10	ND	102	105	69-139	2.37	20
Benzene	9.77	9.95	10	ND	98	99	69-141	1.84	20
t-Butyl alcohol (TBA)	45.6	46.2	40	ND	114	116	41-152	1.48	20
Chlorobenzene	9.01	9.23	10	ND	90	92	77-120	2.44	20
1,2-Dibromoethane (EDB)	10.9	11.1	10	ND	109	111	76-135	2.11	20
1,2-Dichloroethane (1,2-DCA)	9.62	9.85	10	ND	96	99	73-139	2.36	20
1,1-Dichloroethene	9.33	9.67	10	ND	93	97	59-140	3.50	20
Diisopropyl ether (DIPE)	10.7	10.9	10	ND	107	109	72-140	2.41	20
Ethyl tert-butyl ether (ETBE)	10.5	10.7	10	ND	105	107	71-140	2.10	20
Methyl-t-butyl ether (MTBE)	10.2	10.3	10	ND	102	103	73-139	1.60	20
Toluene	8.89	9.21	10	ND	89	92	71-128	3.61	20
Trichloroethene	8.86	9.19	10	ND	89	92	64-132	3.58	20
Surrogate Recovery									
Dibromofluoromethane	23.1	22.9	25		92	91	73-131	0.990	20
Toluene-d8	23.7	23.4	25		95	94	72-117	0.988	20
4-BFB	2.40	2.39	2.5		96	96	74-116	0	20

(Cont.)



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/10/17
Date Analyzed: 5/10/17
Instrument: GC16
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138646
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-138646

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	8.87	0.50	10	-	89	54-140
Benzene	ND	9.42	0.50	10	-	94	47-158
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	32.3	2.0	40	-	81	42-140
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	9.24	0.50	10	-	92	43-157
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	9.33	0.50	10	-	93	44-155
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	9.20	0.50	10	-	92	66-125
1,1-Dichloroethene	ND	9.41	0.50	10	-	94	47-149
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/10/17
Date Analyzed: 5/10/17
Instrument: GC16
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138646
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-138646

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
Diisopropyl ether (DIPE)	ND	9.74	0.50	10	-	97	57-136
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	9.42	0.50	10	-	94	55-137
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	8.67	0.50	10	-	87	53-139
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	9.03	0.50	10	-	90	52-137
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	9.38	0.50	10	-	94	43-157
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/10/17
Date Analyzed: 5/10/17
Instrument: GC16
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138646
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-138646

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Surrogate Recovery							
Dibromofluoromethane	22.62	22.6		25	90	90	70-130
Toluene-d8	24.31	24.5		25	97	98	70-130
4-BFB	2.322	2.37		2.5	93	95	70-130



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/8/17
Date Analyzed: 5/8/17
Instrument: GC10
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138525
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-138525

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acetone	ND	10	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.50	-	-	-
Benzene	ND	0.50	-	-	-
Bromobenzene	ND	0.50	-	-	-
Bromochloromethane	ND	0.50	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
2-Butanone (MEK)	ND	2.0	-	-	-
t-Butyl alcohol (TBA)	ND	2.0	-	-	-
n-Butyl benzene	ND	0.50	-	-	-
sec-Butyl benzene	ND	0.50	-	-	-
tert-Butyl benzene	ND	0.50	-	-	-
Carbon Disulfide	ND	0.50	-	-	-
Carbon Tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
2-Chlorotoluene	ND	0.50	-	-	-
4-Chlorotoluene	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromo-3-chloropropane	ND	0.20	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
Dibromomethane	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
Dichlorodifluoromethane	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
cis-1,2-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
1,3-Dichloropropane	ND	0.50	-	-	-
2,2-Dichloropropane	ND	0.50	-	-	-
1,1-Dichloropropene	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-

(Cont.)



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/8/17
Date Analyzed: 5/8/17
Instrument: GC10
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138525
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-138525

QC Summary Report for SW8260B

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Diisopropyl ether (DIPE)	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.50	-	-	-
Freon 113	ND	0.50	-	-	-
Hexachlorobutadiene	ND	0.50	-	-	-
Hexachloroethane	ND	0.50	-	-	-
2-Hexanone	ND	0.50	-	-	-
Isopropylbenzene	ND	0.50	-	-	-
4-Isopropyl toluene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	ND	0.50	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	0.50	-	-	-
Naphthalene	ND	0.50	-	-	-
n-Propyl benzene	ND	0.50	-	-	-
Styrene	ND	0.50	-	-	-
1,1,1,2-Tetrachloroethane	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,3-Trichlorobenzene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
1,2,3-Trichloropropane	ND	0.50	-	-	-
1,2,4-Trimethylbenzene	ND	0.50	-	-	-
1,3,5-Trimethylbenzene	ND	0.50	-	-	-
Vinyl Chloride	ND	0.50	-	-	-
Xylenes, Total	ND	0.50	-	-	-

Surrogate Recovery

Dibromofluoromethane	25.8		25	103	70-130
Toluene-d8	26.55		25	106	70-130
4-BFB	2.381		2.5	95	70-130

(Cont.)



Quality Control Report

Client: Advanced GeoEnvironmental, Inc.
Date Prepared: 5/8/17
Date Analyzed: 5/8/17
Instrument: GC10
Matrix: Water
Project: Sunshine Cleaners

WorkOrder: 1705138
BatchID: 138525
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS/LCSD-138525

QC Summary Report for SW8260B

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	9.34	9.60	10	93	96	54-140	2.75	20
Benzene	9.45	9.53	10	94	95	47-158	0.832	20
t-Butyl alcohol (TBA)	33.8	34.6	40	84	86	42-140	2.26	20
Chlorobenzene	9.12	9.19	10	91	92	43-157	0.778	20
1,2-Dibromoethane (EDB)	9.19	9.35	10	92	94	44-155	1.72	20
1,2-Dichloroethane (1,2-DCA)	9.35	9.63	10	94	96	66-125	2.99	20
1,1-Dichloroethene	9.14	9.41	10	91	94	47-149	2.84	20
Diisopropyl ether (DIPE)	9.34	9.47	10	93	95	57-136	1.48	20
Ethyl tert-butyl ether (ETBE)	9.64	9.85	10	96	98	55-137	2.08	20
Methyl-t-butyl ether (MTBE)	9.09	9.37	10	91	94	53-139	3.05	20
Toluene	9.40	9.43	10	94	94	52-137	0	20
Trichloroethene	9.13	9.20	10	91	92	43-157	0.755	20
Surrogate Recovery								
Dibromofluoromethane	25.9	26.0	25	104	104	70-130	0	20
Toluene-d8	26.6	26.4	25	106	105	70-130	0.647	20
4-BFB	2.50	2.50	2.5	100	100	70-130	0	20



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1705138

ClientCode: AGES

WaterTrax
 WriteOn
 EDF
 Excel
 EQUIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Daniel Villanueva
Advanced GeoEnvironmental, Inc.
837 Shaw Road
Stockton, CA 95215
(209) 467-1006 FAX: (209) 467-1118

Email: dvillanueva@advgeoenv.com
cc/3rd Party:
PO:
ProjectNo: Sunshine Cleaners

Bill to:

Erica
Advanced GeoEnvironmental, Inc.
837 Shaw Road
Stockton, CA 95215
ap@advgeoenv.com; kburchard@advge

Requested TAT: **5 days;**

Date Received: **05/03/2017**

Date Logged: **05/03/2017**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1705138-001	MW-1	Water	5/2/2017 09:07	<input type="checkbox"/>	A	A											
1705138-002	MW-2	Water	5/2/2017 08:44	<input type="checkbox"/>	A												
1705138-003	MW-3	Water	5/2/2017 09:40	<input type="checkbox"/>	A												
1705138-004	MW-4	Water	5/2/2017 08:24	<input type="checkbox"/>	A												
1705138-005	GA-MW-1A	Water	5/2/2017 10:50	<input type="checkbox"/>	A												
1705138-006	GA-MW-9	Water	5/2/2017 10:20	<input type="checkbox"/>	A												
1705138-007	GA-MW-11	Water	5/2/2017 11:05	<input type="checkbox"/>	A												
1705138-008	GA-MW-12	Water	5/2/2017 10:40	<input type="checkbox"/>	A												
1705138-009	GA-141 Farrelly Drive	Water	5/2/2017 10:02	<input type="checkbox"/>	A												

Test Legend:

1	8260B_W	2	PREFD REPORT	3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Tina Perez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: ADVANCED GEOENVIRONMENTAL, INC.

Project: Sunshine Cleaners

Work Order: 1705138

Client Contact: Daniel Villanueva

QC Level: LEVEL 2

Contact's Email: dvillanueva@advgeoenv.com

Comments:

Date Logged: 5/3/2017

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1705138-001A	MW-1	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 9:07	5 days	1%+	<input type="checkbox"/>	
1705138-002A	MW-2	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 8:44	5 days	1%+	<input type="checkbox"/>	
1705138-003A	MW-3	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 9:40	5 days	Present	<input type="checkbox"/>	
1705138-004A	MW-4	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 8:24	5 days	1%+	<input type="checkbox"/>	
1705138-005A	GA-MW-1A	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 10:50	5 days	Present	<input type="checkbox"/>	
1705138-006A	GA-MW-9	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 10:20	5 days	Trace	<input type="checkbox"/>	
1705138-007A	GA-MW-11	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 11:05	5 days	Trace	<input type="checkbox"/>	
1705138-008A	GA-MW-12	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 10:40	5 days	Trace	<input type="checkbox"/>	
1705138-009A	GA-141 Farrelly Drive	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/2/2017 10:02	5 days	Trace	<input type="checkbox"/>	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



Sample Receipt Checklist

Client Name: **Advanced GeoEnvironmental, Inc.**
 Project Name: **Sunshine Cleaners**
 WorkOrder No: **1705138** Matrix: Water
 Carrier: David Shaver (MAI Courier)

Date and Time Received: **5/3/2017 15:40**
 Date Logged: **5/3/2017**
 Received by: Tina Perez
 Logged by: Tina Perez

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No NA
 Sample/Temp Blank temperature Temp: 11.8°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes No NA
 Samples Received on Ice? Yes No
 (Ice Type: WET ICE)

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes No NA
 Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes No NA

Comments: