

September 29, 2017

Mill Creek Crossing LLC
22833 Bothell Everett Highway, Suite 207
Bothell, Washington 98021

Attn: Mr. Nicholas Echelbarger

Re: Groundwater Monitoring Report – Former Prime Cleaners
18001 Bothell Everett Highway
Bothell, Snohomish County, Washington
ZGA Project No. 1001.25
VCP #NW2571

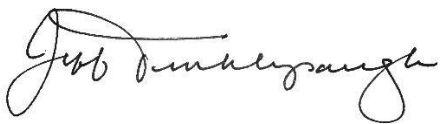
Dear Mr. Echelbarger:

Zipper Geo Associates, LLC (ZGA) is pleased to submit this Groundwater Monitoring Report for the above referenced site. This investigation was performed in accordance with ZGA's Proposal No. P14297R, dated July 2, 2015 and includes results for sampling events completed in January 2017 and August 2017.

We appreciate the opportunity to perform these services for Mill Creek Crossing LLC. Please contact the undersigned at (425) 582-9928 if you have questions regarding the information provided in the report.

Sincerely,

Zipper Geo Associates, LLC



Jeff Tinklepaugh, GIT
Staff Geologist



Jon Einarsen, LG
Principal

Attachments: Appendix A – Figures

Figure 1 – Site Plan and Groundwater Contour Map (January 2017)

Figure 2 – Site Plan and Groundwater Contour Map (August 2017)

Appendix B – Laboratory Reports

Introduction

A dual-phase extraction (DPE) system has been installed at the Site to treat soil and groundwater that has been impacted by tetrachloroethylene (PCE) due to historical use of two adjoining tenant spaces at the Mill Creek Crossing retail center for dry cleaning activities. The DPE system was first started on February 1, 2017. After working through several issues that were causing the system to automatically shut down, the system has been running more or less continuously since June of 2017, with periodic shutdowns for maintenance and groundwater sampling.

This groundwater monitoring report presents a summary of a pre-DPE system startup groundwater sampling event (January 2017) and a post-DPE system startup groundwater sampling event (August 2017). The scope of the monitoring study is to sample 10 groundwater wells located proximal to the former dry cleaning facilities located on the southwest part of the retail center. Results from the monitoring study are used to assess trends in concentrations of volatile organic compounds (VOC), particularly tetrachloroethylene (PCE), and its degradational products trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-1,2-DCE), and trans-1,2-dichloroethylene (trans-1,2-DCE). The end-member degradational product vinyl chloride has never been detected at the Site.

Table 1. Project Information

Site Name	Former Prime Cleaners
Site Location/Address	18001 Bothell-Everett Highway
VCP #	NW2571
Sampling Schedule	Quarterly
Sampling Dates (this report)	January 10-11, 2017; August 17-18, and August 21, 2017
Wells Sounded	MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10
Wells Sampled	MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10
Next Sampling Event	November, 2017

Groundwater Flow

Ten dedicated groundwater monitoring wells are present on the Site (MW-1 through MW-10). We measured depth to groundwater in each well on January 9, 2017 and August 17, 2017 (except MW-10 was measured on August 18, 2017). Depth to groundwater was measured in relation to the north side of the PVC casing of each well. Generally, we observed a southerly trend to groundwater flow. Relative groundwater elevations measured during previous sampling events and the two sampling events discussed in this report are presented in Table 2. Groundwater contour maps are attached in Appendix A as Figure 1 (January, 2017) and Figure 2 (August, 2017).

Table 2. Groundwater Elevations

Well ID	Relative Casing Elevation (ft.)	Date of Measurement	Depth to Groundwater (ft.)	Relative Groundwater Elevation (ft.)
MW-1	296.31	8/25/2010	25.22	271.09
		5/9/2011	21.18	275.13
		5/23/2012	22.73	273.58
		1/9/2017	22.85	273.46
		8/17/2017	24.87	271.44
MW-2	296.47	8/25/2010	25.58	270.89
		5/9/2011	21.61	274.86
		5/23/2012	22.97	273.50
		1/9/2017	23.14	273.33
		8/17/2017	25.57	270.90
MW-3	296.96	8/25/2010	26.17	270.79
		5/9/2011	22.21	274.75
		5/23/2012	23.49	273.47
		1/9/2017	23.66	273.30
		8/17/2017	26.10	270.86
MW-4	296.56	8/25/2010	25.76	270.80
		5/9/2011	21.77	274.79
		5/23/2012	23.10	273.46
		1/9/2017	23.21	273.35
		8/17/2017	25.67	270.89
MW-5	289.85	8/25/2010	18.71	271.14
		5/9/2011	14.96	274.89
		5/23/2012	16.18	273.67
		1/9/2017	17.36	272.49
		8/17/2017	18.71	271.14
MW-6	289.94	8/25/2010	18.91	271.03
		5/9/2011	15.06	274.88
		5/23/2012	16.30	273.64
		1/9/2017	16.44	273.50
		8/17/2017	18.81	271.13
MW-7	289.72	8/25/2010	19.14	270.58
		5/9/2011	15.22	274.50
		5/23/2012	16.41	273.31
		1/9/2017	16.61	273.11
		8/17/2017	19.11	270.61
MW-8	290.56	8/25/2010	Not Installed	
		5/9/2011	16.02	274.54
		5/23/2012	17.21	273.35
		1/9/2017	17.47	273.09
		8/17/2017	19.91	270.65
MW-9	298.90	8/25/2010	Not Installed	
		5/9/2011	Not Installed	
		5/23/2012	Not Installed	
		1/9/2017	25.10	273.80
		8/17/2017	27.55	271.35

Well ID	Relative Casing Elevation (ft.)	Date of Measurement	Depth to Groundwater (ft.)	Relative Groundwater Elevation (ft.)
MW-10	297.49	8/25/2010	Not Installed	
		5/9/2011	Not Installed	
		5/23/2012	Not Installed	
		1/12/2017	24.17	273.32
		8/18/17	26.21	271.28

Groundwater Sampling and Analysis

Groundwater was sampled by ZGA on January 11 and 12, 2017 and again on August 17-18 and August 21, 2017. Each groundwater monitoring well was purged using a portable bladder pump equipped with a disposable bladder and dedicated tubing. The pump was lowered gently into the water column to a depth that corresponded with the highest concentration of PCE observed in that well in soil during the remedial investigation (ZGA Project No. 1001.22). If no PCE was measured in soil in a well, the pump was set at the mid-point of the screen. Flow rates were maintained at approximately 0.1 to 0.3 liters per minute. During the purging process, groundwater quality parameters including temperature, electrical conductivity (EC), pH, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured at regular intervals using a Horiba U-22 water-quality meter equipped with a flow cell. Purging at a given well was considered complete when: DO and turbidity were within +/- 10% variance; pH was within +/- 0.1 variance; EC was within +/- 3% variance; and ORP was within +/- 10 mV. All non-disposable pump components were decontaminated after sampling by rinsing with potable water, scrubbing in a solution of Alconox™ and potable water, and a final rinse with distilled water. Purge water and decontamination water were stored in a sealed, labeled 50-gallon drum at the Site and are awaiting classification and off-site disposal.

Groundwater samples were collected after parameter stabilization into laboratory supplied glass VOA vials preserved with hydrochloric acid. Sample containers were labeled with the well ID, the project name, the project number, the date, and the time of collection. Sample containers were immediately stored in a chilled cooler and were later transferred to a dedicated refrigerator in our office. Sample containers were transported to Field Environmental Instruments (FEI) in Woodinville in a chilled cooler under chain of custody procedures. FEI functioned as an intermediary to the analytical laboratory: Environmental Science Corporation (ESC), a Washington State accredited laboratory. All samples were analyzed by ESC at their central laboratory, located in Tennessee.

The analytical results are summarized in Table 3, and are compared to cleanup levels defined in the Model Toxics Control Act (WAC 173-340).

Pre-Startup Groundwater Sampling Analytical Results (January, 2017)

The following results were drawn from the analysis of 10 groundwater samples. The executed chain-of-custody forms and laboratory analytical certificates are provided in Appendix B.

- PCE was detected at concentrations that exceeded the applicable cleanup level (5 µg/L) in three wells: MW-3 (9.28 µg/L), MW-4 (96.1 µg/L), and MW-8 (26.4 µg/L).
- PCE was detected at concentrations above the reporting detection limit (1 µg/L) but below the cleanup level in three wells: MW-1 (0.508 µg/L), MW-6 (1.07 µg/L), and MW-7 (0.948 µg/L).
- PCE was not detected above the reporting detection limit in four wells: MW-2, MW-5, MW-9, and MW-10.

Trace amounts of chloroform were reported in MW-7, MW-8, and MW-9 in concentrations below applicable cleanup levels. No other VOC were reported above laboratory reporting detection limits (RDLs). The analytical results are similar to those previously measured at the Site.

Post Startup Groundwater Sampling Analytical Results (August, 2017)

The following results were drawn from the analysis of 10 groundwater samples. The executed chain-of-custody forms and laboratory analytical certificates are provided in Appendix B.

- PCE was detected at concentrations that exceeded the applicable cleanup level (5 µg/L) in two wells: MW-4 (95.8 µg/L), and MW-8 (25.1 µg/L).
- PCE was detected at concentrations above the RDL but below the cleanup in five wells: MW-1 (0.431 µg/L), MW-3 (2.81 µg/L), MW-5 (0.281 µg/L), MW-6 (0.674 µg/L), and MW-7 (1.49 µg/L). This sampling event is the first time that the concentration of PCE in MW-3 has fallen to below cleanup levels.
- PCE was not detected above the RDL in three wells: MW-2, MW-9, and MW-10.
- Trans-1,2-DCE was reported in MW-8 at a concentration of 0.250 µg/L. This is the first time trans-1,2-DCE has been detected. The cleanup level is 100 µg/L.

Trace amounts of acetone (MW-1, MW-5, MW-8, MW-10), chloroform (MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, MW-9, and MW-10), naphthalene (MW-1), and 1,2,4-trimethylbenzene (MW-1) were reported in concentrations below applicable cleanup levels. No other VOC were reported above laboratory RDLs.

For the first time in seven sampling events extending back to 2009, the measured concentration of PCE in MW-3 was below the MTCA Method A cleanup level during the August, 2017 sampling event.

Table 3. Groundwater Analytical Results

Monitoring Well	Date	Volatile Organic Compounds (µg/L)			
		PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE
MW-1	06-17-09	12	ND<1	4.8	ND<1
	08-10-10	ND<1	3.2	1.4	ND<1
	05-10-11	1.3	ND<1	ND<1	ND<1
	05-23-12	ND<2	ND<2	ND<2	ND<2
	03-05-14	ND<2	ND<2	ND<2	ND<2
	01-11-17	0.508	ND<1	ND<1	ND<1
	08-18-17	0.431	ND<1	ND<1	ND<1
MW-2	06-16-09	ND<1	ND<1	ND<1	ND<1
	08-12-10	ND<1	ND<1	ND<1	ND<1
	05-10-11	ND<1	ND<1	ND<1	ND<1
	05-24-12	ND<2	ND<2	ND<2	ND<2
	03-05-14	ND<2	ND<2	ND<2	ND<2
	01-11-17	ND<1	ND<1	ND<1	ND<1
	08-17-17	ND<1	ND<1	ND<1	ND<1
MW-3	06-17-09	6.6	ND<1	ND<1	ND<1
	08-12-10	6.4	ND<1	ND<1	ND<1
	05-10-11	9.3	ND<1	ND<1	ND<1
	05-24-12	15	ND<2	ND<2	ND<2
	03-07-14	5.6	ND<2	ND<2	ND<2
	01-12-17	9.28	ND<1	ND<1	ND<1
	08-21-17	2.81	ND<1	ND<1	ND<1
MW-4	10-31-07	45	ND<1	ND<1	ND<1
	06-16-09	170	ND<1	ND<1	ND<1
	08-12-10	140	ND<1	ND<1	ND<1
	05-10-11	110	ND<1	ND<1	ND<1
	05-24-12	140	ND<2	ND<2	ND<2
	03-07-14	44	ND<2	ND<2	ND<2
	01-13-17	96.1	ND<1	ND<1	ND<1
	01-13-17 DUP	95.8	ND<1	ND<1	ND<1
	08-21-17	76.5	ND<1	ND<1	ND<1
MW-5	08-10-10	0.61	ND<1	ND<1	ND<1
	05-09-11	0.60	ND<1	ND<1	ND<1
	03-06-14	ND<2	ND<2	ND<2	ND<2
	01-12-17	ND<1	ND<1	ND<1	ND<1
	08-18-17	0.281	ND<1	ND<1	ND<1
MW-6	08-10-10	ND<1	ND<1	ND<1	ND<1
	05-09-11	2.2	ND<1	ND<1	ND<1
	03-06-14	4.7	ND<2	ND<2	ND<2
	01-12-17	1.07	ND<1	ND<1	ND<1
	08-21-17	0.674	ND<1	ND<1	ND<1
MW-7	08-10-10	0.55	ND<1	ND<1	ND<1
	05-09-11	ND<1	ND<1	ND<1	ND<1
	03-06-14	8.0	ND<2	ND<2	ND<2
	01-12-17	0.948	ND<1	ND<1	ND<1
	08-21-17	1.49	ND<1	ND<1	ND<1
MW-8	05-10-11	22	ND<1	ND<1	ND<1
	05-24-12	36	ND<2	ND<2	ND<2
	03-07-14	13	ND<2	ND<2	ND<2
	01-13-17	26.4	ND<1	ND<1	ND<1
	08-21-17	25.1	ND<1	ND<1	0.250
MW-9	05-10-11	ND<1	ND<1	ND<1	ND<1
	03-05-14	ND<2	ND<2	ND<2	ND<2
	01-11-17	ND<1	ND<1	ND<1	ND<1
	08-18-17	ND<1	ND<1	ND<1	ND<1
MW-10	03-06-14	ND<2	ND<2	ND<2	ND<2
	01-12-17	ND<1	ND<1	ND<1	ND<1
	08-18-17	ND<1	ND<1	ND<1	ND<1
Equipment Blank	06-16-09	ND<1	ND<1	ND<1	ND<1
Equipment Blank	08-12-10	ND<1	ND<1	ND<1	ND<1
Equipment Blank	01-13-17	ND<1	ND<1	ND<1	ND<1
MTCA Method A Cleanup Level		5	5	70	100

ug/L: micrograms per liter (parts-per-billion); ND<: Not detected above indicated laboratory reporting detection limit; Shaded values exceed MTCA Method A cleanup levels. Please refer to Appendix C for the complete set of analytes and analytical results for VOC.

Conclusions

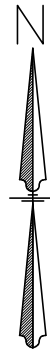
ZGA completed pre-DPE system startup and post-DPE system startup groundwater sampling events in January and August of 2017. PCE concentrations reported for the January sampling event will be used as a baseline to evaluate the effectiveness of the dual phase extraction system going forward.

Historically, PCE has exceeded cleanup levels in MW-3, MW-4 and MW-8. The concentration of PCE fell to a concentration below the cleanup level in MW-3 for the first time in August, 2017. Reductions in PCE concentrations in MW-4 and MW-8 are not yet apparent.

ZGA will continue to monitor the effectiveness of the DPE system by completing additional groundwater monitoring events on a quarterly basis going forward. The next sampling event is scheduled for November, 2017.

APPENDIX A

Figures



SR-527 (BOTHELL-EVERETT HIGHWAY)

MW-1	
DATE	PCE (UG/L)
1/11/17	0.508

MW-6	
DATE	PCE (UG/L)
1/11/17	1.07

MW-4	
DATE	PCE (UG/L)
1/11/17	96.1

MW-7	
DATE	PCE (UG/L)
1/11/17	0.948

MW-3	
DATE	PCE (UG/L)
1/11/17	9.28

MW-8	
DATE	PCE (UG/L)
1/11/17	26.4

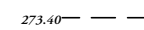
LEGEND :



GROUND WATER MONITORING WELL -
APPROXIMATE LOCATION AND GROUNDWATER
ELEVATION



DUAL-PHASE EXTRACTION WELL - APPROXIMATE
LOCATION



INFERRED GROUNDWATER CONTOURS



INFERRED GROUNDWATER FLOW DIRECTION



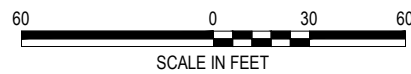
INFERRED EXTENT OF PCE CONTAMINATION IN
GROUNDWATER EXCEEDING MTCA METHOD A
CLEANUP LEVEL

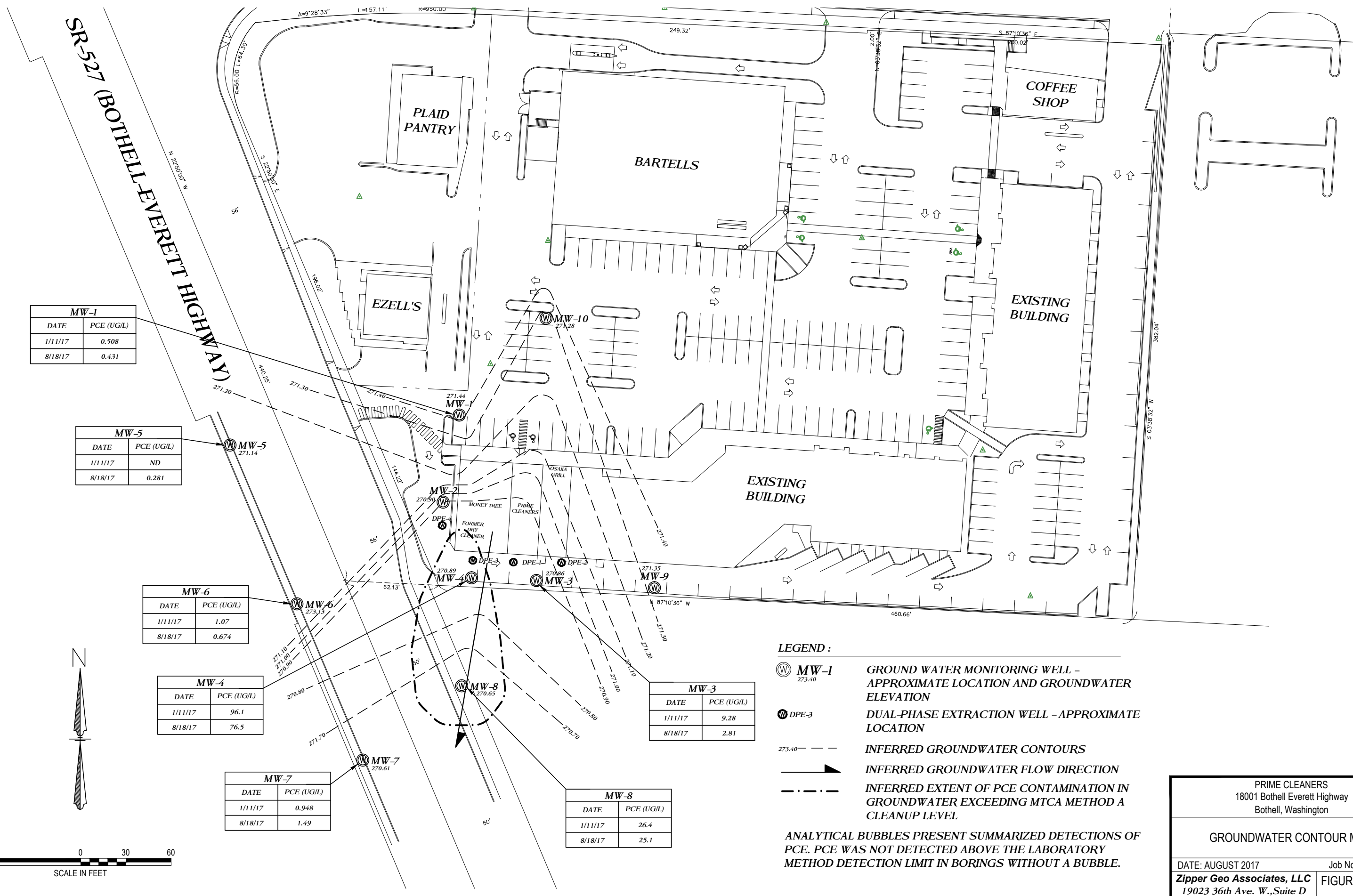
ANALYTICAL BUBBLES PRESENT SUMMARIZED DETECTIONS OF
PCE. PCE WAS NOT DETECTED ABOVE THE LABORATORY
METHOD DETECTION LIMIT IN BORINGS WITHOUT A BUBBLE.

PRIME CLEANERS
18001 Bothell Everett Highway
Bothell, Washington

GROUNDWATER CONTOUR MAP

DATE: JANUARY 2017	Job No.	1001.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE	1
	SHT. 1 of 1	





MW-1	
DATE	PCE (UG/L)
1/11/17	0.508
8/18/17	0.431

MW-5	
DATE	PCE (UG/L)
1/11/17	ND
8/18/17	0.281

MW-6	
DATE	PCE (UG/L)
1/11/17	1.07
8/18/17	0.674

MW-4	
DATE	PCE (UG/L)
1/11/17	96.1
8/18/17	76.5

MW-7	
DATE	PCE (UG/L)
1/11/17	0.948
8/18/17	1.49

MW-3	
DATE	PCE (UG/L)
1/11/17	9.28
8/18/17	2.81

MW-8	
DATE	PCE (UG/L)
1/11/17	26.4
8/18/17	25.1

LEGEND :

⊙ MW-1 273.40 GROUND WATER MONITORING WELL - APPROXIMATE LOCATION AND GROUNDWATER ELEVATION

⊙ DPE-3 DUAL-PHASE EXTRACTION WELL - APPROXIMATE LOCATION

--- 273.40 --- INFERRED GROUNDWATER CONTOURS

➔ INFERRED GROUNDWATER FLOW DIRECTION

- . - . - INFERRED EXTENT OF PCE CONTAMINATION IN GROUNDWATER EXCEEDING MTCA METHOD A CLEANUP LEVEL

ANALYTICAL BUBBLES PRESENT SUMMARIZED DETECTIONS OF PCE. PCE WAS NOT DETECTED ABOVE THE LABORATORY METHOD DETECTION LIMIT IN BORINGS WITHOUT A BUBBLE.

PRIME CLEANERS
18001 Bothell Everett Highway
Bothell, Washington

GROUNDWATER CONTOUR MAP

DATE: AUGUST 2017 Job No. 1001.25

Zipper Geo Associates, LLC FIGURE 2
19023 36th Ave. W., Suite D
Lynnwood, WA SHT. 1 of 1

Appendix B

Laboratory Reports

Zipper Geo Associates - Lynnwood, WA

Sample Delivery Group: L884589
Samples Received: 01/18/2017
Project Number: 1001.25
Description: Prime Cleaners

Report To: Jon Einarsen
19023 36th Avenue West
Suite D
Lynnwood, WA 98036

Entire Report Reviewed By:



Brian Ford
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹ Cp: Cover Page	1
² Tc: Table of Contents	2
³ Ss: Sample Summary	3
⁴ Cn: Case Narrative	5
⁵ Sr: Sample Results	6
MW-1 L884589-01	6
MW-2 L884589-02	8
MW-3 L884589-03	10
MW-4 L884589-04	12
MW-5 L884589-05	14
MW-6 L884589-06	16
MW-7 L884589-07	18
MW-8 L884589-08	20
MW-9 L884589-09	22
MW-10 L884589-10	24
DUP L884589-11	26
EB L884589-12	28
⁶ Qc: Quality Control Summary	30
Volatile Organic Compounds (GC/MS) by Method 8260C	30
⁷ Gl: Glossary of Terms	34
⁸ Al: Accreditations & Locations	35
⁹ Sc: Chain of Custody	36



SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-1 L884589-01 GW

			Collected by	Collected date/time	Received date/time
				01/11/17 16:40	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 18:28	01/19/17 18:28	BMB

¹ Cp

² Tc

³ Ss

MW-2 L884589-02 GW

			Collected by	Collected date/time	Received date/time
				01/11/17 13:03	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 18:47	01/19/17 18:47	BMB

⁴ Cn

⁵ Sr

MW-3 L884589-03 GW

			Collected by	Collected date/time	Received date/time
				01/12/17 17:00	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 19:06	01/19/17 19:06	BMB

⁶ Qc

⁷ Gl

MW-4 L884589-04 GW

			Collected by	Collected date/time	Received date/time
				01/13/17 12:05	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 19:26	01/19/17 19:26	BMB

⁸ Al

⁹ Sc

MW-5 L884589-05 GW

			Collected by	Collected date/time	Received date/time
				01/12/17 10:30	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 19:45	01/19/17 19:45	BMB

MW-6 L884589-06 GW

			Collected by	Collected date/time	Received date/time
				01/12/17 12:10	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 20:04	01/19/17 20:04	BMB

MW-7 L884589-07 GW

			Collected by	Collected date/time	Received date/time
				01/12/17 15:25	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 20:23	01/19/17 20:23	BMB

MW-8 L884589-08 GW

			Collected by	Collected date/time	Received date/time
				01/13/17 10:40	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 20:42	01/19/17 20:42	BMB

ACCOUNT:

Zipper Geo Associates - Lynnwood, WA

PROJECT:

1001.25

SDG:

L884589

DATE/TIME:

01/24/17 16:36

PAGE:

3 of 39

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-9 L884589-09 GW

			Collected by	Collected date/time	Received date/time
				01/11/17 14:45	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 21:01	01/19/17 21:01	BMB

¹ Cp² Tc³ Ss

MW-10 L884589-10 GW

			Collected by	Collected date/time	Received date/time
				01/12/17 13:56	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 21:21	01/19/17 21:21	BMB

⁴ Cn⁵ Sr⁶ Qc

DUP L884589-11 GW

			Collected by	Collected date/time	Received date/time
				01/13/17 12:05	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 21:40	01/19/17 21:40	BMB

⁷ Gl⁸ Al

EB L884589-12 GW

			Collected by	Collected date/time	Received date/time
				01/13/17 12:16	01/18/17 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG944554	1	01/19/17 21:59	01/19/17 21:59	BMB

⁹ Sc

ACCOUNT:

Zipper Geo Associates - Lynnwood, WA

PROJECT:

1001.25

SDG:

L884589

DATE/TIME:

01/24/17 16:36

PAGE:

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Collected date/time: 01/11/17 16:40

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 18:28	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 18:28	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 18:28	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 18:28	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 18:28	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 18:28	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 18:28	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 18:28	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 18:28	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 18:28	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 18:28	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 18:28	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 18:28	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 18:28	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 18:28	WG944554
Chloroform	U		0.324	5.00	1	01/19/2017 18:28	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 18:28	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 18:28	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 18:28	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 18:28	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 18:28	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 18:28	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 18:28	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 18:28	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 18:28	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 18:28	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 18:28	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 18:28	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 18:28	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 18:28	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 18:28	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 18:28	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 18:28	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 18:28	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 18:28	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 18:28	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 18:28	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 18:28	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 18:28	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 18:28	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 18:28	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 18:28	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 18:28	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 18:28	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 18:28	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 18:28	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 18:28	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 18:28	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 18:28	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 18:28	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 18:28	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 18:28	WG944554
Tetrachloroethene	0.508	J	0.372	1.00	1	01/19/2017 18:28	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 18:28	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 18:28	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 18:28	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/11/17 16:40

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 18:28	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 18:28	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 18:28	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 18:28	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 18:28	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 18:28	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 18:28	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 18:28	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 18:28	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 18:28	WG944554
(S) Toluene-d8	103			80.0-120		01/19/2017 18:28	WG944554
(S) Dibromofluoromethane	97.6			76.0-123		01/19/2017 18:28	WG944554
(S) 4-Bromofluorobenzene	104			80.0-120		01/19/2017 18:28	WG944554

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 18:47	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 18:47	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 18:47	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 18:47	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 18:47	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 18:47	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 18:47	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 18:47	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 18:47	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 18:47	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 18:47	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 18:47	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 18:47	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 18:47	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 18:47	WG944554
Chloroform	U		0.324	5.00	1	01/19/2017 18:47	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 18:47	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 18:47	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 18:47	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 18:47	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 18:47	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 18:47	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 18:47	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 18:47	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 18:47	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 18:47	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 18:47	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 18:47	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 18:47	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 18:47	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 18:47	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 18:47	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 18:47	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 18:47	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 18:47	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 18:47	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 18:47	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 18:47	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 18:47	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 18:47	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 18:47	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 18:47	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 18:47	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 18:47	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 18:47	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 18:47	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 18:47	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 18:47	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 18:47	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 18:47	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 18:47	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 18:47	WG944554
Tetrachloroethene	U		0.372	1.00	1	01/19/2017 18:47	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 18:47	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 18:47	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 18:47	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 18:47	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 18:47	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 18:47	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 18:47	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 18:47	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 18:47	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 18:47	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 18:47	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 18:47	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 18:47	WG944554
(S) Toluene-d8	104			80.0-120		01/19/2017 18:47	WG944554
(S) Dibromofluoromethane	97.4			76.0-123		01/19/2017 18:47	WG944554
(S) 4-Bromofluorobenzene	102			80.0-120		01/19/2017 18:47	WG944554

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 19:06	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 19:06	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 19:06	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 19:06	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 19:06	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 19:06	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 19:06	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 19:06	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 19:06	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 19:06	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 19:06	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 19:06	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 19:06	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 19:06	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 19:06	WG944554
Chloroform	U		0.324	5.00	1	01/19/2017 19:06	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 19:06	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 19:06	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 19:06	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 19:06	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 19:06	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 19:06	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 19:06	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 19:06	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 19:06	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 19:06	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 19:06	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 19:06	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 19:06	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 19:06	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 19:06	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 19:06	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 19:06	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 19:06	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 19:06	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 19:06	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 19:06	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 19:06	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 19:06	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 19:06	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 19:06	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 19:06	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 19:06	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 19:06	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 19:06	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 19:06	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 19:06	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 19:06	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 19:06	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 19:06	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 19:06	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 19:06	WG944554
Tetrachloroethene	9.28		0.372	1.00	1	01/19/2017 19:06	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 19:06	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 19:06	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 19:06	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/12/17 17:00

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 19:06	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 19:06	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 19:06	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 19:06	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 19:06	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 19:06	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 19:06	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 19:06	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 19:06	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 19:06	WG944554
(S) Toluene-d8	104			80.0-120		01/19/2017 19:06	WG944554
(S) Dibromofluoromethane	97.8			76.0-123		01/19/2017 19:06	WG944554
(S) 4-Bromofluorobenzene	104			80.0-120		01/19/2017 19:06	WG944554

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Collected date/time: 01/13/17 12:05

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 19:26	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 19:26	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 19:26	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 19:26	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 19:26	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 19:26	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 19:26	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 19:26	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 19:26	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 19:26	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 19:26	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 19:26	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 19:26	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 19:26	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 19:26	WG944554
Chloroform	U		0.324	5.00	1	01/19/2017 19:26	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 19:26	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 19:26	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 19:26	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 19:26	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 19:26	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 19:26	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 19:26	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 19:26	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 19:26	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 19:26	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 19:26	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 19:26	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 19:26	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 19:26	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 19:26	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 19:26	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 19:26	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 19:26	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 19:26	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 19:26	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 19:26	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 19:26	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 19:26	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 19:26	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 19:26	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 19:26	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 19:26	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 19:26	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 19:26	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 19:26	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 19:26	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 19:26	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 19:26	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 19:26	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 19:26	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 19:26	WG944554
Tetrachloroethene	96.1		0.372	1.00	1	01/19/2017 19:26	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 19:26	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 19:26	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 19:26	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 19:26	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 19:26	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 19:26	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 19:26	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 19:26	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 19:26	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 19:26	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 19:26	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 19:26	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 19:26	WG944554
(S) Toluene-d8	103			80.0-120		01/19/2017 19:26	WG944554
(S) Dibromofluoromethane	97.9			76.0-123		01/19/2017 19:26	WG944554
(S) 4-Bromofluorobenzene	102			80.0-120		01/19/2017 19:26	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 19:45	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 19:45	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 19:45	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 19:45	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 19:45	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 19:45	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 19:45	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 19:45	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 19:45	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 19:45	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 19:45	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 19:45	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 19:45	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 19:45	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 19:45	WG944554
Chloroform	U		0.324	5.00	1	01/19/2017 19:45	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 19:45	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 19:45	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 19:45	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 19:45	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 19:45	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 19:45	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 19:45	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 19:45	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 19:45	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 19:45	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 19:45	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 19:45	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 19:45	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 19:45	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 19:45	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 19:45	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 19:45	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 19:45	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 19:45	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 19:45	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 19:45	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 19:45	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 19:45	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 19:45	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 19:45	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 19:45	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 19:45	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 19:45	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 19:45	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 19:45	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 19:45	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 19:45	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 19:45	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 19:45	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 19:45	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 19:45	WG944554
Tetrachloroethene	U		0.372	1.00	1	01/19/2017 19:45	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 19:45	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 19:45	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 19:45	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/12/17 10:30

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 19:45	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 19:45	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 19:45	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 19:45	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 19:45	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 19:45	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 19:45	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 19:45	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 19:45	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 19:45	WG944554
(S) Toluene-d8	104			80.0-120		01/19/2017 19:45	WG944554
(S) Dibromofluoromethane	97.9			76.0-123		01/19/2017 19:45	WG944554
(S) 4-Bromofluorobenzene	102			80.0-120		01/19/2017 19:45	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 20:04	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 20:04	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 20:04	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 20:04	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 20:04	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 20:04	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 20:04	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 20:04	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 20:04	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 20:04	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 20:04	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 20:04	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 20:04	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 20:04	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 20:04	WG944554
Chloroform	U		0.324	5.00	1	01/19/2017 20:04	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 20:04	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 20:04	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 20:04	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 20:04	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 20:04	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 20:04	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 20:04	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 20:04	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 20:04	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 20:04	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 20:04	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 20:04	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 20:04	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 20:04	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 20:04	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 20:04	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 20:04	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 20:04	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 20:04	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 20:04	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 20:04	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 20:04	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 20:04	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 20:04	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 20:04	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 20:04	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 20:04	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 20:04	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 20:04	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 20:04	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 20:04	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 20:04	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 20:04	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 20:04	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 20:04	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 20:04	WG944554
Tetrachloroethene	1.07		0.372	1.00	1	01/19/2017 20:04	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 20:04	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 20:04	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 20:04	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/12/17 12:10

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 20:04	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 20:04	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 20:04	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 20:04	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 20:04	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 20:04	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 20:04	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 20:04	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 20:04	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 20:04	WG944554
(S) Toluene-d8	103			80.0-120		01/19/2017 20:04	WG944554
(S) Dibromofluoromethane	97.0			76.0-123		01/19/2017 20:04	WG944554
(S) 4-Bromofluorobenzene	104			80.0-120		01/19/2017 20:04	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/12/17 15:25

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 20:23	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 20:23	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 20:23	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 20:23	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 20:23	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 20:23	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 20:23	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 20:23	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 20:23	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 20:23	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 20:23	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 20:23	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 20:23	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 20:23	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 20:23	WG944554
Chloroform	1.24	J	0.324	5.00	1	01/19/2017 20:23	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 20:23	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 20:23	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 20:23	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 20:23	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 20:23	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 20:23	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 20:23	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 20:23	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 20:23	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 20:23	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 20:23	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 20:23	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 20:23	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 20:23	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 20:23	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 20:23	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 20:23	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 20:23	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 20:23	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 20:23	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 20:23	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 20:23	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 20:23	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 20:23	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 20:23	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 20:23	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 20:23	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 20:23	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 20:23	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 20:23	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 20:23	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 20:23	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 20:23	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 20:23	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 20:23	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 20:23	WG944554
Tetrachloroethene	0.948	J	0.372	1.00	1	01/19/2017 20:23	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 20:23	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 20:23	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 20:23	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/12/17 15:25

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 20:23	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 20:23	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 20:23	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 20:23	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 20:23	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 20:23	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 20:23	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 20:23	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 20:23	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 20:23	WG944554
(S) Toluene-d8	104			80.0-120		01/19/2017 20:23	WG944554
(S) Dibromofluoromethane	97.7			76.0-123		01/19/2017 20:23	WG944554
(S) 4-Bromofluorobenzene	102			80.0-120		01/19/2017 20:23	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/13/17 10:40

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 20:42	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 20:42	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 20:42	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 20:42	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 20:42	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 20:42	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 20:42	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 20:42	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 20:42	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 20:42	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 20:42	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 20:42	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 20:42	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 20:42	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 20:42	WG944554
Chloroform	0.444	J	0.324	5.00	1	01/19/2017 20:42	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 20:42	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 20:42	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 20:42	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 20:42	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 20:42	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 20:42	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 20:42	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 20:42	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 20:42	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 20:42	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 20:42	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 20:42	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 20:42	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 20:42	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 20:42	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 20:42	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 20:42	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 20:42	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 20:42	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 20:42	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 20:42	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 20:42	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 20:42	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 20:42	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 20:42	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 20:42	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 20:42	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 20:42	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 20:42	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 20:42	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 20:42	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 20:42	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 20:42	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 20:42	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 20:42	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 20:42	WG944554
Tetrachloroethene	26.4		0.372	1.00	1	01/19/2017 20:42	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 20:42	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 20:42	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 20:42	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/13/17 10:40

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 20:42	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 20:42	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 20:42	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 20:42	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 20:42	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 20:42	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 20:42	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 20:42	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 20:42	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 20:42	WG944554
(S) Toluene-d8	104			80.0-120		01/19/2017 20:42	WG944554
(S) Dibromofluoromethane	98.1			76.0-123		01/19/2017 20:42	WG944554
(S) 4-Bromofluorobenzene	99.6			80.0-120		01/19/2017 20:42	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/11/17 14:45

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 21:01	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 21:01	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 21:01	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 21:01	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 21:01	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 21:01	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 21:01	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 21:01	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 21:01	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 21:01	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 21:01	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 21:01	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 21:01	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 21:01	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 21:01	WG944554
Chloroform	0.339	J	0.324	5.00	1	01/19/2017 21:01	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 21:01	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 21:01	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 21:01	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 21:01	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 21:01	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 21:01	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 21:01	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 21:01	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 21:01	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 21:01	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 21:01	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 21:01	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 21:01	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 21:01	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 21:01	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 21:01	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 21:01	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 21:01	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 21:01	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 21:01	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 21:01	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 21:01	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 21:01	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 21:01	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 21:01	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 21:01	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 21:01	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 21:01	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 21:01	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 21:01	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 21:01	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 21:01	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 21:01	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 21:01	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 21:01	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 21:01	WG944554
Tetrachloroethene	U		0.372	1.00	1	01/19/2017 21:01	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 21:01	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 21:01	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 21:01	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 21:01	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 21:01	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 21:01	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 21:01	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 21:01	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 21:01	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 21:01	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 21:01	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 21:01	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 21:01	WG944554
(S) Toluene-d8	103			80.0-120		01/19/2017 21:01	WG944554
(S) Dibromofluoromethane	97.8			76.0-123		01/19/2017 21:01	WG944554
(S) 4-Bromofluorobenzene	101			80.0-120		01/19/2017 21:01	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

n-Butylbenzene	U	0.361	1.00	1	01/19/2017 21:21	WG944554	6 Qc
sec-Butylbenzene	U	0.365	1.00	1	01/19/2017 21:21	WG944554	
tert-Butylbenzene	U	0.399	1.00	1	01/19/2017 21:21	WG944554	
Carbon tetrachloride	U	0.379	1.00	1	01/19/2017 21:21	WG944554	
Chlorobenzene	U	0.348	1.00	1	01/19/2017 21:21	WG944554	7 Gl
Chlorodibromomethane	U	0.327	1.00	1	01/19/2017 21:21	WG944554	
Chloroethane	U	0.453	5.00	1	01/19/2017 21:21	WG944554	8 Al
Chloroform	U	0.324	5.00	1	01/19/2017 21:21	WG944554	
Chloromethane	U	0.276	2.50	1	01/19/2017 21:21	WG944554	9 Sc
2-Chlorotoluene	U	0.375	1.00	1	01/19/2017 21:21	WG944554	
4-Chlorotoluene	U	0.351	1.00	1	01/19/2017 21:21	WG944554	
1,2-Dibromo-3-Chloropropane	U	1.33	5.00	1	01/19/2017 21:21	WG944554	
1,2-Dibromoethane	U	0.381	1.00	1	01/19/2017 21:21	WG944554	
Dibromomethane	U	0.346	1.00	1	01/19/2017 21:21	WG944554	
1,2-Dichlorobenzene	U	0.349	1.00	1	01/19/2017 21:21	WG944554	
1,3-Dichlorobenzene	U	0.220	1.00	1	01/19/2017 21:21	WG944554	
1,4-Dichlorobenzene	U	0.274	1.00	1	01/19/2017 21:21	WG944554	
Dichlorodifluoromethane	U	0.551	5.00	1	01/19/2017 21:21	WG944554	
1,1-Dichloroethane	U	0.259	1.00	1	01/19/2017 21:21	WG944554	
1,2-Dichloroethane	U	0.361	1.00	1	01/19/2017 21:21	WG944554	
1,1-Dichloroethene	U	0.398	1.00	1	01/19/2017 21:21	WG944554	
cis-1,2-Dichloroethene	U	0.260	1.00	1	01/19/2017 21:21	WG944554	
trans-1,2-Dichloroethene	U	0.396	1.00	1	01/19/2017 21:21	WG944554	
1,2-Dichloropropane	U	0.306	1.00	1	01/19/2017 21:21	WG944554	
1,1-Dichloropropene	U	0.352	1.00	1	01/19/2017 21:21	WG944554	
1,3-Dichloropropane	U	0.366	1.00	1	01/19/2017 21:21	WG944554	
cis-1,3-Dichloropropene	U	0.418	1.00	1	01/19/2017 21:21	WG944554	
trans-1,3-Dichloropropene	U	0.419	1.00	1	01/19/2017 21:21	WG944554	
2,2-Dichloropropane	U	0.321	1.00	1	01/19/2017 21:21	WG944554	
Di-isopropyl ether	U	0.320	1.00	1	01/19/2017 21:21	WG944554	
Ethylbenzene	U	0.384	1.00	1	01/19/2017 21:21	WG944554	
Hexachloro-1,3-butadiene	U	0.256	1.00	1	01/19/2017 21:21	WG944554	
Isopropylbenzene	U	0.326	1.00	1	01/19/2017 21:21	WG944554	
p-Isopropyltoluene	U	0.350	1.00	1	01/19/2017 21:21	WG944554	
2-Butanone (MEK)	U	3.93	10.0	1	01/19/2017 21:21	WG944554	
Methylene Chloride	U	1.00	5.00	1	01/19/2017 21:21	WG944554	
4-Methyl-2-pentanone (MIBK)	U	2.14	10.0	1	01/19/2017 21:21	WG944554	
Methyl tert-butyl ether	U	0.367	1.00	1	01/19/2017 21:21	WG944554	
Naphthalene	U	1.00	5.00	1	01/19/2017 21:21	WG944554	
n-Propylbenzene	U	0.349	1.00	1	01/19/2017 21:21	WG944554	
Styrene	U	0.307	1.00	1	01/19/2017 21:21	WG944554	
1,1,1,2-Tetrachloroethane	U	0.385	1.00	1	01/19/2017 21:21	WG944554	
1,1,2,2-Tetrachloroethane	U	0.130	1.00	1	01/19/2017 21:21	WG944554	
1,1,2-Trichlorotrifluoroethane	U	0.303	1.00	1	01/19/2017 21:21	WG944554	
Tetrachloroethene	U	0.372	1.00	1	01/19/2017 21:21	WG944554	
Toluene	U	0.412	1.00	1	01/19/2017 21:21	WG944554	
1,2,3-Trichlorobenzene	U	0.230	1.00	1	01/19/2017 21:21	WG944554	
1,2,4-Trichlorobenzene	U	0.355	1.00	1	01/19/2017 21:21	WG944554	

Vinyl chloride	U	0.259	1.00	1	01/19/2017 21:21	WG944554
Xylenes, Total	U	1.06	3.00	1	01/19/2017 21:21	WG944554
(S) Toluene-d8	104		80.0-120		01/19/2017 21:21	WG944554
(S) Dibromofluoromethane	97.5		76.0-123		01/19/2017 21:21	WG944554
(S) 4-Bromofluorobenzene	102		80.0-120		01/19/2017 21:21	WG944554

5

6
Qc

7
Gl

8
Al

9
Sc

n-Butylbenzene	U	0.361	1.00	1	01/19/2017 21:40	WG944554	6 Qc
sec-Butylbenzene	U	0.365	1.00	1	01/19/2017 21:40	WG944554	
tert-Butylbenzene	U	0.399	1.00	1	01/19/2017 21:40	WG944554	
Carbon tetrachloride	U	0.379	1.00	1	01/19/2017 21:40	WG944554	
Chlorobenzene	U	0.348	1.00	1	01/19/2017 21:40	WG944554	7 Gl
Chlorodibromomethane	U	0.327	1.00	1	01/19/2017 21:40	WG944554	
Chloroethane	U	0.453	5.00	1	01/19/2017 21:40	WG944554	8 Al
Chloroform	U	0.324	5.00	1	01/19/2017 21:40	WG944554	
Chloromethane	U	0.276	2.50	1	01/19/2017 21:40	WG944554	9 Sc
2-Chlorotoluene	U	0.375	1.00	1	01/19/2017 21:40	WG944554	
4-Chlorotoluene	U	0.351	1.00	1	01/19/2017 21:40	WG944554	
1,2-Dibromo-3-Chloropropane	U	1.33	5.00	1	01/19/2017 21:40	WG944554	
1,2-Dibromoethane	U	0.381	1.00	1	01/19/2017 21:40	WG944554	
Dibromomethane	U	0.346	1.00	1	01/19/2017 21:40	WG944554	
1,2-Dichlorobenzene	U	0.349	1.00	1	01/19/2017 21:40	WG944554	
1,3-Dichlorobenzene	U	0.220	1.00	1	01/19/2017 21:40	WG944554	
1,4-Dichlorobenzene	U	0.274	1.00	1	01/19/2017 21:40	WG944554	
Dichlorodifluoromethane	U	0.551	5.00	1	01/19/2017 21:40	WG944554	
1,1-Dichloroethane	U	0.259	1.00	1	01/19/2017 21:40	WG944554	
1,2-Dichloroethane	U	0.361	1.00	1	01/19/2017 21:40	WG944554	
1,1-Dichloroethene	U	0.398	1.00	1	01/19/2017 21:40	WG944554	
cis-1,2-Dichloroethene	U	0.260	1.00	1	01/19/2017 21:40	WG944554	
trans-1,2-Dichloroethene	U	0.396	1.00	1	01/19/2017 21:40	WG944554	
1,2-Dichloropropane	U	0.306	1.00	1	01/19/2017 21:40	WG944554	
1,1-Dichloropropene	U	0.352	1.00	1	01/19/2017 21:40	WG944554	
1,3-Dichloropropane	U	0.366	1.00	1	01/19/2017 21:40	WG944554	
cis-1,3-Dichloropropene	U	0.418	1.00	1	01/19/2017 21:40	WG944554	
trans-1,3-Dichloropropene	U	0.419	1.00	1	01/19/2017 21:40	WG944554	
2,2-Dichloropropane	U	0.321	1.00	1	01/19/2017 21:40	WG944554	
Di-isopropyl ether	U	0.320	1.00	1	01/19/2017 21:40	WG944554	
Ethylbenzene	U	0.384	1.00	1	01/19/2017 21:40	WG944554	
Hexachloro-1,3-butadiene	U	0.256	1.00	1	01/19/2017 21:40	WG944554	
Isopropylbenzene	U	0.326	1.00	1	01/19/2017 21:40	WG944554	
p-Isopropyltoluene	U	0.350	1.00	1	01/19/2017 21:40	WG944554	
2-Butanone (MEK)	U	3.93	10.0	1	01/19/2017 21:40	WG944554	
Methylene Chloride	U	1.00	5.00	1	01/19/2017 21:40	WG944554	
4-Methyl-2-pentanone (MIBK)	U	2.14	10.0	1	01/19/2017 21:40	WG944554	
Methyl tert-butyl ether	U	0.367	1.00	1	01/19/2017 21:40	WG944554	
Naphthalene	U	1.00	5.00	1	01/19/2017 21:40	WG944554	
n-Propylbenzene	U	0.349	1.00	1	01/19/2017 21:40	WG944554	
Styrene	U	0.307	1.00	1	01/19/2017 21:40	WG944554	
1,1,1,2-Tetrachloroethane	U	0.385	1.00	1	01/19/2017 21:40	WG944554	
1,1,2,2-Tetrachloroethane	U	0.130	1.00	1	01/19/2017 21:40	WG944554	
1,1,2-Trichlorotrifluoroethane	U	0.303	1.00	1	01/19/2017 21:40	WG944554	
Tetrachloroethene	95.8	0.372	1.00	1	01/19/2017 21:40	WG944554	
Toluene	U	0.412	1.00	1	01/19/2017 21:40	WG944554	
1,2,3-Trichlorobenzene	U	0.230	1.00	1	01/19/2017 21:40	WG944554	
1,2,4-Trichlorobenzene	U	0.355	1.00	1	01/19/2017 21:40	WG944554	

Vinyl chloride	U	0.259	1.00	1	01/19/2017 21:40	WG944554
Xylenes, Total	U	1.06	3.00	1	01/19/2017 21:40	WG944554
(S) Toluene-d8	103		80.0-120		01/19/2017 21:40	WG944554
(S) Dibromofluoromethane	97.2		76.0-123		01/19/2017 21:40	WG944554
(S) 4-Bromofluorobenzene	101		80.0-120		01/19/2017 21:40	WG944554

5

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/13/17 12:16

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/19/2017 21:59	WG944554
Acrolein	U	JO J4	8.87	50.0	1	01/19/2017 21:59	WG944554
Acrylonitrile	U		1.87	10.0	1	01/19/2017 21:59	WG944554
Benzene	U		0.331	1.00	1	01/19/2017 21:59	WG944554
Bromobenzene	U		0.352	1.00	1	01/19/2017 21:59	WG944554
Bromodichloromethane	U		0.380	1.00	1	01/19/2017 21:59	WG944554
Bromoform	U		0.469	1.00	1	01/19/2017 21:59	WG944554
Bromomethane	U		0.866	5.00	1	01/19/2017 21:59	WG944554
n-Butylbenzene	U		0.361	1.00	1	01/19/2017 21:59	WG944554
sec-Butylbenzene	U		0.365	1.00	1	01/19/2017 21:59	WG944554
tert-Butylbenzene	U		0.399	1.00	1	01/19/2017 21:59	WG944554
Carbon tetrachloride	U		0.379	1.00	1	01/19/2017 21:59	WG944554
Chlorobenzene	U		0.348	1.00	1	01/19/2017 21:59	WG944554
Chlorodibromomethane	U		0.327	1.00	1	01/19/2017 21:59	WG944554
Chloroethane	U		0.453	5.00	1	01/19/2017 21:59	WG944554
Chloroform	U		0.324	5.00	1	01/19/2017 21:59	WG944554
Chloromethane	U		0.276	2.50	1	01/19/2017 21:59	WG944554
2-Chlorotoluene	U		0.375	1.00	1	01/19/2017 21:59	WG944554
4-Chlorotoluene	U		0.351	1.00	1	01/19/2017 21:59	WG944554
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/19/2017 21:59	WG944554
1,2-Dibromoethane	U		0.381	1.00	1	01/19/2017 21:59	WG944554
Dibromomethane	U		0.346	1.00	1	01/19/2017 21:59	WG944554
1,2-Dichlorobenzene	U		0.349	1.00	1	01/19/2017 21:59	WG944554
1,3-Dichlorobenzene	U		0.220	1.00	1	01/19/2017 21:59	WG944554
1,4-Dichlorobenzene	U		0.274	1.00	1	01/19/2017 21:59	WG944554
Dichlorodifluoromethane	U		0.551	5.00	1	01/19/2017 21:59	WG944554
1,1-Dichloroethane	U		0.259	1.00	1	01/19/2017 21:59	WG944554
1,2-Dichloroethane	U		0.361	1.00	1	01/19/2017 21:59	WG944554
1,1-Dichloroethene	U		0.398	1.00	1	01/19/2017 21:59	WG944554
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/19/2017 21:59	WG944554
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/19/2017 21:59	WG944554
1,2-Dichloropropane	U		0.306	1.00	1	01/19/2017 21:59	WG944554
1,1-Dichloropropene	U		0.352	1.00	1	01/19/2017 21:59	WG944554
1,3-Dichloropropane	U		0.366	1.00	1	01/19/2017 21:59	WG944554
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/19/2017 21:59	WG944554
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/19/2017 21:59	WG944554
2,2-Dichloropropane	U		0.321	1.00	1	01/19/2017 21:59	WG944554
Di-isopropyl ether	U		0.320	1.00	1	01/19/2017 21:59	WG944554
Ethylbenzene	U		0.384	1.00	1	01/19/2017 21:59	WG944554
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/19/2017 21:59	WG944554
Isopropylbenzene	U		0.326	1.00	1	01/19/2017 21:59	WG944554
p-Isopropyltoluene	U		0.350	1.00	1	01/19/2017 21:59	WG944554
2-Butanone (MEK)	U		3.93	10.0	1	01/19/2017 21:59	WG944554
Methylene Chloride	U		1.00	5.00	1	01/19/2017 21:59	WG944554
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/19/2017 21:59	WG944554
Methyl tert-butyl ether	U		0.367	1.00	1	01/19/2017 21:59	WG944554
Naphthalene	U		1.00	5.00	1	01/19/2017 21:59	WG944554
n-Propylbenzene	U		0.349	1.00	1	01/19/2017 21:59	WG944554
Styrene	U		0.307	1.00	1	01/19/2017 21:59	WG944554
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/19/2017 21:59	WG944554
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/19/2017 21:59	WG944554
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/19/2017 21:59	WG944554
Tetrachloroethene	U		0.372	1.00	1	01/19/2017 21:59	WG944554
Toluene	U		0.412	1.00	1	01/19/2017 21:59	WG944554
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/19/2017 21:59	WG944554
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/19/2017 21:59	WG944554

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 01/13/17 12:16

L884589

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.319	1.00	1	01/19/2017 21:59	WG944554
1,1,2-Trichloroethane	U		0.383	1.00	1	01/19/2017 21:59	WG944554
Trichloroethene	U		0.398	1.00	1	01/19/2017 21:59	WG944554
Trichlorofluoromethane	U		1.20	5.00	1	01/19/2017 21:59	WG944554
1,2,3-Trichloropropane	U		0.807	2.50	1	01/19/2017 21:59	WG944554
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/19/2017 21:59	WG944554
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/19/2017 21:59	WG944554
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/19/2017 21:59	WG944554
Vinyl chloride	U		0.259	1.00	1	01/19/2017 21:59	WG944554
Xylenes, Total	U		1.06	3.00	1	01/19/2017 21:59	WG944554
(S) Toluene-d8	104			80.0-120		01/19/2017 21:59	WG944554
(S) Dibromofluoromethane	98.9			76.0-123		01/19/2017 21:59	WG944554
(S) 4-Bromofluorobenzene	103			80.0-120		01/19/2017 21:59	WG944554

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

(MB) R3192491-3 01/19/17 15:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

1

Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

8

Al

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Sc



Method Blank (MB)

(MB) R3192491-3 01/19/17 15:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	95.3			76.0-123
(S) 4-Bromofluorobenzene	103			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3192491-1 01/19/17 14:36 • (LCSD) R3192491-2 01/19/17 14:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	110	122	87.8	97.5	10.0-160			10.5	23
Acrolein	125	727	770	582	616	10.0-160	E J4	E J4	5.66	20
Acrylonitrile	125	106	117	85.0	93.8	60.0-142			9.94	20
Benzene	25.0	21.4	22.2	85.6	88.7	69.0-123			3.56	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3192491-1 01/19/17 14:36 • (LCSD) R3192491-2 01/19/17 14:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	25.0	22.2	23.1	88.6	92.5	79.0-120			4.28	20
Bromodichloromethane	25.0	22.1	23.8	88.3	95.2	76.0-120			7.59	20
Bromoform	25.0	23.4	25.2	93.4	101	67.0-132			7.60	20
Bromomethane	25.0	31.8	32.0	127	128	18.0-160			0.730	20
n-Butylbenzene	25.0	20.0	21.1	80.2	84.4	72.0-126			5.05	20
sec-Butylbenzene	25.0	21.8	22.6	87.4	90.3	74.0-121			3.29	20
tert-Butylbenzene	25.0	24.1	24.4	96.3	97.4	75.0-122			1.18	20
Carbon tetrachloride	25.0	23.5	25.0	94.0	100	63.0-122			6.27	20
Chlorobenzene	25.0	23.6	24.7	94.4	98.9	79.0-121			4.72	20
Chlorodibromomethane	25.0	24.1	25.8	96.6	103	75.0-125			6.60	20
Chloroethane	25.0	14.3	14.8	57.1	59.1	47.0-152			3.32	20
Chloroform	25.0	21.8	22.7	87.3	90.8	72.0-121			3.94	20
Chloromethane	25.0	18.0	18.4	71.9	73.4	48.0-139			2.08	20
2-Chlorotoluene	25.0	22.6	24.2	90.3	96.8	74.0-122			6.99	20
4-Chlorotoluene	25.0	23.7	24.9	94.7	99.8	79.0-120			5.19	20
1,2-Dibromo-3-Chloropropane	25.0	17.8	20.4	71.3	81.7	64.0-127			13.5	20
1,2-Dibromoethane	25.0	21.7	23.5	86.7	94.0	77.0-123			8.14	20
Dibromomethane	25.0	21.2	23.4	84.9	93.6	78.0-120			9.70	20
1,2-Dichlorobenzene	25.0	20.6	22.1	82.3	88.5	80.0-120			7.31	20
1,3-Dichlorobenzene	25.0	21.8	23.1	87.1	92.3	72.0-123			5.76	20
1,4-Dichlorobenzene	25.0	21.1	22.1	84.5	88.5	77.0-120			4.72	20
Dichlorodifluoromethane	25.0	22.5	23.4	90.0	93.5	49.0-155			3.83	20
1,1-Dichloroethane	25.0	22.0	23.5	88.2	93.9	70.0-126			6.28	20
1,2-Dichloroethane	25.0	21.2	22.4	85.0	89.8	67.0-126			5.53	20
1,1-Dichloroethene	25.0	20.5	20.9	81.9	83.8	64.0-129			2.22	20
cis-1,2-Dichloroethene	25.0	21.1	21.8	84.2	87.4	73.0-120			3.67	20
trans-1,2-Dichloroethene	25.0	21.0	21.7	84.1	86.7	71.0-121			3.03	20
1,2-Dichloropropane	25.0	23.3	25.5	93.1	102	75.0-125			9.35	20
1,1-Dichloropropene	25.0	24.2	25.2	96.6	101	71.0-129			4.06	20
1,3-Dichloropropane	25.0	22.9	24.9	91.6	99.7	80.0-121			8.51	20
cis-1,3-Dichloropropene	25.0	24.3	25.8	97.4	103	79.0-123			6.00	20
trans-1,3-Dichloropropene	25.0	23.1	24.5	92.3	97.9	74.0-127			5.88	20
2,2-Dichloropropane	25.0	21.3	21.9	85.1	87.6	60.0-125			2.89	20
Di-isopropyl ether	25.0	23.4	24.7	93.7	98.8	59.0-133			5.30	20
Ethylbenzene	25.0	22.6	23.4	90.2	93.6	77.0-120			3.69	20
Hexachloro-1,3-butadiene	25.0	23.4	23.9	93.8	95.6	64.0-131			1.97	20
Isopropylbenzene	25.0	23.8	24.7	95.3	99.0	75.0-120			3.83	20
p-Isopropyltoluene	25.0	22.7	23.7	90.8	94.9	74.0-126			4.41	20
2-Butanone (MEK)	125	124	137	99.0	109	37.0-158			9.78	20
Methylene Chloride	25.0	19.2	19.9	76.6	79.8	66.0-121			4.02	20

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Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3192491-1 01/19/17 14:36 • (LCSD) R3192491-2 01/19/17 14:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	125	115	129	91.8	104	59.0-143			12.0	20
Methyl tert-butyl ether	25.0	20.1	21.5	80.2	86.0	64.0-123			6.91	20
Naphthalene	25.0	16.7	19.0	66.9	75.9	62.0-128			12.6	20
n-Propylbenzene	25.0	23.5	24.4	93.9	97.5	79.0-120			3.74	20
Styrene	25.0	24.7	25.6	98.6	102	78.0-124			3.81	20
1,1,2-Tetrachloroethane	25.0	23.1	24.1	92.4	96.5	75.0-122			4.33	20
1,1,2,2-Tetrachloroethane	25.0	20.8	22.7	83.3	90.7	71.0-122			8.56	20
Tetrachloroethene	25.0	24.4	25.9	97.6	104	70.0-127			5.82	20
Toluene	25.0	22.6	24.0	90.4	96.1	77.0-120			6.19	20
1,1,2-Trichlorotrifluoroethane	25.0	21.0	22.1	84.0	88.2	61.0-136			4.86	20
1,2,3-Trichlorobenzene	25.0	20.6	22.3	82.3	89.1	61.0-133			7.92	20
1,2,4-Trichlorobenzene	25.0	21.2	23.0	84.8	92.2	69.0-129			8.31	20
1,1,1-Trichloroethane	25.0	22.9	23.8	91.6	95.2	68.0-122			3.87	20
1,1,2-Trichloroethane	25.0	21.9	23.5	87.6	94.1	78.0-120			7.11	20
Trichloroethene	25.0	24.1	25.3	96.2	101	78.0-120			4.86	20
Trichlorofluoromethane	25.0	18.3	19.0	73.3	76.0	56.0-137			3.70	20
1,2,3-Trichloropropane	25.0	22.8	25.0	91.2	99.8	72.0-124			9.04	20
1,2,3-Trimethylbenzene	25.0	20.1	21.5	80.6	85.9	75.0-120			6.38	20
1,2,4-Trimethylbenzene	25.0	23.1	24.4	92.5	97.7	75.0-120			5.44	20
1,3,5-Trimethylbenzene	25.0	21.8	23.2	87.3	92.7	75.0-120			6.04	20
Vinyl chloride	25.0	20.8	21.3	83.1	85.1	64.0-133			2.46	20
Xylenes, Total	75.0	69.4	72.3	92.5	96.4	77.0-120			4.06	20
(S) Toluene-d8				103	104	80.0-120				
(S) Dibromofluoromethane				93.6	93.8	76.0-123				
(S) 4-Bromofluorobenzene				105	104	80.0-120				

1

Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

Zipper Geo Associates - Lynnwood, WA

1001.25

L884589

01/24/17 16:36

33 of 39



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0 - Analyte exceeds %D or %Rec for Continuing Calibration per 8260C or 8270D method specific criteria. The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

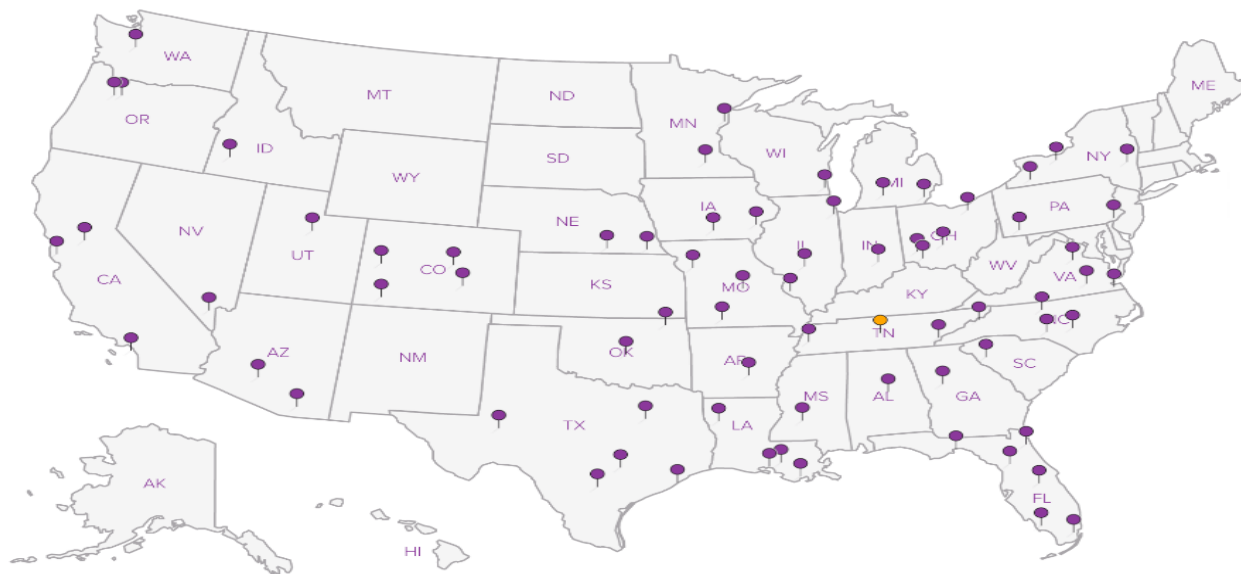
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Zipper Geo Associates - Lynnwood, WA

19023 36th Avenue West
Suite D

Report to:
Jon Einarsen

Billing Information & Quote Number:

Jon Einarsen
19023 36th Ave., W.
Ste. D
Lynnwood, WA 98036

Email To: jeinarsen@zippergeo.com

Analysis / Container / Preservative

Project

Description: **Dry Cleaner Job: PRIME CLEANERS**

City/State

Collected: **WA**

Phone: **425-582-9928**

Fax:

Client Project #

1001.25

Lab Project #

ZIPGEOLWA-100125

Collected by (print):

Site/Facility ID #

P.O. #

1001.25

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day 200%

Next Day 100%

Two Day 50%

Three Day 25%

Date Results Needed

Email? ☐ No ☒ Yes

FAX? ☐ No ☐ Yes

No. of

Cups

Immediately

Packed on Ice ☐ N ☐ Y ☐

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No. of

Cups

MW-1

GW

01/11/17

16:40

2

X

MW-2

GW

01/11/17

13:03

2

X

MW-3

GW

01/12/17

17:00

2

X

MW-4

GW

01/13/17

12:05

2

X

MW-5

GW

01/12/17

10:30

2

X

MW-6

GW

01/12/17

12:10

2

X

MW-7

GW

01/12/17

15:25

2

X

MW-8

GW

01/13/17

10:40

2

X

MW-9

GW

01/11/17

14:45

2

X

MW-10

GW

01/12/16

13:56

2

X

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)

Date:

1/17/17

Time:

10:30

Received by: (Signature)

[Signature]

Samples returned via: ☐ UPS

☒ FedEx ☐ Courier ☐ _____

Temp: _____ °C Bottles Received:

21° 21+TB

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: _____ Time: _____

1-18-17 0800

Zipper Geo Associates - Lynnwood, WA

19023 36th Avenue West
Suite D

Report to:
Jon Einarsen

Billing Information & Quote Number:

Jon Einarsen
19023 36th Ave., W.
Ste. D
Lynnwood, WA 98036

Email To: jeinarsen@zippergeo.com

Project

Description: ~~Dry Cleaner Job~~ PRIME CLEANERS

City/State

Collected: WA

Phone: 425-582-9928

Fax:

Client Project #

1001.25

Lab Project #

ZIPGEOLWA-100125

Collected by (print):

Site/Facility ID #

P.O. #

1001.25

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day200%

Next Day100%

Two Day50%

Three Day25%

Date Results Needed

Email? ☐ No ☒ Yes

FAX? ☐ No ☐ Yes

No.
of
Entrs

Immediately

Packed on Ice N ☐ Y ☐

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

No.
of
Entrs

8260C 40mlAmb-HCl

8260C trip blank 40mlAmb-HCl-Blk

Analysis / Container / Preservative

DUP
EB

GW

01/13/17

12:05

2

X

GW

01/13/17

12:16

2

X

GW

2

X

GW

2

X

GW

2

X

GW

1

X

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)

Date:

1/17/17

Time:

10:30

Received by: (Signature)

[Signature]

Samples returned via: ☐ UPS

☒ FedEx ☐ Courier ☐

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

[Signature]

Temp: _____ °C Bottles Received:

2.5°C 21 + TB

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (signature)

[Signature]

Date: _____ Time: _____

1-18-17 0900



L · A · B S · C · I · E · N · C · E · S

YOUR LAB OF CHOICE

Cooler Receipt Form

Client: <u>ZIPGEOLWA</u>	SDG# <u>88458</u>
Cooler Received/Opened On: <u>01/18 /17</u>	Temperature Upon Receipt: <u>2.1</u>
Received By: Michael Lowe	
Signature: <u>[Signature]</u>	
Receipt Check List	
Were custody seals on outside of cooler and intact?	☒
Were custody papers properly filled out?	☒
Did all bottles arrive in good condition?	☒
Were correct bottles used for the analyses requested?	☒
Was sufficient amount of sample sent in each bottle?	☒
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	☒
If applicable, was an observable VOA headspace present?	☒
Non Conformance Generated. (If yes see attached NCF)	☒

ESC Lab Sciences Non-Conformance Form

Login # 884589	Client: ZIPGEOLWA	Date: 1/18	Evaluated by: Mike L
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Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	
Parameter(s) past holding time	Login Clarification Needed	If Broken Container:
Improper temperature	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
Broken container	Client did not "X" analysis.	Received by:
x Broken container:	Chain of Custody is missing	Date/Time:
x Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments: 1 of 2 vials received broken for MW-6, MW-7, MW-9

Client informed by:	Call	Email	Voice Mail	Date:	Time:
TSR Initials:		Client Contact:			

Zipper Geo Associates - Lynnwood, WA

Sample Delivery Group: L931212
Samples Received: 08/23/2017
Project Number: 1001.25
Description: Prime Cleaners

Report To: Jon Einarsen
19023 36th Avenue West
Suite D
Lynnwood, WA 98036

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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MW-1 L931212-01 GW

			Collected by Evelyn Conrado	Collected date/time 08/18/17 16:35	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 20:36	08/23/17 20:36	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/25/17 16:04	08/25/17 16:04	BMB

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc

MW-2 L931212-02 GW

			Collected by Evelyn Conrado	Collected date/time 08/17/17 11:45	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 20:56	08/23/17 20:56	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/25/17 16:23	08/25/17 16:23	BMB

MW-3 L931212-03 GW

			Collected by Evelyn Conrado	Collected date/time 08/20/17 13:11	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 21:15	08/23/17 21:15	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/25/17 16:43	08/25/17 16:43	BMB

MW-4 L931212-04 GW

			Collected by Evelyn Conrado	Collected date/time 08/21/17 16:25	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 21:35	08/23/17 21:35	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/25/17 17:04	08/25/17 17:04	BMB

MW-5 L931212-05 GW

			Collected by Evelyn Conrado	Collected date/time 08/18/17 18:19	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 21:55	08/23/17 21:55	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/25/17 17:23	08/25/17 17:23	BMB

MW-6 L931212-06 GW

			Collected by Evelyn Conrado	Collected date/time 08/21/17 09:16	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 22:14	08/23/17 22:14	BMB

MW-7 L931212-07 GW

			Collected by Evelyn Conrado	Collected date/time 08/21/17 10:56	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 22:34	08/23/17 22:34	BMB

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-8 L931212-08 GW

			Collected by Evelyn Conrado	Collected date/time 08/21/17 14:57	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 22:53	08/23/17 22:53	BMB

¹Cp²Tc³Ss

MW-9 L931212-09 GW

			Collected by Evelyn Conrado	Collected date/time 08/18/17 12:00	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 23:12	08/23/17 23:12	BMB

⁴Cn⁵Sr

MW-10 L931212-10 GW

			Collected by Evelyn Conrado	Collected date/time 08/18/17 10:03	Received date/time 08/23/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1013000	1	08/23/17 23:32	08/23/17 23:32	BMB

⁶Qc⁷Gl⁸Al⁹Sc

ACCOUNT:

Zipper Geo Associates - Lynnwood, WA

PROJECT:

1001.25

SDG:

L931212

DATE/TIME:

08/28/17 10:31

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.50	J	1.05	25.0	1	08/23/2017 20:36	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 20:36	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 20:36	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 20:36	WG1013000
Bromodichloromethane	U		0.0800	0.500	1	08/23/2017 20:36	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 20:36	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 20:36	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 20:36	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 20:36	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 20:36	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 20:36	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 20:36	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 20:36	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 20:36	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 20:36	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 20:36	WG1013000
Chloroform	0.295	J	0.0860	0.500	1	08/23/2017 20:36	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 20:36	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 20:36	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 20:36	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 20:36	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 20:36	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 20:36	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 20:36	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 20:36	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 20:36	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 20:36	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 20:36	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 20:36	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 20:36	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 20:36	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 20:36	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 20:36	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 20:36	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 20:36	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 20:36	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 20:36	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 20:36	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 20:36	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 20:36	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 20:36	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 20:36	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 20:36	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 20:36	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 20:36	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 20:36	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 20:36	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 20:36	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 20:36	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 20:36	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 20:36	WG1013000
Naphthalene	6.26		0.174	2.50	1	08/25/2017 16:04	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 20:36	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 20:36	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 20:36	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 20:36	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/18/17 16:35

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 20:36	WG1013000
Tetrachloroethene	0.431	J	0.199	0.500	1	08/23/2017 20:36	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 20:36	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 20:36	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 20:36	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 20:36	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 20:36	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 20:36	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 20:36	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 20:36	WG1013000
1,2,4-Trimethylbenzene	0.222	J	0.123	0.500	1	08/25/2017 16:04	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/25/2017 16:04	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/25/2017 16:04	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 20:36	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 20:36	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 20:36	WG1013000
(S) Toluene-d8	106			80.0-120		08/23/2017 20:36	WG1013000
(S) Toluene-d8	106			80.0-120		08/25/2017 16:04	WG1013000
(S) Dibromofluoromethane	96.4			76.0-123		08/25/2017 16:04	WG1013000
(S) Dibromofluoromethane	100			76.0-123		08/23/2017 20:36	WG1013000
(S) 4-Bromofluorobenzene	109			80.0-120		08/25/2017 16:04	WG1013000
(S) 4-Bromofluorobenzene	101			80.0-120		08/23/2017 20:36	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	08/23/2017 20:56	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 20:56	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 20:56	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 20:56	WG1013000
Bromodichloromethane	U		0.0800	0.500	1	08/23/2017 20:56	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 20:56	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 20:56	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 20:56	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 20:56	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 20:56	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 20:56	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 20:56	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 20:56	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 20:56	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 20:56	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 20:56	WG1013000
Chloroform	0.224	J	0.0860	0.500	1	08/23/2017 20:56	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 20:56	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 20:56	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 20:56	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 20:56	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 20:56	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 20:56	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 20:56	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 20:56	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 20:56	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 20:56	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 20:56	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 20:56	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 20:56	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 20:56	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 20:56	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 20:56	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 20:56	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 20:56	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 20:56	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 20:56	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 20:56	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 20:56	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 20:56	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 20:56	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 20:56	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 20:56	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 20:56	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 20:56	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 20:56	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 20:56	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 20:56	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 20:56	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 20:56	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 20:56	WG1013000
Naphthalene	U		0.174	2.50	1	08/25/2017 16:23	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 20:56	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 20:56	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 20:56	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 20:56	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/17/17 11:45

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 20:56	WG1013000
Tetrachloroethene	U		0.199	0.500	1	08/23/2017 20:56	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 20:56	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 20:56	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 20:56	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 20:56	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 20:56	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 20:56	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 20:56	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 20:56	WG1013000
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/25/2017 16:23	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/23/2017 20:56	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/23/2017 20:56	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 20:56	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 20:56	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 20:56	WG1013000
(S) Toluene-d8	106			80.0-120		08/23/2017 20:56	WG1013000
(S) Toluene-d8	106			80.0-120		08/25/2017 16:23	WG1013000
(S) Dibromofluoromethane	93.8			76.0-123		08/25/2017 16:23	WG1013000
(S) Dibromofluoromethane	100			76.0-123		08/23/2017 20:56	WG1013000
(S) 4-Bromofluorobenzene	101			80.0-120		08/23/2017 20:56	WG1013000
(S) 4-Bromofluorobenzene	106			80.0-120		08/25/2017 16:23	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/20/17 13:11

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	08/23/2017 21:15	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 21:15	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 21:15	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 21:15	WG1013000
Bromodichloromethane	U		0.0800	0.500	1	08/23/2017 21:15	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 21:15	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 21:15	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 21:15	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 21:15	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 21:15	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 21:15	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 21:15	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 21:15	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 21:15	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 21:15	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 21:15	WG1013000
Chloroform	0.152	J	0.0860	0.500	1	08/23/2017 21:15	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 21:15	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 21:15	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 21:15	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 21:15	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 21:15	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 21:15	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 21:15	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 21:15	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 21:15	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 21:15	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 21:15	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 21:15	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 21:15	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 21:15	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 21:15	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 21:15	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 21:15	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 21:15	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 21:15	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 21:15	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 21:15	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 21:15	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 21:15	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 21:15	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 21:15	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 21:15	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 21:15	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 21:15	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 21:15	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 21:15	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 21:15	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 21:15	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 21:15	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 21:15	WG1013000
Naphthalene	U		0.174	2.50	1	08/25/2017 16:43	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 21:15	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 21:15	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 21:15	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 21:15	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/20/17 13:11

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 21:15	WG1013000
Tetrachloroethene	2.81		0.199	0.500	1	08/23/2017 21:15	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 21:15	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 21:15	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 21:15	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 21:15	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 21:15	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 21:15	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 21:15	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 21:15	WG1013000
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/23/2017 21:15	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/23/2017 21:15	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/23/2017 21:15	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 21:15	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 21:15	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 21:15	WG1013000
(S) Toluene-d8	105			80.0-120		08/25/2017 16:43	WG1013000
(S) Toluene-d8	106			80.0-120		08/23/2017 21:15	WG1013000
(S) Dibromofluoromethane	98.1			76.0-123		08/23/2017 21:15	WG1013000
(S) Dibromofluoromethane	96.4			76.0-123		08/25/2017 16:43	WG1013000
(S) 4-Bromofluorobenzene	104			80.0-120		08/23/2017 21:15	WG1013000
(S) 4-Bromofluorobenzene	108			80.0-120		08/25/2017 16:43	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	08/23/2017 21:35	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 21:35	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 21:35	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 21:35	WG1013000
Bromodichloromethane	U		0.0800	0.500	1	08/23/2017 21:35	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 21:35	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 21:35	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 21:35	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 21:35	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 21:35	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 21:35	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 21:35	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 21:35	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 21:35	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 21:35	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 21:35	WG1013000
Chloroform	U		0.0860	0.500	1	08/23/2017 21:35	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 21:35	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 21:35	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 21:35	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 21:35	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 21:35	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 21:35	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 21:35	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 21:35	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 21:35	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 21:35	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 21:35	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 21:35	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 21:35	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 21:35	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 21:35	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 21:35	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 21:35	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 21:35	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 21:35	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 21:35	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 21:35	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 21:35	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 21:35	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 21:35	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 21:35	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 21:35	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 21:35	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 21:35	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 21:35	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 21:35	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 21:35	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 21:35	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 21:35	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 21:35	WG1013000
Naphthalene	U		0.174	2.50	1	08/25/2017 17:04	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 21:35	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 21:35	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 21:35	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 21:35	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/21/17 16:25

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 21:35	WG1013000
Tetrachloroethene	76.5		0.199	0.500	1	08/23/2017 21:35	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 21:35	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 21:35	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 21:35	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 21:35	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 21:35	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 21:35	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 21:35	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 21:35	WG1013000
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/23/2017 21:35	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/23/2017 21:35	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/23/2017 21:35	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 21:35	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 21:35	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 21:35	WG1013000
(S) Toluene-d8	105			80.0-120		08/23/2017 21:35	WG1013000
(S) Toluene-d8	105			80.0-120		08/25/2017 17:04	WG1013000
(S) Dibromofluoromethane	93.5			76.0-123		08/25/2017 17:04	WG1013000
(S) Dibromofluoromethane	102			76.0-123		08/23/2017 21:35	WG1013000
(S) 4-Bromofluorobenzene	109			80.0-120		08/25/2017 17:04	WG1013000
(S) 4-Bromofluorobenzene	99.6			80.0-120		08/23/2017 21:35	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.46	J	1.05	25.0	1	08/23/2017 21:55	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 21:55	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 21:55	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 21:55	WG1013000
Bromodichloromethane	U		0.0800	0.500	1	08/23/2017 21:55	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 21:55	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 21:55	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 21:55	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 21:55	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 21:55	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 21:55	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 21:55	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 21:55	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 21:55	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 21:55	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 21:55	WG1013000
Chloroform	U		0.0860	0.500	1	08/23/2017 21:55	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 21:55	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 21:55	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 21:55	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 21:55	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 21:55	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 21:55	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 21:55	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 21:55	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 21:55	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 21:55	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 21:55	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 21:55	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 21:55	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 21:55	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 21:55	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 21:55	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 21:55	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 21:55	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 21:55	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 21:55	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 21:55	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 21:55	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 21:55	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 21:55	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 21:55	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 21:55	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 21:55	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 21:55	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 21:55	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 21:55	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 21:55	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 21:55	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 21:55	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 21:55	WG1013000
Naphthalene	U		0.174	2.50	1	08/25/2017 17:23	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 21:55	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 21:55	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 21:55	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 21:55	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/18/17 18:19

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 21:55	WG1013000
Tetrachloroethene	0.281	J	0.199	0.500	1	08/23/2017 21:55	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 21:55	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 21:55	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 21:55	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 21:55	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 21:55	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 21:55	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 21:55	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 21:55	WG1013000
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/23/2017 21:55	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/23/2017 21:55	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/23/2017 21:55	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 21:55	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 21:55	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 21:55	WG1013000
(S) Toluene-d8	107			80.0-120		08/23/2017 21:55	WG1013000
(S) Toluene-d8	106			80.0-120		08/25/2017 17:23	WG1013000
(S) Dibromofluoromethane	96.7			76.0-123		08/25/2017 17:23	WG1013000
(S) Dibromofluoromethane	102			76.0-123		08/23/2017 21:55	WG1013000
(S) 4-Bromofluorobenzene	99.0			80.0-120		08/23/2017 21:55	WG1013000
(S) 4-Bromofluorobenzene	111			80.0-120		08/25/2017 17:23	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/21/17 09:16

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	08/23/2017 22:14	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 22:14	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 22:14	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 22:14	WG1013000
Bromodichloromethane	U		0.0800	0.500	1	08/23/2017 22:14	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 22:14	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 22:14	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 22:14	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 22:14	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 22:14	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 22:14	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 22:14	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 22:14	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 22:14	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 22:14	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 22:14	WG1013000
Chloroform	0.260	J	0.0860	0.500	1	08/23/2017 22:14	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 22:14	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 22:14	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 22:14	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 22:14	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 22:14	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 22:14	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 22:14	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 22:14	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 22:14	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 22:14	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 22:14	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 22:14	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 22:14	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 22:14	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 22:14	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 22:14	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 22:14	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 22:14	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 22:14	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 22:14	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 22:14	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 22:14	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 22:14	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 22:14	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 22:14	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 22:14	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 22:14	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 22:14	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 22:14	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 22:14	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 22:14	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 22:14	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 22:14	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 22:14	WG1013000
Naphthalene	U		0.174	2.50	1	08/23/2017 22:14	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 22:14	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 22:14	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 22:14	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 22:14	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/21/17 09:16

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 22:14	WG1013000
Tetrachloroethene	0.674		0.199	0.500	1	08/23/2017 22:14	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 22:14	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 22:14	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 22:14	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 22:14	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 22:14	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 22:14	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 22:14	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 22:14	WG1013000
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/23/2017 22:14	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/23/2017 22:14	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/23/2017 22:14	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 22:14	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 22:14	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 22:14	WG1013000
(S) Toluene-d8	105			80.0-120		08/23/2017 22:14	WG1013000
(S) Dibromofluoromethane	103			76.0-123		08/23/2017 22:14	WG1013000
(S) 4-Bromofluorobenzene	98.9			80.0-120		08/23/2017 22:14	WG1013000

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	08/23/2017 22:34	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 22:34	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 22:34	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 22:34	WG1013000
Bromodichloromethane	0.158	J	0.0800	0.500	1	08/23/2017 22:34	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 22:34	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 22:34	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 22:34	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 22:34	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 22:34	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 22:34	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 22:34	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 22:34	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 22:34	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 22:34	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 22:34	WG1013000
Chloroform	2.01		0.0860	0.500	1	08/23/2017 22:34	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 22:34	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 22:34	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 22:34	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 22:34	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 22:34	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 22:34	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 22:34	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 22:34	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 22:34	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 22:34	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 22:34	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 22:34	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 22:34	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 22:34	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 22:34	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 22:34	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 22:34	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 22:34	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 22:34	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 22:34	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 22:34	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 22:34	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 22:34	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 22:34	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 22:34	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 22:34	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 22:34	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 22:34	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 22:34	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 22:34	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 22:34	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 22:34	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 22:34	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 22:34	WG1013000
Naphthalene	U		0.174	2.50	1	08/23/2017 22:34	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 22:34	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 22:34	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 22:34	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 22:34	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 08/21/17 10:56

L931212

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 22:34	WG1013000
Tetrachloroethene	1.49		0.199	0.500	1	08/23/2017 22:34	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 22:34	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 22:34	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 22:34	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 22:34	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 22:34	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 22:34	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 22:34	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 22:34	WG1013000
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/23/2017 22:34	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/23/2017 22:34	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/23/2017 22:34	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 22:34	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 22:34	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 22:34	WG1013000
(S) Toluene-d8	107			80.0-120		08/23/2017 22:34	WG1013000
(S) Dibromofluoromethane	103			76.0-123		08/23/2017 22:34	WG1013000
(S) 4-Bromofluorobenzene	99.0			80.0-120		08/23/2017 22:34	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

n-Butylbenzene	U		0.143	0.500	1	08/23/2017 22:53	WG1013000	
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 22:53	WG1013000	
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 22:53	WG1013000	
Carbon disulfide	U		0.101	0.500	1	08/23/2017 22:53	WG1013000	
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 22:53	WG1013000	
Chlorobenzene	U		0.140	0.500	1	08/23/2017 22:53	WG1013000	
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 22:53	WG1013000	
Chloroethane	U		0.141	2.50	1	08/23/2017 22:53	WG1013000	
Chloroform	0.791		0.0860	0.500	1	08/23/2017 22:53	WG1013000	
Chloromethane	U		0.153	1.25	1	08/23/2017 22:53	WG1013000	
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 22:53	WG1013000	
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 22:53	WG1013000	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 22:53	WG1013000	
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 22:53	WG1013000	
Dibromomethane	U		0.117	0.500	1	08/23/2017 22:53	WG1013000	
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 22:53	WG1013000	
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 22:53	WG1013000	
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 22:53	WG1013000	
Dichlorodifluoromethane	U	<u>JO</u>	0.127	2.50	1	08/23/2017 22:53	WG1013000	
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 22:53	WG1013000	
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 22:53	WG1013000	
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 22:53	WG1013000	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 22:53	WG1013000	
trans-1,2-Dichloroethene	0.250	<u>J</u>	0.152	0.500	1	08/23/2017 22:53	WG1013000	
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 22:53	WG1013000	
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 22:53	WG1013000	
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 22:53	WG1013000	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 22:53	WG1013000	
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 22:53	WG1013000	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 22:53	WG1013000	
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 22:53	WG1013000	
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 22:53	WG1013000	
Ethylbenzene	U		0.158	0.500	1	08/23/2017 22:53	WG1013000	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 22:53	WG1013000	
2-Hexanone	U		0.757	5.00	1	08/23/2017 22:53	WG1013000	
n-Hexane	U		0.305	5.00	1	08/23/2017 22:53	WG1013000	
Iodomethane	U		0.377	10.0	1	08/23/2017 22:53	WG1013000	
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 22:53	WG1013000	
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 22:53	WG1013000	
2-Butanone (MEK)	U	<u>JO</u>	1.28	5.00	1	08/23/2017 22:53	WG1013000	
Methylene Chloride	U		1.07	2.50	1	08/23/2017 22:53	WG1013000	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 22:53	WG1013000	
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 22:53	WG1013000	
Naphthalene	U		0.174	2.50	1	08/23/2017 22:53	WG1013000	
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 22:53	WG1013000	
Styrene	U		0.117	0.500	1	08/23/2017 22:53	WG1013000	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 22:53	WG1013000	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 22:53	WG1013000	

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Trichlorofluoromethane	U	0.130	2.50	1	08/23/2017 22:53	WG1013000
1,2,3-Trichloropropane	U	0.247	2.50	1	08/23/2017 22:53	WG1013000
1,2,4-Trimethylbenzene	U	0.123	0.500	1	08/23/2017 22:53	WG1013000
1,2,3-Trimethylbenzene	U	0.0739	0.500	1	08/23/2017 22:53	WG1013000
1,3,5-Trimethylbenzene	U	0.124	0.500	1	08/23/2017 22:53	WG1013000
Vinyl acetate	U	0.645	5.00	1	08/23/2017 22:53	WG1013000
Vinyl chloride	U	0.118	0.500	1	08/23/2017 22:53	WG1013000
Xylenes, Total	U	0.316	1.50	1	08/23/2017 22:53	WG1013000
<i>(S) Toluene-d8</i>	105		80.0-120		08/23/2017 22:53	WG1013000
<i>(S) Dibromofluoromethane</i>	103		76.0-123		08/23/2017 22:53	WG1013000
<i>(S) 4-Bromofluorobenzene</i>	98.8		80.0-120		08/23/2017 22:53	WG1013000

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6 Qc

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n-Butylbenzene	U		0.143	0.500	1	08/23/2017 23:12	WG1013000	
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 23:12	WG1013000	
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 23:12	WG1013000	6 Qc
Carbon disulfide	U		0.101	0.500	1	08/23/2017 23:12	WG1013000	
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 23:12	WG1013000	7 Gl
Chlorobenzene	U		0.140	0.500	1	08/23/2017 23:12	WG1013000	
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 23:12	WG1013000	
Chloroethane	U		0.141	2.50	1	08/23/2017 23:12	WG1013000	8 Al
Chloroform	0.500		0.0860	0.500	1	08/23/2017 23:12	WG1013000	
Chloromethane	U		0.153	1.25	1	08/23/2017 23:12	WG1013000	9 Sc
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 23:12	WG1013000	
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 23:12	WG1013000	
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 23:12	WG1013000	
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 23:12	WG1013000	
Dibromomethane	U		0.117	0.500	1	08/23/2017 23:12	WG1013000	
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 23:12	WG1013000	
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 23:12	WG1013000	
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 23:12	WG1013000	
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 23:12	WG1013000	
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 23:12	WG1013000	
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 23:12	WG1013000	
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 23:12	WG1013000	
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 23:12	WG1013000	
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 23:12	WG1013000	
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 23:12	WG1013000	
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 23:12	WG1013000	
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 23:12	WG1013000	
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 23:12	WG1013000	
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 23:12	WG1013000	
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 23:12	WG1013000	
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 23:12	WG1013000	
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 23:12	WG1013000	
Ethylbenzene	U		0.158	0.500	1	08/23/2017 23:12	WG1013000	
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 23:12	WG1013000	
2-Hexanone	U		0.757	5.00	1	08/23/2017 23:12	WG1013000	
n-Hexane	U		0.305	5.00	1	08/23/2017 23:12	WG1013000	
Iodomethane	U		0.377	10.0	1	08/23/2017 23:12	WG1013000	
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 23:12	WG1013000	
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 23:12	WG1013000	
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 23:12	WG1013000	
Methylene Chloride	U		1.07	2.50	1	08/23/2017 23:12	WG1013000	
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 23:12	WG1013000	
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 23:12	WG1013000	
Naphthalene	U		0.174	2.50	1	08/23/2017 23:12	WG1013000	
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 23:12	WG1013000	
Styrene	U		0.117	0.500	1	08/23/2017 23:12	WG1013000	
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 23:12	WG1013000	
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 23:12	WG1013000	
ACCOUNT:			PROJECT:		SDG:		DATE/TIME:	PAGE:
Zipper Geo Associates - Lynnwood, WA			1001.25		L931212		08/28/17 10:31	22 of 32

Trichlorofluoromethane	U	0.130	2.50	1	08/23/2017 23:12	WG1013000
1,2,3-Trichloropropane	U	0.247	2.50	1	08/23/2017 23:12	WG1013000
1,2,4-Trimethylbenzene	U	0.123	0.500	1	08/23/2017 23:12	WG1013000
1,2,3-Trimethylbenzene	U	0.0739	0.500	1	08/23/2017 23:12	WG1013000
1,3,5-Trimethylbenzene	U	0.124	0.500	1	08/23/2017 23:12	WG1013000
Vinyl acetate	U	0.645	5.00	1	08/23/2017 23:12	WG1013000
Vinyl chloride	U	0.118	0.500	1	08/23/2017 23:12	WG1013000
Xylenes, Total	U	0.316	1.50	1	08/23/2017 23:12	WG1013000
(S) Toluene-d8	107		80.0-120		08/23/2017 23:12	WG1013000
(S) Dibromofluoromethane	103		76.0-123		08/23/2017 23:12	WG1013000
(S) 4-Bromofluorobenzene	97.0		80.0-120		08/23/2017 23:12	WG1013000

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6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.68	J	1.05	25.0	1	08/23/2017 23:32	WG1013000
Acrylonitrile	U		0.873	5.00	1	08/23/2017 23:32	WG1013000
Benzene	U		0.0896	0.500	1	08/23/2017 23:32	WG1013000
Bromobenzene	U		0.133	0.500	1	08/23/2017 23:32	WG1013000
Bromodichloromethane	U		0.0800	0.500	1	08/23/2017 23:32	WG1013000
Bromochloromethane	U		0.145	0.500	1	08/23/2017 23:32	WG1013000
Bromoform	U		0.186	0.500	1	08/23/2017 23:32	WG1013000
Bromomethane	U		0.157	2.50	1	08/23/2017 23:32	WG1013000
n-Butylbenzene	U		0.143	0.500	1	08/23/2017 23:32	WG1013000
sec-Butylbenzene	U		0.134	0.500	1	08/23/2017 23:32	WG1013000
tert-Butylbenzene	U		0.183	0.500	1	08/23/2017 23:32	WG1013000
Carbon disulfide	U		0.101	0.500	1	08/23/2017 23:32	WG1013000
Carbon tetrachloride	U		0.159	0.500	1	08/23/2017 23:32	WG1013000
Chlorobenzene	U		0.140	0.500	1	08/23/2017 23:32	WG1013000
Chlorodibromomethane	U		0.128	0.500	1	08/23/2017 23:32	WG1013000
Chloroethane	U		0.141	2.50	1	08/23/2017 23:32	WG1013000
Chloroform	0.221	J	0.0860	0.500	1	08/23/2017 23:32	WG1013000
Chloromethane	U		0.153	1.25	1	08/23/2017 23:32	WG1013000
2-Chlorotoluene	U		0.111	0.500	1	08/23/2017 23:32	WG1013000
4-Chlorotoluene	U		0.0972	0.500	1	08/23/2017 23:32	WG1013000
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	08/23/2017 23:32	WG1013000
1,2-Dibromoethane	U		0.193	0.500	1	08/23/2017 23:32	WG1013000
Dibromomethane	U		0.117	0.500	1	08/23/2017 23:32	WG1013000
1,2-Dichlorobenzene	U		0.101	0.500	1	08/23/2017 23:32	WG1013000
1,3-Dichlorobenzene	U		0.130	0.500	1	08/23/2017 23:32	WG1013000
1,4-Dichlorobenzene	U		0.121	0.500	1	08/23/2017 23:32	WG1013000
Dichlorodifluoromethane	U	JO	0.127	2.50	1	08/23/2017 23:32	WG1013000
1,1-Dichloroethane	U		0.114	0.500	1	08/23/2017 23:32	WG1013000
1,2-Dichloroethane	U		0.108	0.500	1	08/23/2017 23:32	WG1013000
1,1-Dichloroethene	U		0.188	0.500	1	08/23/2017 23:32	WG1013000
cis-1,2-Dichloroethene	U		0.0933	0.500	1	08/23/2017 23:32	WG1013000
trans-1,2-Dichloroethene	U		0.152	0.500	1	08/23/2017 23:32	WG1013000
1,2-Dichloropropane	U		0.190	0.500	1	08/23/2017 23:32	WG1013000
1,1-Dichloropropene	U		0.128	0.500	1	08/23/2017 23:32	WG1013000
1,3-Dichloropropane	U		0.147	1.00	1	08/23/2017 23:32	WG1013000
cis-1,3-Dichloropropene	U		0.0976	0.500	1	08/23/2017 23:32	WG1013000
trans-1,3-Dichloropropene	U		0.222	0.500	1	08/23/2017 23:32	WG1013000
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	08/23/2017 23:32	WG1013000
2,2-Dichloropropane	U		0.0929	0.500	1	08/23/2017 23:32	WG1013000
Di-isopropyl ether	U		0.0924	0.500	1	08/23/2017 23:32	WG1013000
Ethylbenzene	U		0.158	0.500	1	08/23/2017 23:32	WG1013000
Hexachloro-1,3-butadiene	U		0.157	1.00	1	08/23/2017 23:32	WG1013000
2-Hexanone	U		0.757	5.00	1	08/23/2017 23:32	WG1013000
n-Hexane	U		0.305	5.00	1	08/23/2017 23:32	WG1013000
Iodomethane	U		0.377	10.0	1	08/23/2017 23:32	WG1013000
Isopropylbenzene	U		0.126	0.500	1	08/23/2017 23:32	WG1013000
p-Isopropyltoluene	U		0.138	0.500	1	08/23/2017 23:32	WG1013000
2-Butanone (MEK)	U	JO	1.28	5.00	1	08/23/2017 23:32	WG1013000
Methylene Chloride	U		1.07	2.50	1	08/23/2017 23:32	WG1013000
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	08/23/2017 23:32	WG1013000
Methyl tert-butyl ether	U		0.102	0.500	1	08/23/2017 23:32	WG1013000
Naphthalene	U		0.174	2.50	1	08/23/2017 23:32	WG1013000
n-Propylbenzene	U		0.162	0.500	1	08/23/2017 23:32	WG1013000
Styrene	U		0.117	0.500	1	08/23/2017 23:32	WG1013000
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	08/23/2017 23:32	WG1013000
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	08/23/2017 23:32	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	08/23/2017 23:32	WG1013000
Tetrachloroethene	U		0.199	0.500	1	08/23/2017 23:32	WG1013000
Toluene	U		0.412	0.500	1	08/23/2017 23:32	WG1013000
1,2,3-Trichlorobenzene	U		0.164	0.500	1	08/23/2017 23:32	WG1013000
1,2,4-Trichlorobenzene	U		0.355	0.500	1	08/23/2017 23:32	WG1013000
1,1,1-Trichloroethane	U		0.0940	0.500	1	08/23/2017 23:32	WG1013000
1,1,2-Trichloroethane	U		0.186	0.500	1	08/23/2017 23:32	WG1013000
Trichloroethene	U		0.153	0.500	1	08/23/2017 23:32	WG1013000
Trichlorofluoromethane	U		0.130	2.50	1	08/23/2017 23:32	WG1013000
1,2,3-Trichloropropane	U		0.247	2.50	1	08/23/2017 23:32	WG1013000
1,2,4-Trimethylbenzene	U		0.123	0.500	1	08/23/2017 23:32	WG1013000
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	08/23/2017 23:32	WG1013000
1,3,5-Trimethylbenzene	U		0.124	0.500	1	08/23/2017 23:32	WG1013000
Vinyl acetate	U		0.645	5.00	1	08/23/2017 23:32	WG1013000
Vinyl chloride	U		0.118	0.500	1	08/23/2017 23:32	WG1013000
Xylenes, Total	U		0.316	1.50	1	08/23/2017 23:32	WG1013000
(S) Toluene-d8	107			80.0-120		08/23/2017 23:32	WG1013000
(S) Dibromofluoromethane	104			76.0-123		08/23/2017 23:32	WG1013000
(S) 4-Bromofluorobenzene	96.2			80.0-120		08/23/2017 23:32	WG1013000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3244243-3 08/23/17 18:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3244243-3 08/23/17 18:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	104			80.0-120
(S) Dibromofluoromethane	107			76.0-123
(S) 4-Bromofluorobenzene	103			80.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3244243-1 08/23/17 17:40 • (LCSD) R3244243-2 08/23/17 17:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	125	149	129	119	103	10.0-160			14.2	23
Acrylonitrile	125	151	153	121	122	60.0-142			1.12	20
Benzene	25.0	26.7	26.8	107	107	69.0-123			0.220	20
Bromobenzene	25.0	25.2	25.9	101	104	79.0-120			2.79	20
Bromodichloromethane	25.0	26.7	26.5	107	106	76.0-120			0.750	20
Bromochloromethane	25.0	26.2	26.3	105	105	76.0-122			0.230	20
Bromoform	25.0	25.0	26.4	100	105	67.0-132			5.33	20
Bromomethane	25.0	24.9	24.7	99.6	98.9	18.0-160			0.760	20
n-Butylbenzene	25.0	28.6	27.2	114	109	72.0-126			4.94	20
sec-Butylbenzene	25.0	27.3	26.6	109	106	74.0-121			2.72	20
tert-Butylbenzene	25.0	26.5	26.3	106	105	75.0-122			1.02	20
Carbon disulfide	25.0	26.2	25.9	105	104	55.0-127			1.21	20
Carbon tetrachloride	25.0	25.5	24.3	102	97.4	63.0-122			4.51	20
Chlorobenzene	25.0	24.1	25.1	96.5	100	79.0-121			4.05	20
Chlorodibromomethane	25.0	24.1	25.0	96.2	100	75.0-125			3.81	20
Chloroethane	25.0	27.5	27.4	110	110	47.0-152			0.570	20
Chloroform	25.0	27.0	26.9	108	108	72.0-121			0.500	20
Chloromethane	25.0	27.6	27.4	111	110	48.0-139			0.750	20
2-Chlorotoluene	25.0	26.6	26.7	106	107	74.0-122			0.650	20
4-Chlorotoluene	25.0	25.7	26.4	103	106	79.0-120			2.81	20
1,2-Dibromo-3-Chloropropane	25.0	27.2	26.2	109	105	64.0-127			3.68	20
1,2-Dibromoethane	25.0	24.3	24.7	97.3	98.9	77.0-123			1.65	20
Dibromomethane	25.0	27.7	28.0	111	112	78.0-120			0.890	20
1,2-Dichlorobenzene	25.0	26.7	26.2	107	105	80.0-120			1.97	20
1,3-Dichlorobenzene	25.0	25.8	26.0	103	104	72.0-123			0.640	20
1,4-Dichlorobenzene	25.0	25.5	25.9	102	104	77.0-120			1.33	20
Dichlorodifluoromethane	25.0	30.1	30.9	120	124	49.0-155			2.77	20
1,1-Dichloroethane	25.0	27.8	27.6	111	110	70.0-126			0.880	20
1,2-Dichloroethane	25.0	28.1	28.6	112	114	67.0-126			1.84	20
1,1-Dichloroethene	25.0	26.0	26.4	104	106	64.0-129			1.63	20
cis-1,2-Dichloroethene	25.0	26.6	26.5	106	106	73.0-120			0.390	20
trans-1,2-Dichloroethene	25.0	26.2	26.3	105	105	71.0-121			0.0200	20
1,2-Dichloropropane	25.0	28.0	27.7	112	111	75.0-125			1.29	20
1,1-Dichloropropene	25.0	27.0	27.3	108	109	71.0-129			1.14	20
1,3-Dichloropropane	25.0	25.2	25.9	101	104	80.0-121			2.66	20
cis-1,3-Dichloropropene	25.0	24.9	25.9	99.8	103	79.0-123			3.59	20
trans-1,3-Dichloropropene	25.0	25.0	25.9	99.9	104	74.0-127			3.67	20
trans-1,4-Dichloro-2-butene	25.0	28.6	29.4	114	118	55.0-134			2.98	20
2,2-Dichloropropane	25.0	27.1	25.9	108	104	60.0-125			4.45	20
Di-isopropyl ether	25.0	28.6	28.4	114	114	59.0-133			0.550	20

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Cp

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Cn

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Gl

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Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3244243-1 08/23/17 17:40 • (LCSD) R3244243-2 08/23/17 17:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	25.0	24.5	24.6	98.0	98.3	77.0-120			0.320	20
Hexachloro-1,3-butadiene	25.0	24.6	22.6	98.5	90.5	64.0-131			8.46	20
2-Hexanone	125	117	119	93.5	95.5	58.0-147			2.10	20
n-Hexane	25.0	27.3	27.2	109	109	56.0-124			0.600	20
Iodomethane	125	126	125	101	100	57.0-140			0.300	20
Isopropylbenzene	25.0	26.7	26.8	107	107	75.0-120			0.380	20
p-Isopropyltoluene	25.0	26.9	26.1	108	105	74.0-126			3.08	20
2-Butanone (MEK)	125	174	164	139	131	37.0-158			5.81	20
Methylene Chloride	25.0	26.1	25.8	104	103	66.0-121			1.09	20
4-Methyl-2-pentanone (MIBK)	125	139	137	111	110	59.0-143			1.09	20
Methyl tert-butyl ether	25.0	28.4	28.1	114	112	64.0-123			1.25	20
Naphthalene	25.0	26.8	25.0	107	100	62.0-128			6.79	20
n-Propylbenzene	25.0	26.3	26.7	105	107	79.0-120			1.32	20
Styrene	25.0	25.9	26.6	104	106	78.0-124			2.49	20
1,1,1,2-Tetrachloroethane	25.0	24.4	25.0	97.7	100	75.0-122			2.50	20
1,1,2,2-Tetrachloroethane	25.0	26.5	27.1	106	108	71.0-122			2.22	20
1,1,2-Trichlorotrifluoroethane	25.0	26.6	27.2	106	109	61.0-136			2.31	20
Tetrachloroethene	25.0	22.9	24.0	91.5	96.2	70.0-127			4.93	20
Toluene	25.0	23.6	24.1	94.5	96.4	77.0-120			2.00	20
1,2,3-Trichlorobenzene	25.0	25.7	24.6	103	98.3	61.0-133			4.49	20
1,2,4-Trichlorobenzene	25.0	26.3	24.7	105	98.8	69.0-129			6.25	20
1,1,1-Trichloroethane	25.0	26.6	26.3	106	105	68.0-122			0.900	20
1,1,2-Trichloroethane	25.0	24.5	25.3	97.8	101	78.0-120			3.31	20
Trichloroethene	25.0	26.1	25.5	104	102	78.0-120			2.30	20
Trichlorofluoromethane	25.0	26.4	26.2	106	105	56.0-137			1.12	20
1,2,3-Trichloropropane	25.0	26.4	26.4	106	106	72.0-124			0.150	20
1,2,4-Trimethylbenzene	25.0	26.2	25.9	105	104	75.0-120			1.26	20
1,2,3-Trimethylbenzene	25.0	26.8	26.2	107	105	75.0-120			2.08	20
1,3,5-Trimethylbenzene	25.0	26.6	26.0	106	104	75.0-120			2.00	20
Vinyl acetate	125	136	141	108	113	46.0-160			3.97	20
Vinyl chloride	25.0	27.8	28.2	111	113	64.0-133			1.42	20
Xylenes, Total	75.0	73.4	75.3	97.9	100	77.0-120			2.56	20
(S) Toluene-d8				102	103	80.0-120				
(S) Dibromofluoromethane				108	106	76.0-123				
(S) 4-Bromofluorobenzene				99.6	102	80.0-120				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
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J	The identification of the analyte is acceptable; the reported value is an estimate.
JO	JO: Calibration verification outside of acceptance limits. Result is estimated.

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

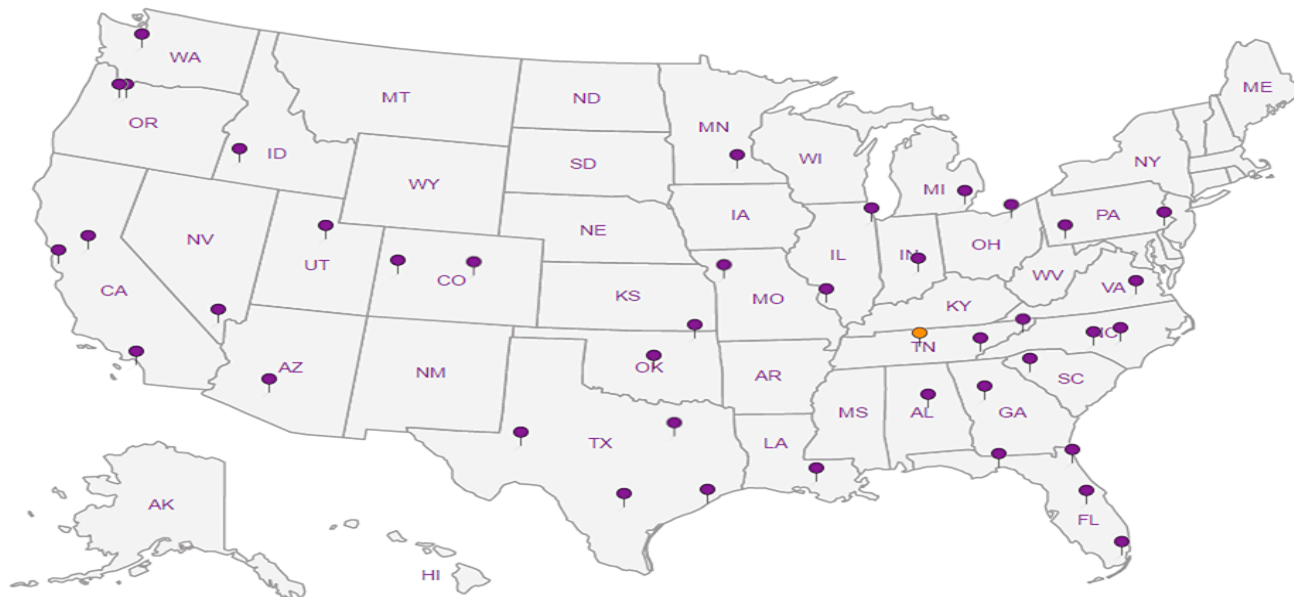
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Zipper Geo Associates - Lynnwood, WA 19023 36th Avenue West Report to: Jon Einarsen				Billing Information: Jon Einarsen 19023 36th Ave., W. Ste. D Lynnwood, WA 98036 Email To: jeinarsen@zippergeo.com				Chain of Custody Page <u> </u> of <u> </u>																																																																																																		
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Project Description: Prime Cleaners				City/State Collected: Mill Creek, WA				Analysis / Container / Preservative VOCs 8260C LL 40ml/Amb-HCI																																																																																																		
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* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water QT - Other				Remarks: Samples returned via: ☐ UPS ☐ FedEx ☒ Courier				pH _____ Temp _____ Flow _____ Other _____																																																																																																		
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