

May 31, 2023

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Subject: First Quarter 2023 Groundwater Monitoring Results, Former Thermal Treatment Unit, Nammo Defense Systems Inc., Mesa, Arizona

Dear Ms. Clark:

Pinyon Environmental, Inc. (Pinyon), has prepared the following First Quarter 2023 (Q1 2023) Groundwater Monitoring Report (Report) on behalf of Nammo Defense Systems Inc. (NDS). The report documents field activities and results for groundwater sampling at the NDS former Thermal Treatment Unit (TTU) in Mesa, Arizona (the Site; Figure 1). The monitoring activities were planned and executed following the scope of work and requirements outlined in the *Groundwater Water Sampling and Analysis Plan, Former Thermal Treatment Unit, NAMMO Defense Systems Inc., Mesa Arizona*, dated September 30, 2022 (TTU SAP); and the *Quality Assurance Project Plan, NAMMO Defense Systems Inc. Facility, Mesa, Arizona*, dated April 28, 2022 (NDS Facility QAPP). The TTU SAP was submitted to the U.S. Environmental Protection Agency (EPA) for review and comments were received on August 23, 2022. A revised TTU SAP incorporating responses to EPA's comments was submitted on September 30, 2022. Any changes or deviations from these documents are provided in subsequent sections of this report.

It was requested in comments received following review of the DRAFT TTU First Quarter (Q1) 2022 Groundwater Monitoring Results that a complete historical data summary table be developed and included in future reports. The data summary was provided as part of the Q4 2022/Annual Groundwater Monitoring Report, dated May 3, 2023 and updated historical data summary tables will be included with subsequent fourth quarter/annual reports.

## **I. SCOPE OF ACTIVITIES**

Groundwater monitoring and pumping/extraction wells were sampled between February 22 and 27, 2023. Well construction details are summarized in Table 1 and well locations are shown in Figure 2.

## **1.1 Deviations from Work Plan**

The Q1 2023 groundwater monitoring was conducted in accordance with the TTU SAP and NDS Facility QAPP with the exception of field parameters recorded from TTU-1 and TTU-2. TTU-1 and TTU-2 were turned on and allowed to purge for over 1-hour and field parameters were collected just prior to sample collection and not at 5-minute increments.

## **1.2 Groundwater Elevation Measurement**

Table 2 provides a summary of groundwater elevation gauging for the Q1 2023 sampling event. The depth to groundwater measurements were collected using an electronic water level indicator. The depths were measured to the nearest 0.01 foot on the north side, top of casing at each well. Well TTU-18 was dry and was therefore, not sampled.

## **1.3 Groundwater Sampling**

For extraction/pumping wells, the wells were activated and allowed to purge for at least 15 minutes prior to sample collection. Water was taken from the spigot closest to the wellhead. From each sampled well, field parameter measurements were collected using a YSI 556 MPS water quality meter to evaluate water temperature, pH, oxidation reduction potential (ORP), conductivity, dissolved oxygen (DO), and turbidity. For the production well PF-2, field readings were collected every 5 minutes during the minimum 15-minute purging/stabilization period. If purging took longer than 15 minutes, the reasons and rationale are provided on the individual well sampling records presented in Attachment I. No issues with field parameter stabilization during purging were encountered during the Q1 2023 sampling event. Field parameters for TTU-1 and TTU-2 were collected as described in Section 1.1. For non-pumping wells, one round of field parameter measurements was collected at the time of sample collection.

Monitoring wells and other non-pumping wells were sampled using HydraSleeve samplers. The samplers were deployed by Pinyon at the end of the Q4 2022 sampling event. The samplers were suspended inside the wells/boreholes at the depths summarized in Table 3.

Groundwater samples were collected into laboratory provided and preserved sample containers based on analytical method requirements as described in the TTU SAP. Each groundwater sample was labeled, secured from breakage, and stored on-ice inside an insulated cooler. The samples were transported under chain-of-custody protocol to Pace Analytical and Eurofins Sacramento for analysis. Pace Analytical and Eurofins are Arizona Department of Health Services (ADHS) certified laboratories (#AZ0728 and #AZ0708, respectively).

The groundwater samples were analyzed for total volatile organic compounds (VOCs) using Method 8260B, 1,4-dioxane using Method 8260B-SIM, and perchlorate using Method 314.0 Mod by Pace Analytical. The sample from PF-2 was analyzed for perchlorate salts using EPA Method 6850 by Eurofins-Sacramento.

## **1.4 Sampling Equipment Decontamination**

Disposable sampling equipment such as protective gloves and paper towels were containerized and disposed of as non-hazardous commercial or household waste. Reusable equipment such as the YSI meter and the water level indicator were decontaminated prior to use and between each well using an Alconox and distilled water solution followed by a double rinse with distilled water. The reusable equipment was allowed to air dry prior to its next use.

## 2. GROUNDWATER MONITORING RESULTS

Laboratory reports and chain-of-custody forms are presented in Attachment 2. The following data summary tables are provided:

- Table 1 – Former Thermal Treatment Unit 2023 Groundwater Well Network
- Table 2 – Groundwater Elevations - First Quarter 2023
- Table 3 – Summary of Perchlorate Concentrations - First Quarter 2023
- Table 4 – Summary of Detected VOC Concentrations - First Quarter 2023
- Table 5 – Historical 1,4-Dioxane and TCE Concentrations

The following figures are provided for reference and data presentation:

- Figure 1 – Site Vicinity Map
- Figure 2 – Quarterly Groundwater Contour Map – First Quarter 2023
- Figure 3 – Perchlorate Detections in Groundwater – First Quarter 2023
- Figure 4 – 1,4-Dioxane Detections in Groundwater – First Quarter 2023
- Figure 5 – 1,1-Dichloroethene Detections in Groundwater – First Quarter 2023
- Figure 6 – Trichloroethene Detections in Groundwater – First Quarter 2023
- Figure 7 – VOC Exceedances in Groundwater – First Quarter 2023

### 2.1 Estimated Groundwater Flow Direction

The horizontal groundwater gradient was measured across the Site at approximately 0.12 ft/ft (feet per foot) to the west for the plane defined between wells TTU-5, TTU-9A, and TTU-10. This gradient is similar to the 0.13 ft/ft reported during the Q4 2022 groundwater sampling event. Groundwater flow appears to be affected by the significant land surface elevation increase at TTU-15, TTU-16, and TTU-17 creating an area of northern groundwater flow (Figure 2).

### 2.2 Groundwater Laboratory Results

Perchlorate was detected at concentrations above the Arizona Department of Environmental Quality (ADEQ) Health Based Guidance Level (HBGL) of 14 micro grams per liter ( $\mu\text{g/L}$ ) in 15 of the 25 wells sampled. 1,4-dioxane was detected at concentrations above the interim screening level of 3.5  $\mu\text{g/L}$  in 15 of the 25 wells sampled. 1,1-dichloroethene (DCE) was detected at concentrations above the Arizona Aquifer Water Quality Standard (AWQS) of 7  $\mu\text{g/L}$  in 11 of the 25 wells sampled. TCE was detected at concentrations above the AWQS for TCE of 5  $\mu\text{g/L}$  in 13 of the 25 wells sampled. Analytical results for Q1 2023 are provided in Table 3 for perchlorate and Table 4 for detected VOCs with an established screening value and on Figures 3 to 7.

The Q1 2023 analytical data are generally consistent with Q4 2022 except as noted in the Trigger Limit (TL) section below.

As outlined in the TTU SAP, notification and resampling must be made if the following TLs are exceeded:

- For PF-2, if perchlorate exceeds 3.2 µg/L.
- For TTU-6, if 1,4-dioxane exceeds 3.5 µg/L and/or other VOCs reach 50% of the AWQS.
- For TTU-1, TTU-2, TTU-3, TTU-4, TTU-6, TTU-7, TTU-8, TTU-9a, TTU-10, TTU-14, PF-1, and PF-2, if an order-of-magnitude increase in the concentration<sup>1</sup> of a COPC that was previously measured at a concentration exceeding the project screening level (e.g., AWQS).

Perchlorate was sampled monthly in TTU-6 as part of the Q4 2022 contingency sampling. Concentrations decreased from a high of 153 µg/L in December 2022 to 21.1 µg/L in March 2023. PF-2 was sampled for analysis of perchlorate in January 2023, which was not detected. The contingency sample results have been provided under separate cover.

Based on the February sampling event 1,4-dioxane was detected at 18.4 µg/L in TTU-9A, which was an order of magnitude higher than the average of the three previous sampling events. TTU-9A was subsequently resampled in March 2023 and 1,4-dioxane was not detected. Based on the resampling results additional monthly sampling was not conducted.

## 2.3 Groundwater Concentration Versus Time

Concentration and groundwater elevation versus time plots for TCE, 1,1- DCE, perchlorate, and 1,4-dioxane are presented in Attachment 3.

## 2.4 Discussion

Based on the Q1 2023 groundwater monitoring results, no TL trigger conditions were encountered for the contingency plan wells with exception of TTU-9A, as discussed in section 2.2. Using the definition of order of magnitude changes established in Section 2.2, Footnote 1, no other order of magnitude concentration increases were observed between Q4 2022 and Q1 of 2023 for any of the COPCs.

## 2.5 Data Validation

A Tier IA data validation of the laboratory results according to EPA guidance and the laboratory results are qualified as usable for meeting project objectives. A data validation memorandum is provided in Attachment 4.

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<sup>1</sup> To establish consistency regarding the trigger or action levels (TL or AL) based on concentration changes for different compounds, Pinyon offers the following definition for a concentration change of one order of magnitude or more: If the current concentration is greater than 10 times the average of the most recent 3 quarterly sampling events (the baseline) for a COPC, an increase of more than one order of magnitude has occurred. Similarly, if the current concentration of a COPC is less than 1/10<sup>th</sup> of the baseline concentration, a concentration decrease of more than one order of magnitude has occurred. For results where no detectable concentration is reported one-half of the method detection limit will be used for calculation of the average.

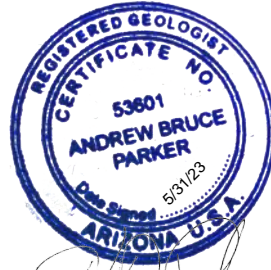
### 3. CLOSING

Overall, the Q1 2023 groundwater monitoring data indicates primarily stable conditions associated with the Site.

Sincerely,  
**Pinyon Environmental, Inc.**



Jeremy Musson  
Principal



Andrew Parker R.G. (AZ# 53601)  
Senior Geologist

Copies to: Angel Soto, Nammo Defense Systems, Inc. (electronic)  
Christopher Horan, Salt River Pima-Maricopa Indian Community (electronic)  
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Kyle Johnson, Arizona Department of Environmental Quality (electronic)  
Anthony Leverock, Arizona Department of Environmental Quality (electronic)  
William Frier, U.S. Environmental Protection Agency (electronic)  
Isaac Roll, Geosyntec Consultants (electronic)  
Fabrizio Mascioni, Geosyntec Consultants (electronic)

#### Tables

Table 1 – Former Thermal Treatment Unit 2022 Groundwater Monitoring Well Network  
Table 2 – Groundwater Elevation – Fourth Quarter 2022  
Table 3 – Summary of Detected VOC Concentrations – Fourth Quarter 2022  
Table 4 – Summary of Perchlorate Concentrations – Fourth Quarter 2022  
Table 5 – Historical 1,4-Dioxane and TCE Concentrations

#### Figures

Figure 1 – Site Vicinity Map  
Figure 2 – Groundwater Elevations and Contours – Fourth Quarter 2022  
Figure 3 – Perchlorate Detections in Groundwater – Fourth Quarter 2022  
Figure 4 – 1,4-Dioxane Detections in Groundwater – Fourth Quarter 2022  
Figure 5 – 1,1-Dichloroethene Detections in Groundwater – Fourth Quarter 2022  
Figure 6 – Trichloroethene Detections in Groundwater – Fourth Quarter 2022  
Figure 7 – Other VOC Exceedances in Groundwater – Fourth Quarter 2022

#### Attachments

Attachment 1 – Field Notes  
Attachment 2 – Laboratory Analytical Reports  
Attachment 3 – Concentration and Groundwater Elevation versus Time Plots  
Attachment 4 – Data Validation Memo

## Tables

**TABLE I:  
FORMER THERMAL TREATMENT UNIT  
GROUNDWATER WELL NETWORK  
NAMMO DEFENSE SYSTEMS INC.  
MESA, ARIZONA**

Well ID (Location)	Install Date	Latitude	Longitude	Survey Date	Survey Coordinate Datum	Measuring Point Elevation Top of Casing (ft asml)	Ground Surface Elevation (ft asml)	Well Stickup Height (ft)	ADWR Number	Well Type/Use	Well Name/ Owner	Well Owner Information	Well Const	Well Diameter (in)	Screen Interval (ft bgs)	Casing Depth (ft bgs)	Boring Depth (ft bgs)
<b>Plume Monitoring Wells</b>																	
TTU-3	10/18/2013	33 29 57.98	-111 43 00.91	NP	NAVD 88	1308.03	1305.50	2.50	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85279	PVC	4	78.1-138.1	143.6	180
TTU-4	10/25/2013	33 30 01.65	-111 42 59.09	NP	NAVD 88	1305.12	1302.50	2.50	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85280	PVC	4	39.5-99.5	104.9	180
TTU-5	9/20/2014	33 29 52.48	-111 42 58.40	NP	NAVD 88	1314.93	1312.30	3.00	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85281	PVC	4	59.5-164.5	169.5	174
TTU-6	10/7/2014	33 29 57.57	-111 43 04.79	NP	NAVD 88	1300.84	1299.40	2.37	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	110-175	180	185
TTU-7	10/8/2014	33 29 57.85	-111 43 05.18	NP	NAVD 88	1301.84	1299.30	2.52	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	Steel	8.5	282-410	282	410
													Open Borehole	8		None	
TTU-8	4/18/2016	33 30 01.91	-111 43 05.31	NP	NAVD 88	1310.23	1307.60	2.98	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	135-185	190	204
TTU-9A	6/16/2016	33 30 04.61	-111 42 51.19	NP	NAVD 88	1318.04	1316.00	2.5	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	24-99	104	105
TTU-10	4/18/2016	33 29 54.60	-111 43 07.90	NP	NAVD 88	1302.42	1299.80	3.17	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	115-180	185	204
TTU-12	7/19/2018	33 29 56.03	-111 42 58.38	NP	NP	1312.21	NP	1.33	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	Steel	5.5	30-180	30	180
													Open Borehole	5		None	
TTU-13	7/20/2018	33 29 58.99	-111 42 56.85	NP	NP	1310.79	NP	1.46	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85283	Steel	5.5	30-80	30	80
													Open Borehole	5		None	
TTU-14	7/19/2018	33 29 57.20	-111 42 57.46	NP	NP	1319.30	1316.80	1.38	N/A	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85284	Steel	5.5	45-100	45	100
													Open Borehole	5		None	
TTU-15	1/25/2018	33 29 56.78	-111 42 47.03	NP	NP	1350.85	NP	1.88	55-228014	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85285	Steel	5	10-100	10	100
													Open Borehole	4.5		None	
TTU-16	1/28/2020	33 29 56.18	-111 42 49.59	NP	NP	1338.55	NP	1.19	55-231730	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85286	Steel	8	20-95.6	20	95.6
													Open Borehole	8		None	
TTU-17	1/28/2020	33 29 58.61	-111 42 45.69	NP	NP	1347.49	NP	0.60	55-231735	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85287	Steel	8	20-101	20	101
													Open Borehole	8		None	
TTU-18	1/25/2020	33 29 47.20	-111 42 58.10	NP	NP	1320.25	NP	NP	55-231737	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	Steel	8	21-140	21	140
													Open Borehole	8		None	
TTU-20	9/24/2020	33 29 55.17	-111 42 51.58	NP	NP	1336.90	NP	0.85	55-232968	Monitoring	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	PVC	4	25-95	95	100

**TABLE I:  
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GROUNDWATER WELL NETWORK  
NAMMO DEFENSE SYSTEMS INC.  
MESA, ARIZONA**

Well ID (Location)	Install Date	Latitude	Longitude	Survey Date	Survey Coordinate Datum	Measuring Point Elevation Top of Casing (ft asml)	Ground Surface Elevation (ft asml)	Well Stickup Height (ft)	ADWR Number	Well Type/Use	Well Name/ Owner	Well Owner Information	Well Const	Well Diameter (in)	Screen Interval (ft bgs)	Casing Depth (ft bgs)	Boring Depth (ft bgs)	
<b>Extraction and Injection Wells</b>																		
TTU-1	6/6/2012	33 29 59.14	-111 42 56.27	NP	NAVD 88	1312.73	1309.70	3.03	55-914440	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85277	PVC	4	30-70	75	200	
TTU-2	10/17/2013	33 29 55.85	-111 42 57.85	NP	NAVD 88	1314.44	1311.80	2.64	N/A	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85278	PVC	4	49.4-179.6	185	187.5	
TTU-11	9/11/2015	33 29 55.28	-111 42 51.47	NP	NAVD 88	1339.20	1336.60	2.60	55-918534	Extraction/ Injection <sup>1</sup>	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85282	PVC	4	24.1-89.1	94	136	
TTU-19	9/24/2020	33 29 55.25	-111 42 51.50	NP	NP	1336.67	NP	NP	55-232969	Monitoring/ Injection <sup>2</sup>	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	PVC	4	25-95	95	96	
TTU-EX-1	1/25/2020	33 29 58.42	-111 42 52.55	NP	NP	1321.69	NP	1.60	55-231733	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85288	Steel	8	19-110.7	19	110.7	
													Open Borehole	8		None		
TTU-EX-2	1/23/2020	33 29 57.61	-111 42 53.79	NP	NP	1316.40	NP	1.10	55-231734	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85289	Steel	8	20-110	20	110	
													Open Borehole	8		None		
TTU-EX-3	1/24/2020	33 29 56.29	-111 42 54.12	NP	NP	1316.85	NP	0.58	55-231731	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85290	Steel	8	20-101.45	20	111	
													Open Borehole	8		None		
TTU-EX-4	1/24/2020	33 29 55.46	-111 42 54.39	NP	NP	1319.96	NP	1.42	55-231732	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85291	Steel	8	20-110.7	20	110.7	
													Open Borehole	8		None		
TTU-EX-5	1/24/2020	33 29 54.68	-111 42 54.62	NP	NP	1319.50	NP	0.96	55-231736	Extraction	Nammo Defense Systems Inc.	P.O. Box 34299 Mesa, AZ 85292	Steel	8	20-110.8	20	110.8	
													Open Borehole	8		None		
<b>Production Wells</b>																		
PF-1	NP	33 29 56.60	-111 43 09.75	NP	NP	1295.99	NP	NP	N/A	Production	University of Washington	4202 N Higley Rd Mesa, AZ 85215	Unknown	Unknown	Unknown	Unknown	Unknown	
PF-2	3/27/2013	33 29 56.65	-111 43 09.96	NP	NP	1296.35	NP	NP	N/A	Production	University of Washington	4202 N Higley Rd Mesa, AZ 85215	Steel	6 5/8	300-400	400	400	

Notes:

ft asml = feet above mean sea level (NAVD88)

ADWR = Arizona Department of Water Resources

Const = construction

in = inches

(1) - TTU-11 was converted from an extraction well to an injection well in October 2020 for a In-Situ Bioremediation Pilot Test.

(2) - TTU-19 was converted from a monitoring well to an injection well in February 2021 for an In-Situ Bioremediation Pilot Test

(3) - Monitoring well stick-up was measured using a tape measure to the top of the protective casing and not to the top of the well casing as no survey equipment was utilized.

TTU-EX-1 through TTU-EX-5 are not currently operating as extraction wells. TTU-11 and TTU-19 are not currently operating as injection wells.

N/A = Not applicable

PVC = polyvinyl chloride

ft bgs = feet below ground surface

TTU = Thermal Treatment Unit

EX = Extraction

PF = Primate Facility

NP = Not Provided

Drill Log TOC Different from Original

Drill Log TOC listed



**TABLE 2:**  
**GROUNDWATER ELEVATIONS - FIRST QUARTER 2023**  
 FORMER THERMAL TREATMENT UNIT  
 NAMMO DEFENSE SYSTEMS INC.

Location	Northing (intl ft)	Easting (intl ft)	Top of Casing Elevation (ft asml)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft asml)
TTU-1	909420.734	761281.203	1312.73	2/23/2023	40.52	1,272.21
TTU-2	909087.852	761148.265	1314.44	2/23/2023	62.49	1,251.95
TTU-3	909303.363	760888.204	1308.03	2/25/2023	90.42	1,217.61
TTU-4	909673.680	761041.975	1305.12	2/25/2023	53.65	1,251.47
TTU-5	908747.636	761102.227	1314.93	2/25/2023	79.31	1,235.62
TTU-6	909260.820	760560.096	1300.84	2/25/2023	132.61	1,168.23
TTU-7	909287.611	760527.269	1301.84	2/25/2023	137.51	1,164.33
TTU-8	909699.266	760514.908	1310.23	2/25/2023	152.95	1,157.28
TTU-9A	909974.490	761710.151	1318.04	2/23/2023	30.08	1,287.96
TTU-10	908960.114	760297.013	1302.42	2/27/2023	166.45	1,135.97
TTU-11	909029.758	761706.470	1339.20	2/25/2023	31.52	1,307.68
TTU-12	909105.990	761103.280	1312.21	2/23/2023	76.46	1,235.75
TTU-13	909405.920	761232.180	1310.79	2/23/2023	40.75	1,270.04
TTU-14	909224.260	761181.230	1316.80	2/25/2023	59.80	1,257.00
TTU-15	909185.100	762065.910	1350.85	2/25/2023	29.32	1,321.53
TTU-16	909124.980	761848.851	1338.55	2/25/2023	19.39	1,319.16
TTU-17	909370.903	762179.168	1347.49	2/25/2023	38.00	1,309.49
TTU-18	908215.829	761130.011	1320.25	2/25/2023		DRY
TTU-19	909030.750	761687.700	1336.81	2/25/2023	29.59	1,307.22
TTU-20	909022.530	761681.990	1336.90	2/25/2023	31.41	1,305.49
TTU-EX-1	909350.574	761597.823	1321.69	2/23/2023	23.85	1,297.84
TTU-EX-2	909268.187	761493.214	1316.40	2/23/2023	32.22	1,284.18
TTU-EX-3	909134.941	761465.507	1316.85	2/23/2023	36.26	1,280.59
TTU-EX-4	909051.298	761442.876	1319.96	2/23/2023	41.62	1,278.34
TTU-EX-5	908971.770	761423.325	1319.50	2/23/2023	40.03	1,279.47
PF-1	909161.578	760140.434	1295.99	NM	NM	NM
PF-2	909166.890	760122.250	1296.35	NM	NM	NM

Notes:

*intl ft - international foot*

*ft asml - feet above mean sea level*

*ft btoc - feet below top of casing*

*NM - not measured*

**TABLE 3:  
SUMMARY OF PERCHLORATE CONCENTRATIONS - FIRST QUARTER 2023  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

Location	Sample Depth (ft btoc)	Sample Date	Sample Type	Perchlorate		
				EPA Method	314	6850
				Units	µg/l	
				HBGL	14	
					Concentration	
TTU-1	50	2/23/2023	Primary	<b>8,350</b>	--	
TTU-2	114	2/23/2023	Primary	<b>176,000</b>	--	
TTU-3	108	2/25/2023	Primary	<b>277</b>	--	
DUP-03			Duplicate	<b>278</b>	--	
TTU-4	57	2/25/2023	Primary	1.08 E4	--	
TTU-5	110	2/25/2023	Primary	<b>42.2</b>	--	
TTU-6	143	2/25/2023	Primary	<b>55.2 M3</b>	--	
TTU-7	345	2/25/2023	Primary	<4.00	--	
TTU-8	164	2/25/2023	Primary	0.39 E4	--	
TTU-9A	61	2/23/2023	Primary	8.80	--	
TTU-10	172	2/27/2023	Primary	<4.00	--	
TTU-11	73	2/25/2023	Primary	<4.00 M2	--	
TTU-12	82	2/23/2023	Primary	<b>134,000</b>	--	
TTU-13	51	2/23/2023	Primary	<b>27,100</b>	--	
TTU-14	67	2/25/2023	Primary	<b>158,000</b>	--	
TTU-15	75	2/25/2023	Primary	<b>8,290</b>	--	
TTU-16	80	2/25/2023	Primary	<b>832,000</b>	--	
DUP-02			Duplicate	<b>826,000</b>	--	
TTU-17	80	2/25/2023	Primary	2.46 E4 R8	--	
TTU-19	73	2/25/2023	Primary	<40.0	--	
TTU-20	73	2/25/2023	Primary	<b>618,000</b>	--	
TTU-EX-1	69	2/23/2023	Primary	<b>121,000</b>	--	
TTU-EX-2	74	2/23/2023	Primary	<b>65,700</b>	--	
DUP-01			Duplicate	<b>614,000</b>	--	
TTU-EX-3	76	2/23/2023	Primary	<b>90,300</b>	--	
TTU-EX-4	77	2/23/2023	Primary	<b>94,900</b>	--	
TTU-EX-5	80	2/23/2023	Primary	<4.00	--	
PF-2	400	2/27/2023	Primary	--	0.38 E4	

Notes:

ft btoc - feet below top of casing

µg/l - micrograms per liter

EPA - United States Environmental Protection Agency

HBGL - Health-Based Guidance Level

<Grey - Concentration is below laboratory reporting limits

-- - Not reported

**BOLD** - Concentration exceeds its respective HBGL

E4 - Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.

M2 - Matrix spike recovery was low; the associated blank spike recovery was acceptable.

E8 - Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

M3 - The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

**TABLE 4:  
SUMMARY OF DETECTED VOC CONCENTRATIONS - FIRST QUARTER 2023  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

Location	Sample Depth (ft btoc)	Screening Level	Chemical Name	1,4-Dioxane	Acetone	1,1-dichloroethane	1,1-dichloroethene	1,2-dichloroethane	Benzene	Carbon Disulfide	Chloroform	cis-1,2-dichloroethene	Dichloromethane (methylene chloride)	Isopropylbenzene	Tetrachloroethene	Toluene	trans-1,2-dichloroethene	1,1,2-trichloroethane	Trichloroethene	Vinyl chloride	2-butanone (MEK)	4-methyl-2-pentanone (MIBK)	Xylene Total		
			EPA Method	8260B	SIM	8260B																			
			Unit	µg/l																					
Sample Date		3.5 <sup>(1)</sup>	1800 <sup>(2)</sup>	2.8 <sup>(3)</sup>	7	5	5	81 <sup>(2)</sup>	80 <sup>(3)</sup>	70	5	45 <sup>(2)</sup>	5	1000	100	5	5	2	560 <sup>(2)</sup>	630 <sup>(2)</sup>	10000				
TTU-1	50	2/23/2023	14.9	<50	<1	0.857 E4	<1	0.183 E4	<1	0.116 E4	<1	<5	<1	<1	<1	<1	<1	<1	5.02 M1	<1	<10	<10	<3		
TTU-2	114	2/23/2023	362	<50 L1	1.39	91.6	<1	1.55	<1	2.36 E4	1.83	<5	<1	1.41	<1	0.318 E4	2.05	648	<1	<10	<10	<3			
TTU-3	108	2/25/2023	<3	<50	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	0.266 E4	<1	<10	<10	<3		
DUP-03		<3	<50	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<3		
TTU-4	57	2/25/2023	<3	<50	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<3		
TTU-5	110	2/25/2023	<3	<50	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<3		
TTU-6	143	2/25/2023	<3	<50	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	0.218 E4	<1	<10	<10	<3		
TTU-7	345	2/25/2023	<3	<50	<1	<1	<1	<1	<1	<5	<1	<5	0.158 E4	<1	0.904 E4	<1	<1	<1	<1	<1	<10	<10	0.275 E4		
TTU-8	164	2/25/2023	<3	<50	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<3		
TTU-9A	61	2/23/2023	18.4	<50 L1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<3		
TTU-10	172	2/27/2023	<3	<50	<1	<1	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<10	<10	<3		
TTU-11	73	2/25/2023	11600	1940	<10	7.87 E4	<10	<10	<10	<50	17.4	<50	<10	<10	<10	<10	<10	<10	67.8	<10	1110	108	<30		
TTU-12	82	2/23/2023	209	<50 L1	0.937 E4	68.6	<1	1.00	<1	1.78 E4	1.15	<5	<1	1.40	<1	0.211 E4	1.45	452	<1	<10	<10	<3			
TTU-13	51	2/23/2023	40.1	<50 L1	<1	5.01	<1	<1	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	12.8	<1	<10	<10	<3		
TTU-14	67	2/25/2023	339	<50	1.28	132 M3	<1	1.94	<1	2.16 E4	2.31	<5	<1	1.40	<1	0.359 E4	2.10	807	<1	<10	<10	<3			
TTU-15	75	2/25/2023	15.7	<50	<1	1.12	<1	<1	<1	<5	1.26	<5	<1	<1	<1	<1	<1	<1	4.90	<1	<10	<10	<3		
TTU-16	80	2/25/2023	32800	<5000	63.3 E4	3970	<100	268	<100	82.9 E4	<100	84800	<100	47.7 E4	49.8 E4	<100	73.7 E4	69100	<100	<1000	<1000	38.0 E4			
DUP-02		39600	<50	59.6	2900	28.2	228 E4	<1	81.5	12.5	106000	0.503 E4	61.7	56.7	7.98	69.7	83600	0.755 E4	<10	<10	<1000	66.3			
TTU-17	80	2/25/2023	<3	<50	<1	<1	<1	<1	<1	<5	0.904 E4	<5	<1	<1	<1	<1	<1	<1	1.28	<1	<10	<10	<3		
TTU-19	73	2/25/2023	318	<250	<5	50.6	<5	4.75 E4	0.989 E4	<25	151	<25	<5	<5	<5	6.69	<5	348	4.11 E4	18.4 E4	7.47 E4	<15			
TTU-20	73	2/25/2023	19600	<5000	27.8 E4	2600	<100	87.4 E4	<100	18.8 E4	156	49.5 E4	<100	<100	<100	22.8 E4	17.3 E4	12800	<100	<1000	<1000	<300			
TTU-EX-1	69	2/23/2023	251	<50 L1	0.442 E4	61.2	<1	0.180 E4	<1	0.699 E4	<1	<5	<1	0.908 E4	<1	<1	0.657 E4	127	<1	<10	<10	<3			
TTU-EX-2	74	2/23/2023	162	<50 L1	0.349 E4	39.8	<1	0.337 E4	<1	0.603 E4	0.553 E4	<5	<1	0.834 E4	<1	<1	0.649 E4	166	<1	<10	<10	<3			
DUP-01		197	<50 L1	0.268 E4	34.2	<1	0.279 E4	<1	0.485 E4	0.458 E4	<5	<1	0.842 E4	<1	<1	0.553 E4	143	<1	<10	<10	<10	<3			
TTU-EX-3	76	2/23/2023	916	<50 L1	10.9	799	2.18	14.6	<1	13.2	5.52	0.829 E4	<1	9.86	<1	2.06	11.5	6520	0.635 E4	<10	<10	<3			
TTU-EX-4	77	2/23/2023	16.7	<50 L1	1.86	119	<1	1.50	<1	2.09 E4	3.50	<5	<1	1.77	<1	0.641 E4	0.814 E4	836	<1	<10	<10	<3			
TTU-EX-5	80	2/23/2023	<3	<50	<1	<1	<1	0.102 E4	<1	<5	0.279 E4	<5	<1	<1	<1	<1	<1	4.45	<1	<10	<10	<3			
PF-2	400	2/27/2023	<0.597	<50	<1	<1	<1	0.153 E4	<1	<5	<1	<5	<1	<1	<1	<1	<1	<1	<1	<10	<10	<3			

Notes:

ft btoc - feet below top of casing

µg/l - micrograms per liter

AWQS - Arizona Aquifer Water Quality Standard

Detected VOCs with established screening value presented

EPA - Environmental Protection Agency

\* Reported to Method Detection Limit

SIM - Selected Ion Monitoring

<Gray - Concentration is below laboratory reporting limits

**BOLD - Concentration exceeds its respective AWQS or screening level**

(1) - Interim Screening Level

(2) - Top water regional screening level, AWQS has not been established

(3) - The total trihalomethane (TTHM) standard is exceeded when the sum of the four compounds exceeds 80 µg/L as a rolling average

E4 - Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.

L1 - The associated blank spike recovery was above laboratory acceptance limits

M1 - Matrix spike recovery was high, the method control spike recovery was acceptable.

M3 - The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
Contingency Level/ Trigger Level at PF-1 and PF-2			3.5	5
			3.5/1.75	5/2.5
PF-1	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
PF-2	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Field Duplicate	9/16/2019	<0.597 U	<0.398 U
	Primary	12/23/2019	<0.597 U	<0.398 U
	Primary	3/13/2020	<0.597 U	<0.398 U
	Primary	12/4/2020	<0.597 U	<0.19 U
	Field Duplicate	12/4/2020	<0.597 U	<0.19 U
	Primary	3/29/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Primary	8/6/2021	<0.597 U	<0.19 U
	Primary	11/18/2021	<0.597 U	<0.19 U
	Primary	3/31/2022	<0.597	<0.19 R7
	Field Duplicate	3/31/2022	<0.597	<0.19 R7
	Primary	6/21/2022	<0.597	<0.19 J3
	Field Duplicate	6/21/2022	<0.597	<0.19
	Primary	9/9/2022	<0.597 R7	<0.19
Primary	11/30/2022	<0.597	<0.19	
Primary	2/27/2023	<0.597	<0.19	

**TABLE 5:  
HISTORICAL I,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	I,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-1	Primary	11/18/2014	NA	6.1
	Primary	12/23/2014	NA	8.8
	Primary	2/5/2015	26	10
	Primary	5/18/2015	20	6.1
	Primary	9/9/2015	17	5.2
	Primary	11/23/2015	14	5.1
	Primary	2/25/2016	11	4.6
	Primary	6/1/2016	12.7	3.03
	Primary	8/18/2016	11	3.7
	Primary	11/22/2016	27	5.5
	Primary	2/22/2017	18.4	5.5
	Primary	5/23/2017	14.1	7.2
	Primary	8/29/2017	11	1.4
	Primary	11/27/2017	17.7	7.1
	Field Duplicate	11/27/2017	18.1	7.2
	Primary	3/27/2018	17.1	4.6
	Primary	9/12/2018	31.8	11.2
	Field Duplicate	9/12/2018	29.1	12.4
	Primary	12/4/2018	7.3	4.4
	Primary	9/16/2019	13.9	5.72
	Field Duplicate	9/16/2019	10.8	4.85
	Primary	12/20/2019	5.06	5.19
	Primary	3/12/2020	4.63 J	3.91
	Primary	6/18/2020	17.1	7.6
	Primary	7/20/2020	3.71	6.09
	Primary	12/2/2020	29.9	1.33
	Primary	3/30/2021	18.9 J	6.4
	Primary	5/6/2021	22	17.1 J
	Primary	7/29/2021	37.7	14.3
	Primary	12/22/2021	11.1	8.82
	Primary	3/26/2022	18.4	3.72
	Field Duplicate	3/26/2022	19.9	4.46
	Primary	6/16/2022	17.5 Q	4.42
Field Duplicate	6/16/2022	35.5	4.12	
Primary	10/11/2022	15.1	5.13	
Field Duplicate	10/11/2022	14.5	5.85	
Primary	11/28/2022	11.8 B	4.86	
Primary	2/23/2023	14.9	5.02 M1	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-2	Primary	11/18/2014	NA	370
	Primary	12/23/2014	NA	280
	Primary	2/5/2015	170	280
	Primary	5/18/2015	160	190
	Primary	9/9/2015	170	200
	Primary	11/23/2015	140	150
	Primary	2/25/2016	110	150
	Primary	6/1/2016	88.2	50.3
	Primary	8/18/2016	150	360
	Primary	11/22/2016	260	780
	Primary	2/22/2017	244	727
	Primary	5/23/2017	222	880
	Primary	8/29/2017	241	93.2
	Field Duplicate	8/29/2017	227	89.7
	Primary	11/27/2017	235	353
	Primary	3/27/2018	219	236
	Field Duplicate	3/27/2018	152	274
	Primary	6/28/2018	246	498
	Primary	9/10/2018	246	433
	Primary	12/4/2018	232	288
	Primary	3/25/2019	313	364
	Primary	9/16/2019	295	475
	Primary	12/20/2019	211	711
	Field Duplicate	12/20/2019	215	742
	Primary	3/12/2020	227 J	511
	Primary	6/18/2020	292	824
	Primary	7/20/2020	156	959
	Primary	12/2/2020	329	785
	Primary	3/30/2021	196 J	656
	Field Duplicate	3/30/2021	244 J	720
	Primary	5/6/2021	316	683
	Primary	7/29/2021	373	654
Primary	12/22/2021	280	627	
Field Duplicate	12/22/2021	281	653	
Primary	3/26/2022	251	823	
Primary	6/16/2022	246 Q	443	
Primary	10/10/2022	170	596 M3	
Primary	11/28/2022	230 V	643 V	
Primary	2/23/2023	362	648	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-3	Primary	5/23/2017	NA	2.5
	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	6/7/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/23/2019	<0.597 U	<0.398 U
	Primary	3/13/2020	<0.597 U	<0.398 U
	Primary	6/18/2020	<0.597 U	<0.19 U
	Primary	7/21/2020	<0.597 U	<0.19 U
	Primary	12/4/2020	<0.597 U	<0.19 U
	Primary	3/29/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Field Duplicate	5/6/2021	<0.597 U	<0.19 U
	Primary	7/30/2021	<0.597 U	<0.19 U
	Primary	11/18/2021	<0.597 U	<0.19 U
	Primary	3/22/2022	<0.597	0.454 E4
	Primary	6/14/2022	<0.597 J3	<0.19 J3
	Primary	9/9/2022	<0.597	<0.19
	Primary	11/30/2022	<0.597 J3	<0.19
Field Duplicate	11/30/2022	<0.597	<0.19	
Primary	2/25/2023	<0.597	0.266 E4	
Field Duplicate	2/25/2023	<0.597	<0.19	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-4	Primary	5/23/2017	NA	0.31
	Primary	3/27/2018	<0.36 U	<0.18 U
	Field Duplicate	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Field Duplicate	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Field Duplicate	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Field Duplicate	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	6/7/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/23/2019	<0.597 U	<0.398 U
	Primary	3/13/2020	<0.597 U	<0.398 U
	Primary	6/18/2020	<0.597 U	<0.19 U
	Primary	7/21/2020	<0.597 U	<0.19 U
	Field Duplicate	7/21/2020	<0.597 U	<0.19 U
	Primary	12/4/2020	<0.597 U	<0.19 U
	Primary	3/29/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Field Duplicate	5/6/2021	<0.597 U	<0.19 U
	Primary	7/30/2021	<0.597 U	<0.19 U
	Field Duplicate	7/30/2021	<0.597 U	<0.19 U
	Primary	11/18/2021	<0.597 U	<0.19 U
	Primary	3/22/2022	<0.597	<0.19
	Field Duplicate	3/22/2022	2.59 E4	<0.19
	Primary	6/14/2022	11.1	<0.19 J3
	Primary	7/21/2022	<0.597	<0.19
	Field Duplicate	7/21/2022	<0.597	<0.19
	Primary	9/9/2022	<0.597	<0.19
Primary	11/30/2022	1.84 J	<0.19	
Primary	2/25/2023	<0.597	<0.19	



**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-5	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	6/7/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/20/2019	3.54	<0.398 U
	Primary	3/12/2020	<0.597 U	<0.398 U
	Primary	6/17/2020	<0.597 U	<0.19 U
	Primary	7/20/2020	<0.597 U	<0.19 U
	Primary	12/2/2020	<0.597 U	0.877 J
	Primary	3/30/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Primary	7/29/2021	<0.597 U	<0.19 U
	Primary	11/17/2021	<0.597 U	<0.19 U
	Primary	3/21/2022	<0.597	0.64 E4
	Primary	6/13/2022	130	<0.19
	Primary	7/21/2022	<0.597	<0.19
	Primary	9/8/2022	<0.597	<0.19
Primary	11/29/2022	21.5	<0.19	
Primary	2/25/2023	<0.597	<0.19	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-6	Primary	8/29/2017	NA	0.38
	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	6/7/2019	<0.597 U	<0.398 U
	Field Duplicate	6/7/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/23/2019	<0.597 U	<0.398 U
	Primary	3/13/2020	<0.597 U	<0.398 U
	Primary	6/18/2020	<0.597 U	<0.19 U
	Primary	7/21/2020	<0.597 U	<0.19 U
	Primary	12/4/2020	<0.597 U	<0.19 U
	Primary	3/29/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Primary	7/30/2021	<0.597 U	<0.19 U
	Primary	11/18/2021	<0.597 U	<0.19 U
	Primary	3/22/2022	<0.597	<0.19
	Primary	6/14/2022	<0.597 J3	<0.19
Primary	9/9/2022	<0.597 R5	<0.19	
Primary	11/30/2022	<0.597	<0.19	
Primary	2/25/2023	<0.597	0.218 E4	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-7	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Field Duplicate	3/26/2019	<0.597 U	<0.398 U
	Primary	6/7/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/23/2019	<0.597 U	<0.398 U
	Primary	3/13/2020	<0.597 U	<0.398 U
	Primary	6/18/2020	<0.597 U	<0.19 U
	Primary	7/21/2020	<0.597 U	<0.19 U
	Primary	12/4/2020	<0.597 U	<0.19 U
	Primary	3/29/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Primary	7/30/2021	<0.597 U	<0.19 U
	Primary	11/18/2021	<0.597 U	<0.19 U
	Primary	3/22/2022	<0.597	<0.19
	Primary	6/14/2022	<0.597 J3	<0.19 J3
	Primary	9/9/2022	<0.597	<0.19
Primary	11/30/2022	<0.597	<0.19	
Primary	2/25/2023	<0.597	<0.19	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-8	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	6/7/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/23/2019	<0.597 U	<0.398 U
	Primary	3/16/2020	<0.597 U	<0.398 U
	Field Duplicate	3/16/2020	<0.597 U	<0.398 U
	Primary	6/18/2020	<0.597 U	<0.19 U
	Field Duplicate	6/18/2020	<0.597 U	<0.19 U
	Primary	7/21/2020	<0.597 U	<0.19 U
	Primary	12/4/2020	<0.597 U	<0.19 U
	Primary	3/29/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Primary	7/30/2021	<0.597 U	<0.19 U
	Primary	11/18/2021	<0.597 U	<0.19 U
	Primary	3/22/2022	<0.597	<0.19
	Primary	6/14/2022	<0.597	<0.19
	Primary	9/9/2022	<0.597	<0.19
	Field Duplicate	9/9/2022	<0.597	<0.19
	Primary	11/30/2022	<0.597	<0.19
Primary	2/25/2023	<0.597	<0.19	

**TABLE 5:  
HISTORICAL I,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	I,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-9A	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	6/7/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/20/2019	1.01 J	<0.398 U
	Primary	3/12/2020	11.9 J	<0.398 U
	Primary	6/17/2020	<0.597 U	<0.19 U
	Primary	7/20/2020	<0.597 U	<0.19 U
	Primary	12/2/2020	<0.597 U	6.46 J
	Primary	3/30/2021	<0.597 U	7.53
	Primary	5/6/2021	<0.597 U	4.76
	Primary	7/29/2021	<0.597 U	2.75
	Primary	11/17/2021	<0.597 U	0.911 J
	Field Duplicate	11/17/2021	<0.597 U	0.985 J
	Primary	3/22/2022	<0.597	0.944 E4
	Primary	6/13/2022	4.82	<0.19
	Primary	7/21/2022	<0.597	0.221 J
Primary	9/8/2022	<0.597	<0.19	
Primary	11/29/2022	<0.597	<0.19	
Primary	2/23/2023	18.4	<0.19	
Primary	3/21/2023	<0.597	<0.19	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-10	Primary	3/27/2018	<0.36 U	<0.18 U
	Primary	6/28/2018	<0.72 U	<0.15 U
	Primary	9/10/2018	<0.26 U	<0.15 U
	Primary	12/10/2018	<0.26 U	<0.15 U
	Primary	3/26/2019	<0.597 U	<0.398 U
	Primary	9/16/2019	<0.597 U	<0.398 U
	Primary	12/23/2019	<0.597 U	<0.398 U
	Primary	3/13/2020	<0.597 U	<0.398 U
	Primary	6/18/2020	<0.597 U	<0.19 U
	Primary	7/21/2020	<0.597 U	<0.19 U
	Primary	12/4/2020	<0.597 U	<0.19 U
	Primary	3/29/2021	<0.597 U	<0.19 U
	Primary	5/6/2021	<0.597 U	<0.19 U
	Primary	8/6/2021	<0.597 U	<0.19 U
	Primary	11/18/2021	<0.597 U	<0.19 U
	Primary	3/22/2022	1.58 E4	<0.19
	Primary	6/14/2022	<0.597 J3	<0.19
	Field Duplicate	6/14/2022	<0.597 J3	<0.19
	Primary	9/9/2022	<0.597	<0.19
	Primary	11/30/2022	<0.597	<0.19
Primary	2/27/2023	<0.597	<0.19	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-11	Primary	9/23/2015	380	3100
	Field Duplicate	9/23/2015	400	3100
	Primary	11/23/2015	270	2900
	Primary	2/25/2016	250	2400
	Primary	6/1/2016	282	1600
	Primary	8/18/2016	240	1800
	Primary	11/22/2016	310	2500
	Field Duplicate	11/22/2016	340	2400
	Primary	2/22/2017	222	2010
	Field Duplicate	2/22/2017	224	2080
	Primary	5/23/2017	201	1560
	Field Duplicate	5/23/2017	192	1710
	Primary	8/29/2017	1450	807
	Primary	3/27/2018	671	461
	Primary	9/12/2018	1060	4650
	Primary	12/4/2018	1820	14500
	Field Duplicate	12/4/2018	1840	14800
	Primary	12/10/2018	1820	14500
	Field Duplicate	12/10/2018	1840	14800
	Primary	9/16/2019	1510	11200
	Primary	12/20/2019	855 J-	11500
	Field Duplicate	12/20/2019	907 J-	9400
	Primary	3/12/2020	863	6780
	Primary	6/18/2020	1570	15000
	Primary	7/20/2020	977	17600
	Primary	10/26/2020	358 J	4430
	Primary	10/26/2020	562 J	4870
	Primary	9/23/2021	6.95 J-	69.8
	Primary	6/20/2022	<0.597	56.3
	Primary	9/3/2022	<0.597 R7	58.2
Primary	11/30/2022	<0.597 J3	71.5	
Primary	2/25/2023	11600	67.8	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-12	Primary	8/29/2017	85.7	335
	Primary	11/27/2017	84.1	301
	Primary	3/27/2018	85.5	484
	Primary	6/28/2018	108	339
	Primary	9/10/2018	91	460
	Primary	12/10/2018	107	454
	Primary	3/25/2019	136	176
	Primary	6/7/2019	120	507
	Primary	9/16/2019	160	543
	Primary	12/20/2019	106	567
	Primary	3/12/2020	94.8 J	407
	Primary	6/17/2020	184	471
	Primary	7/20/2020	82.2	547
	Primary	12/2/2020	159	531
	Primary	3/30/2021	115 J	480
	Primary	5/6/2021	142	540
	Primary	7/29/2021	176	466
	Primary	11/18/2021	133	624
	Field Duplicate	11/18/2021	141	617
	Primary	3/22/2022	149	538
Primary	6/13/2022	170	487	
Primary	9/9/2022	119	529	
Primary	11/29/2022	117	463	
Primary	2/23/2023	209	452	



**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-13	Primary	8/29/2017	4	2.6
	Primary	11/27/2017	14.1	5.7
	Primary	3/27/2018	18.3	7.3
	Primary	6/28/2018	33.9	12.6
	Primary	9/10/2018	47.3	24.2
	Primary	12/10/2018	45.2	20.1
	Primary	3/25/2019	55.8	21.7
	Primary	6/7/2019	39.9	22.6
	Primary	9/16/2019	58	18.3
	Primary	12/20/2019	40.2	17
	Primary	3/16/2020	32.2 J	15.4
	Field Duplicate	3/16/2020	33.5 J	14.9
	Primary	6/17/2020	48.5	14.6
	Field Duplicate	6/17/2020	54.1	16.6
	Primary	7/20/2020	29.6	13.3
	Field Duplicate	7/20/2020	27.7	13.8
	Primary	12/3/2020	25.3	11.2 J
	Primary	3/30/2021	37.7 J	17.1
	Primary	5/6/2021	37.9	12.9
	Primary	7/29/2021	58.6	11.1
	Primary	11/18/2021	3.26	1.44 J
	Primary	3/22/2022	9.96	5.76
	Primary	6/13/2022	28.9	5.52
Primary	9/8/2022	13.7	7.06	
Primary	11/29/2022	33.5	12.7	
Primary	2/23/2023	40.1	12.8	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-14	Primary	8/29/2017	367	657
	Primary	11/27/2017	356	828
	Primary	3/27/2018	363	1030
	Primary	6/28/2018	381	875
	Primary	9/10/2018	338	689
	Primary	12/17/2018	331	694
	Primary	3/27/2019	356	780
	Primary	9/16/2019	422	921
	Primary	12/20/2019	280	1060
	Primary	3/12/2020	278 J	880
	Primary	6/17/2020	504	891
	Primary	7/20/2020	241	1210
	Primary	12/2/2020	388	917
	Primary	3/30/2021	280 J	990
	Primary	5/6/2021	370	831
	Primary	7/29/2021	493	966
	Primary	11/18/2021	279	917
	Primary	3/22/2022	339	908
	Field Duplicate	3/22/2022	321	879
	Primary	6/14/2022	297 J3	1040
Primary	9/9/2022	297	1020	
Primary	11/29/2022	288	882	
Primary	2/25/2023	339	807	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-15	Primary	3/27/2019	3.54	<0.398 U
	Primary	9/16/2019	3.95	<0.398 U
	Primary	12/20/2019	6.09	<0.398 U
	Primary	3/12/2020	3.02	<0.398 U
	Primary	6/17/2020	5.32	<0.19 U
	Primary	7/20/2020	2.81 J	<0.19 U
	Primary	12/2/2020	<0.597 U	3.1
	Primary	3/29/2021	5.33 J	12.9
	Primary	5/5/2021	3.83	11.7
	Primary	7/29/2021	6.26	13
	Primary	11/17/2021	5.9	10.3
	Primary	3/21/2022	6.93	7.89
	Primary	6/13/2022	9.83	6.23
	Primary	9/8/2022	8.21	6.08
	Primary	11/29/2022	27.5	5.13
Primary	2/25/2023	15.7	4.9	
TTU-16	Primary	3/13/2020	2470 J	51500
	Primary	6/17/2020	4310	68400
	Field Duplicate	6/17/2020	5610	70200
	Primary	7/20/2020	2220 J-	92200
	Primary	12/2/2020	1730	80000
	Field Duplicate	12/2/2020	1990	96000
	Primary	3/29/2021	2880	76800
	Field Duplicate	3/29/2021	2550	71800
	Primary	5/5/2021	4920	77400 J
	Field Duplicate	5/5/2021	5270	38500 J
	Primary	7/29/2021	5140	86000
	Field Duplicate	7/29/2021	5710	87300
	Primary	11/17/2021	3930	93200
	Primary	3/21/2022	5430	103000
	Primary	6/13/2022	3600 J3	96500
	Primary	9/8/2022	3820 R7	9520
	Primary	11/29/2022	3180	80000
	Primary	2/25/2023	32800	69100
Field Duplicate	2/25/2023	39600	83600	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-17	Primary	3/13/2020	<0.0474 U	0.463 J
	Primary	6/17/2020	<0.597 U	0.321 J
	Primary	7/20/2020	<0.597 U	0.367 J
	Primary	12/2/2020	<0.597 U	1.56
	Primary	3/29/2021	<0.597 U	5
	Primary	5/5/2021	<0.597 U	4.13
	Primary	7/29/2021	<0.597 U	3.99
	Primary	11/17/2021	<0.597 U	3.08
	Primary	3/21/2022	4.75	3.51
	Primary	6/13/2022	10.1	2.1
	Primary	9/8/2022	242	2.1
	Primary	11/29/2022	264	1.41
	Field Duplicate	11/29/2022	2.11 B;J	1.57
	Primary	2/25/2023	<0.597	1.28
TTU-19	Primary	10/26/2020	915 J	9990
	Primary	10/26/2020	781 J	12900
	Primary	9/23/2021	70.4 J-	478
	Primary	6/20/2022	<0.597	189
	Field Duplicate	6/20/2022	<0.597	373
	Primary	9/3/2022	152 H1	293 M3
	Primary	11/30/2022	<0.597	360
	Primary	2/25/2023	318	348
TTU-20	Primary	10/26/2020	567 J	4480
	Primary	10/26/2020	824 J	6360
	Primary	6/14/2021	1450 J	11200 J
	Primary	9/23/2021	841 J	14300
	Primary	11/18/2021	2140	13400
	Primary	6/16/2022	1540 Q	10800
	Primary	9/3/2022	1140 H1	13200 L1
	Field Duplicate	9/3/2022	1250 H1	10700
	Primary	11/30/2022	1490	12400
Primary	2/25/2023	19600	12800	

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-EX-1	Primary	3/13/2020	24.5	265
	Primary	6/17/2020	284	168
	Primary	7/20/2020	207	163
	Primary	12/2/2020	466	240
	Primary	3/29/2021	340 J	262
	Primary	5/5/2021	258	286
	Primary	7/29/2021	702	372
	Primary	11/17/2021	112	79
	Primary	3/21/2022	244	181
	Primary	6/13/2022	324 J3	174
	Primary	9/8/2022	68.2	75.1
	Primary	11/29/2022	105	59.1
	Primary	2/23/2023	251	127
TTU-EX-2	Primary	3/13/2020	198 J	327
	Primary	6/17/2020	405	549
	Primary	7/20/2020	212	561
	Primary	12/2/2020	424	506
	Primary	3/30/2021	334 J	634
	Primary	5/5/2021	218	536
	Primary	7/29/2021	523	630
	Primary	11/17/2021	158	238
	Primary	3/21/2022	213	234
	Primary	6/13/2022	189 J3	315
	Primary	9/8/2022	74.9	68.1
	Primary	11/29/2022	143	197
	Primary	2/23/2023	162	166
	Field Duplicate	2/23/2023	197	143

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-EX-3	Primary	3/13/2020	175 J	5960
	Primary	6/17/2020	785	6050
	Primary	7/20/2020	610	7390
	Primary	12/2/2020	805 J-	5970 J
	Primary	3/30/2021	697	5560
	Primary	5/5/2021	536	5540
	Primary	7/29/2021	1010	7260
	Primary	11/17/2021	909	8120
	Field Duplicate	11/17/2021	969	8010
	Primary	3/21/2022	885	6560
	Primary	6/13/2022	863 J3	6020
	Primary	9/8/2022	741	7220
	Primary	11/29/2022	735	6620
	Primary	2/23/2023	916	6520
TTU-EX-4	Primary	3/13/2020	16.1	811
	Primary	6/17/2020	23.7	1040
	Primary	7/20/2020	18.1	934
	Primary	12/2/2020	20.7	501
	Primary	3/30/2021	16.3	486
	Primary	5/5/2021	12.8	420
	Primary	7/29/2021	29	461
	Primary	11/17/2021	16.1	755
	Primary	3/21/2022	23.9	909
	Primary	6/13/2022	27.4	579
	Field Duplicate	6/13/2022	26.1	635
	Primary	9/8/2022	41.4	698
	Primary	11/29/2022	51.5	612
	Primary	2/23/2023	16.7	836

**TABLE 5:  
HISTORICAL 1,4-DIOXANE AND TCE CONCENTRATIONS  
FORMER THERMAL TREATMENT UNIT  
NAMMO DEFENSE SYSTEMS INC.**

		Chemical Name	1,4-Dioxane	Trichloroethene
		EPA Method	8260B SIM	8260B
		Unit	µg/l	
Location	Sample Type	Screening Level	3.5 <sup>(1)</sup>	5
		Sample Date		
TTU-EX-5	Primary	3/13/2020	<0.0532 U	0.929 J
	Field Duplicate	3/13/2020	<0.055 U	0.775 J
	Primary	6/17/2020	<0.597 U	0.456 J
	Primary	7/20/2020	<0.597 U	0.562 J
	Field Duplicate	7/20/2020	<0.597 U	0.637 J
	Primary	12/2/2020	<0.597 U	4.18 J
	Field Duplicate	12/2/2020	<0.597 U	3.89 J
	Primary	3/30/2021	<0.597 U	6.53
	Primary	5/5/2021	<0.597 U	5.52
	Primary	7/29/2021	<0.597 U	5.51
	Primary	11/17/2021	<0.597 U	6.91
	Primary	3/21/2022	<0.597	5.74
	Field Duplicate	3/21/2022	<0.597	5.98
	Primary	6/13/2022	<0.597	5.58
	Primary	9/8/2022	2.16 E4	4.96
	Field Duplicate	9/8/2022	<0.597	5.06
Primary	11/29/2022	3.4 B	4.51	
Primary	2/23/2023	<0.597	4.45	

Notes:

µg/l - micrograms per liter

AWQS - Arizona Aquifer Water Quality Standard

EPA - Environmental Protection Agency

NA - Not Analyzed

NS - No sample collected

SIM - Selected Ion Monitoring

< - Concentration is below laboratory reporting limits

- - - Not reported

Concentration detected above the method detection limit

(1) - Interim Screening Level

V = The sample concentration is too high to evaluate accurate spike recoveries

J = The analyte was positively identified; the associated numerical value is the approximate

J3 = The associated batch QC was outside the established quality control range for precision

J4 = The associated batch QC was outside the established quality control range for accuracy

T8 = Method used not listed in 40 CFR 136; alternate method chosen as acceptable per permit.

R7 = LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria

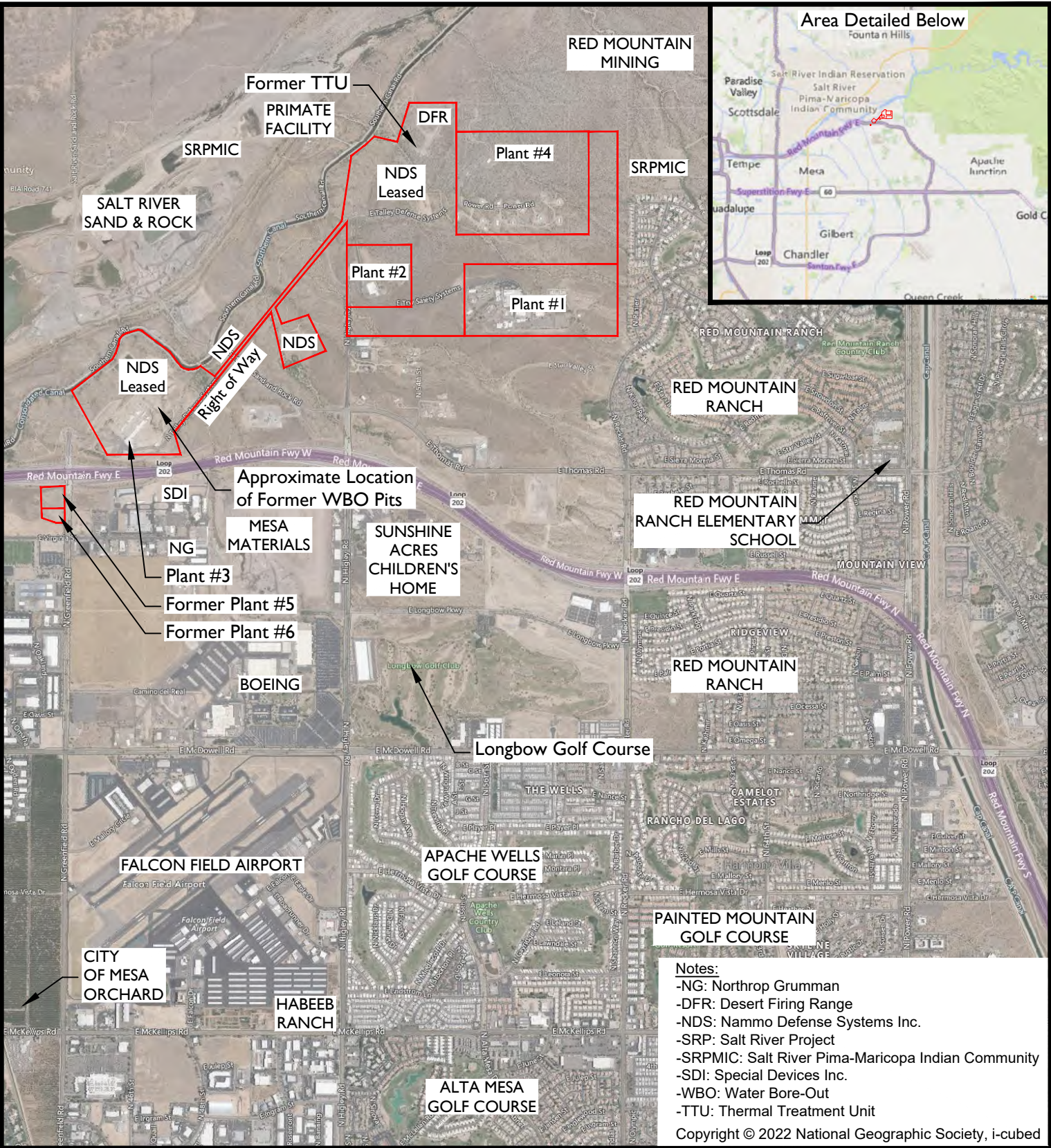
Q = Sample was prepared and/or analyzed past holding time as defined in the method. Concentration should be considered minimum values

## Figures




PLOT DATE: 4/14/2023


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- Notes:**
- NG: Northrop Grumman
  - DFR: Desert Firing Range
  - NDS: Nammo Defense Systems Inc.
  - SRP: Salt River Project
  - SRPMIC: Salt River Pima-Maricopa Indian Community
  - SDI: Special Devices Inc.
  - WBO: Water Bore-Out
  - TTU: Thermal Treatment Unit
- Copyright © 2022 National Geographic Society, i-cubed

**LEGEND**

 Approximate Property Boundary





SCALE: 1" = 5000'



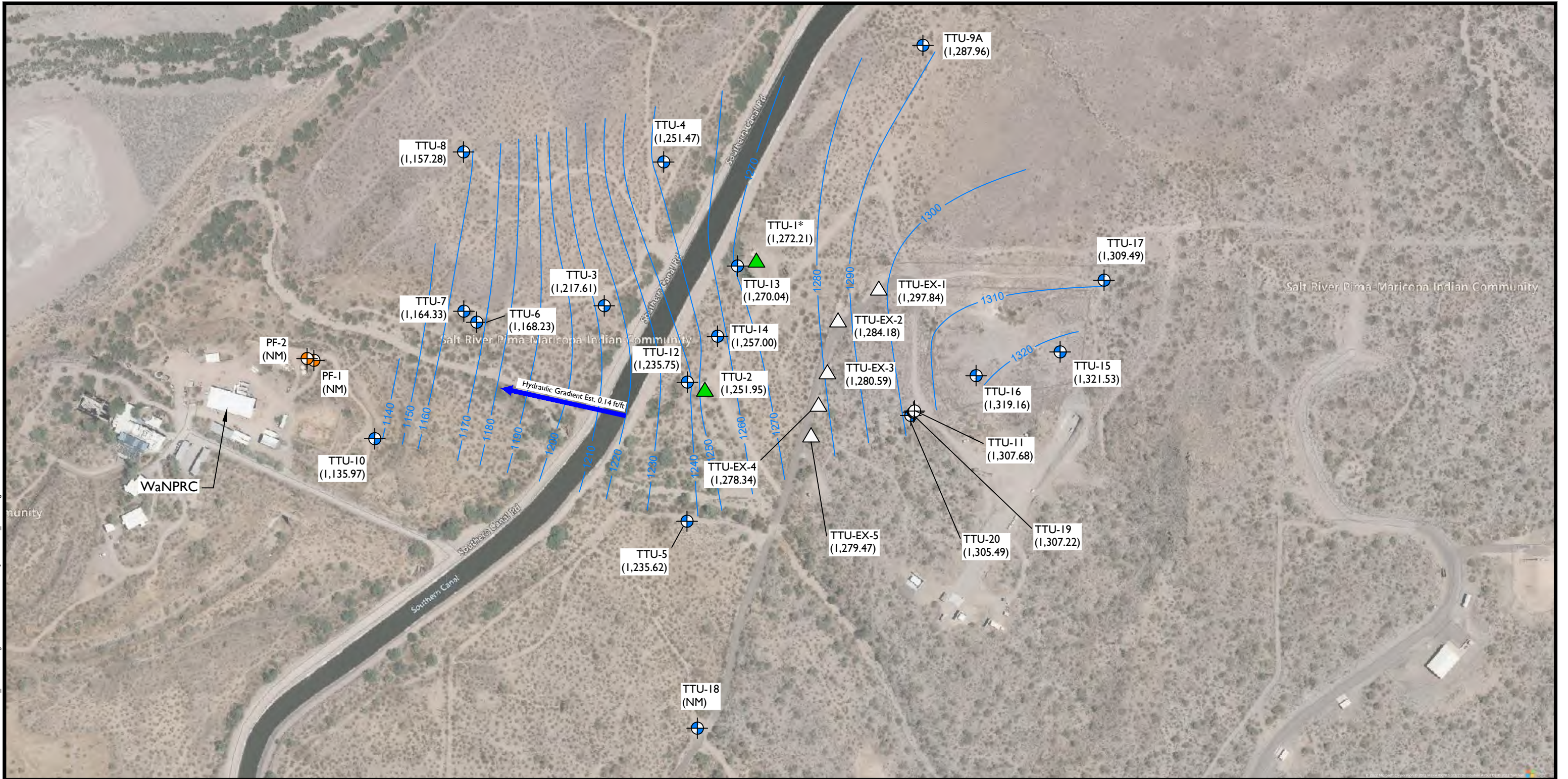
**SITE VICINITY MAP**

Nammo Defense Systems Inc.  
Former Thermal Treatment Unit (TTU)  
Mesa, Arizona

Site Location: Section 3, 15 and 27 Township 1N, Range 6E, Gila-Salt River Meridian	Drawn By: SJA	Figure: 1
Pinyon Project Number: 7/22-1522-01.REM001.4	Reviewed By: AP	Date: 4/14/2023

PLOT DATE: 5/23/2023

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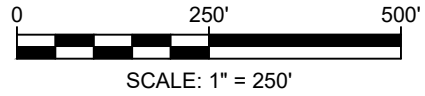


**LEGEND**

- Extraction Well
  - Monitoring Well
  - Primate Production Well
  - Extraction and Pilot Test Injection Well
  - Monitoring / Injection Well
  - Extraction Well Currently used for Monitoring
  - Groundwater Elevation Contour (ft amsl) (Contour Interval: 10ft)
  - Estimated Regional Groundwater Flow Direction
- TTU-1 = 1145.24 = Monitoring Well Location Groundwater Elevation (ft. amsl)

**Notes:**  
 All locations are approximate.  
 NM: Not Measured  
 ft. amsl: feet above mean sea level.  
 TTU-7 is a deep well and therefore it is not used for contouring.  
 TTU-18 is dry and not sampled.

\* - Data not used in contour preparation  
 WaNPRC: Washington National Primate Research Center  
 NDS: Nammo Defense Systems Inc.



**Pinyon**  
 Environmental, Inc.

**QUARTERLY GROUNDWATER CONTOUR  
 MAP - FIRST QUARTER 2023**

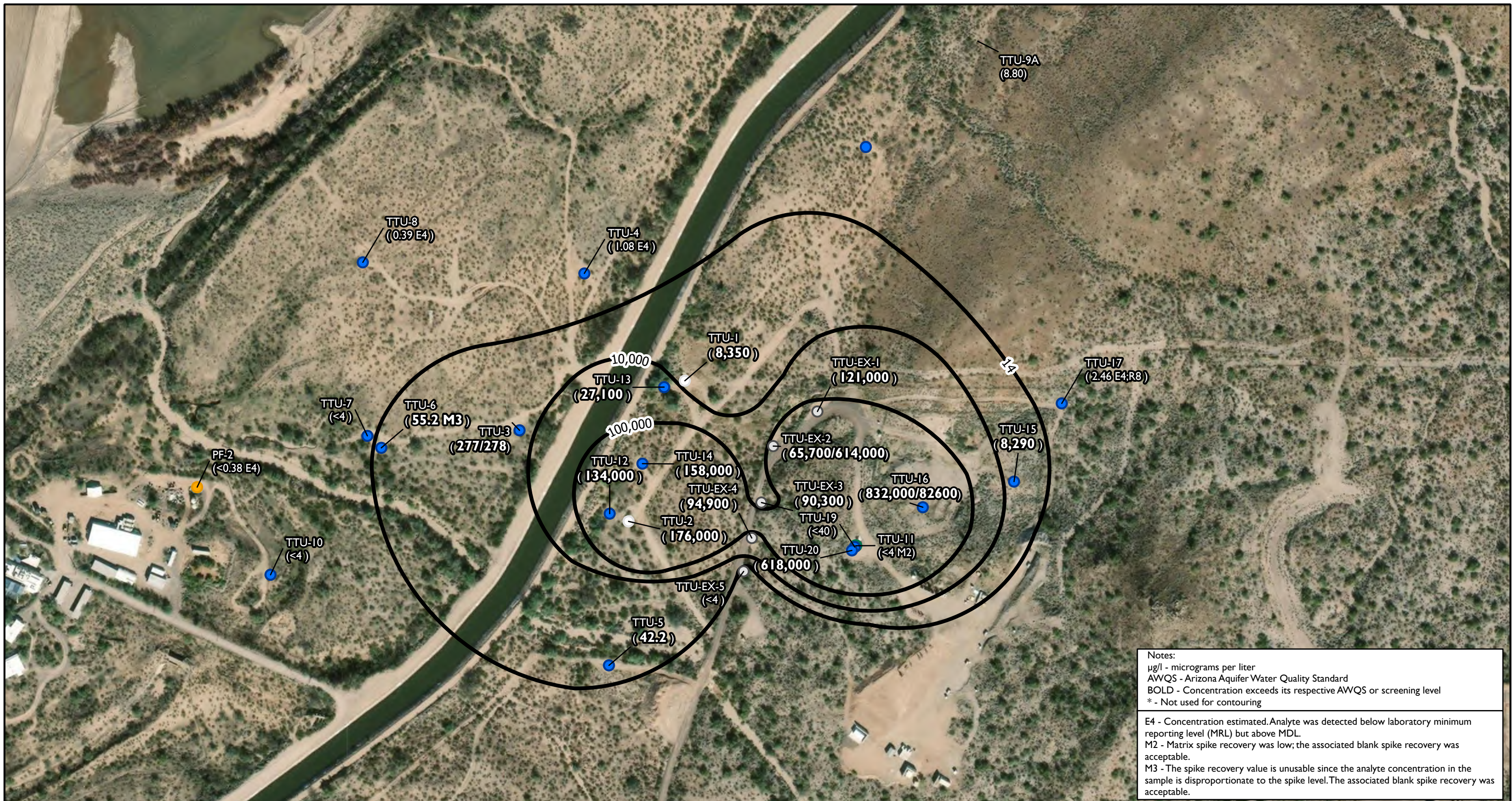
Nammo Defense Systems Inc.  
 Former Thermal Treatment Unit (TTU)  
 Mesa, Arizona

Site Location: Section 23, Township 12N, Range 6E, Gila-Salt River Meridian

Pinyon Project Number: 7/22-1522-01.REM001.4

Drawn By: SJA	Figure: 2
Reviewed By: DW	Date: 5/23/2023

Coordinate System: NAD83 ARIZONA STATE PLANES, CENTRAL ZONE, US FOOT - AZ83-CF



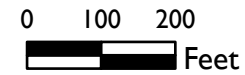
Notes:  
 µg/l - micrograms per liter  
 AWQS - Arizona Aquifer Water Quality Standard  
 BOLD - Concentration exceeds its respective AWQS or screening level  
 \* - Not used for contouring

E4 - Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.  
 M2 - Matrix spike recovery was low; the associated blank spike recovery was acceptable.  
 M3 - The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

**Legend**

- Extraction Well
- Extraction Well Currently Used for Monitoring
- Extraction/Injection Well
- Monitoring Well
- Private Production Well
- Estimated extent of Perchlorate concentrations above the AWQS of 14 µg/l

**((Result/Duplicate Result))**



**Pinyon**  
 Environmental, Inc.

**PERCHLORATE DETECTIONS  
 IN GROUNDWATER - 1ST QUARTER 2023**

Nammo Defense Systems Inc.  
 Former Thermal Treatment Unit (TTU)  
 Mesa, Arizona

Site Location: Sections 23, Townships 12 North, Range 6 East, Gila-Salt River Meridian

Pinyon Project Number: 7/22-1522-01.REM001.4

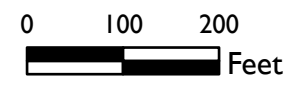
Drawn By: CJB      Figure: 3  
 Reviewed By: AP      Date: 5/26/2023



Notes:  
 ug/l - micrograms per liter  
 AWQS - Arizona Aquifer Water Quality Standard  
 BOLD - Concentration exceeds its respective AWQS or screening level

**Legend**

- Extraction Well
- Extraction Well Currently Used for Monitoring
- Extraction/Injection Well
- Monitoring Well
- Private Production Well
- Estimated extent of 1,4-Dioxane concentrations above the interim screening level of 3.5 ug/l
- ((Result/Duplicate Result))**



**Pinyon Environmental, Inc.**

**1,4-DIOXANE DETECTIONS IN GROUNDWATER - 1ST QUARTER 2023**

Nammo Defense Systems Inc.  
 Former Thermal Treatment Unit (TTU)  
 Mesa, Arizona

Site Location: Sections 23, Townships 12 North, Range 6 East, Gila-Salt River Meridian  
 Pinyon Project Number: 7/22-1522-01.REM001.4

Drawn By: CJB      Figure: 4  
 Reviewed By: AP      Date: 5/26/2023

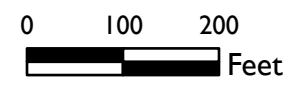


Notes:  
 µg/l - micrograms per liter  
 AWQS - Arizona Aquifer Water Quality Standard  
 BOLD - Concentration exceeds its respective AWQS or screening level  
 E4 - Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.

**Legend**

- Extraction Well
- Extraction Well Currently Used for Monitoring
- Extraction/Injection Well
- Monitoring Well
- Private Production Well
- Estimated extent of 1,1 Dichloroethene concentrations above the AWQS of 7 ug/l

**((Result/Duplicate Result))**



**Pinyon**  
 Environmental, Inc.

**1,1 DICHLOROETHENE DETECTIONS  
 IN GROUNDWATER - 1ST QUARTER 2023**

Nammo Defense Systems Inc.  
 Former Thermal Treatment Unit (TTU)  
 Mesa, Arizona

Site Location: Sections 23, Townships 12 North, Range 6 East, Gila-Salt River Meridian  
 Pinyon Project Number: 7/22-1522-01.REM001.4

Drawn By: CJB      Figure: 5  
 Reviewed By: AP      Date: 5/26/2023

Document Path: C:\Users\bowes\Desktop\GEOLOGY\722152201\_NammoDefenseSystems\_2023Q1.aprx



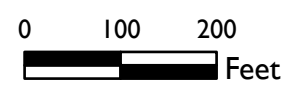
Notes:  
 ug/l - micrograms per liter  
 AWQS - Arizona Aquifer Water Quality Standard  
 BOLD - Concentration exceeds its respective AWQS or screening level

E4 - Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.  
 M1 - Matrix spike recovery was high; the associated blank spike recovery was acceptable.

**Legend**

- Extraction Well
- Extraction Well Currently Used for Monitoring
- Extraction/Injection Well
- Monitoring Well
- Private Production Well
- Estimated extent of Trichloroethene (TCE) concentrations above the AWQS of 5 ug/l

**((Result/Duplicate Result))**



**Pinyon Environmental, Inc.**

**TRICHLOROETHENE DETECTIONS IN GROUNDWATER - 1ST QUARTER 2023**

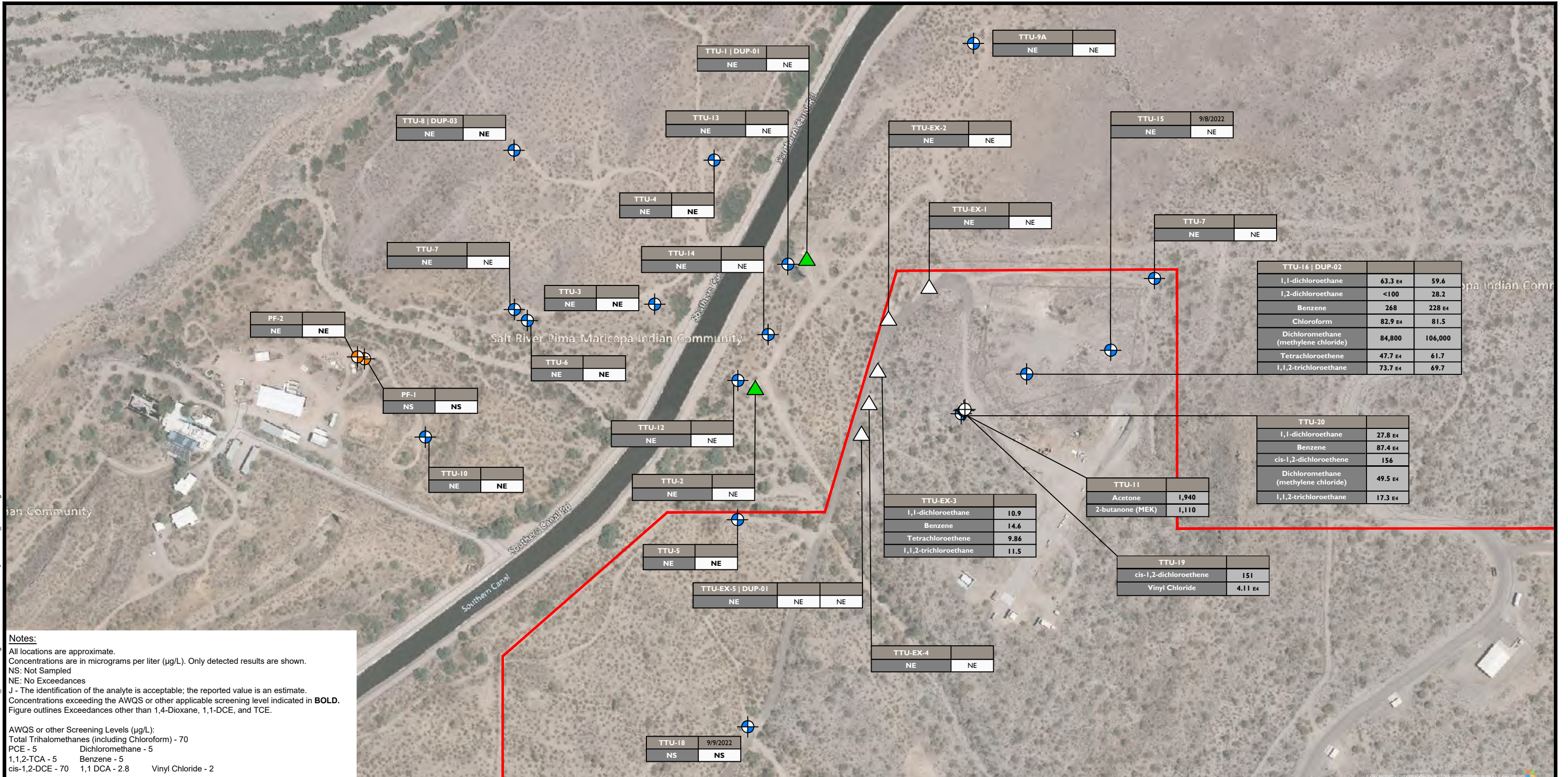
Nammo Defense Systems Inc.  
 Former Thermal Treatment Unit (TTU)  
 Mesa, Arizona

Site Location: Sections 23, Townships 12 North, Range 6 East, Gila-Salt River Meridian  
 Pinyon Project Number: 7/22-1522-01.REM001.4

Drawn By: CJB      Figure: 6  
 Reviewed By: AP      Date: 5/26/2023

PLOT DATE: 5/23/2023

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**Notes:**  
 All locations are approximate.  
 Concentrations are in micrograms per liter (µg/L). Only detected results are shown.  
 NS: Not Sampled  
 NE: No Exceedances  
 J - The identification of the analyte is acceptable; the reported value is an estimate.  
 Concentrations exceeding the AWQS or other applicable screening level indicated in **BOLD**.  
 Figure outlines Exceedances other than 1,4-Dioxane, 1,1-DCE, and TCE.

AWQS or other Screening Levels (µg/L):  
 Total Trihalomethanes (including Chloroform) - 70  
 PCE - 5      Dichloromethane - 5  
 1,1,2-TCA - 5      Benzene - 5  
 cis-1,2-DCE - 70      1,1 DCA - 2.8      Vinyl Chloride - 2

**LEGEND**

- Extraction Well
- Monitoring Well
- Primate Production Well
- Extraction and Pilot Test Injection Well
- Monitoring / Injection Well
- Extraction Well Currently used for Monitoring
- TTU-1 = Monitoring Well Location
- NDS Leased Property Boundary with SRP-MIC

**5.76** Exceeds Aquifer Water Quality Standards or other applicable screening levels

0 250' 500'  
 SCALE: 1" = 250'

**Pinyon**  
 Environmental, Inc.

**VOC EXCEEDANCES IN GROUNDWATER - FIRST QUARTER 2023**

Nammo Defense Systems Inc.  
 Former Thermal Treatment Unit (TTU)  
 Mesa, Arizona

Site Location: Section 23, Township 12N, Range 6E, Gila-Salt River Meridian

Pinyon Project Number: 7/22-1522-01.REM001.4

Drawn By: SJA	Figure: 7
Reviewed By: DW	Date: 5/23/2023

Coordinate System: NAD83 ARIZONA STATE PLANES, CENTRAL ZONE, US FOOT - AZ83-CF

## **Attachments**



## **Attachment I – Field Notes**

Location	Measurement Date	Depth to Groundwater (ft btoc)	Measurement Date	Depth to Groundwater (ft btoc)
TTU-1	11/28/2022	37.41	2/23/23	40.52
TTU-2	11/28/2022	62.41	2/23/23	62.49
TTU-3	11/30/2022	94.73	2/25/23	90.42
TTU-4	11/30/2022	53.56	2/25/23	53.65
TTU-5	11/29/2022	72.86	2/25/23	79.31
TTU-6	11/30/2022	129.48	2/25/23	132.61
TTU-7	11/30/2022	134.34	2/25/23	137.51
TTU-8	11/30/2022	152.35	2/25/23	152.95
TTU-9A	11/29/2022	29.25	2/23/23	30.08
TTU-10	11/30/2022	166.41	2/27/23	166.45
TTU-11	11/30/2022	31.04	2/25/23	31.52
TTU-12	11/29/2022	75.03	2/23/23	76.46
TTU-13	11/29/2022	39.56	2/23/23	40.75
TTU-14	11/29/2022	60.31	2/25/23	59.80
TTU-15	11/29/2022	29.76	2/25/23	29.32
TTU-16	11/29/2022	19.03	2/25/23	19.39
TTU-17	11/29/2022	38.35	2/25/23	38.00
TTU-18	11/30/2022	Dry	—	—
TTU-19	11/30/2022	29.37	2/25/23	29.59
TTU-20	11/30/2022	31.30	2/25/23	31.41
TTU-EX-1	11/29/2022	19.95	2/23/23	23.85
TTU-EX-2	11/29/2022	26.75	2/23/23	32.22
TTU-EX-3	11/29/2022	34.06	2/23/23	36.26
TTU-EX-4	11/29/2022	41.31	2/23/23	41.62

TTU-EX-5	11/29/2022	40.60	2/23/23	40.03
PF-1	N/A	N/A	—	—
PF-2	11/30/2022	N/A	2/27/23	—

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-1 / 55-914440				
Date Completed		6/6/2012				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		30-70				
Well Total Depth (ft btoc)		75				
Survey Information		Northing: 909420.734 / Easting: 761281.203				
Deployment						
Date / Time		NA				
Type of Sampler		Production Well; spigot				
Size of Sampler		NA				
DTW (ft btoc)		37.41				
Deployment Depth (ft btoc)		50				
Personnel		BCB & IGF				
Notes		Water clear				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 1430				
DTW (ft btoc)		*Collect before turning well on 40.52				
Sampler Integrity		Good, spigot				
Personnel		IGF				
Notes		Water clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 1440	20.38	7.10	152.0	936	6.88	0.76
Sample ID		TTU-1-50-20230223				
QAQC Samples		MS/MSD				
Containers		(2) 125 mL HDPE (no pres.) & (8) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			(No)	
Notes						
<p>**Make sure well has been off for 1 week and has been emptied. When sampling, turn on and let run for 1 hour before sampling. Keep well on after, notify Antonio.</p> <p>Turned on well @ 1325, well off upon arrival, well on after leaving.</p>						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-2 / NA				
Date Completed		10/17/2013				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		49.4-179.6				
Well Total Depth (ft btoc)		185				
Survey Information		Northing: 909087.852 / Easting: 761148.265				
Deployment						
Date / Time		NA				
Type of Sampler		Production Well; spigot				
Size of Sampler		NA				
DTW (ft btoc)		62.41				
Deployment Depth (ft btoc)		114.5				
Personnel		BCB & IGF				
Notes		Unable to collect DTW, collect before turning on.				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 1440				
DTW (ft btoc)		*Collect before turning well on 62.49				
Sampler Integrity		good				
Personnel		ECB				
Notes		well on @ 1345				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 1440	19.6	6.62	-249.2	3771	3.39	2.4
Sample ID		TTU-2-114- 2/23/23				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes						
**Make sure well has been off for 1 week and has been emptied. When sampling, turn on and let run for 1 hour before sampling. Keep well on after, notify Antonio.						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-3 / NA				
Date Completed		10/18/2013				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		78.1-138.1				
Well Total Depth (ft btoc)		143.6				
Survey Information		Northing: 909303.363 / Easting: 760888.204				
Deployment						
Date / Time		11/30/2022 at 10:51				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		94.73				
Deployment Depth (ft btoc)		108				
Personnel		BCB				
Notes		Water slightly cloudy				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1540				
DTW (ft btoc)		90.42				
Sampler Integrity		GOOD				
Personnel		TGF + BCB				
Notes		Water clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1540	24.0	6.90	-188.6	1544	4.89	4.7
Sample ID		TTU-3-108-20230225				
QAQC Samples		DUP-03				
Containers		(2) 125 mL HDPE (no pres.) & (8) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes						
*Be careful of tether when first opening well; is not secured and can fall in easily						
23 3/4" - PVC from ground height						
YSI measurements taken w/ Ben's equipment						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-4 / NA				
Date Completed		10/25/2013				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		39.5-99.5				
Well Total Depth (ft btoc)		104.9				
Survey Information		Northing: 909673.680 / Easting: 761041.975				
Deployment						
Date / Time		11/30/2022 at 10:33				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		53.56				
Deployment Depth (ft btoc)		57				
Personnel		BCB				
Notes		Water clear, sleeve 1/2 full				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1505				
DTW (ft btoc)		53.65				
Sampler Integrity		Good				
Personnel		TGF				
Notes		Water clear 3/4 full				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1515	23.30	7.48	125.2	2169	2.17	0.40
Sample ID		TTU-4-57-20230225				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes		21" from ground → casing w/in				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-5 / NA				
Date Completed		9/20/2014				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		59.5-164.5				
Well Total Depth (ft btoc)		169.5				
Survey Information		Northing: 908747.636 / Easting: 761102.227				
Deployment						
Date / Time		11/29/2022 at 08:22				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		72.80				
Deployment Depth (ft btoc)		110				
Personnel		BCB				
Notes		Water clear				
Retrieval and/or Sampling						
Date / Time		2/15/23 @ 0917				
DTW (ft btoc)		79.21				
Sampler Integrity		good				
Personnel		ECB				
Notes		H <sub>2</sub> O clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/15/23 @ 0931	18.6	7.26	-193.5	679	4.11	9.2
Sample ID		TTU-5-110- <del>20220920</del>				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		<input checked="" type="checkbox"/> Yes			<input type="checkbox"/> No	
Notes		31.5" from ground to top of PVC				



Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-6 / NA				
Date Completed		10/7/2014				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		110-175				
Well Total Depth (ft btoc)		180				
Survey Information		Northing: 909260.820 / Easting: 760560.096				
Deployment						
Date / Time		12/22/2022 at 10:27				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		130.81				
Deployment Depth (ft btoc)		143				
Personnel		BCB				
Notes		Water clear				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1500				
DTW (ft btoc)		132.61				
Sampler Integrity		Good				
Personnel		BCB				
Notes		H <sub>2</sub> O clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1514	24.9	7.08	-219.5	1371	2.04	5.9
Sample ID		TTU-6-143- 20230225				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes		Top of PVC is 15.5" from ground				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-7 / NA				
Date Completed		10/8/2014				
Casing Material		Steel				
Casing Diameter (in)		8.5				
Screen (ft btoc)		280-410				
Well Total Depth (ft btoc)		410				
Survey Information		Northing: 909287.611 / Easting: 760527.269				
Deployment						
Date / Time		11/30/2022 at 09:57				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		134.34				
Deployment Depth (ft btoc)		345				
Personnel		IGF				
Notes		Black sediment in sleeve, 1 inch				
Retrieval and/or Sampling						
Date / Time		2/15/23 @ 1435				
DTW (ft btoc)		137.51				
Sampler Integrity		Good				
Personnel		PCB				
Notes		~1" black sed @ bottom of HS - suspended in half of HS				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/15/23 @ 1435	25.3	6.75	-237.9	4072	1.73	19.8
Sample ID		TTU-7-345-202306295				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (1) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes		No PVC in well - well height from Q4 should be accurate				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-9A / NA				
Date Completed		6/16/2016				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		24-99				
Well Total Depth (ft btoc)		104				
Survey Information		Northing: 909974.490 / Easting: 761710.151				
Deployment						
Date / Time		11/29/2022 at 12:06				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		29.25				
Deployment Depth (ft btoc)		61				
Personnel		BCB				
Notes		Water clear				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 1352				
DTW (ft btoc)		30.08				
Sampler Integrity		Good				
Personnel		IGF				
Notes		Water clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 1402	20.00	7.23	153.3	1457	5.51	3.94
Sample ID		TTU-9A-61-20230223				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes HAS PVC: floor → top of PVC is 25.75 Well off upon arrival IGF						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-10 / NA				
Date Completed		4/18/2016				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		115-180				
Well Total Depth (ft btoc)		185				
Survey Information		Northing: 908960.114 / Easting: 760297.013				
Deployment						
Date / Time		11/30/2022 at 12:00				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		166.41				
Deployment Depth (ft btoc)		172				
Personnel		BCB & IGF				
Notes		None				
Retrieval and/or Sampling						
Date / Time		2/17/23 @ 12:10				
DTW (ft btoc)		166.45				
Sampler Integrity		Good				
Personnel		BCB				
Notes		H <sub>2</sub> O clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/17/23 @ 12:22	21.0	7.27	-165.2	1484	4.95	14.3
Sample ID		TTU-10-172- <del>20230217</del>				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes - top of PVC is 34 3/4" from ground						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-11 / 55-918534				
Date Completed		9/11/2015				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		24-89				
Well Total Depth (ft btoc)		94				
Survey Information		Northing: 909029.758 / Easting: 761706.470				
Deployment						
Date / Time		11/30/2022 at 14:50				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		31.04				
Deployment Depth (ft btoc)		73				
Personnel		IGF & BCB				
Notes		Odorous, thick gel-like substance in water				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1200				
DTW (ft btoc)		31.52				
Sampler Integrity		Good				
Personnel		IGF + BCB				
Notes		→ Odorous, same as above -IGF				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1210	25.60	5.60	-25.7	1680	1.11	95.2
Sample ID		TTU-11-73-20230725				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes On Belle's YSI						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-12 / NA				
Date Completed		7/31/2018				
Casing Material		Steel				
Casing Diameter (in)		5				
Screen (ft btoc)		Open to 180				
Well Total Depth (ft btoc)		180				
Survey Information		Northing: 909105.990 / Easting: 761103.280				
Deployment						
Date / Time		11/29/2022 at 12:50				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		75.03				
Deployment Depth (ft btoc)		82				
Personnel		IGF				
Notes		Black small rocks on the outside of sleeve				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 1348				
DTW (ft btoc)		<del>75.46</del> 76.46 → On 2/25/23 -IGF				
Sampler Integrity		good				
Personnel		KCB				
Notes		H <sub>2</sub> O clear, outside of HS dirty, ~1" metal from well @ bottom of HS				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 1400	19.0	6.67	*Over 3000 last time -187.3	3501	4.45	25.3
Sample ID		TTU-12-82- <del>70130123</del>				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(yes)			No	
Notes 9.5" from dirt to metal casing w/ in metal outer casing						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-13 / NA				
Date Completed		7/20/2018				
Casing Material		Steel				
Casing Diameter (in)		5				
Screen (ft btoc)		Open to 80				
Well Total Depth (ft btoc)		80				
Survey Information		Northing: 909405.920 / Easting: 761232.180				
Deployment						
Date / Time		11/29/2022 at 12:47				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		39.56				
Deployment Depth (ft btoc)		51				
Personnel		BCB				
Notes		Water slightly cloudy, outside of sleeve slightly dirty				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 1500				
DTW (ft btoc)		40.75				
Sampler Integrity		Good, what looks like tree roots on sleeve				
Personnel		LGF				
Notes		Small amount of sediment @ bottom 1", cloudy				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 1508	18.88	6.64	168.5	1207	2.95	17.7
Sample ID		TTU-13-51-20230223				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes		9" from ground to metal casing w/in well				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-14 / NA				
Date Completed		7/19/2018				
Casing Material		Steel				
Casing Diameter (in)		5				
Screen (ft btoc)		Open to 100				
Well Total Depth (ft btoc)		100				
Survey Information		Northing: 909224.260 / Easting: 761181.230				
Deployment						
Date / Time		<del>1/29/2022 at 12:42</del> 2/23/18 @ 1505				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		<del>60.3</del> 59.92				
Deployment Depth (ft btoc)		<del>64</del> 67				
Personnel		IGF				
Notes		Water clear				
Retrieval and/or Sampling						
Date / Time		<del>2/23/18 @ 12:42</del> 2/25/18 @ 1253				
DTW (ft btoc)		<del>59.92</del> 59.80				
Sampler Integrity		Good				
Personnel		IGF				
Notes		Water clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
<del>2/23/18</del> 2/25/18 @ 1302	24.5	6.75	-192.2	3114	3.26	<del>6.2</del> IGF 6.17
Sample ID		TTU-14-64-67-20230275				
QAQC Samples		MS/MSD				
Containers		(2) 125 mL HDPE (no pres.) & (8) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes						
<p>HS had ~3" H<sub>2</sub>O in it - reset well @ 67'</p> <p>5.5" from dirt → metal casing w/in outer well casing</p> <p>Re-set @ 67' - 2/25</p>						



Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-15 / 55-228014				
Date Completed		1/25/2018				
Casing Material		Steel				
Casing Diameter (in)		N/A				
Screen (ft btoc)		Open				
Well Total Depth (ft btoc)		100				
Survey Information		Northing: 909185.100 / Easting: 762065.910				
Deployment						
Date / Time		11/29/2022 at 13:40				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		29.76				
Deployment Depth (ft btoc)		75				
Personnel		BCB				
Notes		Water clear				
Retrieval and/or Sampling						
Date / Time		<del>2/22/23</del> 2/25/23 @ 1003				
DTW (ft btoc)		29.32				
Sampler Integrity		Good				
Personnel		IGIF				
Notes		Small black sediment on outside of sleeve				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1011	18.15	6.98	62.6	2128	1.74	0.40
Sample ID		TTU-15-75-20230225				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes		21.25" from dirt to top of casing w/ in outer well vault casing				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-16 / 55-231730				
Date Completed		1/23/2020				
Casing Material		Steel				
Casing Diameter (in)		8				
Screen (ft btoc)		OPEN				
Well Total Depth (ft btoc)		96.6				
Survey Information		Northing: 909124.980 / Easting: 761848.851				
Deployment						
Date / Time		11/29/2022 at 13:36				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		19.03				
Deployment Depth (ft btoc)		80				
Personnel		IGF				
Notes		Water is copper colored, chemical odor				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1010				
DTW (ft btoc)		19.29				
Sampler Integrity		good				
Personnel		ECB				
Notes		H <sub>2</sub> O like tomato soup - red & thick; slightly effervescent				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
<del>2/23/23</del> 8:30 2/25/23 @ 1015	18.9	6.34	-225.6	*Was over 10,000 last time  9657	2.26	too cloudy for reading
Sample ID		TTU-16-80-20230225				
QAQC Samples		DUP-07				
Containers		(2) 125 mL HDPE (no pres.) & (8) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(yes)			No	
Notes		casing open - height measurement from Q4 should be accurate				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-17 / 55-23173				
Date Completed		1/22/2020				
Casing Material		Steel				
Casing Diameter (in)		8				
Screen (ft btoc)		OPEN				
Well Total Depth (ft btoc)		102				
Survey Information		Northing: 909370.903 / Easting: 762179.168				
Deployment						
Date / Time		11/29/2022 at 14:20				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		37.89				
Deployment Depth (ft btoc)		80				
Personnel		BCB & IGF				
Notes		None				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 0922				
DTW (ft btoc)		38.00				
Sampler Integrity		Good				
Personnel		IGF				
Notes		Black sediment @ bottom, rotten egg odor				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 0930	18.08	6.94	-26.8	942	1.52	36.3
Sample ID		TTU-17-80-20230225				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes		No PVC, stick up height from Q4 is correct				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-19 / 55-232969				
Date Completed		9/24/2020				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		25-90				
Well Total Depth (ft btoc)		95				
Survey Information		Northing: 909030.750 / Easting: 761687.700				
Deployment						
Date / Time		11/30/2022 at 14:10				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		29.37				
Deployment Depth (ft btoc)		73				
Personnel		IGF & BCB				
Notes		Odorous, bubbly				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1125				
DTW (ft btoc)		29.59				
Sampler Integrity		Good				
Personnel		IGF + BCB				
Notes		Odorous, bubbly, black sediment, very turbid				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1135	24.11	6.57	-116.8	2192	2.54	324
Sample ID		TTU-19-73- <del>20230225</del>				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes		on Belle's YSI - top of PVC is 4.5" from ground				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-20 / 55-232968				
Date Completed		9/24/2020				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		25-90				
Well Total Depth (ft btoc)		95				
Survey Information		Northing: 909022.530 / Easting: 761681.990				
Deployment						
Date / Time		11/30/2022 at 14:02				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		31.30				
Deployment Depth (ft btoc)		73				
Personnel		IGF & BCB				
Notes		None				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1455				
DTW (ft btoc)		31.41				
Sampler Integrity		good				
Personnel		BCB				
Notes		H2O clear; slightly effervescing				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1105	21.04	6.35	130.7	*Was over 6000 last time 6504	1.63	11.4
Sample ID		TTU-20-73-20230225				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes		- 6 1/4" to top of PVC from ground				

- YSI readings taken on Belle's YSI

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-EXT-1 / 55-231733				
Date Completed		1/29/2020				
Casing Material						
Casing Diameter (in)		8				
Screen (ft btoc)		OPEN				
Well Total Depth (ft btoc)		109				
Survey Information		Northing: 909350.574 / Easting: 761597.823				
Deployment						
Date / Time		11/29/2022 at 08:27				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		19.95				
Deployment Depth (ft btoc)		69				
Personnel		IGF				
Notes		Copper colored sediment in sleeve				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 0745				
DTW (ft btoc)		23.85				
Sampler Integrity		GOOD				
Personnel		IGF				
Notes		1" of sediment in sleeve				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 0755	15.51	6.77	172.7	2613	6.17	68.7
Sample ID		TTU-EXT-1-69-210230223				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes		NO PVC pipe, Q4 height is correct. ONLY metal casing. 8 3/4				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-EXT-2 / 55-231734				
Date Completed		1/28/2020				
Casing Material						
Casing Diameter (in)		8				
Screen (ft btoc)		OPEN				
Well Total Depth (ft btoc)		110				
Survey Information		Northing: 909268.187 / Easting: 761493.214				
Deployment						
Date / Time		11/29/2022 at 09:02				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		26.75				
Deployment Depth (ft btoc)		74				
Personnel		IGF				
Notes		Some black sediment in sleeve, 1 inch				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 0815				
DTW (ft btoc)		32.77				
Sampler Integrity		Good				
Personnel		IGF				
Notes		None				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 0826	16.16	7.18	172.0	1103	3.82	6.44
Sample ID		TTU-EXT-2-74-20230223				
QAQC Samples		DUP-01				
Containers		(2) 125 mL HDPE (no pres.) & (8) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-EXT-3 / 55-231731				
Date Completed		1/24/2020				
Casing Material						
Casing Diameter (in)		8				
Screen (ft btoc)		OPEN				
Well Total Depth (ft btoc)		111				
Survey Information		Northing: 909134.941 / Easting: 761465.507				
Deployment						
Date / Time		11/29/2022 at 09:37				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		34.06				
Deployment Depth (ft btoc)		76				
Personnel		IGF				
Notes		None				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 0843				
DTW (ft btoc)		36.26				
Sampler Integrity		Good				
Personnel		JLF + BCB				
Notes		H2O slightly cloudy				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ 0843	17.5	6.36	*Was over 6000 last round -708.1	6070	3.38	12.4
Sample ID		TTU-EXT-3-76-20230223				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (6) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes						



Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-EXT-4 / 55-231732				
Date Completed		1/25/2020				
Casing Material						
Casing Diameter (in)		8				
Screen (ft btoc)		OPEN				
Well Total Depth (ft btoc)		112				
Survey Information		Northing: 909051.298 / Easting: 761442.876				
Deployment						
Date / Time		11/29/2022 at 09:39				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		41.31				
Deployment Depth (ft btoc)		77				
Personnel		BCB				
Notes		Water mostly clear, outside of HS dusty from well				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ 0855				
DTW (ft btoc)		41.62				
Sampler Integrity		good				
Personnel		PCB				
Notes		H <sub>2</sub> O slightly cloudy w/ a little effervescing				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @	17.4	6.69	-214.3	2290	1.87	43.5
Sample ID		TTU-EXT-4-77- <del>20230723</del>				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-EXT-5 / 55-231736				
Date Completed		1/24/2020				
Casing Material						
Casing Diameter (in)		8				
Screen (ft btoc)		OPEN				
Well Total Depth (ft btoc)		112.4				
Survey Information		Northing: 908971.770 / Easting: 761423.325				
Deployment						
Date / Time		11/29/2022 at 09:01				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		40.60				
Deployment Depth (ft btoc)		80				
Personnel		BCB				
Notes		Bottom half of sleeve cloudy				
Retrieval and/or Sampling						
Date / Time		2/23/23 @ Ø745				
DTW (ft btoc)		40.02				
Sampler Integrity		good				
Personnel		BCB				
Notes		H <sub>2</sub> O cloudy in bottom 1/2 of HS				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/23/23 @ Ø759	16.2	6.94	-191.6	1158	3.25	62.3
Sample ID		TTU-EXT-5-80- <del>20230223</del>				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		(Yes)			No	
Notes						

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		PF-2				
Date Completed		N/A				
Casing Material		Steel				
Casing Diameter (in)		6 5/8				
Screen (ft btoc)		300-400				
Well Total Depth (ft btoc)		400				
Survey Information		Northing: 909166.890 / Easting: 760122.250				
Deployment						
Date / Time		NA				
Type of Sampler		Production Well; spigot				
Size of Sampler		NA				
DTW (ft btoc)		NA				
Deployment Depth (ft btoc)		400				
Personnel		NA				
Notes		Purge 15 minutes. Take parameters (starting and 15 min. after)				
Retrieval and/or Sampling						
Date / Time		2/27/23 @ 1225 (VOCs + 1,4 Diox), 1237 for 6850				
DTW (ft btoc)		-				
Sampler Integrity		-				
Personnel		IGF				
Notes		NONE IGF WATER CLEAR				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/27/23 IGF Initial 1200	22.10	7.00	148.2	1177	3.80	22.2
1205	22.41	7.05	140.5	1207	4.12	8.48
1210	22.37	7.06	128.6	1210	4.39	0.03
1215	22.46	7.04	121.2	1216	4.17	0.00
Sample ID		PF-2-400-20230227				
QAQC Samples		-				
Containers		(1) 250 mL HDPE (no pres. & filtered) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate (Method 6850, filtered) / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			(No) → Spigot	
Notes		Well on at 11:50; well off at 1240				

Well Sampling Record						
Project Name		Nammo TTU				
Project Number		722152201.002				
Well ID / ADWR #		TTU-8 / NA				
Date Completed		4/18/2016				
Casing Material		PVC				
Casing Diameter (in)		4				
Screen (ft btoc)		135-185				
Well Total Depth (ft btoc)		190				
Survey Information		Northing: 909699.266 / Easting: 760514.908				
Deployment						
Date / Time		11/30/2022 at 0953				
Type of Sampler		HydraSleeve				
Size of Sampler		HS-2-1L				
DTW (ft btoc)		152.35				
Deployment Depth (ft btoc)		164				
Personnel		BCB				
Notes		Water clear				
Retrieval and/or Sampling						
Date / Time		2/25/23 @ 1227 IGF 1427				
DTW (ft btoc)		152.95				
Sampler Integrity		Good				
Personnel		LGF				
Notes		Water clear				
Field Parameters						
Date / Time	Water Temp (°C)	pH (SU)	ORP (mV)	Sp Cond (µS/cm)	DO (mg/L)	Turbidity
2/25/23 @ 1436	23.91	7.03	125.3	2901	2.63	0.74
Sample ID		TTU-8-164-20230225				
QAQC Samples		-				
Containers		(1) 125 mL HDPE (no pres.) & (4) 40 mL amber VOAs				
Preservatives		HCl				
Analysis		Perchlorate / VOCs / 1,4-Dioxane				
Sampler Reset		Yes			No	
Notes						
30.25" from ground → PVC casing inside outer metal well vault						

## **Attachment 2 – Laboratory Analytical Reports**



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Andrew Parker  
Pinyon Environmental, Inc.  
2801 E Camelback Road  
Suite 200  
Phoenix, Arizona 85016  
Generated 3/17/2023 2:56:17 AM

## JOB DESCRIPTION

Nammo TTV

## JOB NUMBER

550-198342-1

# Eurofins Phoenix

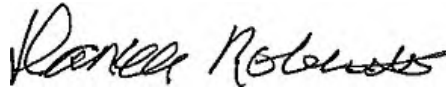
## Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



Generated  
3/17/2023 2:56:17 AM

Authorized for release by  
Danielle Roberts, Senior Project Manager  
[Danielle.Roberts@et.eurofinsus.com](mailto:Danielle.Roberts@et.eurofinsus.com)  
(657)210-6355



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# Definitions/Glossary

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

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**Job ID: 550-198342-1**

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**Laboratory: Eurofins Phoenix**

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**Narrative**

**Job Narrative**  
**550-198342-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 2/27/2023 3:16 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

**LCMS**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Organic Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Sample Summary

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-198342-1	PF-2-400-20230227	Water	02/27/23 12:37	02/27/23 15:16

- 1
- 2
- 3
- 4
- 5
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- 10
- 11
- 12
- 13
- 14
- 15

# Detection Summary

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

**Client Sample ID: PF-2-400-20230227**

**Lab Sample ID: 550-198342-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perchlorate	0.38	E4	0.50	0.085	ug/L	1		6850	Total/NA

- 1
- 2
- 3
- 4
- 5
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- 14
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This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

**Client Sample ID: PF-2-400-20230227**

**Lab Sample ID: 550-198342-1**

Date Collected: 02/27/23 12:37

Matrix: Water

Date Received: 02/27/23 15:16

**Method: EPA 6850 - Perchlorate by LC/MS or LC/MS/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	0.38	E4	0.50	0.085	ug/L		03/09/23 10:22	03/10/23 19:46	1

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# QC Sample Results

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

## Method: 6850 - Perchlorate by LC/MS or LC/MS/MS

**Lab Sample ID: MB 320-659424/1-A**  
**Matrix: Water**  
**Analysis Batch: 660007**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 659424**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND	E8	0.50	0.085	ug/L		03/09/23 10:22	03/10/23 17:51	1

**Lab Sample ID: LCS 320-659424/2-A**  
**Matrix: Water**  
**Analysis Batch: 660007**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 659424**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perchlorate	5.00	4.87		ug/L		97	80 - 120

**Lab Sample ID: LCSD 320-659424/3-A**  
**Matrix: Water**  
**Analysis Batch: 660007**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 659424**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perchlorate	5.00	4.91		ug/L		98	80 - 120	1	15

**Lab Sample ID: 550-198342-1 MS**  
**Matrix: Water**  
**Analysis Batch: 660007**

**Client Sample ID: PF-2-400-20230227**  
**Prep Type: Total/NA**  
**Prep Batch: 659424**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perchlorate	0.38	E4	5.00	5.32		ug/L		99	80 - 120

**Lab Sample ID: 550-198342-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 660007**

**Client Sample ID: PF-2-400-20230227**  
**Prep Type: Total/NA**  
**Prep Batch: 659424**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perchlorate	0.38	E4	5.00	5.39		ug/L		100	80 - 120	1	15

# QC Association Summary

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

## LCMS

### Filtration Batch: 659424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-198342-1	PF-2-400-20230227	Total/NA	Water	Filtration	
MB 320-659424/1-A	Method Blank	Total/NA	Water	Filtration	
LCS 320-659424/2-A	Lab Control Sample	Total/NA	Water	Filtration	
LCSD 320-659424/3-A	Lab Control Sample Dup	Total/NA	Water	Filtration	
550-198342-1 MS	PF-2-400-20230227	Total/NA	Water	Filtration	
550-198342-1 MSD	PF-2-400-20230227	Total/NA	Water	Filtration	

### Analysis Batch: 660007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-198342-1	PF-2-400-20230227	Total/NA	Water	6850	659424
MB 320-659424/1-A	Method Blank	Total/NA	Water	6850	659424
LCS 320-659424/2-A	Lab Control Sample	Total/NA	Water	6850	659424
LCSD 320-659424/3-A	Lab Control Sample Dup	Total/NA	Water	6850	659424
550-198342-1 MS	PF-2-400-20230227	Total/NA	Water	6850	659424
550-198342-1 MSD	PF-2-400-20230227	Total/NA	Water	6850	659424

# Lab Chronicle

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

**Client Sample ID: PF-2-400-20230227**

**Lab Sample ID: 550-198342-1**

**Date Collected: 02/27/23 12:37**

**Matrix: Water**

**Date Received: 02/27/23 15:16**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Filtration	Filtration			659424	HJA	EET SAC	03/09/23 10:22
Total/NA	Analysis	6850		1	660007	D1R	EET SAC	03/10/23 19:46

**Laboratory References:**

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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# Accreditation/Certification Summary

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

## Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-23
Arkansas DEQ	State	88-0691	06-17-23
California	State	2897	01-22-24
Colorado	State	CA0004	08-31-23
Florida	NELAP	E87570	06-30-23
Georgia	State	4040	01-29-24
Hawaii	State	<cert No.>	01-29-24
Illinois	NELAP	200060	03-17-24
Kansas	NELAP	E-10375	10-31-23
Louisiana	NELAP	01944	06-30-23
Louisiana (All)	NELAP	01944	06-30-23
Maine	State	CA00004	04-14-24
Michigan	State	9947	01-31-23 *
Nevada	State	CA00044	07-31-23
New Hampshire	NELAP	2997	04-18-23
New Jersey	NELAP	CA005	06-30-23
New York	NELAP	11666	04-01-23
Ohio	State	41252	01-29-24
Oregon	NELAP	4040	01-29-24
Texas	NELAP	T104704399-19-13	05-31-23
US Fish & Wildlife	US Federal Programs	58448	04-30-23
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442021-12	02-28-23 *
Virginia	NELAP	460278	03-14-23
Washington	State	C581	05-05-23
West Virginia (DW)	State	9930C	12-31-23
Wisconsin	State	998204680	08-31-23
Wyoming	State Program	8TMS-L	01-28-19 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Phoenix

# Method Summary

Client: Pinyon Environmental, Inc.  
Project/Site: Nammo TTV

Job ID: 550-198342-1

Method	Method Description	Protocol	Laboratory
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	EET SAC
Filtration	Sample Filtration	None	EET SAC

**Protocol References:**

EPA = US Environmental Protection Agency

None = None

**Laboratory References:**

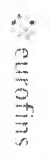
EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



**Eurofins Sacramento**

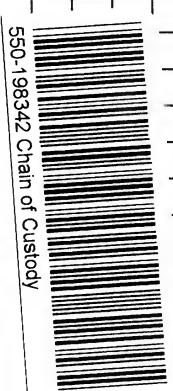
880 Riverside Parkway  
West Sacramento, CA 95605  
Phone (916) 373-5600 Phone (916) 372-1059

**Chain of Custody Record**



198342

<b>Client Information</b>		Sampler: <b>Isabella Foster</b>	Lab PM: <b>Danielle Roberts</b>	Carrier Tracking No(s):	COC No: _____
Client Contact: <b>Jeremy Hudson</b>		Phone: <b>902-274-0533</b>	Email: <b>Danielle.Roberts@eurofins.com</b>	State of Origin: <b>Arizona</b>	Page: <b>1</b> of <b>1</b>
Company: <b>Pinyon Env.</b>		Due Date Requested:	Analysis Requested		
Address: <b>2801 E. Camelback Rd. Suite 200</b>		City: <b>Phoenix</b>	Perchlorate (0850)		
State Zip: <b>AZ 85016</b>		TAT Requested (days): <b>Standard TAT</b>	Total Number of containers: <b>1</b>		
Phone: <b>902-274-0533</b>		Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Special Instructions/Note:		
Email: _____		PO #: _____	Preservation Codes: M - Hexane N - None O - AsHAc2 P - Na2OAS Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify)		
Project Name: <b>Nammno TTU</b>		WO #: _____	Other: _____		
Site: _____		Project #: <b>122152201.002</b>	Special Instructions/Note:		
SSOW#: _____		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Identification		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Special Instructions/Note:		
Sample Date		Sample Time	Sample Type (G=Comp, G=Grab)	Matrix (Water, Solid, Other)	Preservation Code
<del>PF-2-400-20230227</del>		<del>2/27/23 1237</del>	<del>GI</del>	<del>W</del>	<del>YTX</del>
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Dispose By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/OC Requirements:			
Empty Kit Relinquished by:		Date:	Method of Shipment:		
Relinquished by: <b>[Signature]</b>		Date/Time: <b>2/27/25 15:16</b>	Received by: _____		
Relinquished by: <b>[Signature]</b>		Date/Time: _____	Received by: _____		
Relinquished by: _____		Date/Time: _____	Received by: _____		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: _____	Cooler Temperature(s) °C and Other Remarks: <b>Temp 4.8°C</b>		



# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b> Client Contact: Shipping/Receiving Company: Eurofins Environment Testing Northern Ca Address: 880 Riverside Parkway, City: West Sacramento State, Zip: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email:		Lab PM: Roberts, Danielle C E-Mail: Danielle.Roberts@et.eurofins.com Accreditations Required (See note): State Program - Arizona	Carrier Tracking No(s): 550-36192-1 Page: Page 1 of 1 Job #: 550-198342-1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:						
Due Date Requested: 3/13/2023 TAT Requested (days): PO #: WO #: Project #: 55017941 SSOW#:		<b>Analysis Requested</b> M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)							
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oh)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6850/Filtration_14D Perchlorate Only	Total Number of Containers	Special Instructions/Note:
PF-2-400-20230227 (550-198342-1)	2/27/23	12:37 Arizona	Water	Water	X	X	X	1	
PF-2-400-20230227 (550-198342-1MS)	2/27/23	12:37 Arizona	MS	Water	X	X	X	1	
PF-2-400-20230227 (550-198342-1MSD)	2/27/23	12:37 Arizona	MSD	Water	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements:

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 02-27-23 16:20 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact: Yes  No   
 Custody Seal No.: 1790479  
 Cooler Temperature(s) °C and Other Remarks: 0.6c



Job: 550-198342 Field Sheet

Tracking #: 509 046282607

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier  
GSO / OnTrac / Goldstreak / USPS / Other \_\_\_\_\_

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Therm. ID: E11 Corr. Factor: (+/-) - °C

Ice 1 Wet 1 Gel \_\_\_\_\_ Other \_\_\_\_\_

Cooler Custody Seal: 1790479

Cooler ID: \_\_\_\_\_

Temp Observed: 0.6 °C Corrected: 0.6 °C  
From: Temp Blank  Sample

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cooler Temperature is acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frozen samples show signs of thaw?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initials: [Signature] Date: 2-28-23

Unpacking/Labeling The Samples	Yes	No	NA
COC is complete w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample custody seal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample date/times are provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample preservatives verified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the Field Sampler's name on COC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Samples require splitting/compositing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Samples w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zero headspace?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Perchlorate has headspace? (Methods 314, 331, 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: [Signature] Date: 2-28-23

Notes: \_\_\_\_\_

Trizma Lot #(s): \_\_\_\_\_

Login Completion	Yes	No	NA
Receipt Temperature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NCM Filed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Log Release checked in TALS?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initials: [Signature] Date: 2-28-23

# Login Sample Receipt Checklist

Client: Pinyon Environmental, Inc.

Job Number: 550-198342-1

**Login Number: 198342**

**List Number: 1**

**Creator: Maycock, Lisa**

**List Source: Eurofins Phoenix**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	Check done at department level as required.



# Login Sample Receipt Checklist

Client: Pinyon Environmental, Inc.

Job Number: 550-198342-1

**Login Number: 198342**

**List Number: 2**

**Creator: Simmons, Jason C**

**List Source: Eurofins Sacramento**

**List Creation: 02/28/23 01:03 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1790479
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Pinyon Environmental

Sample Delivery Group: L1589562  
Samples Received: 02/25/2023  
Project Number: 722152201.002  
Description: Nammo

Report To: Jeremy Musson  
4815 E. Carefree Highway  
#108-274  
Cave Creek, AZ 85331

Entire Report Reviewed By:



Daphne Richards  
Project Manager

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 Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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# SAMPLE SUMMARY

## TTU-1-50-20230223 L1589562-01 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 14:30  
02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	200	02/28/23 22:27	02/28/23 22:27	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2014084	1	02/28/23 16:17	02/28/23 16:17	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2013178	1	02/26/23 21:28	02/26/23 21:28	ACG	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

## TTU-2-114-20230223 L1589562-02 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 14:28  
02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	5000	03/01/23 00:52	03/01/23 00:52	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 16:10	02/27/23 16:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2015811	20	03/02/23 18:11	03/02/23 18:11	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2013178	1	02/26/23 21:49	02/26/23 21:49	ACG	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

## TTU-9A-61-20230223 L1589562-03 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 13:52  
02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016909	1	02/28/23 13:53	02/28/23 13:53	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 16:31	02/27/23 16:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2015811	1	03/02/23 17:52	03/02/23 17:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2013178	1	02/26/23 22:09	02/26/23 22:09	ACG	Mt. Juliet, TN

7 Is

8 Gl

9 Al

## TTU-12-82-20230223 L1589562-04 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 13:48  
02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	5000	03/01/23 01:20	03/01/23 01:20	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 16:52	02/27/23 16:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2015811	10	03/02/23 18:30	03/02/23 18:30	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2013178	1	02/26/23 22:29	02/26/23 22:29	ACG	Mt. Juliet, TN

10 Sc

## TTU-13-51-20230223 L1589562-05 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 15:00  
02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	500	03/01/23 01:49	03/01/23 01:49	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 17:13	02/27/23 17:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2013178	1	02/26/23 22:49	02/26/23 22:49	ACG	Mt. Juliet, TN

## TTU-EXT-1-69-20230223 L1589562-06 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 07:45  
02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	2000	03/01/23 02:17	03/01/23 02:17	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 17:34	02/27/23 17:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2013178	1	02/26/23 23:10	02/26/23 23:10	ACG	Mt. Juliet, TN

# SAMPLE SUMMARY

## TTU-EXT-2-74-20230223 L1589562-07 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 08:15    02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	1000	03/01/23 02:45	03/01/23 02:45	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 17:54	02/27/23 17:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2013178	1	02/26/23 23:30	02/26/23 23:30	ACG	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

## DUP-01 L1589562-08 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 08:15    02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	10000	03/01/23 03:14	03/01/23 03:14	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 18:15	02/27/23 18:15	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2014826	1	03/01/23 14:54	03/01/23 14:54	AV	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

## TTU-EXT-3-76-20230223 L1589562-09 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 08:43    02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	2000	03/01/23 03:42	03/01/23 03:42	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 18:36	02/27/23 18:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2015811	50	03/02/23 18:49	03/02/23 18:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016398	250	03/03/23 19:00	03/03/23 19:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2015261	10	03/05/23 18:52	03/05/23 18:52	BAM	Mt. Juliet, TN

7 Is

8 Gl

9 Al

## TTU-EXT-4-77-20230223 L1589562-10 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 08:15    02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	2000	03/01/23 04:11	03/01/23 04:11	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2013558	1	02/27/23 18:56	02/27/23 18:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2015811	20	03/02/23 19:08	03/02/23 19:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2015261	1	03/05/23 19:54	03/05/23 19:54	BAM	Mt. Juliet, TN

10 Sc

## TTU-EXT-5-80-20230223 L1589562-11 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 07:45    02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2013803	1	02/28/23 19:06	02/28/23 19:06	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2014084	1	02/28/23 18:20	02/28/23 18:20	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2014826	1	03/01/23 16:16	03/01/23 16:16	JHH	Mt. Juliet, TN

## TRIP BLANK L1589562-12 GW

Collected by  
Collected date/time  
Received date/time

02/23/23 00:00    02/25/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2014084	1	02/28/23 13:52	02/28/23 13:52	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2014826	1	03/01/23 14:33	03/01/23 14:33	AV	Mt. Juliet, TN

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

Daphne Richards  
Project Manager

## Report Revision History

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Level II Report - Version 1: 03/06/23 12:43

## Project Narrative

---

Sample id update

## Sample Delivery Group (SDG) Narrative

---

**Insufficient sample volume to perform MS/MSD analyses per method QC requirements.**

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1589562-02</a>	<a href="#">TTU-2-114-20230223</a>	8260B
<a href="#">L1589562-03</a>	<a href="#">TTU-9A-61-20230223</a>	8260B
<a href="#">L1589562-04</a>	<a href="#">TTU-12-82-20230223</a>	8260B
<a href="#">L1589562-09</a>	<a href="#">TTU-EXT-3-76-20230223</a>	8260B, 8260B-SIM
<a href="#">L1589562-10</a>	<a href="#">TTU-EXT-4-77-20230223</a>	8260B, 8260B-SIM

**Analyzed from headspace vial.**

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1589562-10</a>	<a href="#">TTU-EXT-4-77-20230223</a>	8260B-SIM



Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	8350		60.0	800	200	02/28/2023 22:27	<a href="#">WG2013803</a>

Sample Narrative:

L1589562-01 WG2013803: 200x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Acrolein	U		2.54	50.0	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Acrylonitrile	U		0.671	10.0	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Benzene	0.183	E4	0.0941	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Bromobenzene	U		0.118	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Bromodichloromethane	U		0.136	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Bromoform	U		0.129	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Bromomethane	U		0.605	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,3-Butadiene	U		0.299	2.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
n-Butylbenzene	U		0.157	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
sec-Butylbenzene	U		0.125	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
tert-Butylbenzene	U		0.127	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Carbon tetrachloride	U		0.128	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Carbon disulfide	U		0.0962	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Chlorobenzene	U		0.116	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Chlorodibromomethane	U		0.140	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Chloroethane	U		0.192	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Chloroform	0.116	E4	0.111	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Chloromethane	U		0.960	2.50	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Cyclohexane	U		0.188	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
2-Chlorotoluene	U		0.106	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
4-Chlorotoluene	U		0.114	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Dibromomethane	U		0.122	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1-Dichloroethane	U		0.100	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1-Dichloroethene	0.857	E4	0.188	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Dicyclopentadiene	U		0.253	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Di-isopropyl ether	U		0.105	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Ethylbenzene	U		0.137	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
4-Ethyltoluene	U		0.208	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
n-Hexane	U		0.749	10.0	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Isopropylbenzene	U		0.105	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>

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

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Methylene Chloride	U		0.430	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Naphthalene	U		1.00	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Propene	U		0.936	2.50	1	02/28/2023 16:17	<a href="#">WG2014084</a>
n-Propylbenzene	U		0.0993	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Styrene	U		0.118	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Tetrachloroethene	U		0.300	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Toluene	U		0.278	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Trichloroethene	5.02	<u>M1</u>	0.190	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Vinyl chloride	U		0.234	1.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
Xylenes, Total	U		0.174	3.00	1	02/28/2023 16:17	<a href="#">WG2014084</a>
(S) Toluene-d8	114			80.0-120		02/28/2023 16:17	<a href="#">WG2014084</a>
(S) 4-Bromofluorobenzene	113			77.0-126		02/28/2023 16:17	<a href="#">WG2014084</a>
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		02/28/2023 16:17	<a href="#">WG2014084</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	14.9		0.597	3.00	1	02/26/2023 21:28	<a href="#">WG2013178</a>
(S) Toluene-d8	88.5			77.0-127		02/26/2023 21:28	<a href="#">WG2013178</a>

## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	176000		1500	20000	5000	03/01/2023 00:52	<a href="#">WG2013803</a>

## Sample Narrative:

L1589562-02 WG2013803: 5,000x

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Benzene	1.55		0.0941	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Chloroform	2.36	<a href="#">E4</a>	0.111	5.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,1-Dichloroethane	1.39		0.100	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,1-Dichloroethene	91.6		0.188	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	1.83		0.126	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	0.318	<a href="#">E4</a>	0.149	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 16:10	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 16:10	<a href="#">WG2013558</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 16:10	WG2013558
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 16:10	WG2013558
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 16:10	WG2013558
Methylene Chloride	U		0.430	5.00	1	02/27/2023 16:10	WG2013558
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 16:10	WG2013558
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 16:10	WG2013558
Naphthalene	U	R7	1.00	5.00	1	02/27/2023 16:10	WG2013558
Propene	U		0.936	2.50	1	02/27/2023 16:10	WG2013558
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 16:10	WG2013558
Styrene	U		0.118	1.00	1	02/27/2023 16:10	WG2013558
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 16:10	WG2013558
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 16:10	WG2013558
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 16:10	WG2013558
Tetrachloroethene	1.41		0.300	1.00	1	02/27/2023 16:10	WG2013558
Toluene	U		0.278	1.00	1	02/27/2023 16:10	WG2013558
1,2,3-Trichlorobenzene	U	R7	0.230	1.00	1	02/27/2023 16:10	WG2013558
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 16:10	WG2013558
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 16:10	WG2013558
1,1,2-Trichloroethane	2.05		0.158	1.00	1	02/27/2023 16:10	WG2013558
Trichloroethene	648		3.80	20.0	20	03/02/2023 18:11	WG2015811
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 16:10	WG2013558
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 16:10	WG2013558
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 16:10	WG2013558
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 16:10	WG2013558
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 16:10	WG2013558
Vinyl chloride	U		0.234	1.00	1	02/27/2023 16:10	WG2013558
Xylenes, Total	U		0.174	3.00	1	02/27/2023 16:10	WG2013558
(S) Toluene-d8	101			80.0-120		02/27/2023 16:10	WG2013558
(S) Toluene-d8	107			80.0-120		03/02/2023 18:11	WG2015811
(S) 4-Bromofluorobenzene	84.8			77.0-126		02/27/2023 16:10	WG2013558
(S) 4-Bromofluorobenzene	97.6			77.0-126		03/02/2023 18:11	WG2015811
(S) 1,2-Dichloroethane-d4	118			70.0-130		02/27/2023 16:10	WG2013558
(S) 1,2-Dichloroethane-d4	99.8			70.0-130		03/02/2023 18:11	WG2015811

1  
Cp

2  
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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Is

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Gl

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Al

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Sc

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	362		0.597	3.00	1	02/26/2023 21:49	WG2013178
(S) Toluene-d8	90.9			77.0-127		02/26/2023 21:49	WG2013178



Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	8.80		0.300	4.00	1	02/28/2023 13:53	<a href="#">WG2016909</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Benzene	U		0.0941	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Chloroform	U		0.111	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1-Dichloroethane	U		0.100	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1-Dichloroethene	U		0.188	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Naphthalene	U	<u>R7</u>	1.00	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 16:31	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Tetrachloroethene	U		0.300	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	<u>R7</u>	0.230	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Trichloroethene	U		0.190	1.00	1	03/02/2023 17:52	<a href="#">WG2015811</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 16:31	<a href="#">WG2013558</a>
(S) Toluene-d8	100			80.0-120		02/27/2023 16:31	<a href="#">WG2013558</a>
(S) Toluene-d8	102			80.0-120		03/02/2023 17:52	<a href="#">WG2015811</a>
(S) 4-Bromofluorobenzene	83.6			77.0-126		02/27/2023 16:31	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	103			77.0-126		03/02/2023 17:52	<a href="#">WG2015811</a>
(S) 1,2-Dichloroethane-d4	119			70.0-130		02/27/2023 16:31	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	99.1			70.0-130		03/02/2023 17:52	<a href="#">WG2015811</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	18.4		0.597	3.00	1	02/26/2023 22:09	<a href="#">WG2013178</a>
(S) Toluene-d8	89.2			77.0-127		02/26/2023 22:09	<a href="#">WG2013178</a>

## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	134000		1500	20000	5000	03/01/2023 01:20	<a href="#">WG2013803</a>

## Sample Narrative:

L1589562-04 WG2013803: 5,000x

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Benzene	1.00		0.0941	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Chloroform	1.78	<a href="#">E4</a>	0.111	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1-Dichloroethane	0.937	<a href="#">E4</a>	0.100	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1-Dichloroethene	68.6		0.188	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	1.15		0.126	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	0.211	<a href="#">E4</a>	0.149	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Methylene Chloride	U		0.430	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Naphthalene	U	R7	1.00	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 16:52	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Tetrachloroethene	1.40		0.300	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	R7	0.230	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	1.45		0.158	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Trichloroethene	452		1.90	10.0	10	03/02/2023 18:30	<a href="#">WG2015811</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 16:52	<a href="#">WG2013558</a>
(S) Toluene-d8	100			80.0-120		02/27/2023 16:52	<a href="#">WG2013558</a>
(S) Toluene-d8	107			80.0-120		03/02/2023 18:30	<a href="#">WG2015811</a>
(S) 4-Bromofluorobenzene	84.8			77.0-126		02/27/2023 16:52	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	103			77.0-126		03/02/2023 18:30	<a href="#">WG2015811</a>
(S) 1,2-Dichloroethane-d4	119			70.0-130		02/27/2023 16:52	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/02/2023 18:30	<a href="#">WG2015811</a>

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

## Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	209		0.597	3.00	1	02/26/2023 22:29	<a href="#">WG2013178</a>
(S) Toluene-d8	90.8			77.0-127		02/26/2023 22:29	<a href="#">WG2013178</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	27100		150	2000	500	03/01/2023 01:49	<a href="#">WG2013803</a>

Sample Narrative:

L1589562-05 WG2013803: 500x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<u>L1</u>	11.3	50.0	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Benzene	U		0.0941	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Bromodichloromethane	U	<u>L1</u>	0.136	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Chloroform	U		0.111	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1-Dichloroethane	U		0.100	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1-Dichloroethene	5.01		0.188	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Methylene Chloride	U		0.430	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Naphthalene	U	R7	1.00	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 17:13	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Tetrachloroethene	U		0.300	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	R7	0.230	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Trichloroethene	12.8		0.190	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 17:13	<a href="#">WG2013558</a>
(S) Toluene-d8	102			80.0-120		02/27/2023 17:13	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	83.6			77.0-126		02/27/2023 17:13	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	119			70.0-130		02/27/2023 17:13	<a href="#">WG2013558</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	40.1		0.597	3.00	1	02/26/2023 22:49	<a href="#">WG2013178</a>
(S) Toluene-d8	91.8			77.0-127		02/26/2023 22:49	<a href="#">WG2013178</a>

## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	121000		600	8000	2000	03/01/2023 02:17	<a href="#">WG2013803</a>

## Sample Narrative:

L1589562-06 WG2013803: 2,000x

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Benzene	0.180	<a href="#">E4</a>	0.0941	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Chloroform	0.699	<a href="#">E4</a>	0.111	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1-Dichloroethane	0.442	<a href="#">E4</a>	0.100	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1-Dichloroethene	61.2		0.188	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Methylene Chloride	U		0.430	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 17:34	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Tetrachloroethene	0.908	<a href="#">E4</a>	0.300	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	<a href="#">R7</a>	0.230	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	0.657	<a href="#">E4</a>	0.158	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Trichloroethene	127		0.190	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 17:34	<a href="#">WG2013558</a>
(S) Toluene-d8	100			80.0-120		02/27/2023 17:34	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	83.5			77.0-126		02/27/2023 17:34	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	120			70.0-130		02/27/2023 17:34	<a href="#">WG2013558</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	251		0.597	3.00	1	02/26/2023 23:10	<a href="#">WG2013178</a>
(S) Toluene-d8	90.8			77.0-127		02/26/2023 23:10	<a href="#">WG2013178</a>



## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	65700		300	4000	1000	03/01/2023 02:45	<a href="#">WG2013803</a>

## Sample Narrative:

L1589562-07 WG2013803: 1,000x

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Benzene	0.337	<a href="#">E4</a>	0.0941	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Chloroform	0.603	<a href="#">E4</a>	0.111	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1-Dichloroethane	0.349	<a href="#">E4</a>	0.100	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1-Dichloroethene	39.8		0.188	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	0.553	<a href="#">E4</a>	0.126	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Methylene Chloride	U		0.430	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 17:54	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Tetrachloroethene	0.834	<a href="#">E4</a>	0.300	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	<a href="#">R7</a>	0.230	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	0.649	<a href="#">E4</a>	0.158	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Trichloroethene	166		0.190	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 17:54	<a href="#">WG2013558</a>
(S) Toluene-d8	102			80.0-120		02/27/2023 17:54	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	83.9			77.0-126		02/27/2023 17:54	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	118			70.0-130		02/27/2023 17:54	<a href="#">WG2013558</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	162		0.597	3.00	1	02/26/2023 23:30	<a href="#">WG2013178</a>
(S) Toluene-d8	92.3			77.0-127		02/26/2023 23:30	<a href="#">WG2013178</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	614000		3000	40000	10000	03/01/2023 03:14	<a href="#">WG2013803</a>

Sample Narrative:

L1589562-08 WG2013803: 1,000x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Benzene	0.279	<a href="#">E4</a>	0.0941	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Chloroform	0.485	<a href="#">E4</a>	0.111	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1-Dichloroethane	0.268	<a href="#">E4</a>	0.100	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1-Dichloroethene	34.2		0.188	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	0.458	<a href="#">E4</a>	0.126	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Methylene Chloride	U		0.430	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 18:15	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Tetrachloroethene	0.842	<a href="#">E4</a>	0.300	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	<a href="#">R7</a>	0.230	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	0.553	<a href="#">E4</a>	0.158	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Trichloroethene	143		0.190	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 18:15	<a href="#">WG2013558</a>
(S) Toluene-d8	102			80.0-120		02/27/2023 18:15	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	83.4			77.0-126		02/27/2023 18:15	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	115			70.0-130		02/27/2023 18:15	<a href="#">WG2013558</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	197		0.597	3.00	1	03/01/2023 14:54	<a href="#">WG2014826</a>
(S) Toluene-d8	91.5			77.0-127		03/01/2023 14:54	<a href="#">WG2014826</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	90300		600	8000	2000	03/01/2023 03:42	<a href="#">WG2013803</a>

Sample Narrative:

L1589562-09 WG2013803: 10,000x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Benzene	14.6		0.0941	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Chlorobenzene	0.328	<a href="#">E4</a>	0.116	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Chloroform	13.2		0.111	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	0.561	<a href="#">E4</a>	0.107	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	0.119	<a href="#">E4</a>	0.110	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	0.400	<a href="#">E4</a>	0.120	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1-Dichloroethane	10.9		0.100	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2-Dichloroethane	2.18		0.0819	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1-Dichloroethene	799		9.40	50.0	50	03/02/2023 18:49	<a href="#">WG2015811</a>
cis-1,2-Dichloroethene	5.52		0.126	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	2.06		0.149	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Di-isopropyl ether	0.182	<a href="#">E4</a>	0.105	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Methylene Chloride	0.829	<a href="#">E4</a>	0.430	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 18:36	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	2.67		0.180	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Tetrachloroethene	9.86		0.300	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	<a href="#">R7</a>	0.230	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	11.5		0.158	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Trichloroethene	6520		47.5	250	250	03/03/2023 19:00	<a href="#">WG2016398</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Vinyl chloride	0.635	<a href="#">E4</a>	0.234	1.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 18:36	<a href="#">WG2013558</a>
(S) Toluene-d8	100			80.0-120		02/27/2023 18:36	<a href="#">WG2013558</a>
(S) Toluene-d8	104			80.0-120		03/02/2023 18:49	<a href="#">WG2015811</a>
(S) Toluene-d8	100			80.0-120		03/03/2023 19:00	<a href="#">WG2016398</a>
(S) 4-Bromofluorobenzene	84.8			77.0-126		02/27/2023 18:36	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	106			77.0-126		03/02/2023 18:49	<a href="#">WG2015811</a>
(S) 4-Bromofluorobenzene	109			77.0-126		03/03/2023 19:00	<a href="#">WG2016398</a>
(S) 1,2-Dichloroethane-d4	118			70.0-130		02/27/2023 18:36	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	102			70.0-130		03/02/2023 18:49	<a href="#">WG2015811</a>
(S) 1,2-Dichloroethane-d4	89.4			70.0-130		03/03/2023 19:00	<a href="#">WG2016398</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	916		5.97	30.0	10	03/05/2023 18:52	<a href="#">WG2015261</a>
(S) Toluene-d8	103			77.0-127		03/05/2023 18:52	<a href="#">WG2015261</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	94900		600	8000	2000	03/01/2023 04:11	<a href="#">WG2013803</a>

Sample Narrative:

L1589562-10 WG2013803: 2,000x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	<a href="#">L1</a>	11.3	50.0	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Acrolein	U		2.54	50.0	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Acrylonitrile	U		0.671	10.0	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Benzene	1.50		0.0941	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Bromobenzene	U		0.118	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Bromodichloromethane	U	<a href="#">L1</a>	0.136	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Bromoform	U		0.129	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Bromomethane	U		0.605	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,3-Butadiene	U		0.299	2.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
n-Butylbenzene	U		0.157	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
sec-Butylbenzene	U		0.125	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
tert-Butylbenzene	U		0.127	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Carbon tetrachloride	U		0.128	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Carbon disulfide	U		0.0962	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Chlorobenzene	U		0.116	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Chlorodibromomethane	U		0.140	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Chloroethane	U		0.192	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Chloroform	2.09	<a href="#">E4</a>	0.111	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Chloromethane	U		0.960	2.50	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Cyclohexane	U		0.188	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
2-Chlorotoluene	U		0.106	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
4-Chlorotoluene	U		0.114	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Dibromomethane	U		0.122	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Dichlorodifluoromethane	U		0.374	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1-Dichloroethane	1.86		0.100	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1-Dichloroethene	119		0.188	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
cis-1,2-Dichloroethene	3.50		0.126	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
trans-1,2-Dichloroethene	0.641	<a href="#">E4</a>	0.149	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Dicyclopentadiene	U		0.253	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Di-isopropyl ether	U		0.105	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Ethylbenzene	U		0.137	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
4-Ethyltoluene	U		0.208	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
n-Hexane	U		0.749	10.0	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Isopropylbenzene	U		0.105	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Methylene Chloride	U		0.430	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Naphthalene	U	R7	1.00	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Propene	U		0.936	2.50	1	02/27/2023 18:56	<a href="#">WG2013558</a>
n-Propylbenzene	U		0.0993	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Styrene	U		0.118	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Tetrachloroethene	1.77		0.300	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Toluene	U		0.278	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2,3-Trichlorobenzene	U	R7	0.230	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,1,2-Trichloroethane	0.814	E4	0.158	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Trichloroethene	836		3.80	20.0	20	03/02/2023 19:08	<a href="#">WG2015811</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
Xylenes, Total	U		0.174	3.00	1	02/27/2023 18:56	<a href="#">WG2013558</a>
(S) Toluene-d8	101			80.0-120		02/27/2023 18:56	<a href="#">WG2013558</a>
(S) Toluene-d8	103			80.0-120		03/02/2023 19:08	<a href="#">WG2015811</a>
(S) 4-Bromofluorobenzene	82.9			77.0-126		02/27/2023 18:56	<a href="#">WG2013558</a>
(S) 4-Bromofluorobenzene	102			77.0-126		03/02/2023 19:08	<a href="#">WG2015811</a>
(S) 1,2-Dichloroethane-d4	121			70.0-130		02/27/2023 18:56	<a href="#">WG2013558</a>
(S) 1,2-Dichloroethane-d4	99.6			70.0-130		03/02/2023 19:08	<a href="#">WG2015811</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	16.7		0.597	3.00	1	03/05/2023 19:54	<a href="#">WG2015261</a>
(S) Toluene-d8	102			77.0-127		03/05/2023 19:54	<a href="#">WG2015261</a>

Sample Narrative:

L1589562-10 WG2015261: V8260AZ use all 4 vials received. Only left headspace for V8260LL14D.



Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		0.300	4.00	1	02/28/2023 19:06	<a href="#">WG2013803</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Acrolein	U		2.54	50.0	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Acrylonitrile	U		0.671	10.0	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Benzene	0.102	<a href="#">E4</a>	0.0941	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Bromobenzene	U		0.118	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Bromodichloromethane	U		0.136	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Bromoform	U		0.129	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Bromomethane	U		0.605	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,3-Butadiene	U		0.299	2.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
n-Butylbenzene	U		0.157	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
sec-Butylbenzene	U		0.125	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
tert-Butylbenzene	U		0.127	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Carbon tetrachloride	U		0.128	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Carbon disulfide	U		0.0962	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Chlorobenzene	U		0.116	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Chlorodibromomethane	U		0.140	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Chloroethane	U		0.192	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Chloroform	U		0.111	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Chloromethane	U	<a href="#">R7</a>	0.960	2.50	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Cyclohexane	U		0.188	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
2-Chlorotoluene	U		0.106	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
4-Chlorotoluene	U		0.114	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2-Dibromoethane	U		0.126	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Dibromomethane	U		0.122	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Dichlorodifluoromethane	U	<a href="#">R7</a>	0.374	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1-Dichloroethane	U		0.100	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1-Dichloroethene	U		0.188	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
cis-1,2-Dichloroethene	0.279	<a href="#">E4</a>	0.126	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2-Dichloropropane	U		0.149	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1-Dichloropropene	U		0.142	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,3-Dichloropropane	U		0.110	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
2,2-Dichloropropane	U		0.161	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Dicyclopentadiene	U		0.253	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Di-isopropyl ether	U		0.105	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Ethylbenzene	U		0.137	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
4-Ethyltoluene	U		0.208	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
n-Hexane	U		0.749	10.0	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Isopropylbenzene	U		0.105	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
p-Isopropyltoluene	U		0.120	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
2-Butanone (MEK)	U		1.19	10.0	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Methyl Cyclohexane	U		0.660	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Methyl tert-butyl ether	U		0.101	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Naphthalene	U		1.00	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Propene	U		0.936	2.50	1	02/28/2023 18:20	<a href="#">WG2014084</a>
n-Propylbenzene	U		0.0993	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Styrene	U		0.118	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Tetrachloroethene	U		0.300	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Toluene	U		0.278	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Trichloroethene	4.45		0.190	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Vinyl chloride	U		0.234	1.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
Xylenes, Total	U		0.174	3.00	1	02/28/2023 18:20	<a href="#">WG2014084</a>
(S) Toluene-d8	112			80.0-120		02/28/2023 18:20	<a href="#">WG2014084</a>
(S) 4-Bromofluorobenzene	106			77.0-126		02/28/2023 18:20	<a href="#">WG2014084</a>
(S) 1,2-Dichloroethane-d4	99.7			70.0-130		02/28/2023 18:20	<a href="#">WG2014084</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/01/2023 16:16	<a href="#">WG2014826</a>
(S) Toluene-d8	88.4			77.0-127		03/01/2023 16:16	<a href="#">WG2014826</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	02/28/2023 13:52	WG2014084
Acrolein	U		2.54	50.0	1	02/28/2023 13:52	WG2014084
Acrylonitrile	U		0.671	10.0	1	02/28/2023 13:52	WG2014084
Benzene	U		0.0941	1.00	1	02/28/2023 13:52	WG2014084
Bromobenzene	U		0.118	1.00	1	02/28/2023 13:52	WG2014084
Bromodichloromethane	U		0.136	1.00	1	02/28/2023 13:52	WG2014084
Bromoform	U		0.129	1.00	1	02/28/2023 13:52	WG2014084
Bromomethane	U		0.605	5.00	1	02/28/2023 13:52	WG2014084
1,3-Butadiene	U		0.299	2.00	1	02/28/2023 13:52	WG2014084
n-Butylbenzene	U		0.157	1.00	1	02/28/2023 13:52	WG2014084
sec-Butylbenzene	U		0.125	1.00	1	02/28/2023 13:52	WG2014084
tert-Butylbenzene	U		0.127	1.00	1	02/28/2023 13:52	WG2014084
Carbon tetrachloride	U		0.128	1.00	1	02/28/2023 13:52	WG2014084
Carbon disulfide	U		0.0962	1.00	1	02/28/2023 13:52	WG2014084
Chlorobenzene	U		0.116	1.00	1	02/28/2023 13:52	WG2014084
Chlorodibromomethane	U		0.140	1.00	1	02/28/2023 13:52	WG2014084
Chloroethane	U		0.192	5.00	1	02/28/2023 13:52	WG2014084
Chloroform	U		0.111	5.00	1	02/28/2023 13:52	WG2014084
Chloromethane	U	R7	0.960	2.50	1	02/28/2023 13:52	WG2014084
Cyclohexane	U		0.188	1.00	1	02/28/2023 13:52	WG2014084
2-Chlorotoluene	U		0.106	1.00	1	02/28/2023 13:52	WG2014084
4-Chlorotoluene	U		0.114	1.00	1	02/28/2023 13:52	WG2014084
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	02/28/2023 13:52	WG2014084
1,2-Dibromoethane	U		0.126	1.00	1	02/28/2023 13:52	WG2014084
Dibromomethane	U		0.122	1.00	1	02/28/2023 13:52	WG2014084
1,2-Dichlorobenzene	U		0.107	1.00	1	02/28/2023 13:52	WG2014084
1,3-Dichlorobenzene	U		0.110	1.00	1	02/28/2023 13:52	WG2014084
1,4-Dichlorobenzene	U		0.120	1.00	1	02/28/2023 13:52	WG2014084
Dichlorodifluoromethane	U	R7	0.374	5.00	1	02/28/2023 13:52	WG2014084
1,1-Dichloroethane	U		0.100	1.00	1	02/28/2023 13:52	WG2014084
1,2-Dichloroethane	U		0.0819	1.00	1	02/28/2023 13:52	WG2014084
1,1-Dichloroethene	U		0.188	1.00	1	02/28/2023 13:52	WG2014084
cis-1,2-Dichloroethene	U		0.126	1.00	1	02/28/2023 13:52	WG2014084
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/28/2023 13:52	WG2014084
1,2-Dichloropropane	U		0.149	1.00	1	02/28/2023 13:52	WG2014084
1,1-Dichloropropene	U		0.142	1.00	1	02/28/2023 13:52	WG2014084
1,3-Dichloropropane	U		0.110	1.00	1	02/28/2023 13:52	WG2014084
cis-1,3-Dichloropropene	U		0.111	1.00	1	02/28/2023 13:52	WG2014084
trans-1,3-Dichloropropene	U		0.118	1.00	1	02/28/2023 13:52	WG2014084
2,2-Dichloropropane	U		0.161	1.00	1	02/28/2023 13:52	WG2014084
Dicyclopentadiene	U		0.253	1.00	1	02/28/2023 13:52	WG2014084
Di-isopropyl ether	U		0.105	1.00	1	02/28/2023 13:52	WG2014084
Ethylbenzene	U		0.137	1.00	1	02/28/2023 13:52	WG2014084
4-Ethyltoluene	U		0.208	1.00	1	02/28/2023 13:52	WG2014084
Hexachloro-1,3-butadiene	U		0.337	1.00	1	02/28/2023 13:52	WG2014084
n-Hexane	U		0.749	10.0	1	02/28/2023 13:52	WG2014084
Isopropylbenzene	U		0.105	1.00	1	02/28/2023 13:52	WG2014084
p-Isopropyltoluene	U		0.120	1.00	1	02/28/2023 13:52	WG2014084
2-Butanone (MEK)	U		1.19	10.0	1	02/28/2023 13:52	WG2014084
Methyl Cyclohexane	U		0.660	1.00	1	02/28/2023 13:52	WG2014084
Methylene Chloride	U		0.430	5.00	1	02/28/2023 13:52	WG2014084
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	02/28/2023 13:52	WG2014084
Methyl tert-butyl ether	U		0.101	1.00	1	02/28/2023 13:52	WG2014084
Naphthalene	U		1.00	5.00	1	02/28/2023 13:52	WG2014084
Propene	U		0.936	2.50	1	02/28/2023 13:52	WG2014084
n-Propylbenzene	U		0.0993	1.00	1	02/28/2023 13:52	WG2014084

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.118	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
Tetrachloroethene	U		0.300	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
Toluene	U		0.278	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
Trichloroethene	U		0.190	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
Trichlorofluoromethane	U		0.160	5.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
Vinyl chloride	U		0.234	1.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
Xylenes, Total	U		0.174	3.00	1	02/28/2023 13:52	<a href="#">WG2014084</a>
(S) Toluene-d8	111			80.0-120		02/28/2023 13:52	<a href="#">WG2014084</a>
(S) 4-Bromofluorobenzene	108			77.0-126		02/28/2023 13:52	<a href="#">WG2014084</a>
(S) 1,2-Dichloroethane-d4	97.7			70.0-130		02/28/2023 13:52	<a href="#">WG2014084</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/01/2023 14:33	<a href="#">WG2014826</a>
(S) Toluene-d8	88.9			77.0-127		03/01/2023 14:33	<a href="#">WG2014826</a>

Method Blank (MB)

(MB) R3897235-1 02/28/23 01:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1589562-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1589562-10 03/01/23 04:11 • (DUP) R3897235-9 03/01/23 04:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	94900	94200	2000	0.732		15

Sample Narrative:

OS: 2,000x

Laboratory Control Sample (LCS)

(LCS) R3897235-2 02/28/23 03:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Perchlorate	10.0	10.5	105	90.0-110	

L1589562-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589562-01 02/28/23 22:27 • (MS) R3897235-7 02/28/23 22:58 • (MSD) R3897235-8 02/28/23 23:27

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Perchlorate	2000	8350	10300	10200	99.1	91.8	200	80.0-120			1.42	15

Sample Narrative:

OS: 200x

Method Blank (MB)

(MB) R3897236-2 02/28/23 03:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

L1589557-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1589557-03 02/28/23 04:51 • (DUP) R3897236-3 02/28/23 05:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	69.3	66.3	1	4.37		15

Laboratory Control Sample (LCS)

(LCS) R3897236-1 02/28/23 03:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Perchlorate	10.0	10.5	105	90.0-110	

L1589557-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589557-06 02/28/23 07:44 • (MS) R3897236-4 02/28/23 08:12 • (MSD) R3897236-5 02/28/23 08:41

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Perchlorate	10.0	87.4	98.7	99.8	113	124	1	80.0-120		M3	1.12	15

L1589557-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1589557-03 02/28/23 04:51 • (MS) R3897236-6 02/28/23 19:34

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Perchlorate	10.0	69.3	75.8	65.4	1	80.0-120	M3

L1589557-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1589557-04 02/28/23 05:50 • (MS) R3897236-7 02/28/23 20:03

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Perchlorate	10.0	2.82	13.7	109	1	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1589557-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1589557-05 02/28/23 06:19 • (MS) R3897236-8 02/28/23 20:31

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Perchlorate	10.0	2.10	12.5	104	1	80.0-120	

L1589557-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1589557-07 02/28/23 09:09 • (MS) R3897236-9 02/28/23 20:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Perchlorate	10.0	28.2	38.5	103	1	80.0-120	

L1589557-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1589557-10 02/28/23 10:34 • (MS) R3897236-10 02/28/23 21:28

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Perchlorate	10.0	U	11.1	111	1	80.0-120	

L1589562-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1589562-03 02/28/23 13:53 • (MS) R3897236-11 02/28/23 21:56

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Perchlorate	10.0	8.80	19.0	102	1	80.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3896567-3 02/27/23 10:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Carbon disulfide	U		0.0962	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3896567-3 02/27/23 10:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	101			80.0-120
(S) 4-Bromofluorobenzene	84.8			77.0-126
(S) 1,2-Dichloroethane-d4	114			70.0-130

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

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

(LCS) R3896567-1 02/27/23 09:44 • (LCSD) R3896567-2 02/27/23 10:04

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	25.0	37.4	40.3	150	161	19.0-160		L1	7.46	27
Acrolein	25.0	15.3	17.3	61.2	69.2	30.0-160			12.3	26
Acrylonitrile	25.0	30.1	31.9	120	128	55.0-149			5.81	20
Benzene	5.00	5.54	6.05	111	121	70.0-123			8.80	20
Bromobenzene	5.00	5.35	5.99	107	120	73.0-121			11.3	20
Bromodichloromethane	5.00	5.71	6.10	114	122	75.0-120		L1	6.60	20
Bromoform	5.00	4.40	4.56	88.0	91.2	68.0-132			3.57	20
Bromomethane	5.00	4.86	5.60	97.2	112	30.0-160			14.1	25
1,3-Butadiene	5.00	5.48	6.05	110	121	45.0-147			9.89	20
n-Butylbenzene	5.00	4.56	5.26	91.2	105	73.0-125			14.3	20
sec-Butylbenzene	5.00	4.70	5.29	94.0	106	75.0-125			11.8	20
tert-Butylbenzene	5.00	4.75	5.25	95.0	105	76.0-124			10.0	20
Carbon tetrachloride	5.00	5.52	5.83	110	117	68.0-126			5.46	20
Carbon disulfide	5.00	4.68	5.43	93.6	109	61.0-128			14.8	20
Chlorobenzene	5.00	4.83	5.48	96.6	110	80.0-121			12.6	20
Chlorodibromomethane	5.00	4.91	5.13	98.2	103	77.0-125			4.38	20
Chloroethane	5.00	5.85	6.11	117	122	47.0-150			4.35	20
Chloroform	5.00	5.56	6.02	111	120	73.0-120			7.94	20
Chloromethane	5.00	5.60	5.37	112	107	41.0-142			4.19	20
Cyclohexane	5.00	4.81	5.46	96.2	109	71.0-124			12.7	20
2-Chlorotoluene	5.00	5.29	6.00	106	120	76.0-123			12.6	20
4-Chlorotoluene	5.00	4.98	5.56	99.6	111	75.0-122			11.0	20
1,2-Dibromo-3-Chloropropane	5.00	4.52	4.73	90.4	94.6	58.0-134			4.54	20
1,2-Dibromoethane	5.00	4.83	4.95	96.6	99.0	80.0-122			2.45	20
Dibromomethane	5.00	5.55	5.88	111	118	80.0-120			5.77	20
1,2-Dichlorobenzene	5.00	4.77	5.27	95.4	105	79.0-121			9.96	20
1,3-Dichlorobenzene	5.00	4.90	5.42	98.0	108	79.0-120			10.1	20
1,4-Dichlorobenzene	5.00	4.92	5.60	98.4	112	79.0-120			12.9	20
Dichlorodifluoromethane	5.00	5.68	5.56	114	111	51.0-149			2.14	20
1,1-Dichloroethane	5.00	5.50	6.01	110	120	70.0-126			8.86	20
1,2-Dichloroethane	5.00	5.71	6.17	114	123	70.0-128			7.74	20
1,1-Dichloroethene	5.00	4.95	5.44	99.0	109	71.0-124			9.43	20
cis-1,2-Dichloroethene	5.00	5.17	5.49	103	110	73.0-120			6.00	20
trans-1,2-Dichloroethene	5.00	5.14	5.74	103	115	73.0-120			11.0	20
1,2-Dichloropropane	5.00	5.52	6.04	110	121	77.0-125			9.00	20
1,1-Dichloropropene	5.00	5.10	5.61	102	112	74.0-126			9.52	20
1,3-Dichloropropane	5.00	4.83	5.01	96.6	100	80.0-120			3.66	20
cis-1,3-Dichloropropene	5.00	5.07	5.72	101	114	80.0-123			12.0	20
trans-1,3-Dichloropropene	5.00	4.82	5.14	96.4	103	78.0-124			6.43	20
2,2-Dichloropropane	5.00	5.81	6.34	116	127	58.0-130			8.72	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

(LCS) R3896567-1 02/27/23 09:44 • (LCSD) R3896567-2 02/27/23 10:04

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 %
Dicyclopentadiene	5.00	5.21	5.89	104	118	74.0-126			12.3	20
Di-isopropyl ether	5.00	5.48	5.94	110	119	58.0-138			8.06	20
Ethylbenzene	5.00	4.63	5.22	92.6	104	79.0-123			12.0	20
4-Ethyltoluene	5.00	4.95	5.55	99.0	111	74.0-127			11.4	20
Hexachloro-1,3-butadiene	5.00	4.16	4.61	83.2	92.2	54.0-138			10.3	20
n-Hexane	5.00	5.71	6.39	114	128	57.0-133			11.2	20
Isopropylbenzene	5.00	4.28	4.61	85.6	92.2	76.0-127			7.42	20
p-Isopropyltoluene	5.00	4.56	5.13	91.2	103	76.0-125			11.8	20
2-Butanone (MEK)	25.0	30.6	32.8	122	131	44.0-160			6.94	20
Methyl Cyclohexane	5.00	4.57	5.16	91.4	103	68.0-126			12.1	20
Methylene Chloride	5.00	5.22	5.81	104	116	67.0-120			10.7	20
4-Methyl-2-pentanone (MIBK)	25.0	27.9	27.9	112	112	68.0-142			0.000	20
Methyl tert-butyl ether	5.00	5.19	5.63	104	113	68.0-125			8.13	20
Naphthalene	5.00	3.63	4.44	72.6	88.8	54.0-135		<u>R7</u>	20.1	20
Propene	5.00	4.51	5.34	90.2	107	30.0-160			16.9	20
n-Propylbenzene	5.00	5.11	5.64	102	113	77.0-124			9.86	20
Styrene	5.00	4.38	4.82	87.6	96.4	73.0-130			9.57	20
1,1,1,2-Tetrachloroethane	5.00	4.58	5.38	91.6	108	75.0-125			16.1	20
1,1,2,2-Tetrachloroethane	5.00	5.45	5.79	109	116	65.0-130			6.05	20
1,1,2-Trichlorotrifluoroethane	5.00	5.27	5.80	105	116	69.0-132			9.58	20
Tetrachloroethene	5.00	4.73	4.89	94.6	97.8	72.0-132			3.33	20
Toluene	5.00	4.82	5.09	96.4	102	79.0-120			5.45	20
1,2,3-Trichlorobenzene	5.00	3.91	5.00	78.2	100	50.0-138		<u>R7</u>	24.5	20
1,2,4-Trichlorobenzene	5.00	3.94	4.49	78.8	89.8	57.0-137			13.0	20
1,1,1-Trichloroethane	5.00	5.43	5.79	109	116	73.0-124			6.42	20
1,1,2-Trichloroethane	5.00	4.95	5.07	99.0	101	80.0-120			2.40	20
Trichloroethene	5.00	4.90	5.37	98.0	107	78.0-124			9.15	20
Trichlorofluoromethane	5.00	6.07	6.30	121	126	59.0-147			3.72	20
1,2,3-Trichloropropane	5.00	5.60	5.68	112	114	73.0-130			1.42	20
1,2,4-Trimethylbenzene	5.00	4.73	5.32	94.6	106	76.0-121			11.7	20
1,2,3-Trimethylbenzene	5.00	4.98	5.57	99.6	111	77.0-120			11.2	20
1,3,5-Trimethylbenzene	5.00	5.10	5.66	102	113	76.0-122			10.4	20
Vinyl chloride	5.00	4.99	5.01	99.8	100	67.0-131			0.400	20
Xylenes, Total	15.0	13.7	15.9	91.3	106	79.0-123			14.9	20
(S) Toluene-d8				98.6	95.4	80.0-120				
(S) 4-Bromofluorobenzene				86.4	84.2	77.0-126				
(S) 1,2-Dichloroethane-d4				117	116	70.0-130				

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

L1589557-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589557-06 02/27/23 14:27 • (MS) R3896567-4 02/27/23 19:17 • (MSD) R3896567-5 02/27/23 19:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	43.1	41.5	172	166	1	10.0-160	M1	M1	3.78	35
Acrolein	25.0	U	22.9	23.3	91.6	93.2	1	10.0-160			1.73	39
Acrylonitrile	25.0	U	33.2	32.1	133	128	1	21.0-160			3.37	32
Benzene	5.00	U	6.04	5.69	121	114	1	17.0-158			5.97	27
Bromobenzene	5.00	U	5.88	5.68	118	114	1	30.0-149			3.46	28
Bromodichloromethane	5.00	U	6.06	5.96	121	119	1	31.0-150			1.66	27
Bromoform	5.00	U	4.83	4.49	96.6	89.8	1	29.0-150			7.30	29
Bromomethane	5.00	U	5.67	5.48	113	110	1	10.0-160			3.41	38
1,3-Butadiene	5.00	U	6.36	6.25	127	125	1	10.0-160			1.74	22
n-Butylbenzene	5.00	U	5.32	5.07	106	101	1	31.0-150			4.81	30
sec-Butylbenzene	5.00	U	5.38	5.12	108	102	1	33.0-155			4.95	29
tert-Butylbenzene	5.00	U	5.41	5.13	108	103	1	34.0-153			5.31	28
Carbon tetrachloride	5.00	U	6.08	5.84	122	117	1	23.0-159			4.03	28
Carbon disulfide	5.00	U	4.49	4.72	89.8	94.4	1	10.0-156			4.99	28
Chlorobenzene	5.00	U	5.22	5.04	104	101	1	33.0-152			3.51	27
Chlorodibromomethane	5.00	U	5.25	5.08	105	102	1	37.0-149			3.29	27
Chloroethane	5.00	U	6.39	6.57	128	131	1	10.0-160			2.78	30
Chloroform	5.00	0.179	6.44	6.09	125	118	1	29.0-154			5.59	28
Chloromethane	5.00	U	5.80	5.71	116	114	1	10.0-160			1.56	29
Cyclohexane	5.00	U	5.25	4.97	105	99.4	1	19.0-160			5.48	23
2-Chlorotoluene	5.00	U	5.90	5.74	118	115	1	32.0-153			2.75	28
4-Chlorotoluene	5.00	U	5.58	5.39	112	108	1	32.0-150			3.46	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.40	5.63	108	113	1	22.0-151			4.17	34
1,2-Dibromoethane	5.00	U	4.89	4.65	97.8	93.0	1	34.0-147			5.03	27
Dibromomethane	5.00	U	5.86	5.64	117	113	1	30.0-151			3.83	27
1,2-Dichlorobenzene	5.00	U	5.15	5.71	103	114	1	34.0-149			10.3	28
1,3-Dichlorobenzene	5.00	U	5.40	5.30	108	106	1	36.0-146			1.87	27
1,4-Dichlorobenzene	5.00	U	5.45	5.32	109	106	1	35.0-142			2.41	27
Dichlorodifluoromethane	5.00	U	6.26	5.70	125	114	1	10.0-160			9.36	29
1,1-Dichloroethane	5.00	U	6.01	5.84	120	117	1	25.0-158			2.87	27
1,2-Dichloroethane	5.00	U	6.18	5.99	124	120	1	29.0-151			3.12	27
1,1-Dichloroethene	5.00	1.44	6.61	6.70	103	105	1	11.0-160			1.35	29
cis-1,2-Dichloroethene	5.00	U	5.53	5.20	111	104	1	10.0-160			6.15	27
trans-1,2-Dichloroethene	5.00	U	5.62	5.23	112	105	1	17.0-153			7.19	27
1,2-Dichloropropane	5.00	U	6.29	5.74	126	115	1	30.0-156			9.14	27
1,1-Dichloropropene	5.00	U	5.61	5.32	112	106	1	25.0-158			5.31	27
1,3-Dichloropropane	5.00	U	5.19	4.90	104	98.0	1	38.0-147			5.75	27
cis-1,3-Dichloropropene	5.00	U	5.27	5.64	105	113	1	34.0-149			6.78	28
trans-1,3-Dichloropropene	5.00	U	5.20	4.98	104	99.6	1	32.0-149			4.32	28
2,2-Dichloropropane	5.00	U	6.49	6.24	130	125	1	24.0-152			3.93	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1589557-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589557-06 02/27/23 14:27 • (MS) R3896567-4 02/27/23 19:17 • (MSD) R3896567-5 02/27/23 19:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	5.91	5.64	118	113	1	51.0-139			4.68	20
Di-isopropyl ether	5.00	U	5.80	5.57	116	111	1	21.0-160			4.05	28
Ethylbenzene	5.00	U	4.94	4.80	98.8	96.0	1	30.0-155			2.87	27
4-Ethyltoluene	5.00	U	5.46	5.24	109	105	1	10.0-160			4.11	20
Hexachloro-1,3-butadiene	5.00	U	5.32	4.94	106	98.8	1	20.0-154			7.41	34
n-Hexane	5.00	U	6.29	5.84	126	117	1	10.0-153			7.42	28
Isopropylbenzene	5.00	U	4.72	4.48	94.4	89.6	1	28.0-157			5.22	27
p-Isopropyltoluene	5.00	U	5.12	4.92	102	98.4	1	30.0-154			3.98	29
2-Butanone (MEK)	25.0	U	32.3	31.9	129	128	1	10.0-160			1.25	32
Methyl Cyclohexane	5.00	U	5.10	4.78	102	95.6	1	11.0-160			6.48	24
Methylene Chloride	5.00	U	5.60	5.21	112	104	1	23.0-144			7.22	28
4-Methyl-2-pentanone (MIBK)	25.0	U	29.5	30.7	118	123	1	29.0-160			3.99	29
Methyl tert-butyl ether	5.00	U	5.33	5.18	107	104	1	28.0-150			2.85	29
Naphthalene	5.00	U	4.38	3.72	87.6	74.4	1	12.0-156			16.3	35
Propene	5.00	U	5.25	4.92	105	98.4	1	10.0-160			6.49	29
n-Propylbenzene	5.00	U	5.64	5.51	113	110	1	31.0-154			2.33	28
Styrene	5.00	U	4.65	4.47	93.0	89.4	1	33.0-155			3.95	28
1,1,1,2-Tetrachloroethane	5.00	U	5.11	4.81	102	96.2	1	36.0-151			6.05	29
1,1,2,2-Tetrachloroethane	5.00	U	6.24	6.02	125	120	1	33.0-150			3.59	28
1,1,2-Trichlorotrifluoroethane	5.00	U	6.07	6.27	121	125	1	23.0-160			3.24	30
Tetrachloroethene	5.00	U	5.04	4.76	101	95.2	1	10.0-160			5.71	27
Toluene	5.00	U	5.14	5.45	103	109	1	26.0-154			5.85	28
1,2,3-Trichlorobenzene	5.00	U	5.02	4.12	100	82.4	1	17.0-150			19.7	36
1,2,4-Trichlorobenzene	5.00	U	4.96	4.55	99.2	91.0	1	24.0-150			8.62	33
1,1,1-Trichloroethane	5.00	U	5.97	5.79	119	116	1	23.0-160			3.06	28
1,1,2-Trichloroethane	5.00	U	5.37	5.07	107	101	1	35.0-147			5.75	27
Trichloroethene	5.00	3.12	10.7	9.10	152	120	1	10.0-160			16.2	25
Trichlorofluoromethane	5.00	U	7.17	7.43	143	149	1	17.0-160			3.56	31
1,2,3-Trichloropropane	5.00	U	5.78	5.74	116	115	1	34.0-151			0.694	29
1,2,4-Trimethylbenzene	5.00	U	5.18	4.98	104	99.6	1	26.0-154			3.94	27
1,2,3-Trimethylbenzene	5.00	U	5.45	5.16	109	103	1	32.0-149			5.47	28
1,3,5-Trimethylbenzene	5.00	U	5.53	5.37	111	107	1	28.0-153			2.94	27
Vinyl chloride	5.00	U	5.61	5.68	112	114	1	10.0-160			1.24	27
Xylenes, Total	15.0	U	14.8	14.1	98.7	94.0	1	29.0-154			4.84	28
(S) Toluene-d8					96.5	108		80.0-120				
(S) 4-Bromofluorobenzene					85.0	84.1		77.0-126				
(S) 1,2-Dichloroethane-d4					119	118		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3895984-3 02/28/23 10:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Carbon disulfide	U		0.0962	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3895984-3 02/28/23 10:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	115			80.0-120
(S) 4-Bromofluorobenzene	110			77.0-126
(S) 1,2-Dichloroethane-d4	93.4			70.0-130

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

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

(LCS) R3895984-1 02/28/23 08:46 • (LCSD) R3895984-2 02/28/23 09:06

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	25.0	24.3	25.0	97.2	100	19.0-160			2.84	27
Acrolein	25.0	27.2	30.7	109	123	30.0-160			12.1	26
Acrylonitrile	25.0	27.9	27.8	112	111	55.0-149			0.359	20
Benzene	5.00	5.27	5.16	105	103	70.0-123			2.11	20
Bromobenzene	5.00	4.40	4.87	88.0	97.4	73.0-121			10.1	20
Bromodichloromethane	5.00	4.84	4.89	96.8	97.8	75.0-120			1.03	20
Bromoform	5.00	5.38	5.16	108	103	68.0-132			4.17	20
Bromomethane	5.00	4.89	5.66	97.8	113	30.0-160			14.6	25
1,3-Butadiene	5.00	4.98	4.73	99.6	94.6	45.0-147			5.15	20
n-Butylbenzene	5.00	4.88	5.16	97.6	103	73.0-125			5.58	20
sec-Butylbenzene	5.00	4.95	5.07	99.0	101	75.0-125			2.40	20
tert-Butylbenzene	5.00	4.78	5.00	95.6	100	76.0-124			4.50	20
Carbon tetrachloride	5.00	4.95	4.77	99.0	95.4	68.0-126			3.70	20
Carbon disulfide	5.00	5.00	5.17	100	103	61.0-128			3.34	20
Chlorobenzene	5.00	4.98	5.20	99.6	104	80.0-121			4.32	20
Chlorodibromomethane	5.00	5.32	5.12	106	102	77.0-125			3.83	20
Chloroethane	5.00	5.05	6.04	101	121	47.0-150			17.9	20
Chloroform	5.00	4.79	5.06	95.8	101	73.0-120			5.48	20
Chloromethane	5.00	3.89	5.50	77.8	110	41.0-142		R7	34.3	20
Cyclohexane	5.00	5.33	5.29	107	106	71.0-124			0.753	20
2-Chlorotoluene	5.00	4.48	5.10	89.6	102	76.0-123			12.9	20
4-Chlorotoluene	5.00	4.66	4.65	93.2	93.0	75.0-122			0.215	20
1,2-Dibromo-3-Chloropropane	5.00	4.86	4.39	97.2	87.8	58.0-134			10.2	20
1,2-Dibromoethane	5.00	4.98	5.08	99.6	102	80.0-122			1.99	20
Dibromomethane	5.00	5.06	4.74	101	94.8	80.0-120			6.53	20
1,2-Dichlorobenzene	5.00	4.90	5.18	98.0	104	79.0-121			5.56	20
1,3-Dichlorobenzene	5.00	4.55	4.94	91.0	98.8	79.0-120			8.22	20
1,4-Dichlorobenzene	5.00	4.73	5.05	94.6	101	79.0-120			6.54	20
Dichlorodifluoromethane	5.00	4.01	5.03	80.2	101	51.0-149		R7	22.6	20
1,1-Dichloroethane	5.00	4.86	5.00	97.2	100	70.0-126			2.84	20
1,2-Dichloroethane	5.00	4.64	4.81	92.8	96.2	70.0-128			3.60	20
1,1-Dichloroethene	5.00	5.02	4.78	100	95.6	71.0-124			4.90	20
cis-1,2-Dichloroethene	5.00	4.70	5.15	94.0	103	73.0-120			9.14	20
trans-1,2-Dichloroethene	5.00	5.18	5.37	104	107	73.0-120			3.60	20
1,2-Dichloropropane	5.00	5.17	5.29	103	106	77.0-125			2.29	20
1,1-Dichloropropene	5.00	5.09	5.13	102	103	74.0-126			0.783	20
1,3-Dichloropropane	5.00	5.25	5.36	105	107	80.0-120			2.07	20
cis-1,3-Dichloropropene	5.00	4.81	5.17	96.2	103	80.0-123			7.21	20
trans-1,3-Dichloropropene	5.00	5.20	5.51	104	110	78.0-124			5.79	20
2,2-Dichloropropane	5.00	5.23	5.36	105	107	58.0-130			2.46	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



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

(LCS) R3895984-1 02/28/23 08:46 • (LCSD) R3895984-2 02/28/23 09:06

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 %
Dicyclopentadiene	5.00	4.85	5.04	97.0	101	74.0-126			3.84	20
Di-isopropyl ether	5.00	5.17	5.30	103	106	58.0-138			2.48	20
Ethylbenzene	5.00	5.15	5.24	103	105	79.0-123			1.73	20
4-Ethyltoluene	5.00	4.87	5.12	97.4	102	74.0-127			5.01	20
Hexachloro-1,3-butadiene	5.00	5.41	5.43	108	109	54.0-138			0.369	20
n-Hexane	5.00	5.02	5.51	100	110	57.0-133			9.31	20
Isopropylbenzene	5.00	5.00	5.23	100	105	76.0-127			4.50	20
p-Isopropyltoluene	5.00	4.88	5.30	97.6	106	76.0-125			8.25	20
2-Butanone (MEK)	25.0	24.8	25.3	99.2	101	44.0-160			2.00	20
Methyl Cyclohexane	5.00	5.12	5.20	102	104	68.0-126			1.55	20
Methylene Chloride	5.00	4.88	5.45	97.6	109	67.0-120			11.0	20
4-Methyl-2-pentanone (MIBK)	25.0	27.3	28.7	109	115	68.0-142			5.00	20
Methyl tert-butyl ether	5.00	5.18	5.26	104	105	68.0-125			1.53	20
Naphthalene	5.00	4.58	4.87	91.6	97.4	54.0-135			6.14	20
Propene	5.00	5.91	5.39	118	108	30.0-160			9.20	20
n-Propylbenzene	5.00	4.56	4.91	91.2	98.2	77.0-124			7.39	20
Styrene	5.00	4.91	5.33	98.2	107	73.0-130			8.20	20
1,1,1,2-Tetrachloroethane	5.00	4.85	5.05	97.0	101	75.0-125			4.04	20
1,1,2,2-Tetrachloroethane	5.00	4.87	5.08	97.4	102	65.0-130			4.22	20
1,1,2-Trichlorotrifluoroethane	5.00	5.59	4.99	112	99.8	69.0-132			11.3	20
Tetrachloroethene	5.00	5.37	5.04	107	101	72.0-132			6.34	20
Toluene	5.00	4.97	5.00	99.4	100	79.0-120			0.602	20
1,2,3-Trichlorobenzene	5.00	4.80	5.74	96.0	115	50.0-138			17.8	20
1,2,4-Trichlorobenzene	5.00	4.79	5.38	95.8	108	57.0-137			11.6	20
1,1,1-Trichloroethane	5.00	4.89	4.84	97.8	96.8	73.0-124			1.03	20
1,1,2-Trichloroethane	5.00	4.62	5.11	92.4	102	80.0-120			10.1	20
Trichloroethene	5.00	5.28	5.09	106	102	78.0-124			3.66	20
Trichlorofluoromethane	5.00	4.12	4.72	82.4	94.4	59.0-147			13.6	20
1,2,3-Trichloropropane	5.00	4.96	5.30	99.2	106	73.0-130			6.63	20
1,2,4-Trimethylbenzene	5.00	4.91	5.16	98.2	103	76.0-121			4.97	20
1,2,3-Trimethylbenzene	5.00	4.76	5.09	95.2	102	77.0-120			6.70	20
1,3,5-Trimethylbenzene	5.00	5.10	5.19	102	104	76.0-122			1.75	20
Vinyl chloride	5.00	4.51	5.48	90.2	110	67.0-131			19.4	20
Xylenes, Total	15.0	15.2	15.4	101	103	79.0-123			1.31	20
(S) Toluene-d8				109	109	80.0-120				
(S) 4-Bromofluorobenzene				109	103	77.0-126				
(S) 1,2-Dichloroethane-d4				94.5	93.8	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1589562-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589562-01 02/28/23 16:17 • (MS) R3895984-4 02/28/23 21:25 • (MSD) R3895984-5 02/28/23 21:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	26.7	25.4	107	102	1	10.0-160			4.99	35
Acrolein	25.0	U	34.2	32.1	137	128	1	10.0-160			6.33	39
Acrylonitrile	25.0	U	33.5	32.5	134	130	1	21.0-160			3.03	32
Benzene	5.00	0.183	6.86	7.02	134	137	1	17.0-158			2.31	27
Bromobenzene	5.00	U	5.84	6.27	117	125	1	30.0-149			7.10	28
Bromodichloromethane	5.00	U	6.84	6.77	137	135	1	31.0-150			1.03	27
Bromoform	5.00	U	6.62	6.76	132	135	1	29.0-150			2.09	29
Bromomethane	5.00	U	5.37	5.64	107	113	1	10.0-160			4.90	38
1,3-Butadiene	5.00	U	7.46	6.86	149	137	1	10.0-160			8.38	22
n-Butylbenzene	5.00	U	6.61	7.17	132	143	1	31.0-150			8.13	30
sec-Butylbenzene	5.00	U	6.87	7.26	137	145	1	33.0-155			5.52	29
tert-Butylbenzene	5.00	U	6.53	6.85	131	137	1	34.0-153			4.78	28
Carbon tetrachloride	5.00	U	7.62	7.66	152	153	1	23.0-159			0.524	28
Carbon disulfide	5.00	U	6.23	6.03	125	121	1	10.0-156			3.26	28
Chlorobenzene	5.00	U	6.47	6.82	129	136	1	33.0-152			5.27	27
Chlorodibromomethane	5.00	U	6.39	6.95	128	139	1	37.0-149			8.40	27
Chloroethane	5.00	U	6.90	7.27	138	145	1	10.0-160			5.22	30
Chloroform	5.00	0.116	7.38	7.20	145	142	1	29.0-154			2.47	28
Chloromethane	5.00	U	5.39	5.15	108	103	1	10.0-160			4.55	29
Cyclohexane	5.00	U	7.30	7.26	146	145	1	19.0-160			0.549	23
2-Chlorotoluene	5.00	U	6.48	6.77	130	135	1	32.0-153			4.38	28
4-Chlorotoluene	5.00	U	6.29	6.56	126	131	1	32.0-150			4.20	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.87	5.73	117	115	1	22.0-151			2.41	34
1,2-Dibromoethane	5.00	U	6.60	6.50	132	130	1	34.0-147			1.53	27
Dibromomethane	5.00	U	6.71	6.70	134	134	1	30.0-151			0.149	27
1,2-Dichlorobenzene	5.00	U	6.31	6.55	126	131	1	34.0-149			3.73	28
1,3-Dichlorobenzene	5.00	U	6.27	6.91	125	138	1	36.0-146			9.71	27
1,4-Dichlorobenzene	5.00	U	6.67	6.94	133	139	1	35.0-142			3.97	27
Dichlorodifluoromethane	5.00	U	6.35	5.85	127	117	1	10.0-160			8.20	29
1,1-Dichloroethane	5.00	U	7.03	6.82	141	136	1	25.0-158			3.03	27
1,2-Dichloroethane	5.00	U	6.90	6.62	138	132	1	29.0-151			4.14	27
1,1-Dichloroethene	5.00	0.857	7.69	7.52	137	133	1	11.0-160			2.24	29
cis-1,2-Dichloroethene	5.00	U	7.41	6.82	148	136	1	10.0-160			8.29	27
trans-1,2-Dichloroethene	5.00	U	7.09	6.23	142	125	1	17.0-153			12.9	27
1,2-Dichloropropane	5.00	U	7.06	6.84	141	137	1	30.0-156			3.17	27
1,1-Dichloropropene	5.00	U	7.41	7.03	148	141	1	25.0-158			5.26	27
1,3-Dichloropropane	5.00	U	6.43	6.44	129	129	1	38.0-147			0.155	27
cis-1,3-Dichloropropene	5.00	U	6.35	6.25	127	125	1	34.0-149			1.59	28
trans-1,3-Dichloropropene	5.00	U	6.00	6.39	120	128	1	32.0-149			6.30	28
2,2-Dichloropropane	5.00	U	7.54	7.25	151	145	1	24.0-152			3.92	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1589562-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589562-01 02/28/23 16:17 • (MS) R3895984-4 02/28/23 21:25 • (MSD) R3895984-5 02/28/23 21:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	5.27	5.04	105	101	1	51.0-139			4.46	20
Di-isopropyl ether	5.00	U	6.61	6.55	132	131	1	21.0-160			0.912	28
Ethylbenzene	5.00	U	6.92	6.83	138	137	1	30.0-155			1.31	27
4-Ethyltoluene	5.00	U	6.41	6.97	128	139	1	10.0-160			8.37	20
Hexachloro-1,3-butadiene	5.00	U	7.19	7.29	144	146	1	20.0-154			1.38	34
n-Hexane	5.00	U	5.96	6.51	119	130	1	10.0-153			8.82	28
Isopropylbenzene	5.00	U	6.72	7.10	134	142	1	28.0-157			5.50	27
p-Isopropyltoluene	5.00	U	6.53	7.11	131	142	1	30.0-154			8.50	29
2-Butanone (MEK)	25.0	U	28.6	29.0	114	116	1	10.0-160			1.39	32
Methyl Cyclohexane	5.00	U	6.72	6.79	134	136	1	11.0-160			1.04	24
Methylene Chloride	5.00	U	6.73	6.95	135	139	1	23.0-144			3.22	28
4-Methyl-2-pentanone (MIBK)	25.0	U	32.1	33.2	128	133	1	29.0-160			3.37	29
Methyl tert-butyl ether	5.00	U	6.70	7.05	134	141	1	28.0-150			5.09	29
Naphthalene	5.00	U	5.10	5.92	102	118	1	12.0-156			14.9	35
Propene	5.00	U	7.76	7.75	155	155	1	10.0-160			0.129	29
n-Propylbenzene	5.00	U	6.48	6.82	130	136	1	31.0-154			5.11	28
Styrene	5.00	U	6.23	6.54	125	131	1	33.0-155			4.86	28
1,1,1,2-Tetrachloroethane	5.00	U	6.23	6.89	125	138	1	36.0-151			10.1	29
1,1,2,2-Tetrachloroethane	5.00	U	6.12	6.27	122	125	1	33.0-150			2.42	28
1,1,2-Trichlorotrifluoroethane	5.00	U	7.79	7.25	156	145	1	23.0-160			7.18	30
Tetrachloroethene	5.00	U	6.70	6.77	134	135	1	10.0-160			1.04	27
Toluene	5.00	U	6.39	6.37	128	127	1	26.0-154			0.313	28
1,2,3-Trichlorobenzene	5.00	U	6.11	6.99	122	140	1	17.0-150			13.4	36
1,2,4-Trichlorobenzene	5.00	U	6.11	6.70	122	134	1	24.0-150			9.21	33
1,1,1-Trichloroethane	5.00	U	7.76	7.93	155	159	1	23.0-160			2.17	28
1,1,2-Trichloroethane	5.00	U	6.10	6.20	122	124	1	35.0-147			1.63	27
Trichloroethene	5.00	5.02	13.2	12.2	164	144	1	10.0-160	M1		7.87	25
Trichlorofluoromethane	5.00	U	6.63	6.61	133	132	1	17.0-160			0.302	31
1,2,3-Trichloropropane	5.00	U	6.51	6.58	130	132	1	34.0-151			1.07	29
1,2,4-Trimethylbenzene	5.00	U	6.51	6.72	130	134	1	26.0-154			3.17	27
1,2,3-Trimethylbenzene	5.00	U	6.31	6.51	126	130	1	32.0-149			3.12	28
1,3,5-Trimethylbenzene	5.00	U	6.58	6.94	132	139	1	28.0-153			5.33	27
Vinyl chloride	5.00	U	6.33	6.06	127	121	1	10.0-160			4.36	27
Xylenes, Total	15.0	U	20.3	20.9	135	139	1	29.0-154			2.91	28
(S) Toluene-d8					104	102		80.0-120				
(S) 4-Bromofluorobenzene					106	107		77.0-126				
(S) 1,2-Dichloroethane-d4					106	103		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3896837-3 03/02/23 09:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,1-Dichloroethene	U		0.188	1.00
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	104			77.0-126
(S) 1,2-Dichloroethane-d4	101			70.0-130

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

(LCS) R3896837-1 03/02/23 08:14 • (LCSD) R3896837-2 03/02/23 08:33

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,1-Dichloroethene	5.00	4.54	4.49	90.8	89.8	71.0-124			1.11	20
Trichloroethene	5.00	4.81	4.81	96.2	96.2	78.0-124			0.000	20
(S) Toluene-d8				105	102	80.0-120				
(S) 4-Bromofluorobenzene				104	101	77.0-126				
(S) 1,2-Dichloroethane-d4				98.7	100	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3897590-3 03/03/23 09:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	102			80.0-120
(S) 4-Bromofluorobenzene	104			77.0-126
(S) 1,2-Dichloroethane-d4	92.9			70.0-130

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

(LCS) R3897590-1 03/03/23 08:45 • (LCSD) R3897590-2 03/03/23 09:04

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 %
Trichloroethene	5.00	5.04	5.03	101	101	78.0-124			0.199	20
(S) Toluene-d8				99.1	100	80.0-120				
(S) 4-Bromofluorobenzene				104	105	77.0-126				
(S) 1,2-Dichloroethane-d4				98.4	94.8	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3895566-3 02/26/23 16:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	87.8			77.0-127

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

(LCS) R3895566-1 02/26/23 15:18 • (LCSD) R3895566-2 02/26/23 15:39

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
1,4-Dioxane	50.0	48.1	55.7	96.2	111	55.0-138			14.6	24
(S) Toluene-d8				88.3	88.1	77.0-127				

L1589562-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589562-01 02/26/23 21:28 • (MS) R3895566-4 02/26/23 23:51 • (MSD) R3895566-5 02/27/23 00:11

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
1,4-Dioxane	50.0	14.9	83.1	72.3	136	115	1	13.0-160			13.9	31
(S) Toluene-d8					89.8	89.3		77.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3896292-1 03/01/23 11:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	88.2			77.0-127

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

(LCS) R3896292-2 03/01/23 11:41 • (LCSD) R3896292-3 03/01/23 13:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
1,4-Dioxane	50.0	66.4	59.1	133	118	55.0-138			11.6	24
(S) Toluene-d8				87.4	88.1	77.0-127				

L1589562-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1589562-11 03/01/23 16:16 • (MS) R3896292-4 03/01/23 20:31 • (MSD) R3896292-5 03/01/23 20:52

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
1,4-Dioxane	50.0	U	78.1	62.5	156	125	1	13.0-160			22.2	31
(S) Toluene-d8					89.9	90.4		77.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3897532-3 03/05/23 17:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	100			77.0-127

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

(LCS) R3897532-1 03/05/23 16:18 • (LCSD) R3897532-2 03/05/23 16:39

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,4-Dioxane	50.0	55.2	52.8	110	106	55.0-138			4.44	24
(S) Toluene-d8				101	99.6	77.0-127				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS23 • File ID: 0228\_02

02/28/23 08:46

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0228_02	721560	353929	304456
Upper Limit		1443120	707858	608912
Lower Limit		360780	176965	152228
LCS R3895984-1 WG2014084 1x	0228_02LCS	721560	353929	304456
LCSD R3895984-2 WG2014084 1x	0228_03	708508	345541	295047
BLANK R3895984-3 WG2014084 1x	0228_07	682954	320114	280663
L1589562-12 WG2014084 1x	0228_13	657491	321057	265371
L1589562-01 WG2014084 1x	0228_20	653955	303456	263603
L1589562-11 WG2014084 1x	0228_26	613725	297863	245523
MS R3895984-4 WG2014084 1x	0228_35	539342	282099	235180
MSD R3895984-5 WG2014084 1x	0228_36	544770	274276	228526

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Instrument: VOCMS35 • File ID: 0227\_02

02/27/23 09:44

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0227_02	292568	125813	97794
Upper Limit		585136	251626	195588
Lower Limit		146284	62907	48897
LCS R3896567-1 WG2013558 1x	0227_02LCS	292568	125813	97794
LCSD R3896567-2 WG2013558 1x	0227_03	288057	128321	95906
BLANK R3896567-3 WG2013558 1x	0227_05	277999	115543	85041
L1589562-02 WG2013558 1x	0227_17	260189	106765	81385
L1589562-03 WG2013558 1x	0227_18	264241	111687	86553
L1589562-04 WG2013558 1x	0227_19	260837	108721	82058
L1589562-05 WG2013558 1x	0227_20	263812	110844	83423
L1589562-06 WG2013558 1x	0227_21	253355	105949	77686
L1589562-07 WG2013558 1x	0227_22	258493	108067	78021
L1589562-08 WG2013558 1x	0227_23	253176	105469	76710
L1589562-09 WG2013558 1x	0227_24	259788	104643	79088
L1589562-10 WG2013558 1x	0227_25	250481	103837	76414
MS R3896567-4 WG2013558 1x	0227_26	259458	111797	86680
MSD R3896567-5 WG2013558 1x	0227_27	261716	112909	86387

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS54 • File ID: 0303\_02

03/03/23 08:45

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0303_02	1789303	1023953	1019111
Upper Limit		3578606	2047906	2038222
Lower Limit		894652	511977	509556
LCS R3897590-1 WG2016398 1x	0303_02LCSC	1789303	1023953	1019111
LCSD R3897590-2 WG2016398 1x	0303_03C	1844212	1016486	1055573
BLANK R3897590-3 WG2016398 1x	0303_05C	1819099	983196.10	987539.30
L1589562-09 WG2016398 250x	0303_12	1917080	1040710	1141678

## Instrument: VOCMS57 • File ID: 0302\_02

03/02/23 08:14

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0302_02	300628.80	130114.60	137077.80
Upper Limit		601258	260229	274156
Lower Limit		150314	65057	68539
LCS R3896837-1 WG2015811 1x	0302_02LCSB	300628.80	130114.60	137077.80
LCSD R3896837-2 WG2015811 1x	0302_03B	300977.10	132660.20	140502.60
BLANK R3896837-3 WG2015811 1x	0302_06B	279662	121731.10	142531.90
L1589562-03 WG2015811 1x	0302_29	258285.20	111003.40	120117.80
L1589562-02 WG2015811 20x	0302_30	241428.50	100595.40	90600.20
L1589562-04 WG2015811 10x	0302_31	250277.30	103188.40	110436.50
L1589562-09 WG2015811 50x	0302_32	242958.60	104431.20	117008.60
L1589562-10 WG2015811 20x	0302_33	239521.70	102678.20	112279.40

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS27 • File ID: 0226\_03

02/26/23 14:57

Sample ID	File ID	8260-FLUOROBENZENE Response
Standard	0226_03	721748
Upper Limit		1443496
Lower Limit		360874
LCS R3895566-1 WG2013178 1x	0226_04	882584
LCSD R3895566-2 WG2013178 1x	0226_05	760308
BLANK R3895566-3 WG2013178 1x	0226_07	787711
L1589562-01 WG2013178 1x	0226_21	665175
L1589562-02 WG2013178 1x	0226_22	690166
L1589562-03 WG2013178 1x	0226_23	635520
L1589562-04 WG2013178 1x	0226_24	707016
L1589562-05 WG2013178 1x	0226_25	783485
L1589562-06 WG2013178 1x	0226_26	817712
L1589562-07 WG2013178 1x	0226_27	618601
MS R3895566-4 WG2013178 1x	0226_28	666885
MSD R3895566-5 WG2013178 1x	0226_29	770893

## Instrument: VOCMS27 • File ID: 0301\_03

03/01/23 10:20

Sample ID	File ID	8260-FLUOROBENZENE Response
Standard	0301_03	860354
Upper Limit		1720708
Lower Limit		430177
BLANK R3896292-1 WG2014826 1x	0301_06	676781
LCS R3896292-2 WG2014826 1x	0301_07	775691
LCSD R3896292-3 WG2014826 1x	0301_08	701305
L1589562-12 WG2014826 1x	0301_12	793688
L1589562-08 WG2014826 1x	0301_13	747419
L1589562-11 WG2014826 1x	0301_17	732654
MS R3896292-4 WG2014826 1x	0301_29	692937
MSD R3896292-5 WG2014826 1x	0301_30	741874

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS27 • File ID: 0305\_03

03/05/23 15:57

Sample ID	File ID	8260-FLUOROBENZENE Response
Standard	0305_03	1267529
Upper Limit		2535058
Lower Limit		633765
LCS R3897532-1 WG2015261 1x	0305_04B	1009120
LCSD R3897532-2 WG2015261 1x	0305_05B	1045769
BLANK R3897532-3 WG2015261 1x	0305_07B	1113309
L1589562-09 WG2015261 10x	0305_10	1041672
L1589562-10 WG2015261 1x	0305_13	1195429

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Is
- <sup>8</sup>Gl
- <sup>9</sup>Al
- <sup>10</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.



# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

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

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



**Pinyon Environmental**  
 3022 S. Vance St., Suite 200  
 Lakewood, CO. 80227

Billing Information:  
 Email To: ape@pinyon-ew.com

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859



SDG # L1589502

**B189**

Acctnum: PINYONMAZ  
 Template:  
 Prelogin:  
 PM:  
 PB:  
 Shipped Via:

Report to: Jeremy Musson

Email To: MUSSON@pinyon-ew.com

Project Description: NAMMO

City/State Collected: Mesa, AZ

Please Circle:  
 PT MT CT ET

Phone: 303-745-7697

Client Project # 722152221.002

Lab Project #

Collected by (print): Ben Boesen

Site/Facility ID #

P.O. #

Collected by (signature): [Signature]  
 Immediately Packed on Ice N     Y    ✓

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote #  
 Date Results Needed  
Standard TAT

No.  
 of  
 Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
FTU-1-50-20230223	Grob	GW	50	2/23/23	1430	10
FTU-2-114-20230223			114		1428	5
FTU-9A-61-20230223			61		1352	5
FTU-12-82-20230223			82		1348	5
FTU-13-51-20230223			51		1500	5
FTU-EXT-1-69-20230223			69		0745	5
FTU-EXT-2-74-20230223			74		0815	5
DUP-01			74		0815	5
FTU-EXT-3-76-20230223			76		0813	7
FTU-EXT-4-77-20230223			77		0815	5

Perchlorate  
 VOS (86000)  
 1.4 Dichloro (V5260LL14D)

Remarks | Sample # (lab only)

MS/MSD | -01  
 -02  
 -03  
 -04  
 -05  
 -06  
 -07  
 -08  
 -09  
 -10

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

pH \_\_\_ Temp \_\_\_  
 Flow \_\_\_ Other \_\_\_

**Sample Receipt Checklist**  
 COC Seal Present/Intact: \_\_\_ NP \_\_\_ N  
 COC Signed/Accurate: \_\_\_ Y \_\_\_ N  
 Bottles arrive intact: \_\_\_ Y \_\_\_ N  
 Correct bottles used: \_\_\_ Y \_\_\_ N  
 Sufficient volume sent: \_\_\_ Y \_\_\_ N  
 If Applicable  
 VOA Zero Headspace: \_\_\_ Y \_\_\_ N  
 Preservation Correct/Checked: \_\_\_ Y \_\_\_ N  
 RAD Screen <0.5 mR/hr: \_\_\_ Y \_\_\_ N

Relinquished by: (Signature) [Signature]

Date: 2/24/23

Time: 1716

Received by: (Signature) [Signature]

Trip Blank Received: Yes/No  
 HCL/MeOH  
 TBR

Relinquished by: (Signature) [Signature]

Date: 2/24/23

Time: 1800

Received by: (Signature) [Signature]

Temp: NSA 9C  
 Bottles Received: 2-740=27

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature) [Signature]

Date: 2-25-23 Time: 8:00

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

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Vertical handwritten notes in the middle right section.

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Small handwritten notes at the top right.

SAMPHORIS

Vertical handwritten notes on the far right edge.



Pimpon Environmental  
3002 S. Vance St. Suite 200  
Lakewood, CO 80227

Billing Information:  
cp@pimpon-env.com

Pres  
Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2



12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859



Report to: Jeremy Musson

Email To: musson@pimpon-env.com

Project Description: NAMMO

City/State Collected: Mesa, AZ

Please Circle:  
PT MT CT ET

Phone: 303-785-7617

Client Project # 722152741.002

Lab Project #

Collected by (print): Ben Boesen

Site/Facility ID #

P.O. #

Collected by (signature): *Ben Boesen*

**Rush?** (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote #  
Date Results Needed  
Standard TAT

Immediately Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Perchlorate	VOG (6A60B)	14 Cioxix (V8A60LLHD)	Remarks	Sample # (lab only)
TIV-EXT-5-90-20130223	Grab	GW	SD	2/23/23	0745	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-11
Trip Blank	-	-	-	-	-	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		-12

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> NP	<input type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<b>If Applicable</b>		
VOA Zero Headspace:	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  
 UPS  FedEx  Courier

Tracking #

Relinquished by: (Signature) *Ben Boesen*

Date: 2/24/23 Time: 1716

Received by: (Signature) *[Signature]*

Trip Blank Received: Yes / No  
 HCL / MeOH  
 TBR

Relinquished by: (Signature) *[Signature]*

Date: 2/24/23 Time: 1800

Received by: (Signature)

Temp: °C Bottles Received:

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature) *[Signature]*

Date: 2-25-23 Time: 8:00

Hold:

Condition:  
NCF / OK

Handwritten notes on the left page, including the name "K. J. ...".

Handwritten notes at the top of the left page.

Handwritten notes on the right page, including the name "K. J. ...".

**Pinyon Environmental**

Sample Delivery Group: L1590633  
Samples Received: 03/01/2023  
Project Number: 722152201.002  
Description: Nammo-TTU

Report To: Jeremy Musson  
4815 E. Carefree Highway  
#108-274  
Cave Creek, AZ 85331












Entire Report Reviewed By:



Daphne Richards  
Project Manager

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 Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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# SAMPLE SUMMARY

## TTU-3-108-20230225 L1590633-01 GW

Collected by Ben Boesen      Collected date/time 02/25/23 15:40      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	5	03/04/23 01:10	03/04/23 01:10	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 15:05	03/03/23 15:05	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017361	1	03/05/23 22:59	03/05/23 22:59	BAM	Mt. Juliet, TN



## TTU-4-57-20230225 L1590633-02 GW

Collected by Ben Boesen      Collected date/time 02/25/23 15:05      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2018776	1	03/03/23 11:54	03/03/23 11:54	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 15:25	03/03/23 15:25	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017361	1	03/05/23 23:20	03/05/23 23:20	BAM	Mt. Juliet, TN

## TTU-5-110-20230225 L1590633-03 GW

Collected by Ben Boesen      Collected date/time 02/25/23 09:17      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	1	03/03/23 12:22	03/03/23 12:22	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 15:46	03/03/23 15:46	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017361	1	03/05/23 23:41	03/05/23 23:41	BAM	Mt. Juliet, TN

## TTU-6-143-20230225 L1590633-04 GW

Collected by Ben Boesen      Collected date/time 02/25/23 15:00      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 16:48	03/03/23 16:48	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017361	1	03/06/23 00:01	03/06/23 00:01	BAM	Mt. Juliet, TN

## TTU-7-345-20230225 L1590633-05 GW

Collected by Ben Boesen      Collected date/time 02/25/23 14:23      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2018776	1	03/03/23 12:51	03/03/23 12:51	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 17:08	03/03/23 17:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017361	1	03/06/23 00:22	03/06/23 00:22	BAM	Mt. Juliet, TN

## TTU-8-164-20230225 L1590633-06 GW

Collected by Ben Boesen      Collected date/time 02/25/23 14:27      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2018776	1	03/03/23 13:19	03/03/23 13:19	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 17:29	03/03/23 17:29	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017361	1	03/06/23 00:43	03/06/23 00:43	BAM	Mt. Juliet, TN

## TTU-10-172-20230227 L1590633-07 GW

Collected by Ben Boesen      Collected date/time 02/27/23 12:10      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2018776	1	03/03/23 13:47	03/03/23 13:47	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 17:49	03/03/23 17:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017361	1	03/06/23 01:03	03/06/23 01:03	BAM	Mt. Juliet, TN

# SAMPLE SUMMARY

## TTU-11-73-20230225 L1590633-08 GW

Collected by Ben Boesen      Collected date/time 02/25/23 12:00      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2019604	50	03/09/23 02:48	03/09/23 02:48	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	10	03/03/23 19:12	03/03/23 19:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017590	100	03/06/23 21:53	03/06/23 21:53	BAM	Mt. Juliet, TN

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

## TTU-14-67-20230225 L1590633-09 GW

Collected by Ben Boesen      Collected date/time 02/25/23 12:53      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	2000	03/04/23 01:39	03/04/23 01:39	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 18:10	03/03/23 18:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2017615	20	03/07/23 03:02	03/07/23 03:02	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017890	1	03/06/23 17:47	03/06/23 17:47	BAM	Mt. Juliet, TN

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

## TTU-15-75-20230225 L1590633-10 GW

Collected by Ben Boesen      Collected date/time 02/25/23 10:03      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	200	03/04/23 03:04	03/04/23 03:04	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016487	1	03/03/23 18:31	03/03/23 18:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2017615	1	03/06/23 23:05	03/06/23 23:05	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017890	1	03/06/23 18:08	03/06/23 18:08	BAM	Mt. Juliet, TN

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

## TTU-16-80-20230225 L1590633-11 GW

Collected by Ben Boesen      Collected date/time 02/25/23 10:10      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	10000	03/04/23 03:32	03/04/23 03:32	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016872	100	03/04/23 07:15	03/04/23 07:15	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2017864	2500	03/06/23 18:39	03/06/23 18:39	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2018325	250	03/08/23 08:54	03/08/23 08:54	DWR	Mt. Juliet, TN

Collected by Ben Boesen      Collected date/time 02/25/23 09:22      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	1	03/03/23 18:03	03/03/23 18:03	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016872	1	03/04/23 05:51	03/04/23 05:51	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2018325	1	03/08/23 07:11	03/08/23 07:11	DWR	Mt. Juliet, TN

## TTU-19-73-20230225 L1590633-13 GW

Collected by Ben Boesen      Collected date/time 02/25/23 11:25      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2019604	10	03/09/23 00:58	03/09/23 00:58	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016515	5	03/03/23 19:44	03/03/23 19:44	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2018468	5	03/07/23 16:05	03/07/23 16:05	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017890	1	03/06/23 19:09	03/06/23 19:09	BAM	Mt. Juliet, TN

# SAMPLE SUMMARY

## TTU-20-73-20230225 L1590633-14 GW

Collected by Ben Boesen      Collected date/time 02/25/23 10:55      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	10000	03/04/23 04:01	03/04/23 04:01	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016515	100	03/03/23 20:03	03/03/23 20:03	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2018468	100	03/07/23 16:26	03/07/23 16:26	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2018325	500	03/08/23 09:15	03/08/23 09:15	DWR	Mt. Juliet, TN

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

## PF-2-400-20230227 L1590633-15 GW

Collected by Ben Boesen      Collected date/time 02/27/23 12:25      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016515	1	03/03/23 18:47	03/03/23 18:47	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2018325	1	03/08/23 07:32	03/08/23 07:32	DWR	Mt. Juliet, TN

## DUP-02 L1590633-16 GW

Collected by Ben Boesen      Collected date/time 02/25/23 10:10      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	10000	03/04/23 05:26	03/04/23 05:26	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016515	1	03/03/23 19:06	03/03/23 19:06	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2018468	250	03/07/23 16:47	03/07/23 16:47	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2018954	2500	03/08/23 11:43	03/08/23 11:43	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2018325	250	03/08/23 09:35	03/08/23 09:35	DWR	Mt. Juliet, TN

## DUP-03 L1590633-17 GW

Collected by Ben Boesen      Collected date/time 02/25/23 15:40      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2016165	5	03/04/23 05:54	03/04/23 05:54	SL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016515	1	03/03/23 19:25	03/03/23 19:25	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2018468	1	03/07/23 17:08	03/07/23 17:08	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2018954	1	03/08/23 12:02	03/08/23 12:02	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2018325	1	03/08/23 07:53	03/08/23 07:53	DWR	Mt. Juliet, TN

## TRIP BLANK L1590633-18 GW

Collected by Ben Boesen      Collected date/time 02/25/23 00:00      Received date/time 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2016515	1	03/03/23 12:27	03/03/23 12:27	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2017890	1	03/06/23 17:26	03/06/23 17:26	BAM	Mt. Juliet, TN

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.

Daphne Richards  
Project Manager

## Sample Delivery Group (SDG) Narrative

### Insufficient sample volume to perform MS/MSD analyses per method QC requirements.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1590633-01</a>	<a href="#">TTU-3-108-20230225</a>	8260B-SIM
<a href="#">L1590633-02</a>	<a href="#">TTU-4-57-20230225</a>	8260B-SIM
<a href="#">L1590633-03</a>	<a href="#">TTU-5-110-20230225</a>	8260B-SIM
<a href="#">L1590633-04</a>	<a href="#">TTU-6-143-20230225</a>	8260B-SIM
<a href="#">L1590633-05</a>	<a href="#">TTU-7-345-20230225</a>	8260B-SIM
<a href="#">L1590633-06</a>	<a href="#">TTU-8-164-20230225</a>	8260B-SIM
<a href="#">L1590633-07</a>	<a href="#">TTU-10-172-20230227</a>	8260B-SIM
<a href="#">L1590633-08</a>	<a href="#">TTU-11-73-20230225</a>	8260B-SIM
<a href="#">L1590633-09</a>	<a href="#">TTU-14-67-20230225</a>	8260B-SIM
<a href="#">L1590633-10</a>	<a href="#">TTU-15-75-20230225</a>	8260B-SIM
<a href="#">L1590633-11</a>	<a href="#">TTU-16-80-20230225</a>	8260B, 8260B-SIM
<a href="#">L1590633-12</a>	<a href="#">TTU-17-80-20230225</a>	8260B-SIM
<a href="#">L1590633-13</a>	<a href="#">TTU-19-73-20230225</a>	8260B-SIM, 8260B
<a href="#">L1590633-14</a>	<a href="#">TTU-20-73-20230225</a>	8260B, 8260B-SIM
<a href="#">L1590633-15</a>	<a href="#">PF-2-400-20230227</a>	8260B, 8260B-SIM
<a href="#">L1590633-16</a>	<a href="#">DUP-02</a>	8260B, 8260B-SIM
<a href="#">L1590633-17</a>	<a href="#">DUP-03</a>	8260B, 8260B-SIM
<a href="#">L1590633-18</a>	<a href="#">TRIP BLANK</a>	8260B, 8260B-SIM

### pH outside of method requirement.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1590633-13</a>	<a href="#">TTU-19-73-20230225</a>	8260B





Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	277		1.50	20.0	5	03/04/2023 01:10	<a href="#">WG2016165</a>

Sample Narrative:

L1590633-01 WG2016165: 5x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Acrolein	U		2.54	50.0	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Benzene	U		0.0941	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Bromoform	U		0.129	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Chloroform	U		0.111	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Methylene Chloride	U		0.430	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Propene	U		0.936	2.50	1	03/03/2023 15:05	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Trichloroethene	0.266	<a href="#">E4</a>	0.190	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 15:05	<a href="#">WG2016487</a>
(S) Toluene-d8	107			80.0-120		03/03/2023 15:05	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	105			77.0-126		03/03/2023 15:05	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	106			70.0-130		03/03/2023 15:05	<a href="#">WG2016487</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/05/2023 22:59	<a href="#">WG2017361</a>
(S) Toluene-d8	101			77.0-127		03/05/2023 22:59	<a href="#">WG2017361</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	1.08	E4	0.300	4.00	1	03/03/2023 11:54	WG2018776

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 15:25	WG2016487
Acrolein	U		2.54	50.0	1	03/03/2023 15:25	WG2016487
Acrylonitrile	U		0.671	10.0	1	03/03/2023 15:25	WG2016487
Benzene	U		0.0941	1.00	1	03/03/2023 15:25	WG2016487
Bromobenzene	U		0.118	1.00	1	03/03/2023 15:25	WG2016487
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 15:25	WG2016487
Bromoform	U		0.129	1.00	1	03/03/2023 15:25	WG2016487
Bromomethane	U		0.605	5.00	1	03/03/2023 15:25	WG2016487
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 15:25	WG2016487
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 15:25	WG2016487
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 15:25	WG2016487
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 15:25	WG2016487
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 15:25	WG2016487
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 15:25	WG2016487
Chlorobenzene	U		0.116	1.00	1	03/03/2023 15:25	WG2016487
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 15:25	WG2016487
Chloroethane	U		0.192	5.00	1	03/03/2023 15:25	WG2016487
Chloroform	U		0.111	5.00	1	03/03/2023 15:25	WG2016487
Chloromethane	U		0.960	2.50	1	03/03/2023 15:25	WG2016487
Cyclohexane	U		0.188	1.00	1	03/03/2023 15:25	WG2016487
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 15:25	WG2016487
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 15:25	WG2016487
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 15:25	WG2016487
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 15:25	WG2016487
Dibromomethane	U		0.122	1.00	1	03/03/2023 15:25	WG2016487
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 15:25	WG2016487
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 15:25	WG2016487
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 15:25	WG2016487
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 15:25	WG2016487
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 15:25	WG2016487
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 15:25	WG2016487
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 15:25	WG2016487
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 15:25	WG2016487
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 15:25	WG2016487
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 15:25	WG2016487
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 15:25	WG2016487
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 15:25	WG2016487
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 15:25	WG2016487
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 15:25	WG2016487
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 15:25	WG2016487
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 15:25	WG2016487
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 15:25	WG2016487
Ethylbenzene	U		0.137	1.00	1	03/03/2023 15:25	WG2016487
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 15:25	WG2016487
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 15:25	WG2016487
n-Hexane	U		0.749	10.0	1	03/03/2023 15:25	WG2016487
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 15:25	WG2016487
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 15:25	WG2016487
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 15:25	WG2016487
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 15:25	WG2016487

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Naphthalene	U	<u>R7</u>	1.00	5.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Propene	U		0.936	2.50	1	03/03/2023 15:25	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Trichloroethene	U		0.190	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 15:25	<a href="#">WG2016487</a>
(S) Toluene-d8	108			80.0-120		03/03/2023 15:25	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	104			77.0-126		03/03/2023 15:25	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		03/03/2023 15:25	<a href="#">WG2016487</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/05/2023 23:20	<a href="#">WG2017361</a>
(S) Toluene-d8	100			77.0-127		03/05/2023 23:20	<a href="#">WG2017361</a>

## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	42.2		0.300	4.00	1	03/03/2023 12:22	<a href="#">WG2016165</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Acrolein	U		2.54	50.0	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Benzene	U		0.0941	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Bromoform	U		0.129	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Chloroform	U		0.111	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Naphthalene	U	<u>R7</u>	1.00	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Propene	U		0.936	2.50	1	03/03/2023 15:46	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Trichloroethene	U		0.190	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 15:46	<a href="#">WG2016487</a>
(S) Toluene-d8	107			80.0-120		03/03/2023 15:46	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	101			77.0-126		03/03/2023 15:46	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	105			70.0-130		03/03/2023 15:46	<a href="#">WG2016487</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/05/2023 23:41	<a href="#">WG2017361</a>
(S) Toluene-d8	99.7			77.0-127		03/05/2023 23:41	<a href="#">WG2017361</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 16:48	WG2016487
Acrolein	U		2.54	50.0	1	03/03/2023 16:48	WG2016487
Acrylonitrile	U		0.671	10.0	1	03/03/2023 16:48	WG2016487
Benzene	U		0.0941	1.00	1	03/03/2023 16:48	WG2016487
Bromobenzene	U		0.118	1.00	1	03/03/2023 16:48	WG2016487
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 16:48	WG2016487
Bromoform	U		0.129	1.00	1	03/03/2023 16:48	WG2016487
Bromomethane	U		0.605	5.00	1	03/03/2023 16:48	WG2016487
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 16:48	WG2016487
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 16:48	WG2016487
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 16:48	WG2016487
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 16:48	WG2016487
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 16:48	WG2016487
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 16:48	WG2016487
Chlorobenzene	U		0.116	1.00	1	03/03/2023 16:48	WG2016487
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 16:48	WG2016487
Chloroethane	U		0.192	5.00	1	03/03/2023 16:48	WG2016487
Chloroform	U		0.111	5.00	1	03/03/2023 16:48	WG2016487
Chloromethane	U		0.960	2.50	1	03/03/2023 16:48	WG2016487
Cyclohexane	U		0.188	1.00	1	03/03/2023 16:48	WG2016487
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 16:48	WG2016487
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 16:48	WG2016487
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 16:48	WG2016487
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 16:48	WG2016487
Dibromomethane	U		0.122	1.00	1	03/03/2023 16:48	WG2016487
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 16:48	WG2016487
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 16:48	WG2016487
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 16:48	WG2016487
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 16:48	WG2016487
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 16:48	WG2016487
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 16:48	WG2016487
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 16:48	WG2016487
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 16:48	WG2016487
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 16:48	WG2016487
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 16:48	WG2016487
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 16:48	WG2016487
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 16:48	WG2016487
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 16:48	WG2016487
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 16:48	WG2016487
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 16:48	WG2016487
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 16:48	WG2016487
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 16:48	WG2016487
Ethylbenzene	U		0.137	1.00	1	03/03/2023 16:48	WG2016487
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 16:48	WG2016487
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 16:48	WG2016487
n-Hexane	U		0.749	10.0	1	03/03/2023 16:48	WG2016487
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 16:48	WG2016487
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 16:48	WG2016487
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 16:48	WG2016487
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 16:48	WG2016487
Methylene Chloride	U		0.430	5.00	1	03/03/2023 16:48	WG2016487
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 16:48	WG2016487
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 16:48	WG2016487
Naphthalene	U	R7	1.00	5.00	1	03/03/2023 16:48	WG2016487
Propene	U		0.936	2.50	1	03/03/2023 16:48	WG2016487
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 16:48	WG2016487

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.118	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
Trichloroethene	0.218	<a href="#">E4</a>	0.190	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 16:48	<a href="#">WG2016487</a>
(S) Toluene-d8	106			80.0-120		03/03/2023 16:48	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	104			77.0-126		03/03/2023 16:48	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	105			70.0-130		03/03/2023 16:48	<a href="#">WG2016487</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/06/2023 00:01	<a href="#">WG2017361</a>
(S) Toluene-d8	100			77.0-127		03/06/2023 00:01	<a href="#">WG2017361</a>



## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		0.300	4.00	1	03/03/2023 12:51	<a href="#">WG2018776</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Acrolein	U		2.54	50.0	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Benzene	U		0.0941	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Bromoform	U		0.129	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Chloroform	U		0.111	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Isopropylbenzene	0.158	<u>E4</u>	0.105	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Propene	3.25		0.936	2.50	1	03/03/2023 17:08	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Toluene	0.904	<a href="#">E4</a>	0.278	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Trichloroethene	U		0.190	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
Xylenes, Total	0.275	<a href="#">E4</a>	0.174	3.00	1	03/03/2023 17:08	<a href="#">WG2016487</a>
<i>(S) Toluene-d8</i>	109			80.0-120		03/03/2023 17:08	<a href="#">WG2016487</a>
<i>(S) 4-Bromofluorobenzene</i>	105			77.0-126		03/03/2023 17:08	<a href="#">WG2016487</a>
<i>(S) 1,2-Dichloroethane-d4</i>	108			70.0-130		03/03/2023 17:08	<a href="#">WG2016487</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/06/2023 00:22	<a href="#">WG2017361</a>
<i>(S) Toluene-d8</i>	100			77.0-127		03/06/2023 00:22	<a href="#">WG2017361</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	0.390	E4	0.300	4.00	1	03/03/2023 13:19	WG2018776

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 17:29	WG2016487
Acrolein	U		2.54	50.0	1	03/03/2023 17:29	WG2016487
Acrylonitrile	U		0.671	10.0	1	03/03/2023 17:29	WG2016487
Benzene	U		0.0941	1.00	1	03/03/2023 17:29	WG2016487
Bromobenzene	U		0.118	1.00	1	03/03/2023 17:29	WG2016487
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 17:29	WG2016487
Bromoform	U		0.129	1.00	1	03/03/2023 17:29	WG2016487
Bromomethane	U		0.605	5.00	1	03/03/2023 17:29	WG2016487
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 17:29	WG2016487
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 17:29	WG2016487
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 17:29	WG2016487
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 17:29	WG2016487
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 17:29	WG2016487
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 17:29	WG2016487
Chlorobenzene	U		0.116	1.00	1	03/03/2023 17:29	WG2016487
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 17:29	WG2016487
Chloroethane	U		0.192	5.00	1	03/03/2023 17:29	WG2016487
Chloroform	U		0.111	5.00	1	03/03/2023 17:29	WG2016487
Chloromethane	U		0.960	2.50	1	03/03/2023 17:29	WG2016487
Cyclohexane	U		0.188	1.00	1	03/03/2023 17:29	WG2016487
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 17:29	WG2016487
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 17:29	WG2016487
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 17:29	WG2016487
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 17:29	WG2016487
Dibromomethane	U		0.122	1.00	1	03/03/2023 17:29	WG2016487
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 17:29	WG2016487
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 17:29	WG2016487
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 17:29	WG2016487
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 17:29	WG2016487
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 17:29	WG2016487
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 17:29	WG2016487
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 17:29	WG2016487
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 17:29	WG2016487
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 17:29	WG2016487
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 17:29	WG2016487
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 17:29	WG2016487
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 17:29	WG2016487
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 17:29	WG2016487
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 17:29	WG2016487
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 17:29	WG2016487
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 17:29	WG2016487
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 17:29	WG2016487
Ethylbenzene	U		0.137	1.00	1	03/03/2023 17:29	WG2016487
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 17:29	WG2016487
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 17:29	WG2016487
n-Hexane	U		0.749	10.0	1	03/03/2023 17:29	WG2016487
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 17:29	WG2016487
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 17:29	WG2016487
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 17:29	WG2016487
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 17:29	WG2016487

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Propene	U		0.936	2.50	1	03/03/2023 17:29	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Trichloroethene	U		0.190	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 17:29	<a href="#">WG2016487</a>
(S) Toluene-d8	106			80.0-120		03/03/2023 17:29	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	100			77.0-126		03/03/2023 17:29	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	111			70.0-130		03/03/2023 17:29	<a href="#">WG2016487</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/06/2023 00:43	<a href="#">WG2017361</a>
(S) Toluene-d8	101			77.0-127		03/06/2023 00:43	<a href="#">WG2017361</a>

## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		0.300	4.00	1	03/03/2023 13:47	<a href="#">WG2018776</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Acrolein	U		2.54	50.0	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Benzene	U		0.0941	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Bromoform	U		0.129	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Chloroform	U		0.111	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Propene	U		0.936	2.50	1	03/03/2023 17:49	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Trichloroethene	U		0.190	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 17:49	<a href="#">WG2016487</a>
(S) Toluene-d8	108			80.0-120		03/03/2023 17:49	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	106			77.0-126		03/03/2023 17:49	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	108			70.0-130		03/03/2023 17:49	<a href="#">WG2016487</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/06/2023 01:03	<a href="#">WG2017361</a>
(S) Toluene-d8	100			77.0-127		03/06/2023 01:03	<a href="#">WG2017361</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U	<u>M2</u>	15.0	200	50	03/09/2023 02:48	<u>WG2019604</u>

Sample Narrative:

L1590633-08 WG2019604: 50x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1940		113	500	10	03/03/2023 19:12	<u>WG2016487</u>
Acrolein	U		25.4	500	10	03/03/2023 19:12	<u>WG2016487</u>
Acrylonitrile	U		6.71	100	10	03/03/2023 19:12	<u>WG2016487</u>
Benzene	U		0.941	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Bromobenzene	U		1.18	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Bromodichloromethane	U		1.36	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Bromoform	U		1.29	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Bromomethane	U		6.05	50.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,3-Butadiene	U		2.99	20.0	10	03/03/2023 19:12	<u>WG2016487</u>
n-Butylbenzene	U		1.57	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
sec-Butylbenzene	U		1.25	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
tert-Butylbenzene	U		1.27	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Carbon tetrachloride	U		1.28	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Carbon disulfide	U		0.962	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Chlorobenzene	U		1.16	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Chlorodibromomethane	U		1.40	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Chloroethane	U		1.92	50.0	10	03/03/2023 19:12	<u>WG2016487</u>
Chloroform	U		1.11	50.0	10	03/03/2023 19:12	<u>WG2016487</u>
Chloromethane	U		9.60	25.0	10	03/03/2023 19:12	<u>WG2016487</u>
Cyclohexane	U		1.88	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
2-Chlorotoluene	U		1.06	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
4-Chlorotoluene	U		1.14	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,2-Dibromo-3-Chloropropane	U		2.76	50.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,2-Dibromoethane	U		1.26	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Dibromomethane	U		1.22	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,2-Dichlorobenzene	U		1.07	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,3-Dichlorobenzene	U		1.10	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,4-Dichlorobenzene	U		1.20	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Dichlorodifluoromethane	U		3.74	50.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,1-Dichloroethane	U		1.00	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,2-Dichloroethane	U		0.819	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,1-Dichloroethene	7.87	<u>E4</u>	1.88	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
cis-1,2-Dichloroethene	17.4		1.26	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
trans-1,2-Dichloroethene	U		1.49	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,2-Dichloropropane	U		1.49	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,1-Dichloropropene	U		1.42	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
1,3-Dichloropropane	U		1.10	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
cis-1,3-Dichloropropene	U		1.11	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
trans-1,3-Dichloropropene	U		1.18	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
2,2-Dichloropropane	U		1.61	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Dicyclopentadiene	U		2.53	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Di-isopropyl ether	U		1.05	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Ethylbenzene	U		1.37	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
4-Ethyltoluene	U		2.08	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
Hexachloro-1,3-butadiene	U		3.37	10.0	10	03/03/2023 19:12	<u>WG2016487</u>
n-Hexane	U		7.49	100	10	03/03/2023 19:12	<u>WG2016487</u>
Isopropylbenzene	U		1.05	10.0	10	03/03/2023 19:12	<u>WG2016487</u>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		1.20	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
2-Butanone (MEK)	1110		11.9	100	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Methyl Cyclohexane	U		6.60	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Methylene Chloride	U		4.30	50.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	108		4.78	100	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		1.01	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Naphthalene	U	<u>R7</u>	10.0	50.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Propene	U		9.36	25.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.993	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Styrene	U		1.18	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		1.47	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		1.33	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		1.80	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Tetrachloroethene	U		3.00	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Toluene	U		2.78	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		2.30	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		4.81	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		1.49	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		1.58	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Trichloroethene	67.8		1.90	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Trichlorofluoromethane	U		1.60	50.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		2.37	25.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		3.22	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		1.04	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		1.04	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Vinyl chloride	U		2.34	10.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
Xylenes, Total	U		1.74	30.0	10	03/03/2023 19:12	<a href="#">WG2016487</a>
(S) Toluene-d8	107			80.0-120		03/03/2023 19:12	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	111			77.0-126		03/03/2023 19:12	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	107			70.0-130		03/03/2023 19:12	<a href="#">WG2016487</a>

## Sample Narrative:

L1590633-08 WG2016487: Elevated RL due to foamy matrix.

## Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	11600		59.7	300	100	03/06/2023 21:53	<a href="#">WG2017590</a>
(S) Toluene-d8	103			77.0-127		03/06/2023 21:53	<a href="#">WG2017590</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	158000		600	8000	2000	03/04/2023 01:39	<a href="#">WG2016165</a>

## Sample Narrative:

L1590633-09 WG2016165: 2,000x

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Acrolein	U		2.54	50.0	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Benzene	1.94		0.0941	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Bromoform	U		0.129	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Chloroform	2.16	<a href="#">E4</a>	0.111	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1-Dichloroethane	1.28		0.100	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1-Dichloroethene	132	<a href="#">M3</a>	0.188	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
cis-1,2-Dichloroethene	2.31		0.126	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
trans-1,2-Dichloroethene	0.359	<a href="#">E4</a>	0.149	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Dicyclopentadiene	U	<a href="#">M2 R5</a>	0.253	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Methyl Cyclohexane	U	<u>M1</u>	0.660	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Methylene Chloride	U		0.430	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Naphthalene	U	<u>R7</u>	1.00	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Propene	U		0.936	2.50	1	03/03/2023 18:10	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	0.346	<u>E4</u>	0.180	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Tetrachloroethene	1.40		0.300	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	2.10		0.158	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Trichloroethene	807		3.80	20.0	20	03/07/2023 03:02	<a href="#">WG2017615</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 18:10	<a href="#">WG2016487</a>
(S) Toluene-d8	106			80.0-120		03/03/2023 18:10	<a href="#">WG2016487</a>
(S) Toluene-d8	98.9			80.0-120		03/07/2023 03:02	<a href="#">WG2017615</a>
(S) 4-Bromofluorobenzene	105			77.0-126		03/03/2023 18:10	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	90.3			77.0-126		03/07/2023 03:02	<a href="#">WG2017615</a>
(S) 1,2-Dichloroethane-d4	110			70.0-130		03/03/2023 18:10	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	92.6			70.0-130		03/07/2023 03:02	<a href="#">WG2017615</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	339		0.597	3.00	1	03/06/2023 17:47	<a href="#">WG2017890</a>
(S) Toluene-d8	103			77.0-127		03/06/2023 17:47	<a href="#">WG2017890</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	8290		60.0	800	200	03/04/2023 03:04	<a href="#">WG2016165</a>

Sample Narrative:

L1590633-10 WG2016165: 200x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Acrolein	U		2.54	50.0	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Benzene	U		0.0941	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Bromoform	U		0.129	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Chloroform	U		0.111	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1-Dichloroethene	1.12		0.188	1.00	1	03/06/2023 23:05	<a href="#">WG2017615</a>
cis-1,2-Dichloroethene	1.26		0.126	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Methylene Chloride	U		0.430	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Naphthalene	U	<a href="#">R7</a>	1.00	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Propene	U		0.936	2.50	1	03/03/2023 18:31	<a href="#">WG2016487</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Styrene	U		0.118	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Toluene	U		0.278	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Trichloroethene	4.90		0.190	1.00	1	03/06/2023 23:05	<a href="#">WG2017615</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 18:31	<a href="#">WG2016487</a>
(S) Toluene-d8	107			80.0-120		03/03/2023 18:31	<a href="#">WG2016487</a>
(S) Toluene-d8	99.4			80.0-120		03/06/2023 23:05	<a href="#">WG2017615</a>
(S) 4-Bromofluorobenzene	105			77.0-126		03/03/2023 18:31	<a href="#">WG2016487</a>
(S) 4-Bromofluorobenzene	89.9			77.0-126		03/06/2023 23:05	<a href="#">WG2017615</a>
(S) 1,2-Dichloroethane-d4	112			70.0-130		03/03/2023 18:31	<a href="#">WG2016487</a>
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		03/06/2023 23:05	<a href="#">WG2017615</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	15.7		0.597	3.00	1	03/06/2023 18:08	<a href="#">WG2017890</a>
(S) Toluene-d8	102			77.0-127		03/06/2023 18:08	<a href="#">WG2017890</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	832000		3000	40000	10000	03/04/2023 03:32	<a href="#">WG2016165</a>

Sample Narrative:

L1590633-11 WG2016165: 10,000x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1130	5000	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Acrolein	U		254	5000	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Acrylonitrile	U		67.1	1000	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Benzene	268		9.41	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Bromobenzene	U		11.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Bromodichloromethane	U		13.6	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Bromoform	U		12.9	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Bromomethane	U		60.5	500	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,3-Butadiene	U		29.9	200	100	03/04/2023 07:15	<a href="#">WG2016872</a>
n-Butylbenzene	U		15.7	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
sec-Butylbenzene	U		12.5	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
tert-Butylbenzene	U		12.7	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Carbon tetrachloride	U		12.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Carbon disulfide	U		9.62	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Chlorobenzene	U		11.6	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Chlorodibromomethane	U		14.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Chloroethane	U		19.2	500	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Chloroform	82.9	E4	11.1	500	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Chloromethane	U		96.0	250	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Cyclohexane	U		18.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
2-Chlorotoluene	U		10.6	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
4-Chlorotoluene	U		11.4	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2-Dibromo-3-Chloropropane	U		27.6	500	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2-Dibromoethane	U		12.6	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Dibromomethane	U		12.2	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2-Dichlorobenzene	U		10.7	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,3-Dichlorobenzene	U		11.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,4-Dichlorobenzene	U		12.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Dichlorodifluoromethane	U		37.4	500	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1-Dichloroethane	63.3	E4	10.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2-Dichloroethane	U		8.19	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1-Dichloroethene	3970		18.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
cis-1,2-Dichloroethene	U		12.6	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
trans-1,2-Dichloroethene	U		14.9	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2-Dichloropropane	U		14.9	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1-Dichloropropene	U		14.2	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,3-Dichloropropane	U		11.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
cis-1,3-Dichloropropene	U		11.1	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
trans-1,3-Dichloropropene	U		11.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
2,2-Dichloropropane	U		16.1	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Dicyclopentadiene	U		25.3	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Di-isopropyl ether	U		10.5	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Ethylbenzene	U		13.7	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
4-Ethyltoluene	U		20.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Hexachloro-1,3-butadiene	U		33.7	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
n-Hexane	U		74.9	1000	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Isopropylbenzene	U		10.5	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		12.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
2-Butanone (MEK)	U		119	1000	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Methyl Cyclohexane	U		66.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Methylene Chloride	84800		1080	12500	2500	03/06/2023 18:39	<a href="#">WG2017864</a>
4-Methyl-2-pentanone (MIBK)	U		47.8	1000	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Methyl tert-butyl ether	U		10.1	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Naphthalene	U		100	500	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Propene	U		93.6	250	100	03/04/2023 07:15	<a href="#">WG2016872</a>
n-Propylbenzene	U		9.93	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Styrene	U		11.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1,1,2-Tetrachloroethane	U		14.7	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1,2,2-Tetrachloroethane	U		13.3	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1,2-Trichlorotrifluoroethane	U		18.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Tetrachloroethene	47.7	E4	30.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Toluene	49.8	E4	27.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2,3-Trichlorobenzene	U		23.0	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2,4-Trichlorobenzene	U		48.1	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1,1-Trichloroethane	U		14.9	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,1,2-Trichloroethane	73.7	E4	15.8	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Trichloroethene	69100		475	2500	2500	03/06/2023 18:39	<a href="#">WG2017864</a>
Trichlorofluoromethane	U		16.0	500	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2,3-Trichloropropane	U		23.7	250	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2,4-Trimethylbenzene	U		32.2	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,2,3-Trimethylbenzene	U		10.4	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
1,3,5-Trimethylbenzene	U		10.4	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Vinyl chloride	U		23.4	100	100	03/04/2023 07:15	<a href="#">WG2016872</a>
Xylenes, Total	38.0	E4	17.4	300	100	03/04/2023 07:15	<a href="#">WG2016872</a>
(S) Toluene-d8	106			80.0-120		03/04/2023 07:15	<a href="#">WG2016872</a>
(S) Toluene-d8	107			80.0-120		03/06/2023 18:39	<a href="#">WG2017864</a>
(S) 4-Bromofluorobenzene	92.9			77.0-126		03/04/2023 07:15	<a href="#">WG2016872</a>
(S) 4-Bromofluorobenzene	104			77.0-126		03/06/2023 18:39	<a href="#">WG2017864</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		03/04/2023 07:15	<a href="#">WG2016872</a>
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		03/06/2023 18:39	<a href="#">WG2017864</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	32800		149	750	250	03/08/2023 08:54	<a href="#">WG2018325</a>
(S) Toluene-d8	103			77.0-127		03/08/2023 08:54	<a href="#">WG2018325</a>

## Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	2.46	<a href="#">E4 R8</a>	0.300	4.00	1	03/03/2023 18:03	<a href="#">WG2016165</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Acrolein	U		2.54	50.0	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Acrylonitrile	U		0.671	10.0	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Benzene	U		0.0941	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Bromobenzene	U		0.118	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Bromodichloromethane	U		0.136	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Bromoform	U		0.129	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Bromomethane	U		0.605	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,3-Butadiene	U		0.299	2.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
n-Butylbenzene	U		0.157	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
sec-Butylbenzene	U		0.125	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
tert-Butylbenzene	U		0.127	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Carbon tetrachloride	U		0.128	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Carbon disulfide	U		0.0962	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Chlorobenzene	U		0.116	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Chlorodibromomethane	U		0.140	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Chloroethane	U		0.192	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Chloroform	U		0.111	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Chloromethane	U		0.960	2.50	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Cyclohexane	U		0.188	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
2-Chlorotoluene	U		0.106	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
4-Chlorotoluene	U		0.114	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Dibromomethane	U		0.122	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1-Dichloroethene	U		0.188	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
cis-1,2-Dichloroethene	0.904	<a href="#">E4</a>	0.126	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Dicyclopentadiene	U		0.253	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Di-isopropyl ether	U		0.105	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Ethylbenzene	U		0.137	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
4-Ethyltoluene	U		0.208	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
n-Hexane	U		0.749	10.0	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Isopropylbenzene	U		0.105	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
p-Isopropyltoluene	U		0.120	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.430	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Naphthalene	U		1.00	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Propene	U		0.936	2.50	1	03/04/2023 05:51	<a href="#">WG2016872</a>
n-Propylbenzene	U		0.0993	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Styrene	U		0.118	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Tetrachloroethene	U		0.300	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Toluene	U		0.278	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Trichloroethene	1.28		0.190	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Vinyl chloride	U		0.234	1.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
Xylenes, Total	U		0.174	3.00	1	03/04/2023 05:51	<a href="#">WG2016872</a>
(S) Toluene-d8	107			80.0-120		03/04/2023 05:51	<a href="#">WG2016872</a>
(S) 4-Bromofluorobenzene	98.8			77.0-126		03/04/2023 05:51	<a href="#">WG2016872</a>
(S) 1,2-Dichloroethane-d4	106			70.0-130		03/04/2023 05:51	<a href="#">WG2016872</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/08/2023 07:11	<a href="#">WG2018325</a>
(S) Toluene-d8	102			77.0-127		03/08/2023 07:11	<a href="#">WG2018325</a>



Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	U		3.00	40.0	10	03/09/2023 00:58	<a href="#">WG2019604</a>

Sample Narrative:

L1590633-13 WG2019604: 10x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		56.5	250	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Acrolein	U	<u>L2</u>	12.7	250	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Acrylonitrile	U		3.36	50.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Benzene	4.75	<u>E4</u>	0.471	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Bromobenzene	U		0.590	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Bromodichloromethane	U		0.680	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Bromoform	U		0.645	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Bromomethane	U		3.03	25.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,3-Butadiene	U		1.49	10.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
n-Butylbenzene	U		0.785	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
sec-Butylbenzene	U		0.625	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
tert-Butylbenzene	U		0.635	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Carbon tetrachloride	U		0.640	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Carbon disulfide	0.989	<u>E4</u>	0.481	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Chlorobenzene	U		0.580	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Chlorodibromomethane	U		0.700	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Chloroethane	U		0.960	25.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Chloroform	U		0.555	25.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Chloromethane	U		4.80	12.5	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Cyclohexane	U		0.940	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
2-Chlorotoluene	U		0.530	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
4-Chlorotoluene	U		0.570	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2-Dibromo-3-Chloropropane	U		1.38	25.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2-Dibromoethane	U		0.630	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Dibromomethane	U		0.610	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2-Dichlorobenzene	U		0.535	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,3-Dichlorobenzene	U		0.550	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,4-Dichlorobenzene	U		0.600	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Dichlorodifluoromethane	U		1.87	25.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1-Dichloroethane	U		0.500	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2-Dichloroethane	U		0.409	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1-Dichloroethene	50.6		0.940	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
cis-1,2-Dichloroethene	151		0.630	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
trans-1,2-Dichloroethene	6.69		0.745	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2-Dichloropropane	U		0.745	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1-Dichloropropene	U		0.710	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,3-Dichloropropane	U		0.550	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
cis-1,3-Dichloropropene	U		0.555	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
trans-1,3-Dichloropropene	U		0.590	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
2,2-Dichloropropane	U		0.805	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Dicyclopentadiene	U		1.27	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Di-isopropyl ether	U		0.525	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Ethylbenzene	U		0.685	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
4-Ethyltoluene	U		1.04	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Hexachloro-1,3-butadiene	U		1.69	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
n-Hexane	U		3.74	50.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Isopropylbenzene	U		0.525	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.600	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
2-Butanone (MEK)	18.4	<a href="#">E4</a>	5.95	50.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Methyl Cyclohexane	U		3.30	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Methylene Chloride	U		2.15	25.0	5	03/07/2023 16:05	<a href="#">WG2018468</a>
4-Methyl-2-pentanone (MIBK)	7.47	<a href="#">E4</a>	2.39	50.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Methyl tert-butyl ether	U		0.505	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Naphthalene	U	<a href="#">L2 R7</a>	5.00	25.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Propene	U	<a href="#">R7</a>	4.68	12.5	5	03/03/2023 19:44	<a href="#">WG2016515</a>
n-Propylbenzene	U		0.497	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Styrene	U		0.590	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1,1,2-Tetrachloroethane	U		0.735	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1,2,2-Tetrachloroethane	U		0.665	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1,2-Trichlorotrifluoroethane	U		0.900	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Tetrachloroethene	U		1.50	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Toluene	U		1.39	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2,3-Trichlorobenzene	U	<a href="#">L2 R7</a>	1.15	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2,4-Trichlorobenzene	U	<a href="#">R7</a>	2.41	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1,1-Trichloroethane	U		0.745	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,1,2-Trichloroethane	U		0.790	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Trichloroethene	348		0.950	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Trichlorofluoromethane	U	<a href="#">R7</a>	0.800	25.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2,3-Trichloropropane	U		1.19	12.5	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2,4-Trimethylbenzene	U		1.61	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,2,3-Trimethylbenzene	U		0.520	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
1,3,5-Trimethylbenzene	U		0.520	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Vinyl chloride	4.11	<a href="#">E4</a>	1.17	5.00	5	03/03/2023 19:44	<a href="#">WG2016515</a>
Xylenes, Total	U		0.870	15.0	5	03/03/2023 19:44	<a href="#">WG2016515</a>
(S) Toluene-d8	106			80.0-120		03/03/2023 19:44	<a href="#">WG2016515</a>
(S) Toluene-d8	107			80.0-120		03/07/2023 16:05	<a href="#">WG2018468</a>
(S) 4-Bromofluorobenzene	97.5			77.0-126		03/03/2023 19:44	<a href="#">WG2016515</a>
(S) 4-Bromofluorobenzene	114			77.0-126		03/07/2023 16:05	<a href="#">WG2018468</a>
(S) 1,2-Dichloroethane-d4	99.6			70.0-130		03/03/2023 19:44	<a href="#">WG2016515</a>
(S) 1,2-Dichloroethane-d4	90.9			70.0-130		03/07/2023 16:05	<a href="#">WG2018468</a>

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

Sample Narrative:

L1590633-13 WG2016515: Elevated RL due to foamy matrix.

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	318		0.597	3.00	1	03/06/2023 19:09	<a href="#">WG2017890</a>
(S) Toluene-d8	110			77.0-127		03/06/2023 19:09	<a href="#">WG2017890</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	618000		3000	40000	10000	03/04/2023 04:01	<a href="#">WG2016165</a>

Sample Narrative:

L1590633-14 WG2016165: 10,000x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1130	5000	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Acrolein	U	<a href="#">L2</a>	254	5000	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Acrylonitrile	U		67.1	1000	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Benzene	87.4	<a href="#">E4</a>	9.41	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Bromobenzene	U		11.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Bromodichloromethane	U		13.6	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Bromoform	U		12.9	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Bromomethane	U		60.5	500	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,3-Butadiene	U		29.9	200	100	03/03/2023 20:03	<a href="#">WG2016515</a>
n-Butylbenzene	U		15.7	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
sec-Butylbenzene	U		12.5	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
tert-Butylbenzene	U		12.7	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Carbon tetrachloride	U		12.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Carbon disulfide	U		9.62	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Chlorobenzene	U		11.6	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Chlorodibromomethane	U		14.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Chloroethane	U		19.2	500	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Chloroform	18.8	<a href="#">E4</a>	11.1	500	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Chloromethane	U		96.0	250	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Cyclohexane	U		18.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
2-Chlorotoluene	U		10.6	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
4-Chlorotoluene	U		11.4	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2-Dibromo-3-Chloropropane	U		27.6	500	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2-Dibromoethane	U		12.6	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Dibromomethane	U		12.2	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2-Dichlorobenzene	U		10.7	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,3-Dichlorobenzene	U		11.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,4-Dichlorobenzene	U		12.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Dichlorodifluoromethane	U		37.4	500	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1-Dichloroethane	27.8	<a href="#">E4</a>	10.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2-Dichloroethane	U		8.19	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1-Dichloroethene	2600		18.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
cis-1,2-Dichloroethene	156		12.6	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
trans-1,2-Dichloroethene	22.8	<a href="#">E4</a>	14.9	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2-Dichloropropane	U		14.9	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1-Dichloropropene	U		14.2	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,3-Dichloropropane	U		11.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
cis-1,3-Dichloropropene	U		11.1	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
trans-1,3-Dichloropropene	U		11.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
2,2-Dichloropropane	U		16.1	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Dicyclopentadiene	U		25.3	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Di-isopropyl ether	U		10.5	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Ethylbenzene	U		13.7	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
4-Ethyltoluene	U		20.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Hexachloro-1,3-butadiene	U		33.7	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
n-Hexane	U		74.9	1000	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Isopropylbenzene	U		10.5	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		12.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
2-Butanone (MEK)	U		119	1000	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Methyl Cyclohexane	U		66.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Methylene Chloride	49.5	<a href="#">E4</a>	43.0	500	100	03/07/2023 16:26	<a href="#">WG2018468</a>
4-Methyl-2-pentanone (MIBK)	U		47.8	1000	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Methyl tert-butyl ether	U		10.1	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Naphthalene	U	<a href="#">L2 R7</a>	100	500	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Propene	U	<a href="#">R7</a>	93.6	250	100	03/03/2023 20:03	<a href="#">WG2016515</a>
n-Propylbenzene	U		9.93	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Styrene	U		11.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1,1,2-Tetrachloroethane	U		14.7	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1,2,2-Tetrachloroethane	U		13.3	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1,2-Trichlorotrifluoroethane	U		18.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Tetrachloroethene	U		30.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Toluene	U		27.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2,3-Trichlorobenzene	U	<a href="#">L2 R7</a>	23.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2,4-Trichlorobenzene	U	<a href="#">R7</a>	48.1	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1,1-Trichloroethane	U		14.9	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,1,2-Trichloroethane	17.3	<a href="#">E4</a>	15.8	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Trichloroethene	12800		19.0	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Trichlorofluoromethane	U	<a href="#">R7</a>	16.0	500	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2,3-Trichloropropane	U		23.7	250	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2,4-Trimethylbenzene	U		32.2	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,2,3-Trimethylbenzene	U		10.4	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
1,3,5-Trimethylbenzene	U		10.4	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Vinyl chloride	U		23.4	100	100	03/03/2023 20:03	<a href="#">WG2016515</a>
Xylenes, Total	U		17.4	300	100	03/03/2023 20:03	<a href="#">WG2016515</a>
(S) Toluene-d8	112			80.0-120		03/03/2023 20:03	<a href="#">WG2016515</a>
(S) Toluene-d8	111			80.0-120		03/07/2023 16:26	<a href="#">WG2018468</a>
(S) 4-Bromofluorobenzene	87.9			77.0-126		03/03/2023 20:03	<a href="#">WG2016515</a>
(S) 4-Bromofluorobenzene	97.5			77.0-126		03/07/2023 16:26	<a href="#">WG2018468</a>
(S) 1,2-Dichloroethane-d4	99.9			70.0-130		03/03/2023 20:03	<a href="#">WG2016515</a>
(S) 1,2-Dichloroethane-d4	93.1			70.0-130		03/07/2023 16:26	<a href="#">WG2018468</a>

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

Sample Narrative:

L1590633-14 WG2016515: Target compounds too high to run at a lower dilution.

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	19600		299	1500	500	03/08/2023 09:15	<a href="#">WG2018325</a>
(S) Toluene-d8	104			77.0-127		03/08/2023 09:15	<a href="#">WG2018325</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 18:47	WG2016515
Acrolein	U	L2	2.54	50.0	1	03/03/2023 18:47	WG2016515
Acrylonitrile	U		0.671	10.0	1	03/03/2023 18:47	WG2016515
Benzene	0.153	E4	0.0941	1.00	1	03/03/2023 18:47	WG2016515
Bromobenzene	U		0.118	1.00	1	03/03/2023 18:47	WG2016515
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 18:47	WG2016515
Bromoform	U		0.129	1.00	1	03/03/2023 18:47	WG2016515
Bromomethane	U		0.605	5.00	1	03/03/2023 18:47	WG2016515
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 18:47	WG2016515
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 18:47	WG2016515
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 18:47	WG2016515
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 18:47	WG2016515
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 18:47	WG2016515
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 18:47	WG2016515
Chlorobenzene	U		0.116	1.00	1	03/03/2023 18:47	WG2016515
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 18:47	WG2016515
Chloroethane	U		0.192	5.00	1	03/03/2023 18:47	WG2016515
Chloroform	U		0.111	5.00	1	03/03/2023 18:47	WG2016515
Chloromethane	U		0.960	2.50	1	03/03/2023 18:47	WG2016515
Cyclohexane	U		0.188	1.00	1	03/03/2023 18:47	WG2016515
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 18:47	WG2016515
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 18:47	WG2016515
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 18:47	WG2016515
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 18:47	WG2016515
Dibromomethane	U		0.122	1.00	1	03/03/2023 18:47	WG2016515
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 18:47	WG2016515
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 18:47	WG2016515
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 18:47	WG2016515
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 18:47	WG2016515
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 18:47	WG2016515
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 18:47	WG2016515
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 18:47	WG2016515
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 18:47	WG2016515
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 18:47	WG2016515
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 18:47	WG2016515
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 18:47	WG2016515
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 18:47	WG2016515
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 18:47	WG2016515
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 18:47	WG2016515
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 18:47	WG2016515
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 18:47	WG2016515
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 18:47	WG2016515
Ethylbenzene	U		0.137	1.00	1	03/03/2023 18:47	WG2016515
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 18:47	WG2016515
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 18:47	WG2016515
n-Hexane	U		0.749	10.0	1	03/03/2023 18:47	WG2016515
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 18:47	WG2016515
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 18:47	WG2016515
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 18:47	WG2016515
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 18:47	WG2016515
Methylene Chloride	U		0.430	5.00	1	03/03/2023 18:47	WG2016515
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 18:47	WG2016515
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 18:47	WG2016515
Naphthalene	U	L2 R7	1.00	5.00	1	03/03/2023 18:47	WG2016515
Propene	U	R7	0.936	2.50	1	03/03/2023 18:47	WG2016515
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 18:47	WG2016515

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.118	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
Toluene	U		0.278	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,2,3-Trichlorobenzene	U	<a href="#">L2 R7</a>	0.230	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,2,4-Trichlorobenzene	U	<a href="#">R7</a>	0.481	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
Trichloroethene	U		0.190	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
Trichlorofluoromethane	U	<a href="#">R7</a>	0.160	5.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 18:47	<a href="#">WG2016515</a>
(S) Toluene-d8	107			80.0-120		03/03/2023 18:47	<a href="#">WG2016515</a>
(S) 4-Bromofluorobenzene	86.7			77.0-126		03/03/2023 18:47	<a href="#">WG2016515</a>
(S) 1,2-Dichloroethane-d4	103			70.0-130		03/03/2023 18:47	<a href="#">WG2016515</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/08/2023 07:32	<a href="#">WG2018325</a>
(S) Toluene-d8	101			77.0-127		03/08/2023 07:32	<a href="#">WG2018325</a>

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	826000		3000	40000	10000	03/04/2023 05:26	<a href="#">WG2016165</a>

Sample Narrative:

L1590633-16 WG2016165: 10,000x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Acrolein	U	<a href="#">L2</a>	2.54	50.0	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Benzene	228	<a href="#">E4</a>	23.5	250	250	03/07/2023 16:47	<a href="#">WG2018468</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Bromodichloromethane	1.64		0.136	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Bromoform	2.57		0.129	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Chlorobenzene	2.03		0.116	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Chlorodibromomethane	0.703	<a href="#">E4</a>	0.140	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Chloroform	81.5		0.111	5.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,2-Dichlorobenzene	3.15		0.107	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,3-Dichlorobenzene	0.287	<a href="#">E4</a>	0.110	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,4-Dichlorobenzene	0.721	<a href="#">E4</a>	0.120	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,1-Dichloroethane	59.6		0.100	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,2-Dichloroethane	28.2		0.0819	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,1-Dichloroethene	2900		47.0	250	250	03/07/2023 16:47	<a href="#">WG2018468</a>
cis-1,2-Dichloroethene	12.5		0.126	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
trans-1,2-Dichloroethene	7.98		0.149	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Di-isopropyl ether	0.564	<a href="#">E4</a>	0.105	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Ethylbenzene	0.996	<a href="#">E4</a>	0.137	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
4-Ethyltoluene	0.269	<a href="#">E4</a>	0.208	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 19:06	<a href="#">WG2016515</a>
Isopropylbenzene	0.503	<a href="#">E4</a>	0.105	1.00	1	03/03/2023 19:06	<a href="#">WG2016515</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 19:06	WG2016515
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 19:06	WG2016515
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 19:06	WG2016515
Methylene Chloride	106000		1080	12500	2500	03/08/2023 11:43	WG2018954
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 19:06	WG2016515
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 19:06	WG2016515
Naphthalene	U	L2 R7	1.00	5.00	1	03/03/2023 19:06	WG2016515
Propene	1.67	E4 R7	0.936	2.50	1	03/03/2023 19:06	WG2016515
n-Propylbenzene	0.177	E4	0.0993	1.00	1	03/03/2023 19:06	WG2016515
Styrene	U		0.118	1.00	1	03/03/2023 19:06	WG2016515
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 19:06	WG2016515
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 19:06	WG2016515
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 19:06	WG2016515
Tetrachloroethene	61.7		0.300	1.00	1	03/03/2023 19:06	WG2016515
Toluene	56.7		0.278	1.00	1	03/03/2023 19:06	WG2016515
1,2,3-Trichlorobenzene	U	L2 R7	0.230	1.00	1	03/03/2023 19:06	WG2016515
1,2,4-Trichlorobenzene	U	R7	0.481	1.00	1	03/03/2023 19:06	WG2016515
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 19:06	WG2016515
1,1,2-Trichloroethane	69.7		0.158	1.00	1	03/03/2023 19:06	WG2016515
Trichloroethene	83600		475	2500	2500	03/08/2023 11:43	WG2018954
Trichlorofluoromethane	U	R7	0.160	5.00	1	03/03/2023 19:06	WG2016515
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 19:06	WG2016515
1,2,4-Trimethylbenzene	0.457	E4	0.322	1.00	1	03/03/2023 19:06	WG2016515
1,2,3-Trimethylbenzene	1.19		0.104	1.00	1	03/03/2023 19:06	WG2016515
1,3,5-Trimethylbenzene	0.178	E4	0.104	1.00	1	03/03/2023 19:06	WG2016515
Vinyl chloride	0.755	E4	0.234	1.00	1	03/03/2023 19:06	WG2016515
Xylenes, Total	66.3		0.174	3.00	1	03/03/2023 19:06	WG2016515
(S) Toluene-d8	104			80.0-120		03/03/2023 19:06	WG2016515
(S) Toluene-d8	106			80.0-120		03/07/2023 16:47	WG2018468
(S) Toluene-d8	98.8			80.0-120		03/08/2023 11:43	WG2018954
(S) 4-Bromofluorobenzene	95.0			77.0-126		03/03/2023 19:06	WG2016515
(S) 4-Bromofluorobenzene	103			77.0-126		03/07/2023 16:47	WG2018468
(S) 4-Bromofluorobenzene	99.2			77.0-126		03/08/2023 11:43	WG2018954
(S) 1,2-Dichloroethane-d4	104			70.0-130		03/03/2023 19:06	WG2016515
(S) 1,2-Dichloroethane-d4	95.1			70.0-130		03/07/2023 16:47	WG2018468
(S) 1,2-Dichloroethane-d4	106			70.0-130		03/08/2023 11:43	WG2018954

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	39600		149	750	250	03/08/2023 09:35	WG2018325
(S) Toluene-d8	103			77.0-127		03/08/2023 09:35	WG2018325



Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Perchlorate	278		1.50	20.0	5	03/04/2023 05:54	<a href="#">WG2016165</a>

Sample Narrative:

L1590633-17 WG2016165: 5x

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Acrolein	U	<u>L2</u>	2.54	50.0	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Benzene	U		0.0941	1.00	1	03/07/2023 17:08	<a href="#">WG2018468</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Bromoform	U		0.129	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Chloroform	U		0.111	5.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1-Dichloroethene	U		0.188	1.00	1	03/07/2023 17:08	<a href="#">WG2018468</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Methylene Chloride	U		0.430	5.00	1	03/08/2023 12:02	<a href="#">WG2018954</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Naphthalene	U	<a href="#">L2 R7</a>	1.00	5.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Propene	U	<a href="#">R7</a>	0.936	2.50	1	03/03/2023 19:25	<a href="#">WG2016515</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Styrene	U		0.118	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Toluene	U		0.278	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2,3-Trichlorobenzene	U	<a href="#">L2 R7</a>	0.230	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2,4-Trichlorobenzene	U	<a href="#">R7</a>	0.481	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Trichloroethene	U		0.190	1.00	1	03/08/2023 12:02	<a href="#">WG2018954</a>
Trichlorofluoromethane	U	<a href="#">R7</a>	0.160	5.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 19:25	<a href="#">WG2016515</a>
(S) Toluene-d8	109			80.0-120		03/03/2023 19:25	<a href="#">WG2016515</a>
(S) Toluene-d8	107			80.0-120		03/07/2023 17:08	<a href="#">WG2018468</a>
(S) Toluene-d8	103			80.0-120		03/08/2023 12:02	<a href="#">WG2018954</a>
(S) 4-Bromofluorobenzene	82.6			77.0-126		03/03/2023 19:25	<a href="#">WG2016515</a>
(S) 4-Bromofluorobenzene	100			77.0-126		03/07/2023 17:08	<a href="#">WG2018468</a>
(S) 4-Bromofluorobenzene	92.6			77.0-126		03/08/2023 12:02	<a href="#">WG2018954</a>
(S) 1,2-Dichloroethane-d4	99.5			70.0-130		03/03/2023 19:25	<a href="#">WG2016515</a>
(S) 1,2-Dichloroethane-d4	95.2			70.0-130		03/07/2023 17:08	<a href="#">WG2018468</a>
(S) 1,2-Dichloroethane-d4	97.6			70.0-130		03/08/2023 12:02	<a href="#">WG2018954</a>

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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Is

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Gl

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Al

10  
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/08/2023 07:53	<a href="#">WG2018325</a>
(S) Toluene-d8	102			77.0-127		03/08/2023 07:53	<a href="#">WG2018325</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Acrolein	U	<a href="#">L2</a>	2.54	50.0	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Acrylonitrile	U		0.671	10.0	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Benzene	U		0.0941	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Bromobenzene	U		0.118	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Bromodichloromethane	U		0.136	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Bromoform	U		0.129	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Bromomethane	U		0.605	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,3-Butadiene	U		0.299	2.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
n-Butylbenzene	U		0.157	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
sec-Butylbenzene	U		0.125	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
tert-Butylbenzene	U		0.127	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Carbon tetrachloride	U		0.128	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Carbon disulfide	U		0.0962	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Chlorobenzene	U		0.116	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Chlorodibromomethane	U		0.140	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Chloroethane	U		0.192	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Chloroform	U		0.111	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Chloromethane	U		0.960	2.50	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Cyclohexane	U		0.188	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
2-Chlorotoluene	U		0.106	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
4-Chlorotoluene	U		0.114	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2-Dibromoethane	U		0.126	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Dibromomethane	U		0.122	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2-Dichlorobenzene	U		0.107	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,3-Dichlorobenzene	U		0.110	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,4-Dichlorobenzene	U		0.120	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Dichlorodifluoromethane	U		0.374	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1-Dichloroethane	U		0.100	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2-Dichloroethane	U		0.0819	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1-Dichloroethene	U		0.188	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2-Dichloropropane	U		0.149	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1-Dichloropropene	U		0.142	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,3-Dichloropropane	U		0.110	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
2,2-Dichloropropane	U		0.161	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Dicyclopentadiene	U		0.253	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Di-isopropyl ether	U		0.105	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Ethylbenzene	U		0.137	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
4-Ethyltoluene	U		0.208	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
n-Hexane	U		0.749	10.0	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Isopropylbenzene	U		0.105	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
p-Isopropyltoluene	U		0.120	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
2-Butanone (MEK)	U		1.19	10.0	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Methyl Cyclohexane	U		0.660	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Methylene Chloride	U		0.430	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Methyl tert-butyl ether	U		0.101	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Naphthalene	U	<a href="#">L2</a> <a href="#">R7</a>	1.00	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Propene	U	<a href="#">R7</a>	0.936	2.50	1	03/03/2023 12:27	<a href="#">WG2016515</a>
n-Propylbenzene	U		0.0993	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

TRIP BLANK

SAMPLE RESULTS - 18

Collected date/time: 02/25/23 00:00

L1590633

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.118	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Tetrachloroethene	U		0.300	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Toluene	U		0.278	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2,3-Trichlorobenzene	U	<a href="#">L2 R7</a>	0.230	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2,4-Trichlorobenzene	U	<a href="#">R7</a>	0.481	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Trichloroethene	U		0.190	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Trichlorofluoromethane	U	<a href="#">R7</a>	0.160	5.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Vinyl chloride	U		0.234	1.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
Xylenes, Total	U		0.174	3.00	1	03/03/2023 12:27	<a href="#">WG2016515</a>
(S) Toluene-d8	104			80.0-120		03/03/2023 12:27	<a href="#">WG2016515</a>
(S) 4-Bromofluorobenzene	88.6			77.0-126		03/03/2023 12:27	<a href="#">WG2016515</a>
(S) 1,2-Dichloroethane-d4	105			70.0-130		03/03/2023 12:27	<a href="#">WG2016515</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/06/2023 17:26	<a href="#">WG2017890</a>
(S) Toluene-d8	99.9			77.0-127		03/06/2023 17:26	<a href="#">WG2017890</a>

Method Blank (MB)

(MB) R3898393-1 03/03/23 03:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1590623-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1590623-02 03/03/23 07:10 • (DUP) R3898393-3 03/03/23 07:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	2.83	3.23	1	13.1	E4	15

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

L1590633-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1590633-12 03/03/23 18:03 • (DUP) R3898393-6 03/03/23 18:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	2.46	1.94	1	23.5	E4 R8	15

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R3898393-2 03/03/23 05:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Perchlorate	10.0	10.2	102	90.0-110	

L1590633-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590633-09 03/04/23 01:39 • (MS) R3898393-7 03/04/23 02:07 • (MSD) R3898393-8 03/04/23 02:35

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Perchlorate	20000	158000	180000	178000	107	100	2000	80.0-120			0.788	15

Sample Narrative:

OS: 2,000x

Method Blank (MB)

(MB) R3898394-2 03/03/23 05:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

Laboratory Control Sample (LCS)

(LCS) R3898394-1 03/03/23 05:16

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Perchlorate	10.0	10.2	102	90.0-110	

L1590623-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590623-05 03/03/23 10:00 • (MS) R3898394-3 03/03/23 10:28 • (MSD) R3898394-4 03/03/23 10:57

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Perchlorate	10.0	71.1	82.7	82.1	116	110	1	80.0-120			0.795	15

L1590633-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1590633-02 03/03/23 11:54 • (MS) R3898394-5 03/04/23 06:23

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Perchlorate	10.0	1.08	10.7	96.6	1	80.0-120	

L1590633-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1590633-05 03/03/23 12:51 • (MS) R3898394-6 03/04/23 06:51

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Perchlorate	10.0	U	10.0	100	1	80.0-120	

L1590633-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1590633-06 03/03/23 13:19 • (MS) R3898394-7 03/04/23 07:19

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Perchlorate	10.0	0.390	11.9	115	1	80.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

L1590633-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1590633-07 03/03/23 13:47 • (MS) R3898394-8 03/04/23 07:48

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Perchlorate	10.0	U	11.2	112	1	80.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3899389-1 03/08/23 22:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1590633-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1590633-08 03/09/23 02:48 • (DUP) R3899389-9 03/09/23 06:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	U	U	50	0.000		15

Sample Narrative:

OS: 50x

L1590633-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1590633-13 03/09/23 00:58 • (DUP) R3899389-10 03/09/23 06:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	U	U	10	0.000		15

Sample Narrative:

OS: 10x

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

(LCS) R3899389-2 03/09/23 00:01 • (LCSD) R3899389-6 03/09/23 04:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Perchlorate	10.0	10.5	9.65	105	96.5	90.0-110			8.35	15

L1590633-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590633-13 03/09/23 00:58 • (MS) R3899389-4 03/09/23 02:01 • (MSD) R3899389-5 03/09/23 03:19

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Perchlorate	100	U	108	108	108	108	10	80.0-120			0.247	15

Sample Narrative:



L1590633-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590633-13 03/09/23 00:58 • (MS) R3899389-4 03/09/23 02:01 • (MSD) R3899389-5 03/09/23 03:19

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
OS: 10x												

L1590633-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590633-08 03/09/23 02:48 • (MS) R3899389-7 03/09/23 05:13 • (MSD) R3899389-8 03/09/23 05:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Perchlorate	500	U	394	375	78.8	75.0	50	80.0-120	<u>M2</u>	<u>M2</u>	4.98	15

Sample Narrative:

OS: 50x

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3897097-3 03/03/23 10:40

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Carbon disulfide	U		0.0962	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3897097-3 03/03/23 10:40

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	107			80.0-120
(S) 4-Bromofluorobenzene	103			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

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

(LCS) R3897097-1 03/03/23 08:57 • (LCSD) R3897097-2 03/03/23 09:18

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	25.0	19.7	20.3	78.8	81.2	19.0-160			3.00	27
Acrolein	25.0	20.9	20.6	83.6	82.4	30.0-160			1.45	26
Acrylonitrile	25.0	19.7	23.2	78.8	92.8	55.0-149			16.3	20
Benzene	5.00	4.99	5.19	99.8	104	70.0-123			3.93	20
Bromobenzene	5.00	4.59	4.96	91.8	99.2	73.0-121			7.75	20
Bromodichloromethane	5.00	5.02	5.06	100	101	75.0-120			0.794	20
Bromoform	5.00	4.59	4.87	91.8	97.4	68.0-132			5.92	20
Bromomethane	5.00	5.46	5.67	109	113	30.0-160			3.77	25
1,3-Butadiene	5.00	4.26	4.31	85.2	86.2	45.0-147			1.17	20
n-Butylbenzene	5.00	4.78	5.06	95.6	101	73.0-125			5.69	20
sec-Butylbenzene	5.00	4.91	5.24	98.2	105	75.0-125			6.50	20
tert-Butylbenzene	5.00	5.19	5.45	104	109	76.0-124			4.89	20
Carbon tetrachloride	5.00	5.60	5.82	112	116	68.0-126			3.85	20
Carbon disulfide	5.00	4.80	5.10	96.0	102	61.0-128			6.06	20
Chlorobenzene	5.00	5.16	5.50	103	110	80.0-121			6.38	20
Chlorodibromomethane	5.00	4.90	5.35	98.0	107	77.0-125			8.78	20
Chloroethane	5.00	5.56	5.58	111	112	47.0-150			0.359	20
Chloroform	5.00	5.47	5.54	109	111	73.0-120			1.27	20
Chloromethane	5.00	4.58	4.83	91.6	96.6	41.0-142			5.31	20
Cyclohexane	5.00	4.53	4.89	90.6	97.8	71.0-124			7.64	20
2-Chlorotoluene	5.00	5.07	5.11	101	102	76.0-123			0.786	20
4-Chlorotoluene	5.00	4.88	5.02	97.6	100	75.0-122			2.83	20
1,2-Dibromo-3-Chloropropane	5.00	3.93	4.35	78.6	87.0	58.0-134			10.1	20
1,2-Dibromoethane	5.00	4.60	5.13	92.0	103	80.0-122			10.9	20
Dibromomethane	5.00	5.06	4.97	101	99.4	80.0-120			1.79	20
1,2-Dichlorobenzene	5.00	4.80	5.34	96.0	107	79.0-121			10.7	20
1,3-Dichlorobenzene	5.00	5.02	5.43	100	109	79.0-120			7.85	20
1,4-Dichlorobenzene	5.00	5.03	5.13	101	103	79.0-120			1.97	20
Dichlorodifluoromethane	5.00	5.23	5.78	105	116	51.0-149			9.99	20
1,1-Dichloroethane	5.00	5.15	5.45	103	109	70.0-126			5.66	20
1,2-Dichloroethane	5.00	5.04	5.10	101	102	70.0-128			1.18	20
1,1-Dichloroethene	5.00	5.20	5.08	104	102	71.0-124			2.33	20
cis-1,2-Dichloroethene	5.00	5.01	5.41	100	108	73.0-120			7.68	20
trans-1,2-Dichloroethene	5.00	5.23	5.55	105	111	73.0-120			5.94	20
1,2-Dichloropropane	5.00	5.15	4.71	103	94.2	77.0-125			8.92	20
1,1-Dichloropropene	5.00	5.46	5.58	109	112	74.0-126			2.17	20
1,3-Dichloropropane	5.00	4.68	4.94	93.6	98.8	80.0-120			5.41	20
cis-1,3-Dichloropropene	5.00	4.90	5.42	98.0	108	80.0-123			10.1	20
trans-1,3-Dichloropropene	5.00	4.80	4.92	96.0	98.4	78.0-124			2.47	20
2,2-Dichloropropane	5.00	5.78	6.02	116	120	58.0-130			4.07	20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

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

(LCS) R3897097-1 03/03/23 08:57 • (LCSD) R3897097-2 03/03/23 09:18

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 %
Dicyclopentadiene	5.00	4.56	4.71	91.2	94.2	74.0-126			3.24	20
Di-isopropyl ether	5.00	4.48	4.51	89.6	90.2	58.0-138			0.667	20
Ethylbenzene	5.00	5.01	4.95	100	99.0	79.0-123			1.20	20
4-Ethyltoluene	5.00	5.11	5.32	102	106	74.0-127			4.03	20
Hexachloro-1,3-butadiene	5.00	5.59	6.02	112	120	54.0-138			7.41	20
n-Hexane	5.00	4.82	4.39	96.4	87.8	57.0-133			9.34	20
Isopropylbenzene	5.00	5.02	5.34	100	107	76.0-127			6.18	20
p-Isopropyltoluene	5.00	5.04	5.50	101	110	76.0-125			8.73	20
2-Butanone (MEK)	25.0	17.2	19.6	68.8	78.4	44.0-160			13.0	20
Methyl Cyclohexane	5.00	4.52	4.77	90.4	95.4	68.0-126			5.38	20
Methylene Chloride	5.00	5.15	5.07	103	101	67.0-120			1.57	20
4-Methyl-2-pentanone (MIBK)	25.0	17.9	20.0	71.6	80.0	68.0-142			11.1	20
Methyl tert-butyl ether	5.00	4.72	5.06	94.4	101	68.0-125			6.95	20
Naphthalene	5.00	3.09	3.78	61.8	75.6	54.0-135		R7	20.1	20
Propene	5.00	3.33	3.16	66.6	63.2	30.0-160			5.24	20
n-Propylbenzene	5.00	4.81	5.12	96.2	102	77.0-124			6.24	20
Styrene	5.00	4.80	5.45	96.0	109	73.0-130			12.7	20
1,1,1,2-Tetrachloroethane	5.00	5.32	5.56	106	111	75.0-125			4.41	20
1,1,2,2-Tetrachloroethane	5.00	4.11	4.51	82.2	90.2	65.0-130			9.28	20
1,1,2-Trichlorotrifluoroethane	5.00	4.81	5.10	96.2	102	69.0-132			5.85	20
Tetrachloroethene	5.00	5.31	5.51	106	110	72.0-132			3.70	20
Toluene	5.00	4.69	5.28	93.8	106	79.0-120			11.8	20
1,2,3-Trichlorobenzene	5.00	3.83	4.51	76.6	90.2	50.0-138			16.3	20
1,2,4-Trichlorobenzene	5.00	4.24	4.74	84.8	94.8	57.0-137			11.1	20
1,1,1-Trichloroethane	5.00	5.47	5.92	109	118	73.0-124			7.90	20
1,1,2-Trichloroethane	5.00	4.49	4.91	89.8	98.2	80.0-120			8.94	20
Trichloroethene	5.00	5.56	5.84	111	117	78.0-124			4.91	20
Trichlorofluoromethane	5.00	5.76	5.76	115	115	59.0-147			0.000	20
1,2,3-Trichloropropane	5.00	4.58	4.72	91.6	94.4	73.0-130			3.01	20
1,2,4-Trimethylbenzene	5.00	5.12	5.34	102	107	76.0-121			4.21	20
1,2,3-Trimethylbenzene	5.00	4.93	5.28	98.6	106	77.0-120			6.86	20
1,3,5-Trimethylbenzene	5.00	4.94	5.27	98.8	105	76.0-122			6.46	20
Vinyl chloride	5.00	5.23	5.60	105	112	67.0-131			6.83	20
Xylenes, Total	15.0	15.2	16.0	101	107	79.0-123			5.13	20
(S) Toluene-d8				106	111	80.0-120				
(S) 4-Bromofluorobenzene				103	106	77.0-126				
(S) 1,2-Dichloroethane-d4				105	109	70.0-130				

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

L1590633-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590633-09 03/03/23 18:10 • (MS) R3897097-4 03/03/23 19:53 • (MSD) R3897097-5 03/03/23 20:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	25.0	35.4	100	142	1	10.0-160			34.4	35
Acrolein	25.0	U	20.4	20.5	81.6	82.0	1	10.0-160			0.489	39
Acrylonitrile	25.0	U	25.6	25.6	102	102	1	21.0-160			0.000	32
Benzene	5.00	1.94	7.88	7.81	119	117	1	17.0-158			0.892	27
Bromobenzene	5.00	U	5.46	5.23	109	105	1	30.0-149			4.30	28
Bromodichloromethane	5.00	U	6.47	5.91	129	118	1	31.0-150			9.05	27
Bromoform	5.00	U	5.81	5.90	116	118	1	29.0-150			1.54	29
Bromomethane	5.00	U	5.68	5.96	114	119	1	10.0-160			4.81	38
1,3-Butadiene	5.00	U	4.84	4.71	96.8	94.2	1	10.0-160			2.72	22
n-Butylbenzene	5.00	U	5.54	5.64	111	113	1	31.0-150			1.79	30
sec-Butylbenzene	5.00	U	5.71	5.82	114	116	1	33.0-155			1.91	29
tert-Butylbenzene	5.00	U	6.07	5.95	121	119	1	34.0-153			2.00	28
Carbon tetrachloride	5.00	U	7.30	7.43	146	149	1	23.0-159			1.77	28
Carbon disulfide	5.00	U	4.55	4.55	91.0	91.0	1	10.0-156			0.000	28
Chlorobenzene	5.00	U	6.34	5.92	127	118	1	33.0-152			6.85	27
Chlorodibromomethane	5.00	U	6.34	5.96	127	119	1	37.0-149			6.18	27
Chloroethane	5.00	U	6.83	6.32	137	126	1	10.0-160			7.76	30
Chloroform	5.00	2.16	8.33	8.62	123	129	1	29.0-154			3.42	28
Chloromethane	5.00	U	4.54	4.73	90.8	94.6	1	10.0-160			4.10	29
Cyclohexane	5.00	U	5.82	5.72	116	114	1	19.0-160			1.73	23
2-Chlorotoluene	5.00	U	5.90	5.82	118	116	1	32.0-153			1.37	28
4-Chlorotoluene	5.00	U	5.69	5.60	114	112	1	32.0-150			1.59	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.04	5.14	101	103	1	22.0-151			1.96	34
1,2-Dibromoethane	5.00	U	5.96	5.62	119	112	1	34.0-147			5.87	27
Dibromomethane	5.00	U	6.08	5.59	122	112	1	30.0-151			8.40	27
1,2-Dichlorobenzene	5.00	U	5.72	5.55	114	111	1	34.0-149			3.02	28
1,3-Dichlorobenzene	5.00	U	5.92	5.75	118	115	1	36.0-146			2.91	27
1,4-Dichlorobenzene	5.00	U	5.73	5.57	115	111	1	35.0-142			2.83	27
Dichlorodifluoromethane	5.00	U	5.99	6.29	120	126	1	10.0-160			4.89	29
1,1-Dichloroethane	5.00	1.28	7.41	7.19	123	118	1	25.0-158			3.01	27
1,2-Dichloroethane	5.00	U	6.37	6.01	127	120	1	29.0-151			5.82	27
1,1-Dichloroethene	5.00	132	130	134	0.000	40.0	1	11.0-160	M3		3.03	29
cis-1,2-Dichloroethene	5.00	2.31	8.30	7.87	120	111	1	10.0-160			5.32	27
trans-1,2-Dichloroethene	5.00	0.359	6.38	6.04	120	114	1	17.0-153			5.48	27
1,2-Dichloropropane	5.00	U	6.09	5.52	122	110	1	30.0-156			9.82	27
1,1-Dichloropropene	5.00	U	6.70	6.25	134	125	1	25.0-158			6.95	27
1,3-Dichloropropane	5.00	U	5.67	5.50	113	110	1	38.0-147			3.04	27
cis-1,3-Dichloropropene	5.00	U	6.00	5.79	120	116	1	34.0-149			3.56	28
trans-1,3-Dichloropropene	5.00	U	5.63	5.66	113	113	1	32.0-149			0.531	28
2,2-Dichloropropane	5.00	U	6.87	6.24	137	125	1	24.0-152			9.61	29

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

L1590633-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590633-09 03/03/23 18:10 • (MS) R3897097-4 03/03/23 19:53 • (MSD) R3897097-5 03/03/23 20:14

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	1.38	0.963	27.6	19.3	1	51.0-139	M2	M2 R5	35.6	20
Di-isopropyl ether	5.00	U	5.43	5.07	109	101	1	21.0-160			6.86	28
Ethylbenzene	5.00	U	5.96	5.69	119	114	1	30.0-155			4.64	27
4-Ethyltoluene	5.00	U	5.85	5.77	117	115	1	10.0-160			1.38	20
Hexachloro-1,3-butadiene	5.00	U	6.36	6.67	127	133	1	20.0-154			4.76	34
n-Hexane	5.00	U	4.70	4.95	94.0	99.0	1	10.0-153			5.18	28
Isopropylbenzene	5.00	U	6.29	6.00	126	120	1	28.0-157			4.72	27
p-Isopropyltoluene	5.00	U	6.02	6.01	120	120	1	30.0-154			0.166	29
2-Butanone (MEK)	25.0	U	22.5	21.6	90.0	86.4	1	10.0-160			4.08	32
Methyl Cyclohexane	5.00	U	12.7	12.7	254	254	1	11.0-160	M1	M1	0.000	24
Methylene Chloride	5.00	U	6.04	5.66	121	113	1	23.0-144			6.50	28
4-Methyl-2-pentanone (MIBK)	25.0	U	24.0	23.2	96.0	92.8	1	29.0-160			3.39	29
Methyl tert-butyl ether	5.00	U	6.06	5.75	121	115	1	28.0-150			5.25	29
Naphthalene	5.00	U	4.18	4.39	83.6	87.8	1	12.0-156			4.90	35
Propene	5.00	U	2.87	2.95	57.4	59.0	1	10.0-160			2.75	29
n-Propylbenzene	5.00	U	5.79	5.70	116	114	1	31.0-154			1.57	28
Styrene	5.00	U	5.69	5.34	114	107	1	33.0-155			6.35	28
1,1,1,2-Tetrachloroethane	5.00	U	6.80	6.08	136	122	1	36.0-151			11.2	29
1,1,2,2-Tetrachloroethane	5.00	U	5.20	5.25	104	105	1	33.0-150			0.957	28
1,1,2-Trichlorotrifluoroethane	5.00	0.346	6.83	7.12	130	135	1	23.0-160			4.16	30
Tetrachloroethene	5.00	1.40	8.20	7.49	136	122	1	10.0-160			9.05	27
Toluene	5.00	U	6.04	5.89	121	118	1	26.0-154			2.51	28
1,2,3-Trichlorobenzene	5.00	U	4.62	4.83	92.4	96.6	1	17.0-150			4.44	36
1,2,4-Trichlorobenzene	5.00	U	5.07	5.15	101	103	1	24.0-150			1.57	33
1,1,1-Trichloroethane	5.00	U	7.18	6.84	144	137	1	23.0-160			4.85	28
1,1,2-Trichloroethane	5.00	2.10	7.92	7.44	116	107	1	35.0-147			6.25	27
Trichloroethene	5.00	945	905	917	0.000	0.000	1	10.0-160	E1 M3	E1 M3	1.32	25
Trichlorofluoromethane	5.00	U	7.45	7.35	149	147	1	17.0-160			1.35	31
1,2,3-Trichloropropane	5.00	U	5.55	5.50	111	110	1	34.0-151			0.905	29
1,2,4-Trimethylbenzene	5.00	U	5.91	5.63	118	113	1	26.0-154			4.85	27
1,2,3-Trimethylbenzene	5.00	U	5.89	5.63	118	113	1	32.0-149			4.51	28
1,3,5-Trimethylbenzene	5.00	U	6.00	5.90	120	118	1	28.0-153			1.68	27
Vinyl chloride	5.00	U	6.35	6.03	127	121	1	10.0-160			5.17	27
Xylenes, Total	15.0	U	18.1	16.9	121	113	1	29.0-154			6.86	28
(S) Toluene-d8					107	104		80.0-120				
(S) 4-Bromofluorobenzene					106	103		77.0-126				
(S) 1,2-Dichloroethane-d4					109	110		70.0-130				



Method Blank (MB)

(MB) R3897193-4 03/03/23 10:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Carbon disulfide	U		0.0962	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3897193-4 03/03/23 10:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	106			80.0-120
(S) 4-Bromofluorobenzene	85.3			77.0-126
(S) 1,2-Dichloroethane-d4	104			70.0-130

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

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

(LCS) R3897193-1 03/03/23 09:01 • (LCSD) R3897193-2 03/03/23 09:20

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	25.0	30.5	34.0	122	136	19.0-160			10.9	27
Acrolein	25.0	4.69	4.49	18.8	18.0	30.0-160	L2	L2	4.36	26
Acrylonitrile	25.0	27.6	27.0	110	108	55.0-149			2.20	20
Benzene	5.00	5.37	5.42	107	108	70.0-123			0.927	20
Bromobenzene	5.00	5.30	5.34	106	107	73.0-121			0.752	20
Bromodichloromethane	5.00	5.28	5.15	106	103	75.0-120			2.49	20
Bromoform	5.00	4.41	4.45	88.2	89.0	68.0-132			0.903	20
Bromomethane	5.00	5.24	5.03	105	101	30.0-160			4.09	25
1,3-Butadiene	5.00	5.44	5.33	109	107	45.0-147			2.04	20
n-Butylbenzene	5.00	4.98	5.25	99.6	105	73.0-125			5.28	20
sec-Butylbenzene	5.00	5.33	5.33	107	107	75.0-125			0.000	20
tert-Butylbenzene	5.00	4.98	5.06	99.6	101	76.0-124			1.59	20
Carbon tetrachloride	5.00	5.38	5.22	108	104	68.0-126			3.02	20
Carbon disulfide	5.00	6.01	5.68	120	114	61.0-128			5.65	20
Chlorobenzene	5.00	5.23	5.13	105	103	80.0-121			1.93	20
Chlorodibromomethane	5.00	4.70	4.91	94.0	98.2	77.0-125			4.37	20
Chloroethane	5.00	5.65	5.59	113	112	47.0-150			1.07	20
Chloroform	5.00	5.28	5.26	106	105	73.0-120			0.380	20
Chloromethane	5.00	6.15	6.34	123	127	41.0-142			3.04	20
Cyclohexane	5.00	5.20	5.11	104	102	71.0-124			1.75	20
2-Chlorotoluene	5.00	5.42	5.37	108	107	76.0-123			0.927	20
4-Chlorotoluene	5.00	5.20	5.14	104	103	75.0-122			1.16	20
1,2-Dibromo-3-Chloropropane	5.00	4.11	4.52	82.2	90.4	58.0-134			9.50	20
1,2-Dibromoethane	5.00	5.05	5.07	101	101	80.0-122			0.395	20
Dibromomethane	5.00	5.18	5.05	104	101	80.0-120			2.54	20
1,2-Dichlorobenzene	5.00	5.03	5.24	101	105	79.0-121			4.09	20
1,3-Dichlorobenzene	5.00	5.28	5.33	106	107	79.0-120			0.943	20
1,4-Dichlorobenzene	5.00	5.01	5.30	100	106	79.0-120			5.63	20
Dichlorodifluoromethane	5.00	5.14	5.60	103	112	51.0-149			8.57	20
1,1-Dichloroethane	5.00	5.66	5.51	113	110	70.0-126			2.69	20
1,2-Dichloroethane	5.00	5.36	5.24	107	105	70.0-128			2.26	20
1,1-Dichloroethene	5.00	5.75	5.54	115	111	71.0-124			3.72	20
cis-1,2-Dichloroethene	5.00	5.27	4.87	105	97.4	73.0-120			7.89	20
trans-1,2-Dichloroethene	5.00	5.26	5.07	105	101	73.0-120			3.68	20
1,2-Dichloropropane	5.00	5.58	5.70	112	114	77.0-125			2.13	20
1,1-Dichloropropene	5.00	5.39	5.46	108	109	74.0-126			1.29	20
1,3-Dichloropropane	5.00	5.22	5.26	104	105	80.0-120			0.763	20
cis-1,3-Dichloropropene	5.00	5.09	5.10	102	102	80.0-123			0.196	20
trans-1,3-Dichloropropene	5.00	4.78	4.97	95.6	99.4	78.0-124			3.90	20
2,2-Dichloropropane	5.00	5.80	5.61	116	112	58.0-130			3.33	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

(LCS) R3897193-1 03/03/23 09:01 • (LCSD) R3897193-2 03/03/23 09:20

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 %
Dicyclopentadiene	5.00	5.27	5.39	105	108	74.0-126			2.25	20
Di-isopropyl ether	5.00	5.86	5.79	117	116	58.0-138			1.20	20
Ethylbenzene	5.00	4.85	4.88	97.0	97.6	79.0-123			0.617	20
4-Ethyltoluene	5.00	5.15	5.02	103	100	74.0-127			2.56	20
Hexachloro-1,3-butadiene	5.00	3.37	4.02	67.4	80.4	54.0-138			17.6	20
n-Hexane	5.00	6.14	6.29	123	126	57.0-133			2.41	20
Isopropylbenzene	5.00	4.67	4.76	93.4	95.2	76.0-127			1.91	20
p-Isopropyltoluene	5.00	4.96	4.95	99.2	99.0	76.0-125			0.202	20
2-Butanone (MEK)	25.0	28.1	29.7	112	119	44.0-160			5.54	20
Methyl Cyclohexane	5.00	5.29	5.32	106	106	68.0-126			0.566	20
Methylene Chloride	5.00	5.66	5.29	113	106	67.0-120			6.76	20
4-Methyl-2-pentanone (MIBK)	25.0	29.9	30.4	120	122	68.0-142			1.66	20
Methyl tert-butyl ether	5.00	5.50	5.27	110	105	68.0-125			4.27	20
Naphthalene	5.00	2.66	3.92	53.2	78.4	54.0-135	L2	R7	38.3	20
Propene	5.00	2.24	3.11	44.8	62.2	30.0-160		R7	32.5	20
n-Propylbenzene	5.00	5.54	5.37	111	107	77.0-124			3.12	20
Styrene	5.00	4.35	4.16	87.0	83.2	73.0-130			4.47	20
1,1,1,2-Tetrachloroethane	5.00	5.09	4.81	102	96.2	75.0-125			5.66	20
1,1,2,2-Tetrachloroethane	5.00	5.92	5.44	118	109	65.0-130			8.45	20
1,1,2-Trichlorotrifluoroethane	5.00	5.40	5.67	108	113	69.0-132			4.88	20
Tetrachloroethene	5.00	5.27	5.43	105	109	72.0-132			2.99	20
Toluene	5.00	5.27	5.49	105	110	79.0-120			4.09	20
1,2,3-Trichlorobenzene	5.00	2.35	3.81	47.0	76.2	50.0-138	L2	R7	47.4	20
1,2,4-Trichlorobenzene	5.00	3.20	4.31	64.0	86.2	57.0-137		R7	29.6	20
1,1,1-Trichloroethane	5.00	5.75	5.64	115	113	73.0-124			1.93	20
1,1,2-Trichloroethane	5.00	5.09	5.12	102	102	80.0-120			0.588	20
Trichloroethene	5.00	5.13	5.19	103	104	78.0-124			1.16	20
Trichlorofluoromethane	5.00	3.08	5.57	61.6	111	59.0-147		R7	57.6	20
1,2,3-Trichloropropane	5.00	5.41	5.28	108	106	73.0-130			2.43	20
1,2,4-Trimethylbenzene	5.00	4.69	4.81	93.8	96.2	76.0-121			2.53	20
1,2,3-Trimethylbenzene	5.00	4.92	5.04	98.4	101	77.0-120			2.41	20
1,3,5-Trimethylbenzene	5.00	5.21	5.06	104	101	76.0-122			2.92	20
Vinyl chloride	5.00	5.70	5.58	114	112	67.0-131			2.13	20
Xylenes, Total	15.0	14.4	14.6	96.0	97.3	79.0-123			1.38	20
(S) Toluene-d8				101	105	80.0-120				
(S) 4-Bromofluorobenzene				86.6	89.5	77.0-126				
(S) 1,2-Dichloroethane-d4				104	104	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3897760-3 03/03/23 20:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Carbon disulfide	U		0.0962	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3897760-3 03/03/23 20:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	107			80.0-120
(S) 4-Bromofluorobenzene	96.1			77.0-126
(S) 1,2-Dichloroethane-d4	106			70.0-130

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

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

(LCS) R3897760-1 03/03/23 19:51 • (LCSD) R3897760-2 03/03/23 20:12

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	25.0	28.4	30.2	114	121	19.0-160			6.14	27
Acrolein	25.0	16.3	14.4	65.2	57.6	30.0-160			12.4	26
Acrylonitrile	25.0	25.2	25.6	101	102	55.0-149			1.57	20
Benzene	5.00	5.10	5.26	102	105	70.0-123			3.09	20
Bromobenzene	5.00	5.14	4.95	103	99.0	73.0-121			3.77	20
Bromodichloromethane	5.00	5.18	5.25	104	105	75.0-120			1.34	20
Bromoform	5.00	3.79	3.70	75.8	74.0	68.0-132			2.40	20
Bromomethane	5.00	5.46	5.30	109	106	30.0-160			2.97	25
1,3-Butadiene	5.00	3.49	3.65	69.8	73.0	45.0-147			4.48	20
n-Butylbenzene	5.00	4.85	5.06	97.0	101	73.0-125			4.24	20
sec-Butylbenzene	5.00	5.03	5.06	101	101	75.0-125			0.595	20
tert-Butylbenzene	5.00	4.89	4.77	97.8	95.4	76.0-124			2.48	20
Carbon tetrachloride	5.00	4.63	5.00	92.6	100	68.0-126			7.68	20
Carbon disulfide	5.00	4.15	4.28	83.0	85.6	61.0-128			3.08	20
Chlorobenzene	5.00	4.98	4.98	99.6	99.6	80.0-121			0.000	20
Chlorodibromomethane	5.00	4.73	4.57	94.6	91.4	77.0-125			3.44	20
Chloroethane	5.00	5.34	5.18	107	104	47.0-150			3.04	20
Chloroform	5.00	5.16	5.06	103	101	73.0-120			1.96	20
Chloromethane	5.00	5.74	5.87	115	117	41.0-142			2.24	20
Cyclohexane	5.00	4.51	4.67	90.2	93.4	71.0-124			3.49	20
2-Chlorotoluene	5.00	5.10	5.01	102	100	76.0-123			1.78	20
4-Chlorotoluene	5.00	4.79	4.72	95.8	94.4	75.0-122			1.47	20
1,2-Dibromo-3-Chloropropane	5.00	4.06	4.26	81.2	85.2	58.0-134			4.81	20
1,2-Dibromoethane	5.00	4.90	5.14	98.0	103	80.0-122			4.78	20
Dibromomethane	5.00	5.27	5.20	105	104	80.0-120			1.34	20
1,2-Dichlorobenzene	5.00	4.77	4.68	95.4	93.6	79.0-121			1.90	20
1,3-Dichlorobenzene	5.00	4.60	4.57	92.0	91.4	79.0-120			0.654	20
1,4-Dichlorobenzene	5.00	4.93	4.97	98.6	99.4	79.0-120			0.808	20
Dichlorodifluoromethane	5.00	4.86	5.12	97.2	102	51.0-149			5.21	20
1,1-Dichloroethane	5.00	4.96	5.25	99.2	105	70.0-126			5.68	20
1,2-Dichloroethane	5.00	5.40	5.46	108	109	70.0-128			1.10	20
1,1-Dichloroethene	5.00	4.44	4.54	88.8	90.8	71.0-124			2.23	20
cis-1,2-Dichloroethene	5.00	4.83	4.89	96.6	97.8	73.0-120			1.23	20
trans-1,2-Dichloroethene	5.00	4.76	4.78	95.2	95.6	73.0-120			0.419	20
1,2-Dichloropropane	5.00	5.33	5.03	107	101	77.0-125			5.79	20
1,1-Dichloropropene	5.00	4.87	5.28	97.4	106	74.0-126			8.08	20
1,3-Dichloropropane	5.00	5.00	5.16	100	103	80.0-120			3.15	20
cis-1,3-Dichloropropene	5.00	5.16	5.15	103	103	80.0-123			0.194	20
trans-1,3-Dichloropropene	5.00	4.50	4.60	90.0	92.0	78.0-124			2.20	20
2,2-Dichloropropane	5.00	4.71	4.65	94.2	93.0	58.0-130			1.28	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

(LCS) R3897760-1 03/03/23 19:51 • (LCSD) R3897760-2 03/03/23 20:12

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 %
Dicyclopentadiene	5.00	5.21	5.20	104	104	74.0-126			0.192	20
Di-isopropyl ether	5.00	4.66	4.50	93.2	90.0	58.0-138			3.49	20
Ethylbenzene	5.00	4.78	4.81	95.6	96.2	79.0-123			0.626	20
4-Ethyltoluene	5.00	4.81	4.82	96.2	96.4	74.0-127			0.208	20
Hexachloro-1,3-butadiene	5.00	5.54	5.95	111	119	54.0-138			7.14	20
n-Hexane	5.00	4.93	5.10	98.6	102	57.0-133			3.39	20
Isopropylbenzene	5.00	4.52	4.58	90.4	91.6	76.0-127			1.32	20
p-Isopropyltoluene	5.00	5.12	5.01	102	100	76.0-125			2.17	20
2-Butanone (MEK)	25.0	27.5	28.5	110	114	44.0-160			3.57	20
Methyl Cyclohexane	5.00	4.49	4.44	89.8	88.8	68.0-126			1.12	20
Methylene Chloride	5.00	4.85	4.71	97.0	94.2	67.0-120			2.93	20
4-Methyl-2-pentanone (MIBK)	25.0	24.1	24.2	96.4	96.8	68.0-142			0.414	20
Methyl tert-butyl ether	5.00	4.66	4.80	93.2	96.0	68.0-125			2.96	20
Naphthalene	5.00	3.40	3.58	68.0	71.6	54.0-135			5.16	20
Propene	5.00	2.54	2.35	50.8	47.0	30.0-160			7.77	20
n-Propylbenzene	5.00	4.96	4.90	99.2	98.0	77.0-124			1.22	20
Styrene	5.00	4.22	4.44	84.4	88.8	73.0-130			5.08	20
1,1,1,2-Tetrachloroethane	5.00	5.14	4.99	103	99.8	75.0-125			2.96	20
1,1,2,2-Tetrachloroethane	5.00	5.02	5.04	100	101	65.0-130			0.398	20
1,1,2-Trichlorotrifluoroethane	5.00	4.56	4.79	91.2	95.8	69.0-132			4.92	20
Tetrachloroethene	5.00	4.34	4.77	86.8	95.4	72.0-132			9.44	20
Toluene	5.00	4.81	4.84	96.2	96.8	79.0-120			0.622	20
1,2,3-Trichlorobenzene	5.00	5.30	5.38	106	108	50.0-138			1.50	20
1,2,4-Trichlorobenzene	5.00	3.83	4.66	76.6	93.2	57.0-137			19.6	20
1,1,1-Trichloroethane	5.00	5.10	5.25	102	105	73.0-124			2.90	20
1,1,2-Trichloroethane	5.00	4.97	4.96	99.4	99.2	80.0-120			0.201	20
Trichloroethene	5.00	5.09	5.22	102	104	78.0-124			2.52	20
Trichlorofluoromethane	5.00	5.10	5.82	102	116	59.0-147			13.2	20
1,2,3-Trichloropropane	5.00	5.14	5.13	103	103	73.0-130			0.195	20
1,2,4-Trimethylbenzene	5.00	4.77	4.64	95.4	92.8	76.0-121			2.76	20
1,2,3-Trimethylbenzene	5.00	5.21	4.95	104	99.0	77.0-120			5.12	20
1,3,5-Trimethylbenzene	5.00	4.94	4.82	98.8	96.4	76.0-122			2.46	20
Vinyl chloride	5.00	4.68	4.49	93.6	89.8	67.0-131			4.14	20
Xylenes, Total	15.0	14.0	14.3	93.3	95.3	79.0-123			2.12	20
(S) Toluene-d8				101	101	80.0-120				
(S) 4-Bromofluorobenzene				93.3	95.3	77.0-126				
(S) 1,2-Dichloroethane-d4				100	102	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

L1591329-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1591329-02 03/04/23 02:42 • (MS) R3897760-4 03/04/23 07:57 • (MSD) R3897760-5 03/04/23 08:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	26.9	26.6	108	106	1	10.0-160			1.12	35
Acrolein	25.0	U	22.1	20.8	88.4	83.2	1	10.0-160			6.06	39
Acrylonitrile	25.0	U	25.7	24.6	103	98.4	1	21.0-160			4.37	32
Benzene	5.00	U	5.34	4.75	107	95.0	1	17.0-158			11.7	27
Bromobenzene	5.00	U	5.08	4.34	102	86.8	1	30.0-149			15.7	28
Bromodichloromethane	5.00	U	5.08	4.67	102	93.4	1	31.0-150			8.41	27
Bromoform	5.00	U	3.67	3.67	73.4	73.4	1	29.0-150			0.000	29
Bromomethane	5.00	U	4.67	4.24	93.4	84.8	1	10.0-160			9.65	38
1,3-Butadiene	5.00	U	4.08	3.74	81.6	74.8	1	10.0-160			8.70	22
n-Butylbenzene	5.00	U	5.00	4.38	100	87.6	1	31.0-150			13.2	30
sec-Butylbenzene	5.00	U	5.22	4.45	104	89.0	1	33.0-155			15.9	29
tert-Butylbenzene	5.00	U	4.95	4.22	99.0	84.4	1	34.0-153			15.9	28
Carbon tetrachloride	5.00	U	5.56	4.87	111	97.4	1	23.0-159			13.2	28
Carbon disulfide	5.00	U	4.68	3.89	93.6	77.8	1	10.0-156			18.4	28
Chlorobenzene	5.00	U	5.05	4.72	101	94.4	1	33.0-152			6.76	27
Chlorodibromomethane	5.00	U	4.60	4.15	92.0	83.0	1	37.0-149			10.3	27
Chloroethane	5.00	U	5.65	4.89	113	97.8	1	10.0-160			14.4	30
Chloroform	5.00	U	5.34	4.54	107	90.8	1	29.0-154			16.2	28
Chloromethane	5.00	U	6.10	5.33	122	107	1	10.0-160			13.5	29
Cyclohexane	5.00	U	5.50	4.36	110	87.2	1	19.0-160	R5		23.1	23
2-Chlorotoluene	5.00	U	5.20	4.51	104	90.2	1	32.0-153			14.2	28
4-Chlorotoluene	5.00	U	4.70	4.18	94.0	83.6	1	32.0-150			11.7	28
1,2-Dibromo-3-Chloropropane	5.00	U	4.40	4.36	88.0	87.2	1	22.0-151			0.913	34
1,2-Dibromoethane	5.00	U	5.03	4.75	101	95.0	1	34.0-147			5.73	27
Dibromomethane	5.00	U	5.24	4.95	105	99.0	1	30.0-151			5.69	27
1,2-Dichlorobenzene	5.00	U	4.92	4.44	98.4	88.8	1	34.0-149			10.3	28
1,3-Dichlorobenzene	5.00	U	4.79	4.05	95.8	81.0	1	36.0-146			16.7	27
1,4-Dichlorobenzene	5.00	U	5.06	4.56	101	91.2	1	35.0-142			10.4	27
Dichlorodifluoromethane	5.00	U	6.24	4.92	125	98.4	1	10.0-160			23.7	29
1,1-Dichloroethane	5.00	U	5.07	4.70	101	94.0	1	25.0-158			7.57	27
1,2-Dichloroethane	5.00	U	5.18	4.73	104	94.6	1	29.0-151			9.08	27
1,1-Dichloroethene	5.00	U	4.66	4.24	93.2	84.8	1	11.0-160			9.44	29
cis-1,2-Dichloroethene	5.00	U	5.12	4.59	102	91.8	1	10.0-160			10.9	27
trans-1,2-Dichloroethene	5.00	U	5.17	4.28	103	85.6	1	17.0-153			18.8	27
1,2-Dichloropropane	5.00	U	5.25	4.64	105	92.8	1	30.0-156			12.3	27
1,1-Dichloropropene	5.00	U	5.47	4.96	109	99.2	1	25.0-158			9.78	27
1,3-Dichloropropane	5.00	U	5.15	4.54	103	90.8	1	38.0-147			12.6	27
cis-1,3-Dichloropropene	5.00	U	4.60	4.28	92.0	85.6	1	34.0-149			7.21	28
trans-1,3-Dichloropropene	5.00	U	4.79	4.10	95.8	82.0	1	32.0-149			15.5	28
2,2-Dichloropropane	5.00	U	4.89	4.20	97.8	84.0	1	24.0-152			15.2	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



L1591329-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1591329-02 03/04/23 02:42 • (MS) R3897760-4 03/04/23 07:57 • (MSD) R3897760-5 03/04/23 08:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicyclopentadiene	5.00	U	5.06	4.36	101	87.2	1	51.0-139			14.9	20
Di-isopropyl ether	5.00	U	4.52	4.03	90.4	80.6	1	21.0-160			11.5	28
Ethylbenzene	5.00	U	5.06	4.48	101	89.6	1	30.0-155			12.2	27
4-Ethyltoluene	5.00	U	4.86	4.12	97.2	82.4	1	10.0-160			16.5	20
Hexachloro-1,3-butadiene	5.00	U	10.9	5.26	218	105	1	20.0-154	M1	R5	69.8	34
n-Hexane	5.00	U	5.24	4.57	105	91.4	1	10.0-153			13.7	28
Isopropylbenzene	5.00	U	4.87	4.31	97.4	86.2	1	28.0-157			12.2	27
p-Isopropyltoluene	5.00	U	5.22	4.34	104	86.8	1	30.0-154			18.4	29
2-Butanone (MEK)	25.0	U	26.8	26.6	107	106	1	10.0-160			0.749	32
Methyl Cyclohexane	5.00	U	5.45	4.45	109	89.0	1	11.0-160			20.2	24
Methylene Chloride	5.00	U	5.21	4.32	104	86.4	1	23.0-144			18.7	28
4-Methyl-2-pentanone (MIBK)	25.0	U	23.5	22.7	94.0	90.8	1	29.0-160			3.46	29
Methyl tert-butyl ether	5.00	U	4.66	4.27	93.2	85.4	1	28.0-150			8.73	29
Naphthalene	5.00	U	5.49	3.52	110	70.4	1	12.0-156		R5	43.7	35
Propene	5.00	U	2.66	2.02	53.2	40.4	1	10.0-160			27.4	29
n-Propylbenzene	5.00	U	5.06	4.27	101	85.4	1	31.0-154			16.9	28
Styrene	5.00	U	4.57	4.00	91.4	80.0	1	33.0-155			13.3	28
1,1,1,2-Tetrachloroethane	5.00	U	5.37	4.61	107	92.2	1	36.0-151			15.2	29
1,1,2,2-Tetrachloroethane	5.00	U	5.26	4.77	105	95.4	1	33.0-150			9.77	28
1,1,2-Trichlorotrifluoroethane	5.00	U	5.80	4.58	116	91.6	1	23.0-160			23.5	30
Tetrachloroethene	5.00	U	4.84	4.30	96.8	86.0	1	10.0-160			11.8	27
Toluene	5.00	U	5.05	4.49	101	89.8	1	26.0-154			11.7	28
1,2,3-Trichlorobenzene	5.00	U	7.52	5.33	150	107	1	17.0-150			34.1	36
1,2,4-Trichlorobenzene	5.00	U	7.36	4.22	147	84.4	1	24.0-150		R5	54.2	33
1,1,1-Trichloroethane	5.00	U	5.56	4.81	111	96.2	1	23.0-160			14.5	28
1,1,2-Trichloroethane	5.00	U	4.92	4.81	98.4	96.2	1	35.0-147			2.26	27
Trichloroethene	5.00	U	5.42	4.54	108	90.8	1	10.0-160			17.7	25
Trichlorofluoromethane	5.00	U	6.74	5.36	135	107	1	17.0-160			22.8	31
1,2,3-Trichloropropane	5.00	U	4.94	4.76	98.8	95.2	1	34.0-151			3.71	29
1,2,4-Trimethylbenzene	5.00	U	4.88	4.15	97.6	83.0	1	26.0-154			16.2	27
1,2,3-Trimethylbenzene	5.00	U	5.14	4.50	103	90.0	1	32.0-149			13.3	28
1,3,5-Trimethylbenzene	5.00	U	5.04	4.23	101	84.6	1	28.0-153			17.5	27
Vinyl chloride	5.00	U	5.23	4.58	105	91.6	1	10.0-160			13.3	27
Xylenes, Total	15.0	U	14.8	13.1	98.7	87.3	1	29.0-154			12.2	28
(S) Toluene-d8					99.4	102		80.0-120				
(S) 4-Bromofluorobenzene					98.3	93.1		77.0-126				
(S) 1,2-Dichloroethane-d4					101	98.4		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3898087-3 03/06/23 18:42

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,1-Dichloroethene	U		0.188	1.00
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	96.9			80.0-120
(S) 4-Bromofluorobenzene	89.8			77.0-126
(S) 1,2-Dichloroethane-d4	94.3			70.0-130

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

(LCS) R3898087-1 03/06/23 17:37 • (LCSD) R3898087-2 03/06/23 17:58

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,1-Dichloroethene	5.00	4.92	4.77	98.4	95.4	71.0-124			3.10	20
Trichloroethene	5.00	5.29	4.53	106	90.6	78.0-124			15.5	20
(S) Toluene-d8				93.6	95.8	80.0-120				
(S) 4-Bromofluorobenzene				89.4	92.8	77.0-126				
(S) 1,2-Dichloroethane-d4				95.7	98.4	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3897957-3 03/06/23 10:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methylene Chloride	U		0.430	5.00
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	93.0			77.0-126
(S) 1,2-Dichloroethane-d4	104			70.0-130

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

(LCS) R3897957-1 03/06/23 09:13 • (LCSD) R3897957-2 03/06/23 09:34

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methylene Chloride	5.00	4.96	4.72	99.2	94.4	67.0-120			4.96	20
Trichloroethene	5.00	5.09	5.35	102	107	78.0-124			4.98	20
(S) Toluene-d8				101	103	80.0-120				
(S) 4-Bromofluorobenzene				97.6	116	77.0-126				
(S) 1,2-Dichloroethane-d4				99.5	99.7	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3898455-3 03/07/23 10:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
1,1-Dichloroethene	U		0.188	1.00
Methylene Chloride	U		0.430	5.00
(S) Toluene-d8	106			80.0-120
(S) 4-Bromofluorobenzene	102			77.0-126
(S) 1,2-Dichloroethane-d4	92.9			70.0-130

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

(LCS) R3898455-1 03/07/23 09:41 • (LCSD) R3898455-2 03/07/23 10:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	4.35	4.33	87.0	86.6	70.0-123			0.461	20
1,1-Dichloroethene	5.00	4.10	4.07	82.0	81.4	71.0-124			0.734	20
Methylene Chloride	5.00	4.12	4.43	82.4	88.6	67.0-120			7.25	20
(S) Toluene-d8				108	104	80.0-120				
(S) 4-Bromofluorobenzene				105	106	77.0-126				
(S) 1,2-Dichloroethane-d4				89.1	93.3	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3898690-3 03/08/23 10:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methylene Chloride	U		0.430	5.00
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	99.9			80.0-120
(S) 4-Bromofluorobenzene	101			77.0-126
(S) 1,2-Dichloroethane-d4	99.8			70.0-130

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

(LCS) R3898690-1 03/08/23 09:37 • (LCSD) R3898690-2 03/08/23 09:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methylene Chloride	5.00	4.83	5.25	96.6	105	67.0-120			8.33	20
Trichloroethene	5.00	5.37	5.54	107	111	78.0-124			3.12	20
(S) Toluene-d8				97.2	97.2	80.0-120				
(S) 4-Bromofluorobenzene				94.1	98.3	77.0-126				
(S) 1,2-Dichloroethane-d4				103	98.1	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3897534-3 03/05/23 17:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	100			77.0-127

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

(LCS) R3897534-1 03/05/23 16:18 • (LCSD) R3897534-2 03/05/23 16:39

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
1,4-Dioxane	50.0	55.2	52.8	110	106	55.0-138			4.44	24
(S) Toluene-d8				101	99.6	77.0-127				

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

Method Blank (MB)

(MB) R3898049-2 03/06/23 15:40

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	99.8			77.0-127

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

(LCS) R3898049-1 03/06/23 14:00 • (LCSD) R3898049-3 03/06/23 16:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,4-Dioxane	50.0	51.0	49.8	102	99.6	55.0-138			2.38	24
(S) Toluene-d8				101	101	77.0-127				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3898050-2 03/06/23 15:40

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	99.8			77.0-127

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

(LCS) R3898050-1 03/06/23 14:00 • (LCSD) R3898050-3 03/06/23 16:00

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 %
1,4-Dioxane	50.0	51.0	49.8	102	99.6	55.0-138			2.38	24
(S) Toluene-d8				101	101	77.0-127				

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



Method Blank (MB)

(MB) R3898501-3 03/08/23 00:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	101			77.0-127

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

(LCS) R3898501-1 03/07/23 23:55 • (LCSD) R3898501-2 03/08/23 00:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
1,4-Dioxane	50.0	41.4	37.5	82.8	75.0	55.0-138			9.89	24
(S) Toluene-d8				101	101	77.0-127				

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

## INTERNAL STANDARD SUMMARY

## Instrument: VOCMS22 • File ID: 0306\_29

03/06/23 17:37

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0306_29	255992	114325	114573
Upper Limit		508328	223624	234710
Lower Limit		127082	55906	58678
LCS R3898087-1 WG2017615 1x	0306_29LCSC	255992	114325	114573
LCSD R3898087-2 WG2017615 1x	0306_30C	251904	110247	115061
BLANK R3898087-3 WG2017615 1x	0306_32C	248620	106990	103520
L1590633-10 WG2017615 1x	0306_38	240335	100474	101498
L1590633-09 WG2017615 20x	0306_49	250097	107220	108037

## Instrument: VOCMS25 • File ID: 0308\_05

03/08/23 09:37

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0308_05	351439	172883	191708
Upper Limit		702878	345766	383416
Lower Limit		175720	86442	95854
LCS R3898690-1 WG2018954 1x	0308_05LCSA	351439	172883	191708
LCSD R3898690-2 WG2018954 1x	0308_06A	329263	157245	186334
BLANK R3898690-3 WG2018954 1x	0308_07A	318430	144297	173804
L1590633-16 WG2018954 2500x	0308_09	305907	141725	167220
L1590633-17 WG2018954 1x	0308_10	325450	148366	142309

## Instrument: VOCMS32 • File ID: 0303\_02

03/03/23 09:01

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0303_02	256132	120383	98166
Upper Limit		512264	240766	196332
Lower Limit		128066	60192	49083
LCS R3897193-1 WG2016515 1x	0303_02LCS	256132	120383	98166
LCSD R3897193-2 WG2016515 1x	0303_03	266600	120221	100090
BLANK R3897193-4 WG2016515 1x	0303_06	243624	108393	79437

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS32 • File ID: 0303\_02

03/03/23 09:01

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1590633-18 WG2016515 1x	0303_07	255758	115562	98506
L1590633-15 WG2016515 1x	0303_27	245910	108135	72748
L1590633-16 WG2016515 1x	0303_28	279994	120019	102697
L1590633-17 WG2016515 1x	0303_29	241195	103587	62416
L1590633-13 WG2016515 5x	0303_30	248869	112315	101671
L1590633-14 WG2016515 100x	0303_31	263675	109123	77707

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Instrument: VOCMS33 • File ID: 0303\_23

03/03/23 19:51

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0303_23	202939	94398	75367
Upper Limit		405878	188796	150734
Lower Limit		101470	47199	37684
LCS R3897760-1 WG2016872 1x	0303_23LCS	202939	94398	75367
LCSD R3897760-2 WG2016872 1x	0303_24	203485	94296	78070
BLANK R3897760-3 WG2016872 1x	0303_26	175028	79538	63760
L1590633-12 WG2016872 1x	0303_48	183060	80836	111739
L1590633-11 WG2016872 100x	0303_52	176169	77994	63120
MS R3897760-4 WG2016872 1x	0303_54	198125	90286	76246
MSD R3897760-5 WG2016872 1x	0303_55	207288	95203	83254

## Instrument: VOCMS33 • File ID: 0306\_02

03/06/23 09:13

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0306_02	214331	100267	93169
Upper Limit		428662	200534	186338
Lower Limit		107166	50134	46585
LCS R3897957-1 WG2017864 1x	0306_02LCS	214331	100267	93169
LCSD R3897957-2 WG2017864 1x	0306_03	214109	97764	91239
BLANK R3897957-3 WG2017864 1x	0306_05	191949	87468	67303

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS33 • File ID: 0306\_02

03/06/23 09:13

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1590633-11 WG2017864 2500x	0306_19	225382	100000	87095

## Instrument: VOCMS33 • File ID: 0307\_02

03/07/23 09:41

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0307_02	268852	118923	129229
Upper Limit		537704	237846	258458
Lower Limit		134426	59462	64615
LCS R3898455-1 WG2018468 1x	0307_02LCSB	268852	118923	129229
LCSD R3898455-2 WG2018468 1x	0307_03B	247614	112395	120319
BLANK R3898455-3 WG2018468 1x	0307_05B	231309	102466	91644
L1590633-13 WG2018468 5x	0307_14	245815	109721	117521
L1590633-14 WG2018468 100x	0307_15	245550	104576	83536
L1590633-16 WG2018468 250x	0307_16	235612	103759	90085
L1590633-17 WG2018468 1x	0307_17	237666	106089	96760

## Instrument: VOCMS36 • File ID: 0303\_02

03/03/23 08:57

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0303_02	361991	170216	163499
Upper Limit		723982	340432	326998
Lower Limit		180996	85108	81750
LCS R3897097-1 WG2016487 1x	0303_02LCS	361991	170216	163499
LCSD R3897097-2 WG2016487 1x	0303_03	347692	158182	153972
BLANK R3897097-3 WG2016487 1x	0303_07	347458	159496	156200
L1590633-01 WG2016487 1x	0303_16	347326	160116	154518
L1590633-02 WG2016487 1x	0303_17	353366	156612	152008
L1590633-03 WG2016487 1x	0303_18	354425	162997	154024

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS36 • File ID: 0303\_19

03/03/23 16:07

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0303_19	351532	165556	160524
Upper Limit		723982	340432	326998
Lower Limit		180996	85108	81750
L1590633-04 WG2016487 1x	0303_21	351456	163284	158411
L1590633-05 WG2016487 1x	0303_22	342259	157267	154128
L1590633-06 WG2016487 1x	0303_23	334937	158163	143750
L1590633-07 WG2016487 1x	0303_24	339032	152530	147193
L1590633-09 WG2016487 1x	0303_25	345692	161277	152426
L1590633-10 WG2016487 1x	0303_26	331476	154573	141740
L1590633-08 WG2016487 10x	0303_28	328694	151856	147525
MS R3897097-4 WG2016487 1x	0303_30	351613	164944	166126
MSD R3897097-5 WG2016487 1x	0303_31	349386	166515	160925

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

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS27 • File ID: 0305\_03

03/05/23 15:57

Sample ID	File ID	8260-FLUOROBENZENE Response
Standard	0305_03	1267529
Upper Limit		2535058
Lower Limit		633765
LCS R3897534-1 WG2017361 1x	0305_04	1009120
LCSD R3897534-2 WG2017361 1x	0305_05	1045769
BLANK R3897534-3 WG2017361 1x	0305_07	1113309
L1590633-01 WG2017361 1x	0305_22	946392
L1590633-02 WG2017361 1x	0305_23	1112441
L1590633-03 WG2017361 1x	0305_24	1117657
L1590633-04 WG2017361 1x	0305_25	989733
L1590633-05 WG2017361 1x	0305_26	1072045
L1590633-06 WG2017361 1x	0305_27	956011
L1590633-07 WG2017361 1x	0305_28	999336

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

Instrument: VOCMS27 • File ID: 0306\_04

03/06/23 13:39

Sample ID	File ID	8260-FLUOROBENZENE Response
Standard	0306_04	1142898
Upper Limit		2285796
Lower Limit		571449
LCS R3898050-1 WG2017890 1x	0306_05	932258
LCS R3898049-1 WG2017590 1x	0306_05A	932258
BLANK R3898050-2 WG2017890 1x	0306_07	1044498
BLANK R3898049-2 WG2017590 1x	0306_07A	1044498
LCSD R3898050-3 WG2017890 1x	0306_08	994375
LCSD R3898049-3 WG2017590 1x	0306_08A	994375
L1590633-18 WG2017890 1x	0306_10	891781
L1590633-09 WG2017890 1x	0306_11	895438
L1590633-10 WG2017890 1x	0306_12	892313
L1590633-13 WG2017890 1x	0306_15	766689
L1590633-08 WG2017590 100x	0306_23	832703

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS27 • File ID: 0307\_03

03/07/23 23:35

Sample ID	File ID	8260-FLUOROBENZENE Response
Standard	0307_03	958949
Upper Limit		1917898
Lower Limit		479475
LCS R3898501-1 WG2018325 1x	0307_04	1017580
LCSD R3898501-2 WG2018325 1x	0307_05	1017639
BLANK R3898501-3 WG2018325 1x	0307_07	1063643
L1590633-12 WG2018325 1x	0307_09	556313
L1590633-15 WG2018325 1x	0307_10	977665
L1590633-17 WG2018325 1x	0307_11	802720
L1590633-11 WG2018325 250x	0307_14	785753
L1590633-14 WG2018325 500x	0307_15	722521
L1590633-16 WG2018325 250x	0307_16	712062

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.





# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

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

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



**Pinyon Environmental**  
**3222 S. Vance Street, Suite 200**  
**Lakewood, CO 80227**

Billing Information: *ape@pinyon-env.com*

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Report to: **Jeremy Musson** Email To: *Musson@pinyon-env.com*

Project Description: **Nammo -TTU** City/State Collected: **Mesa, AZ**

Phone: **303.785.7697** Client Project #: **722152201.002** Lab Project #

Fax:

Collected by (print): **Ben Boesen** Site/Facility ID # P.O. #

Collected by (signature): *Ben Boesen* **Rush?** (Lab MUST Be Notified)

Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Quote # **Standard TAT** Date Results Needed

Immediately Packed on Ice N  Y  X

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	VOC 8260B / 40ml amber / HCl	1,4 Dioxane V8260LL 14D/40mL amb/HCl	Perchlorate / 125ml HDPE / NoPres											
TTU-3-108-20230225	51	GW	108	2/25/23	1540	5	X	X	X										
TTU-4-57-20230225			57		1505	5	X	X	X										
TTU-5-110-20230225			110		0917	5	X	X	X										
TTU-6-143-20230225			143		1500	5	X	X	X										
TTU-7-345-20230225			345		1423	5	X	X	X										
TTU-8-164-20230225			164		1427	5	X	X	X										
TTU-9-172-20230225	7		172	2/27/23	1210	5	X	X	X										
TTU-11-73-20230225			73	2/25/23	1200	5	X	X	X										
TTU-14-67-20230225			67		1253	10	X	X	X									MS/HSD	-09
TTU-15-75-20230225			75		1003	5	X	X	X										-10

\* Matrix: SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

Samples returned via:  UPS  FedEx  Courier

Tracking # **6295 1086 0854**

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

**Sample Receipt Checklist**


COC Seal Present/Intact:  NP Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N


If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) *Ben Boesen* Date: **2/27/23** Time: **1511** Received by: (Signature) *[Signature]* Trip Blank Received:  Yes  No

Relinquished by: (Signature) *[Signature]* Date: **2/27/23** Time: **1800** Received by: (Signature) *[Signature]* Temp: **2.4** °C Bottles Received: **89** If preservation required by Login: Date/Time

Relinquished by: (Signature) Date: Time: Received for lab by: (Signature) *[Signature]* Date: **3-1-23** Time: **900** Hold: Condition: **NCF / OK**

<b>Pinyon Environmental</b> <b>3222 S. Vance Street, Suite 200</b> <b>Lakewood, CO 80227</b>	Billing Information:	Analysis / Container / Preservative	Chain of Custody Page 2 of 2
	ap@pinyon-env.com	Pres Chk	 Pace Analytical National Center for Testing & Innovation

Report to: Jeremy Musson	Email To: Musson@pinyon-env.com	VOC 8260B / 40ml amber / HCl 1,4 Dioxane V8260LL 14D/40mL amb/HCl Perchlorate / 125ml HDPE / NoPres	 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859
Project Description: Nammo - TTV	City/State Collected: Mesa, AZ		

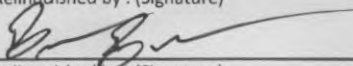
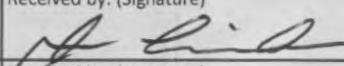
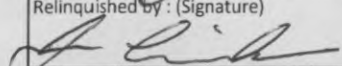

Phone: 303.785.7697	Client Project # 722152201.002	Lab Project #	L# 1590633
Fax:	Site/Facility ID #	P.O. #	

Collected by (print): Ben Boesen	Site/Facility ID #	P.O. #	Acctnum: PINYONMAZ Template: Prelogin: TSR: PB: Shipped Via:
Collected by (signature):	Rush? (Lab MUST Be Notified)	Quote #	

Immediately Packed on Ice N ___ Y <u>X</u>	<input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day	Date Results Needed Standard TAT	No. of Cntrs
--	---	-------------------------------------	--------------

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC 8260B / 40ml amber / HCl	1,4 Dioxane V8260LL 14D/40mL amb/HCl	Perchlorate / 125ml HDPE / NoPres	Remarks	Sample # (lab only)
TTU-16-80-20230225	G1	GW	80	2/25/23	1010	5	X	X	X	*	-11
TTU-17-80-20230225			80		0922	5	X	X	X		-12
TTU-19-73-20230225			73		1125	5	X	X	X		-13
TTU-20-73-20230225			73		1055	5	X	X	X	*	-14
PF-2-400-20230227			400	2/27/23	1225	4	X	X			-15
Dup-02			80	2/25/23	1010	5	X	X	X		-16
Dup-03			108		1540	5	X	X	X	*	-17
Trip Blank	-	-	-	-	-	1	X	X			-18

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other	Remarks: *: known high concentration	pH _____ Temp _____ Flow _____ Other _____	Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> <input type="checkbox"/> N Preservation Correct/Checked: <input type="checkbox"/> Y <input type="checkbox"/> N
Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Tracking # 6295 1086 0854		

Relinquished by: (Signature) 	Date: 2/27/23	Time: 1511	Received by: (Signature) 	Trip Blank Received: <input checked="" type="checkbox"/> No <input type="checkbox"/> MeOH TBR	
Relinquished by: (Signature) 	Date: 2/27/23	Time: 1800	Received by: (Signature)	Temp: °C 2.4	Bottles Received: 89
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 3-1-23	Time: 900

Condition:  
NCF / (OK)




### 03/02-NCF-L1590633-PINYONMAZ PM

R5

Time estimate: oh

Time spent: oh

#### Members

-  Paul Minnich (responsible)
-  DR Daphne Richards
-  JM Jennifer McCurdy

Due on 6 March 2023 5:00 PM for target Done

- Login Clarification needed
- Chain of custody is incomplete
- Please specify Metals requested
- Please specify TCLP requested
- Received additional samples not listed on COC
- Sample IDs on containers do not match IDs on COC
- Client did not "X" analysis
- Chain of Custody is missing
- If no COC: Received by: \_\_\_\_\_
- If no COC: Date/Time: \_\_\_\_\_
- If no COC: Temp./Cont.Rec./pH: \_\_\_\_\_
- If no COC: Carrier: \_\_\_\_\_
- If no COC: Tracking #: \_\_\_\_\_
- Client informed by call
- Client informed by Email
- Client informed by Voicemail
- Date/Time: \_\_\_\_\_
- PM initials: \_\_\_\_\_
- Client Contact: \_\_\_\_\_

#### Comments

- Paul Minnich*      2 March 2023 10:35 PM  
Sample DUP-03 is labeled by the client as DUP-04 on the container. Logged per COC
- Daphne Richards*      6 March 2023 9:35 AM  
Proceed with analysis using DUP-03 id
- Troy Dunlap*      6 March 2023 9:40 AM  
Done.

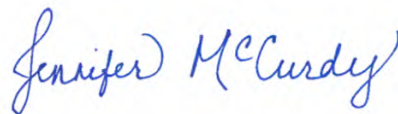


## Pinyon Environmental

Sample Delivery Group: L1590813  
Samples Received: 03/01/2023  
Project Number: 722152201.002  
Description: Nammo-TTU

Report To: Jeremy Musson  
4815 E. Carefree Highway  
#108-274  
Cave Creek, AZ 85331










Entire Report Reviewed By:



Jennifer A McCurdy  
Project Manager

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 Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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# SAMPLE SUMMARY

TTU-6-143-20230225 L1590813-01 GW

Collected by: Ben Boesen  
 Collected date/time: 02/25/23 15:00  
 Received date/time: 03/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2015996	1	03/02/23 23:29	03/02/23 23:29	SL	Mt. Juliet, TN

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc



# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Jennifer A McCurdy  
Project Manager

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Perchlorate	55.2	<u>M3</u>	0.300	4.00	1	03/02/2023 23:29	<a href="#">WG2015996</a>

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

Method Blank (MB)

(MB) R3896818-1 03/02/23 21:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1590813-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1590813-01 03/02/23 23:29 • (DUP) R3896818-4 03/02/23 23:57

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	55.2	60.6	1	9.22		15

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

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

(LCS) R3896818-2 03/02/23 22:33 • (LCSD) R3896818-3 03/02/23 23:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Perchlorate	10.0	9.87	9.89	98.7	98.9	90.0-110			0.210	15

L1590813-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1590813-01 03/02/23 23:29 • (MS) R3896818-5 03/03/23 00:25 • (MSD) R3896818-6 03/03/23 00:53

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Perchlorate	10.0	55.2	71.3	71.0	161	158	1	80.0-120	M3	M3	0.443	15

# GLOSSARY OF TERMS

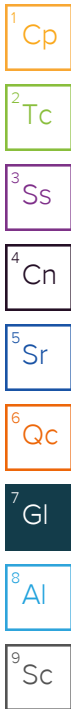
## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.



### Qualifier Description

Qualifier	Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

# ACCREDITATIONS & LOCATIONS

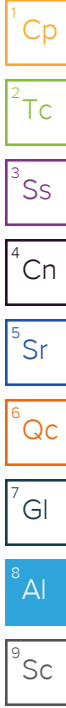
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

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

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



**Pinyon Environmental**  
 3222 S. Vance Street, Suite 200  
 Lakewood, CO 80227

Billing Information: *apepinyon-env.com*

Chain of Custody Page 1 of 2

Pace Analytical®  
 National Center for Testing & Innovation

12063 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-757-5859  
 Fax: 615-758-5859

Report to: *Jeremy Musson* Email To: *Musson@pinyon-env.com*

Project Description: *Nammo - TTU* City/State Collected: *Mesa, AZ*

Phone: *303.785.7697* Client Project #: *722152201.002* Lab Project #:

Collected by (print): *Ben Boesen* Site/Facility ID # P.O. #

Collected by (signature): *[Signature]* Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

Date Results Needed: *Standard TAT*

Immediately Packed on Ice N  Y  X

Sample ID Comp/Grab Matrix \* Depth Date Time No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC 8260B / 40ml amber / HCI	1,4 Dioxane V8260LL14D/40mL amb/HCI	Perchlorate / 125ml HDPE / NoPres									
<i>TTU-3-108-20230225</i>	<i>57</i>	<i>GW</i>	<i>108</i>	<i>2/25/23</i>	<i>1540</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-01</i>
<i>TTU-4-57-20230225</i>			<i>57</i>		<i>1505</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-02</i>
<i>TTU-5-110-20230225</i>			<i>110</i>		<i>0917</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-03</i>
<i>TTU-6-143-20230225</i>			<i>143</i>		<i>1500</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-04</i>
<i>TTU-7-345-20230225</i>			<i>345</i>		<i>1423</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-05</i>
<i>TTU-8-164-20230225</i>			<i>164</i>		<i>1427</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-06</i>
<i>TTU-9-172-20230225</i>			<i>172</i>	<i>2/27/23</i>	<i>1210</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-07</i>
<i>TTU-11-73-20230225</i>			<i>73</i>	<i>2/25/23</i>	<i>1200</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-08</i>
<i>TTU-14-67-20230225</i>			<i>67</i>		<i>1253</i>	<i>10</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-09</i>
<i>TTU-15-75-20230225</i>			<i>75</i>		<i>1003</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>									<i>-10</i>

\* Matrix: *SS - Soil AIR - Air F - Filter*  
*GW - Groundwater B - Bioassay*  
*WW - WasteWater*  
*DW - Drinking Water*  
*OT - Other*

Remarks:

Samples returned via:  UPS  FedEx  Courier

Tracking # *6295 1086 0854*

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N

Relinquished by: (Signature) *[Signature]* Date: *2/27/23* Time: *1511* Received by: (Signature) *[Signature]* Trip Blank Received:  Yes  No  
 TBR / MeOH

Relinquished by: (Signature) *[Signature]* Date: *2/27/23* Time: *1800* Received by: (Signature) *[Signature]* Temp: *2.4* °C Bottles Received: *89* If preservation required by Login: Date/Time

Relinquished by: (Signature) *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received for lab by: (Signature) *[Signature]* Date: *3-1-23* Time: *900* Hold: \_\_\_\_\_ Condition: *NCF 1 OK*

PNPA-7

L# *1590633* N  
*3/2/23*  
**C120**  
*L1590813*

-01

### PINYONMAZ In-house L1590633-04 R2

RO/R1

Quantity: 1  
Matrix: GW  
Analysis: Perchlorate  
Request: R2

Client is stating that they only need the perchlorate analysis rushed for TTU-6. Re EXTERNAL PINYONMAZ-24 hour rush.msgp

**Time estimate:** oh

**Time spent:** oh

#### Members

**DR** Daphne Richards **JM** Jennifer McCurdy

#### Comments

*Andy Vann*

Do you want to move the Perchlorate on -04 to a separate SDG?

2 March 2023 13:03

*Jennifer McCurdy*

yes, lets do that. That will be cleaner. Thanks, ~Jen

2 March 2023 13:31

*Andy Vann*

Moved Perchlorate from L1590633-04 to L1590813-01. Due 3/2  
SS - Please re-label.

2 March 2023 13:37

## Pinyon Environmental

Sample Delivery Group: L1597157  
Samples Received: 03/22/2023  
Project Number:  
Description: Nammo TTU Groundwater Monitoring  
  
Report To: Andrew Parker  
4815 E. Carefree Highway  
#108-274  
Cave Creek, AZ 85331

Entire Report Reviewed By:



Daphne Richards  
Project Manager











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 Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com



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# SAMPLE SUMMARY

## TTU-6-143-20230321 L1597157-01 GW

Collected by Isabella Foster      Collected date/time 03/21/23 11:57      Received date/time 03/22/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 314.0 Mod	WG2031535	1	03/29/23 06:06	03/29/23 06:06	NCJ	Mt. Juliet, TN

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

## TTU-9A-61-20230321 L1597157-02 GW

Collected by Isabella Foster      Collected date/time 03/21/23 13:10      Received date/time 03/22/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2029452	1	03/24/23 19:04	03/24/23 19:04	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG2031204	1	03/28/23 12:42	03/28/23 12:42	JHH	Mt. Juliet, TN

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Daphne Richards  
Project Manager

## Sample Delivery Group (SDG) Narrative

---

Insufficient sample volume to perform MS/MSD analyses per method QC requirements.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1597157-02</a>	<a href="#">TTU-9A-61-20230321</a>	8260B



Wet Chemistry by Method 314.0 Mod

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Perchlorate	21.1	<u>M2</u>	0.300	4.00	1	03/29/2023 06:06	<a href="#">WG2031535</a>

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	03/24/2023 19:04	WG2029452
Acrolein	U		2.54	50.0	1	03/24/2023 19:04	WG2029452
Acrylonitrile	U		0.671	10.0	1	03/24/2023 19:04	WG2029452
Benzene	U		0.0941	1.00	1	03/24/2023 19:04	WG2029452
Bromobenzene	U		0.118	1.00	1	03/24/2023 19:04	WG2029452
Bromodichloromethane	U		0.136	1.00	1	03/24/2023 19:04	WG2029452
Bromoform	U		0.129	1.00	1	03/24/2023 19:04	WG2029452
Bromomethane	U		0.605	5.00	1	03/24/2023 19:04	WG2029452
1,3-Butadiene	U		0.299	2.00	1	03/24/2023 19:04	WG2029452
n-Butylbenzene	U		0.157	1.00	1	03/24/2023 19:04	WG2029452
sec-Butylbenzene	U		0.125	1.00	1	03/24/2023 19:04	WG2029452
tert-Butylbenzene	U		0.127	1.00	1	03/24/2023 19:04	WG2029452
Carbon tetrachloride	U		0.128	1.00	1	03/24/2023 19:04	WG2029452
Carbon disulfide	0.256	E4	0.0962	1.00	1	03/24/2023 19:04	WG2029452
Chlorobenzene	U		0.116	1.00	1	03/24/2023 19:04	WG2029452
Chlorodibromomethane	U		0.140	1.00	1	03/24/2023 19:04	WG2029452
Chloroethane	U		0.192	5.00	1	03/24/2023 19:04	WG2029452
Chloroform	U		0.111	5.00	1	03/24/2023 19:04	WG2029452
Chloromethane	U		0.960	2.50	1	03/24/2023 19:04	WG2029452
Cyclohexane	U		0.188	1.00	1	03/24/2023 19:04	WG2029452
2-Chlorotoluene	U		0.106	1.00	1	03/24/2023 19:04	WG2029452
4-Chlorotoluene	U		0.114	1.00	1	03/24/2023 19:04	WG2029452
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/24/2023 19:04	WG2029452
1,2-Dibromoethane	U		0.126	1.00	1	03/24/2023 19:04	WG2029452
Dibromomethane	U		0.122	1.00	1	03/24/2023 19:04	WG2029452
1,2-Dichlorobenzene	U		0.107	1.00	1	03/24/2023 19:04	WG2029452
1,3-Dichlorobenzene	U		0.110	1.00	1	03/24/2023 19:04	WG2029452
1,4-Dichlorobenzene	U		0.120	1.00	1	03/24/2023 19:04	WG2029452
Dichlorodifluoromethane	U		0.374	5.00	1	03/24/2023 19:04	WG2029452
1,1-Dichloroethane	U		0.100	1.00	1	03/24/2023 19:04	WG2029452
1,2-Dichloroethane	U		0.0819	1.00	1	03/24/2023 19:04	WG2029452
1,1-Dichloroethene	U		0.188	1.00	1	03/24/2023 19:04	WG2029452
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/24/2023 19:04	WG2029452
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/24/2023 19:04	WG2029452
1,2-Dichloropropane	U		0.149	1.00	1	03/24/2023 19:04	WG2029452
1,1-Dichloropropene	U		0.142	1.00	1	03/24/2023 19:04	WG2029452
1,3-Dichloropropane	U		0.110	1.00	1	03/24/2023 19:04	WG2029452
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/24/2023 19:04	WG2029452
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/24/2023 19:04	WG2029452
2,2-Dichloropropane	U		0.161	1.00	1	03/24/2023 19:04	WG2029452
Dicyclopentadiene	U		0.253	1.00	1	03/24/2023 19:04	WG2029452
Di-isopropyl ether	U		0.105	1.00	1	03/24/2023 19:04	WG2029452
Ethylbenzene	U		0.137	1.00	1	03/24/2023 19:04	WG2029452
4-Ethyltoluene	U		0.208	1.00	1	03/24/2023 19:04	WG2029452
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/24/2023 19:04	WG2029452
n-Hexane	U		0.749	10.0	1	03/24/2023 19:04	WG2029452
Isopropylbenzene	U		0.105	1.00	1	03/24/2023 19:04	WG2029452
p-Isopropyltoluene	U		0.120	1.00	1	03/24/2023 19:04	WG2029452
2-Butanone (MEK)	U		1.19	10.0	1	03/24/2023 19:04	WG2029452
Methyl Cyclohexane	U		0.660	1.00	1	03/24/2023 19:04	WG2029452
Methylene Chloride	U		0.430	5.00	1	03/24/2023 19:04	WG2029452
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/24/2023 19:04	WG2029452
Methyl tert-butyl ether	U		0.101	1.00	1	03/24/2023 19:04	WG2029452
Naphthalene	U		1.00	5.00	1	03/24/2023 19:04	WG2029452
Propene	U		0.936	2.50	1	03/24/2023 19:04	WG2029452
n-Propylbenzene	U		0.0993	1.00	1	03/24/2023 19:04	WG2029452

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Styrene	U		0.118	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
Tetrachloroethene	U		0.300	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
Toluene	U		0.278	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,1,1-Trichloroethane	U		0.149	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,1,2-Trichloroethane	U		0.158	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
Trichloroethene	U		0.190	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
Trichlorofluoromethane	U		0.160	5.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,2,3-Trichloropropane	U		0.237	2.50	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
Vinyl chloride	U		0.234	1.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
Xylenes, Total	U		0.174	3.00	1	03/24/2023 19:04	<a href="#">WG2029452</a>
(S) Toluene-d8	113			80.0-120		03/24/2023 19:04	<a href="#">WG2029452</a>
(S) 4-Bromofluorobenzene	103			77.0-126		03/24/2023 19:04	<a href="#">WG2029452</a>
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		03/24/2023 19:04	<a href="#">WG2029452</a>

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

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,4-Dioxane	U		0.597	3.00	1	03/28/2023 12:42	<a href="#">WG2031204</a>
(S) Toluene-d8	101			77.0-127		03/28/2023 12:42	<a href="#">WG2031204</a>

Method Blank (MB)

(MB) R3907480-1 03/28/23 14:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Method Blank (MB)

(MB) R3907480-3 03/28/23 18:28

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Perchlorate	U		0.300	4.00

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

L1596909-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1596909-03 03/29/23 05:10 • (DUP) R3907480-8 03/29/23 05:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	U	U	1	0.000		15

L1597157-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1597157-01 03/29/23 06:06 • (DUP) R3907480-9 03/29/23 06:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Perchlorate	21.1	22.1	1	4.78		15

Laboratory Control Sample (LCS)

(LCS) R3907480-2 03/28/23 15:41

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Perchlorate	10.0	9.08	90.8	90.0-110	

L1596909-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1596909-01 03/29/23 01:27 • (MS) R3907480-4 03/29/23 01:55 • (MSD) R3907480-5 03/29/23 02:23

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Perchlorate	10.0	U	9.68	9.38	96.8	93.8	1	80.0-120			3.08	15

L1596909-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1596909-02 03/29/23 02:50 • (MS) R3907480-6 03/29/23 04:14 • (MSD) R3907480-7 03/29/23 04:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Perchlorate	10.0	U	8.99	9.94	89.9	99.4	1	80.0-120			10.0	15

L1597157-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1597157-01 03/29/23 06:06 • (MS) R3907480-10 03/29/23 07:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Perchlorate	10.0	21.1	28.7	75.8	1	80.0-120	M2

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R3905169-3 03/24/23 11:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
1,3-Butadiene	U		0.299	2.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon tetrachloride	U		0.128	1.00
Carbon disulfide	U		0.0962	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3905169-3 03/24/23 11:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Dicyclopentadiene	U		0.253	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00
4-Ethyltoluene	U		0.208	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
n-Hexane	U		0.749	10.0
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
Propene	U		0.936	2.50
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	118			80.0-120
(S) 4-Bromofluorobenzene	103			77.0-126
(S) 1,2-Dichloroethane-d4	83.0			70.0-130

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

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

(LCS) R3905169-1 03/24/23 10:08 • (LCSD) R3905169-2 03/24/23 10:32

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	25.0	21.4	22.9	85.6	91.6	19.0-160			6.77	27
Acrolein	25.0	21.6	21.5	86.4	86.0	30.0-160			0.464	26
Acrylonitrile	25.0	23.0	23.5	92.0	94.0	55.0-149			2.15	20
Benzene	5.00	4.82	4.65	96.4	93.0	70.0-123			3.59	20
Bromobenzene	5.00	4.83	5.02	96.6	100	73.0-121			3.86	20
Bromodichloromethane	5.00	4.31	4.21	86.2	84.2	75.0-120			2.35	20
Bromoform	5.00	4.42	4.38	88.4	87.6	68.0-132			0.909	20
Bromomethane	5.00	2.61	2.87	52.2	57.4	30.0-160			9.49	25
1,3-Butadiene	5.00	4.22	4.54	84.4	90.8	45.0-147			7.31	20
n-Butylbenzene	5.00	4.69	4.70	93.8	94.0	73.0-125			0.213	20
sec-Butylbenzene	5.00	4.84	4.83	96.8	96.6	75.0-125			0.207	20
tert-Butylbenzene	5.00	4.76	4.52	95.2	90.4	76.0-124			5.17	20
Carbon tetrachloride	5.00	4.04	3.93	80.8	78.6	68.0-126			2.76	20
Carbon disulfide	5.00	4.51	4.47	90.2	89.4	61.0-128			0.891	20
Chlorobenzene	5.00	5.05	5.18	101	104	80.0-121			2.54	20
Chlorodibromomethane	5.00	4.94	4.86	98.8	97.2	77.0-125			1.63	20
Chloroethane	5.00	5.42	5.35	108	107	47.0-150			1.30	20
Chloroform	5.00	4.47	4.44	89.4	88.8	73.0-120			0.673	20
Chloromethane	5.00	4.30	4.28	86.0	85.6	41.0-142			0.466	20
Cyclohexane	5.00	4.54	4.80	90.8	96.0	71.0-124			5.57	20
2-Chlorotoluene	5.00	4.78	4.60	95.6	92.0	76.0-123			3.84	20
4-Chlorotoluene	5.00	4.59	4.69	91.8	93.8	75.0-122			2.16	20
1,2-Dibromo-3-Chloropropane	5.00	4.83	4.44	96.6	88.8	58.0-134			8.41	20
1,2-Dibromoethane	5.00	5.10	5.15	102	103	80.0-122			0.976	20
Dibromomethane	5.00	4.29	4.10	85.8	82.0	80.0-120			4.53	20
1,2-Dichlorobenzene	5.00	4.57	4.75	91.4	95.0	79.0-121			3.86	20
1,3-Dichlorobenzene	5.00	4.56	4.60	91.2	92.0	79.0-120			0.873	20
1,4-Dichlorobenzene	5.00	4.64	4.51	92.8	90.2	79.0-120			2.84	20
Dichlorodifluoromethane	5.00	4.82	4.94	96.4	98.8	51.0-149			2.46	20
1,1-Dichloroethane	5.00	4.47	4.66	89.4	93.2	70.0-126			4.16	20
1,2-Dichloroethane	5.00	4.00	4.02	80.0	80.4	70.0-128			0.499	20
1,1-Dichloroethene	5.00	4.95	4.97	99.0	99.4	71.0-124			0.403	20
cis-1,2-Dichloroethene	5.00	5.08	5.01	102	100	73.0-120			1.39	20
trans-1,2-Dichloroethene	5.00	4.73	4.89	94.6	97.8	73.0-120			3.33	20
1,2-Dichloropropane	5.00	4.38	4.68	87.6	93.6	77.0-125			6.62	20
1,1-Dichloropropene	5.00	4.46	4.27	89.2	85.4	74.0-126			4.35	20
1,3-Dichloropropane	5.00	5.17	5.26	103	105	80.0-120			1.73	20
cis-1,3-Dichloropropene	5.00	4.23	4.26	84.6	85.2	80.0-123			0.707	20
trans-1,3-Dichloropropene	5.00	4.54	4.39	90.8	87.8	78.0-124			3.36	20
2,2-Dichloropropane	5.00	3.43	3.43	68.6	68.6	58.0-130			0.000	20

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

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

(LCS) R3905169-1 03/24/23 10:08 • (LCSD) R3905169-2 03/24/23 10:32

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 %
Dicyclopentadiene	5.00	4.80	4.72	96.0	94.4	74.0-126			1.68	20
Di-isopropyl ether	5.00	4.61	4.47	92.2	89.4	58.0-138			3.08	20
Ethylbenzene	5.00	5.08	5.41	102	108	79.0-123			6.29	20
4-Ethyltoluene	5.00	4.64	4.53	92.8	90.6	74.0-127			2.40	20
Hexachloro-1,3-butadiene	5.00	4.80	4.87	96.0	97.4	54.0-138			1.45	20
n-Hexane	5.00	4.14	4.40	82.8	88.0	57.0-133			6.09	20
Isopropylbenzene	5.00	4.91	4.85	98.2	97.0	76.0-127			1.23	20
p-Isopropyltoluene	5.00	4.75	4.66	95.0	93.2	76.0-125			1.91	20
2-Butanone (MEK)	25.0	21.6	22.8	86.4	91.2	44.0-160			5.41	20
Methyl Cyclohexane	5.00	4.47	4.27	89.4	85.4	68.0-126			4.58	20
Methylene Chloride	5.00	4.78	4.57	95.6	91.4	67.0-120			4.49	20
4-Methyl-2-pentanone (MIBK)	25.0	24.6	26.2	98.4	105	68.0-142			6.30	20
Methyl tert-butyl ether	5.00	4.59	4.40	91.8	88.0	68.0-125			4.23	20
Naphthalene	5.00	4.33	4.56	86.6	91.2	54.0-135			5.17	20
Propene	5.00	4.21	4.17	84.2	83.4	30.0-160			0.955	20
n-Propylbenzene	5.00	4.70	4.56	94.0	91.2	77.0-124			3.02	20
Styrene	5.00	4.96	5.17	99.2	103	73.0-130			4.15	20
1,1,1,2-Tetrachloroethane	5.00	4.91	4.60	98.2	92.0	75.0-125			6.52	20
1,1,2,2-Tetrachloroethane	5.00	4.05	4.31	81.0	86.2	65.0-130			6.22	20
1,1,2-Trichlorotrifluoroethane	5.00	4.01	4.60	80.2	92.0	69.0-132			13.7	20
Tetrachloroethene	5.00	4.82	4.91	96.4	98.2	72.0-132			1.85	20
Toluene	5.00	4.93	5.01	98.6	100	79.0-120			1.61	20
1,2,3-Trichlorobenzene	5.00	4.63	4.71	92.6	94.2	50.0-138			1.71	20
1,2,4-Trichlorobenzene	5.00	4.25	4.42	85.0	88.4	57.0-137			3.92	20
1,1,1-Trichloroethane	5.00	3.99	4.30	79.8	86.0	73.0-124			7.48	20
1,1,2-Trichloroethane	5.00	5.06	5.28	101	106	80.0-120			4.26	20
Trichloroethene	5.00	5.49	5.13	110	103	78.0-124			6.78	20
Trichlorofluoromethane	5.00	4.42	4.32	88.4	86.4	59.0-147			2.29	20
1,2,3-Trichloropropane	5.00	5.27	5.10	105	102	73.0-130			3.28	20
1,2,4-Trimethylbenzene	5.00	4.72	4.74	94.4	94.8	76.0-121			0.423	20
1,2,3-Trimethylbenzene	5.00	4.72	4.93	94.4	98.6	77.0-120			4.35	20
1,3,5-Trimethylbenzene	5.00	4.96	4.64	99.2	92.8	76.0-122			6.67	20
Vinyl chloride	5.00	4.82	4.72	96.4	94.4	67.0-131			2.10	20
Xylenes, Total	15.0	15.4	15.6	103	104	79.0-123			1.29	20
(S) Toluene-d8				115	115	80.0-120				
(S) 4-Bromofluorobenzene				104	107	77.0-126				
(S) 1,2-Dichloroethane-d4				76.2	78.9	70.0-130				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

Method Blank (MB)

(MB) R3906288-3 03/28/23 12:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,4-Dioxane	U		0.597	3.00
(S) Toluene-d8	101			77.0-127

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

(LCS) R3906288-1 03/28/23 11:21 • (LCSD) R3906288-2 03/28/23 11:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,4-Dioxane	50.0	58.7	52.7	117	105	55.0-138			10.8	24
(S) Toluene-d8				102	101	77.0-127				

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

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS30 • File ID: 0324A\_02

03/24/23 10:08

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0324A_02	577980	274299	226416
Upper Limit		1155960	548598	452832
Lower Limit		288990	137150	113208
LCS R3905169-1 WG2029452 1x	0324A_02LCS A	577980	274299	226416
LCSD R3905169-2 WG2029452 1x	0324A_03A	576021	263965	222996
BLANK R3905169-3 WG2029452 1x	0324A_05A	569289	267813	221409
L1597157-02 WG2029452 1x	0324A_23	475594	221625	177170

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS27 • File ID: 0328\_04

03/28/23 11:00

Sample ID	File ID	8260-FLUOROBENZENE Response
Standard	0328_04	1353353
Upper Limit		2706706
Lower Limit		676677
LCS R3906288-1 WG2031204 1x	0328_05	1058608
LCSD R3906288-2 WG2031204 1x	0328_06	1203474
BLANK R3906288-3 WG2031204 1x	0328_08	989589
L1597157-02 WG2031204 1x	0328_09	951579

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.





# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

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

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



**Pinyon Environmental**  
 3222 S. Vance Street, Suite 200  
 Lakewood, CO 80227

Billing Information:  
 aepinyon-env.com

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

**Pace Analytical**  
 National Center for Testing & Innovation

12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5858  
 Phone: 800-767-5859  
 Fax: 615-758-5859

Report to:  
 Andrew Parker

Email To:  
 Parker@pinyon-env.com

Project Description:  
**Nammo TTU Groundwater Monitoring**

City/State Collected:  
 Mesa, AZ

Phone: **303.785.7697**  
 Fax:

Client Project #  
**722152201.002**

Lab Project #  
 P.O. #

Collected by (print):  
 Isabella Foster

Site/Facility ID #

Quote #

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)

Date Results Needed

Immediately Packed on Ice N \_\_\_ Y **X**

**X** Three Day

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
TTU-6-143-20230321	G	GW	143	3/21/23	1157	1
TTU-9a-61-20230321	G	GW	61	↓	1310	3

VOC 8260B / 40ml amber / HCl

Perchlorate 314.0 / 125ml HDPE / NoPres

L# **L1592157**  
**J104**

Acctnum: **PINYONMAZ**  
 Template:  
 Prelogin:  
 TSR: **Daphne Richards**  
 PB:  
 Shipped Via:  
 Remarks Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

**Sample Receipt Checklist**

COC Seal Present/Intact:  NP  N  
 COC Signed/Accurate:  N  
 Bottles arrive intact:  N  
 Correct bottles used:  N  
 Sufficient volume sent:  N  
 If Applicable  
 VOA Zero Headspace:  N  
 Preservation Correct/Checked:  N

Relinquished by: (Signature)  
*[Signature]*

Date:  
 3/21/23

Time:  
 1427

Received by: (Signature)  
*[Signature]*

Trip Blank Received: Yes/No  
 HCL / MeOH  
 TBR

Relinquished by: (Signature)  
*[Signature]*

Date:  
 3/21/23

Time:  
 1800

Received by: (Signature)  
*[Signature]*

Temp: <sup>NSA</sup> °C  
 2.9

Bottles Received:  
 4

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
*[Signature]*

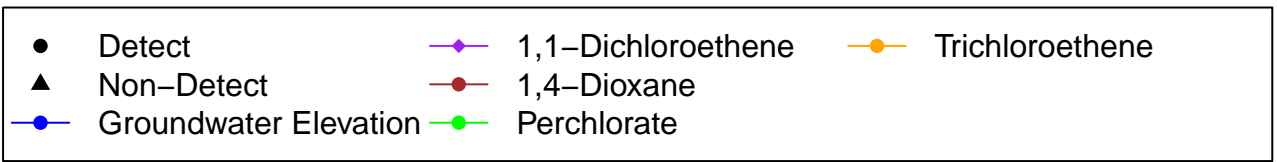
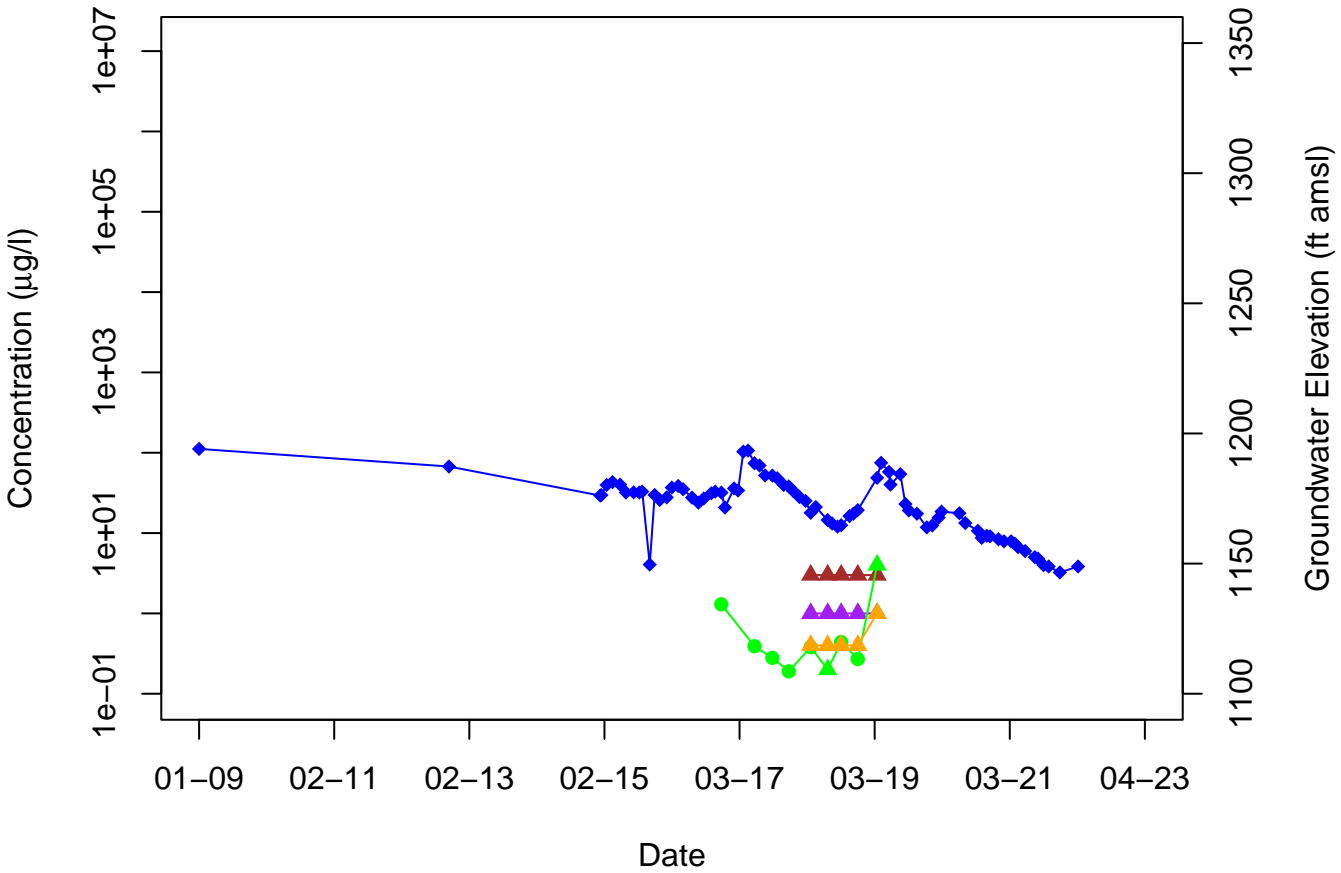
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 03/21/23

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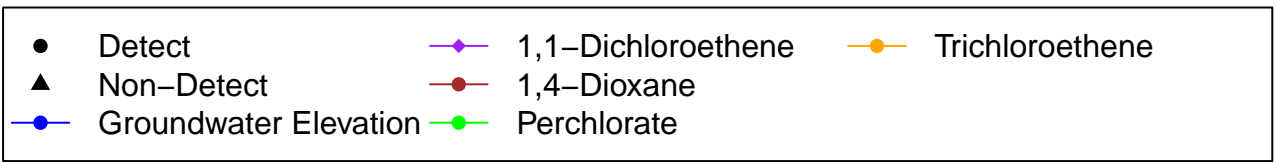
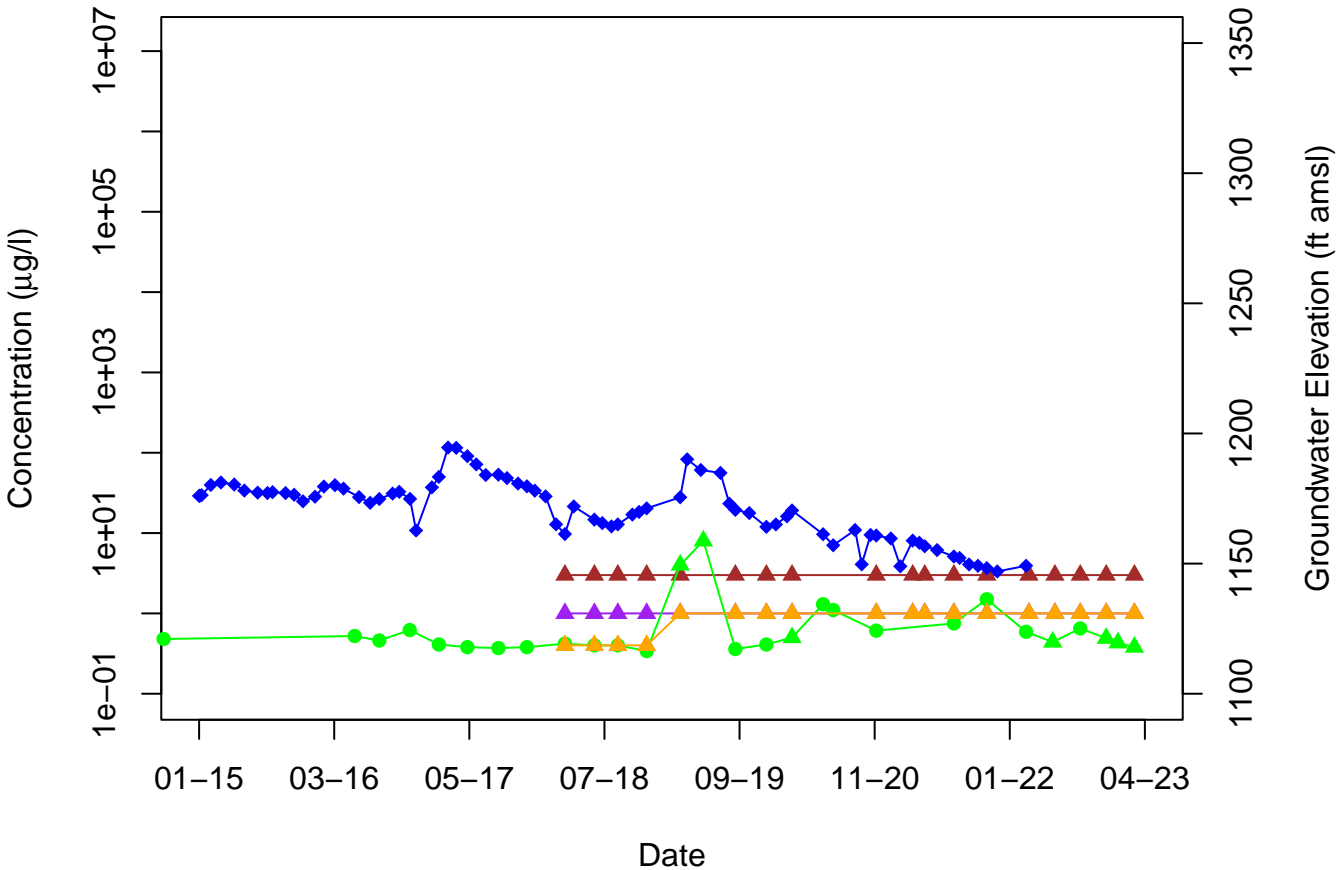
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 Condition:  
 NCF /  OK

## **Attachment 3 – Concentration and Groundwater Elevation versus Time Plots**

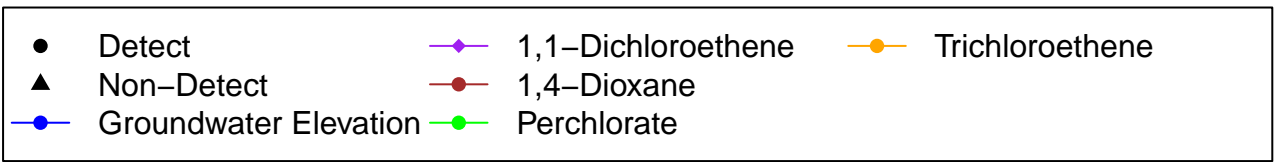
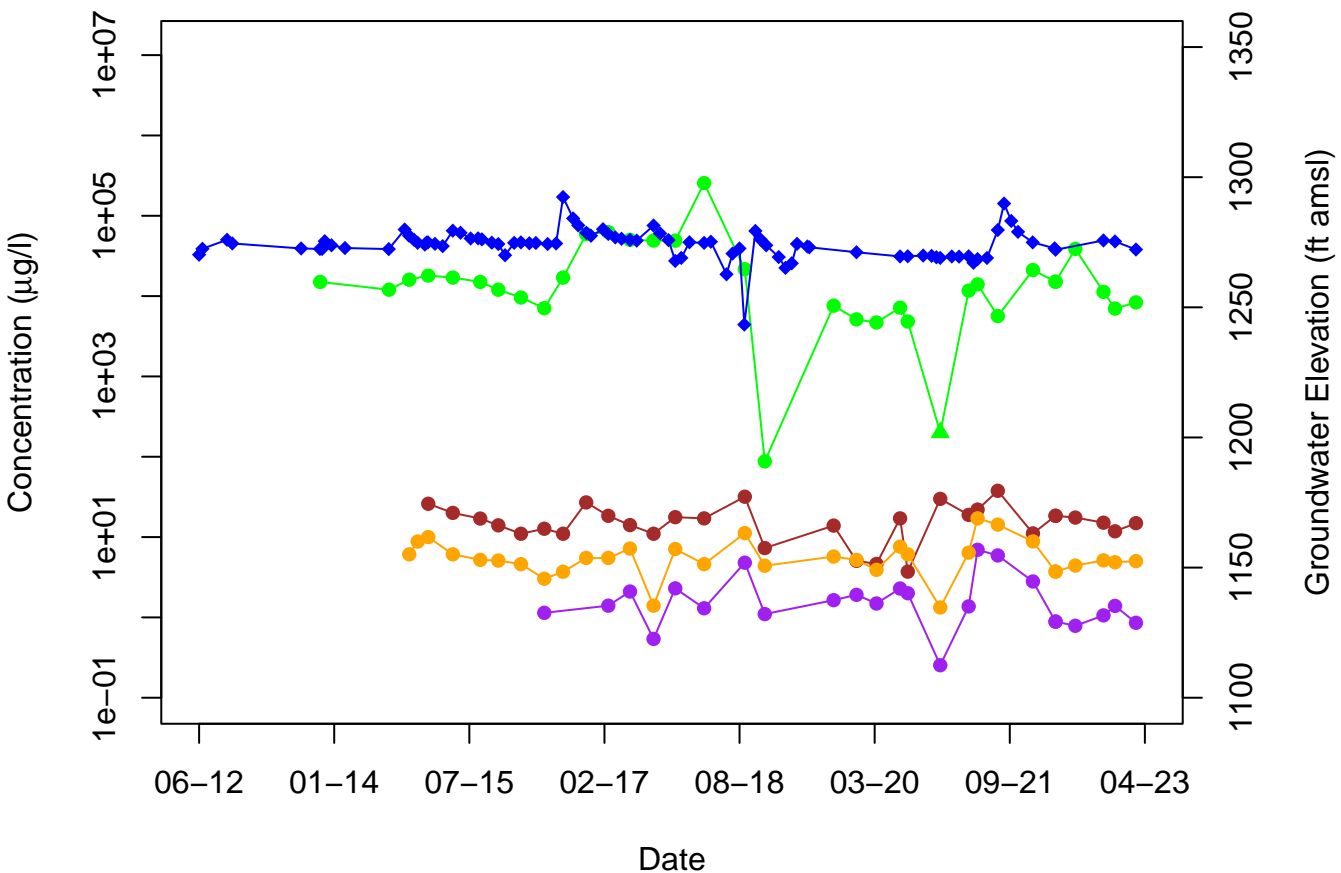
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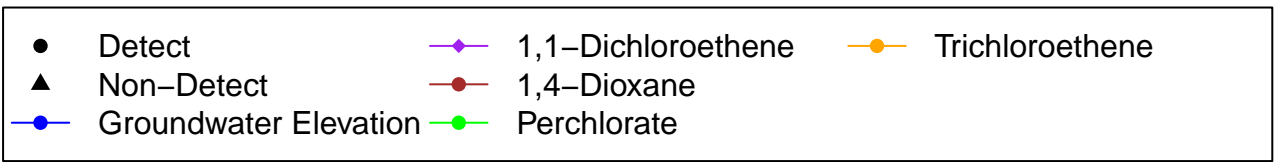
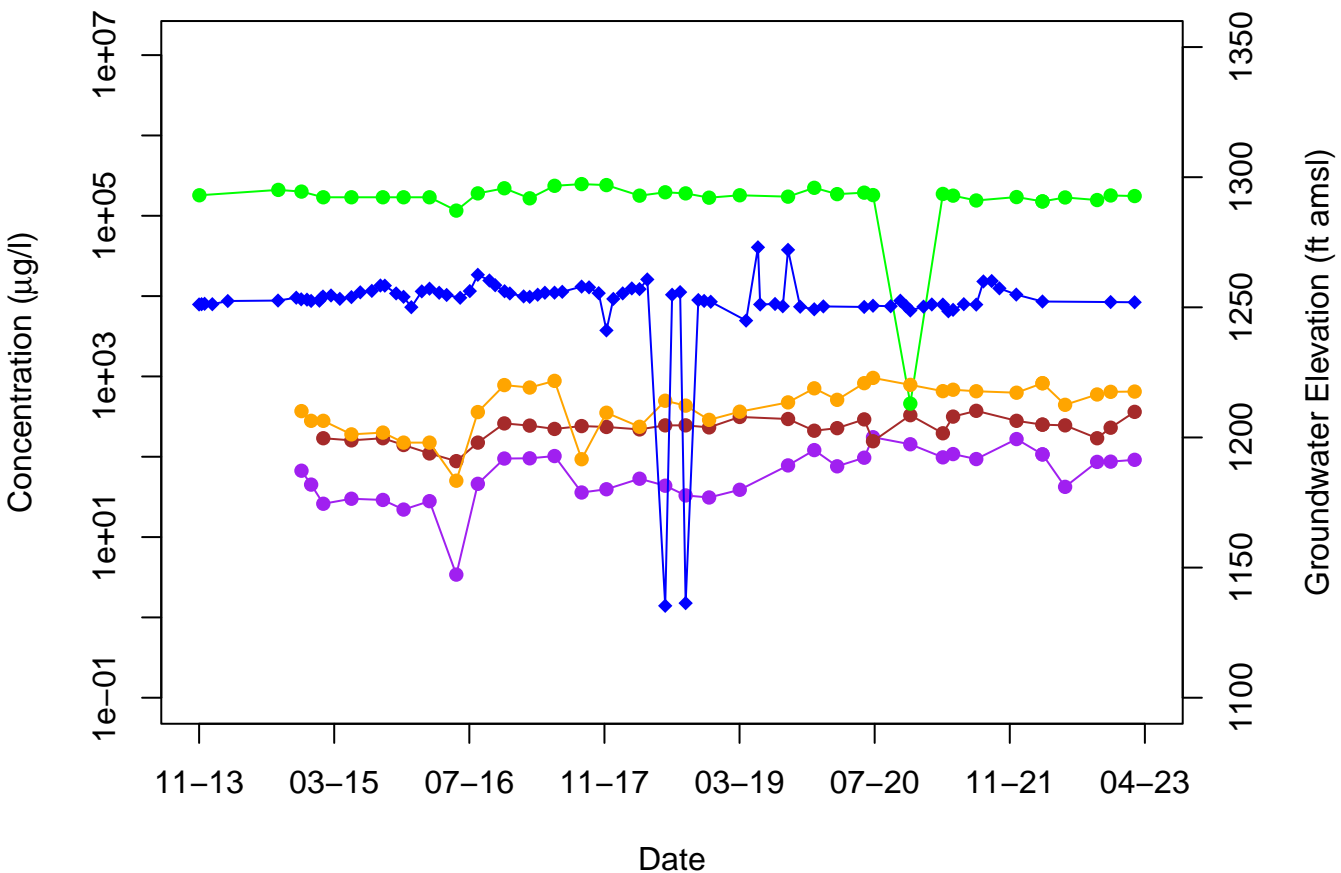
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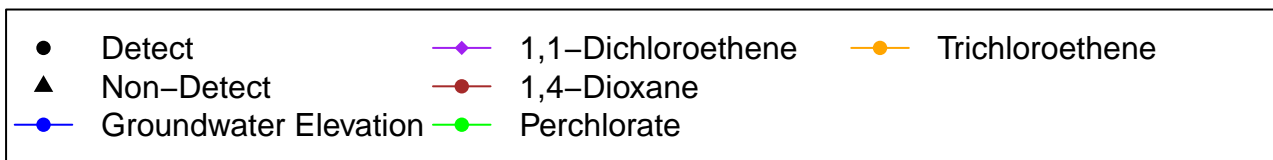
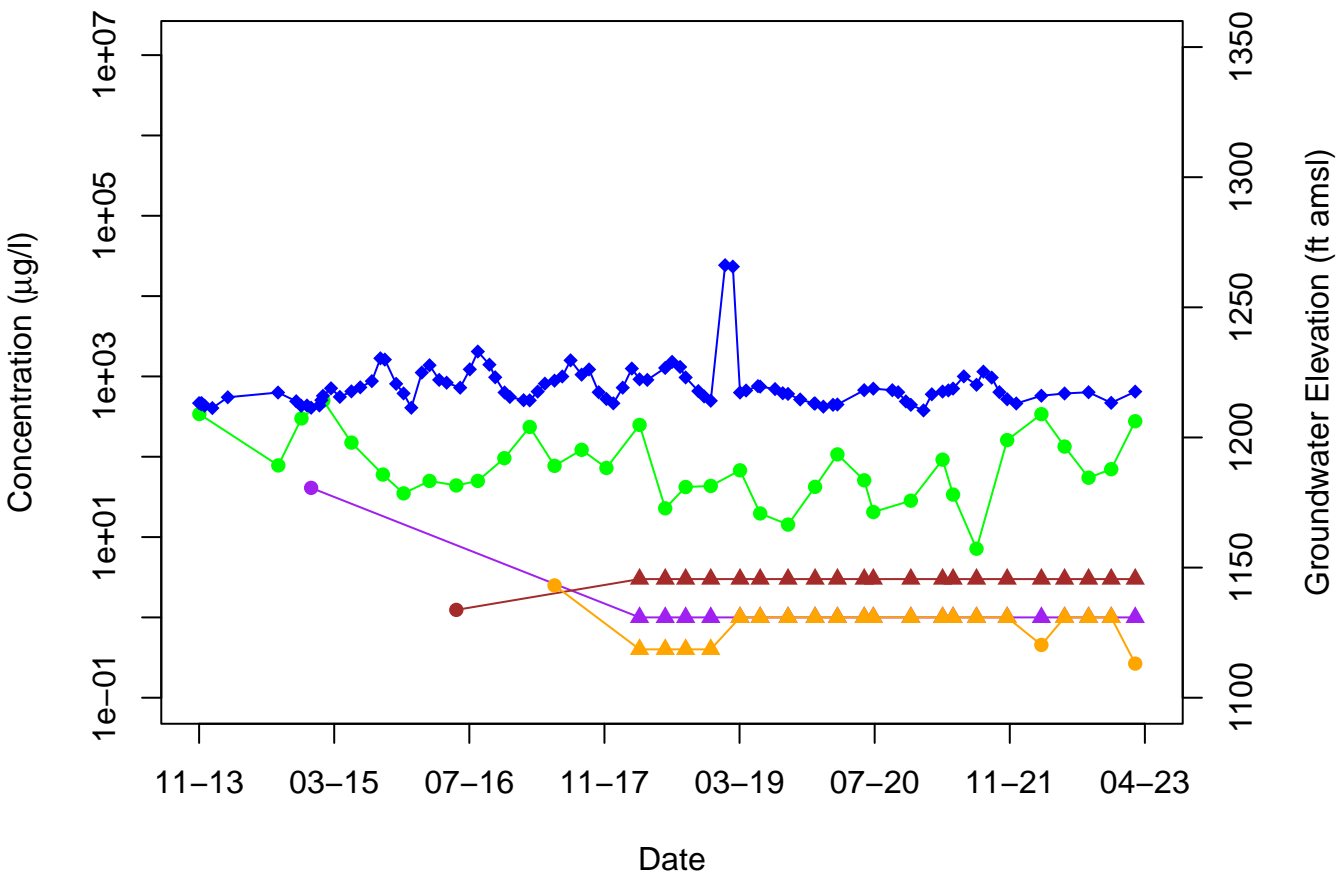
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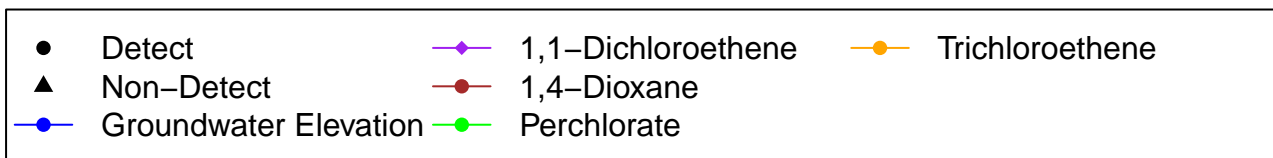
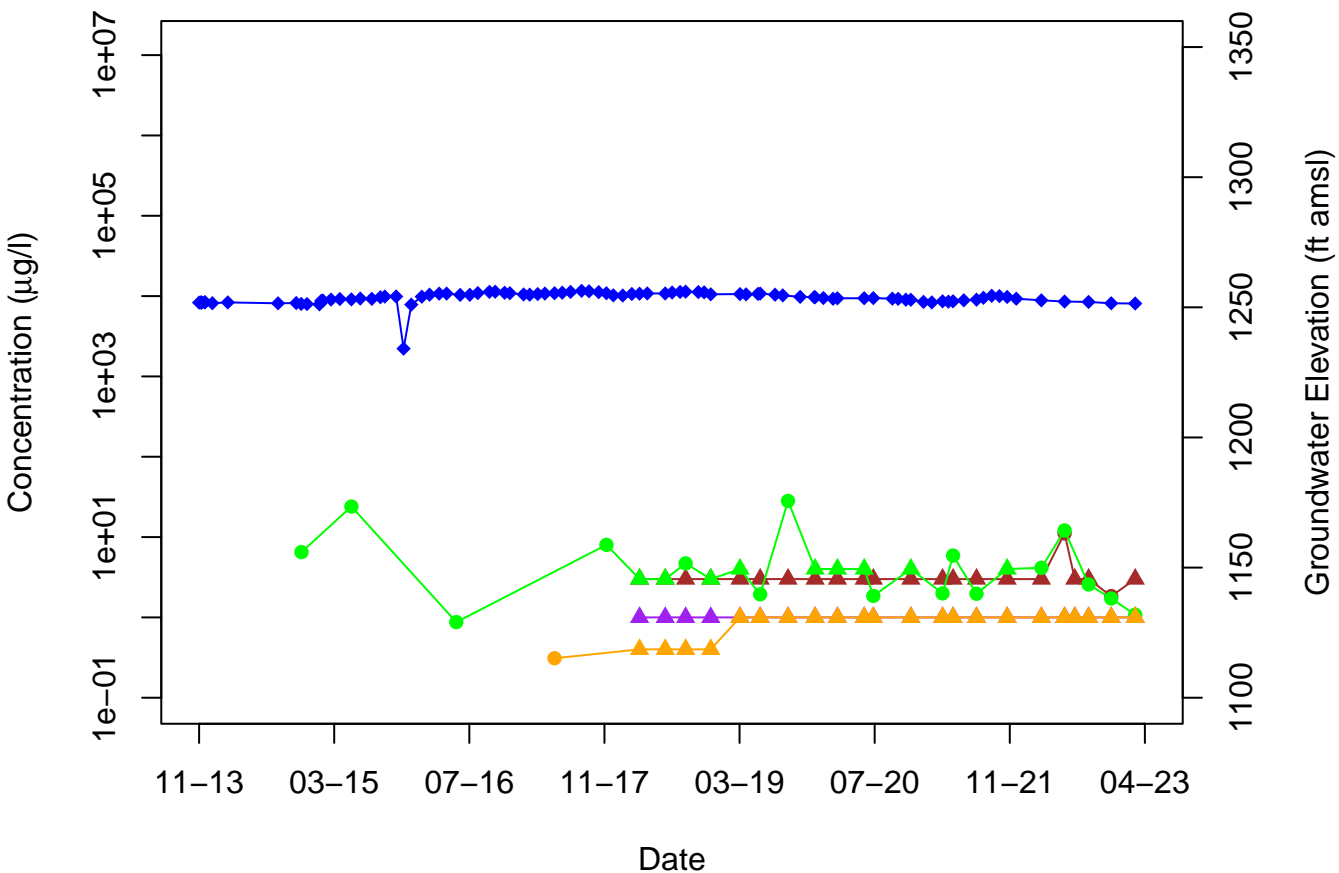


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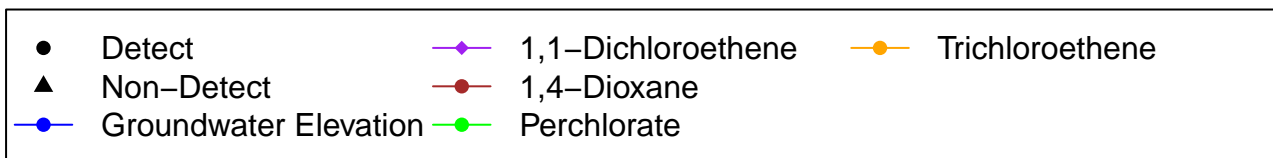
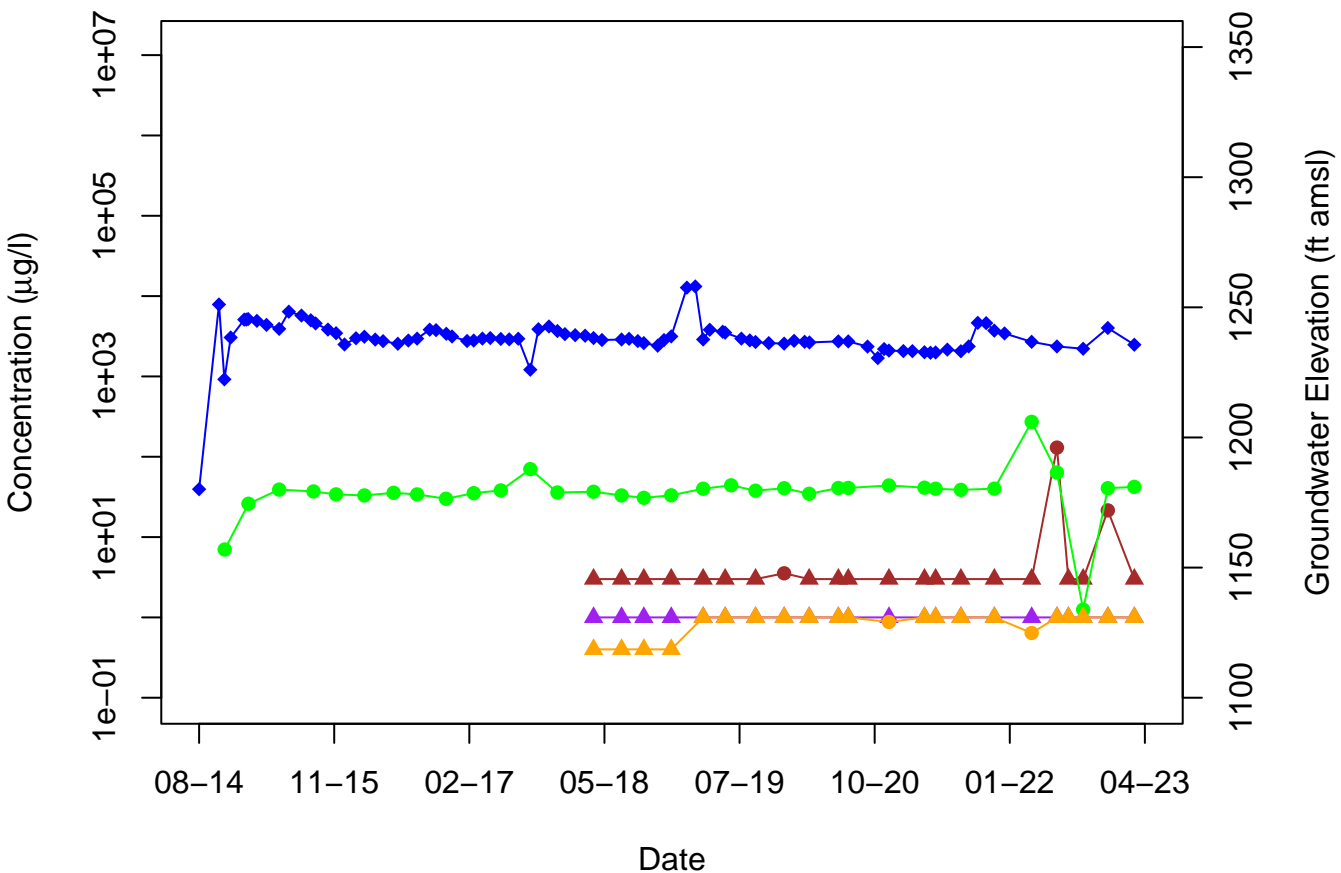




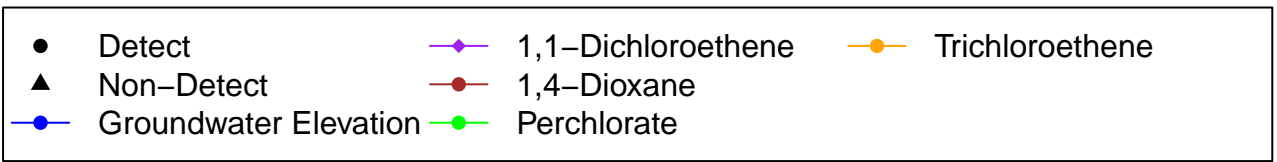
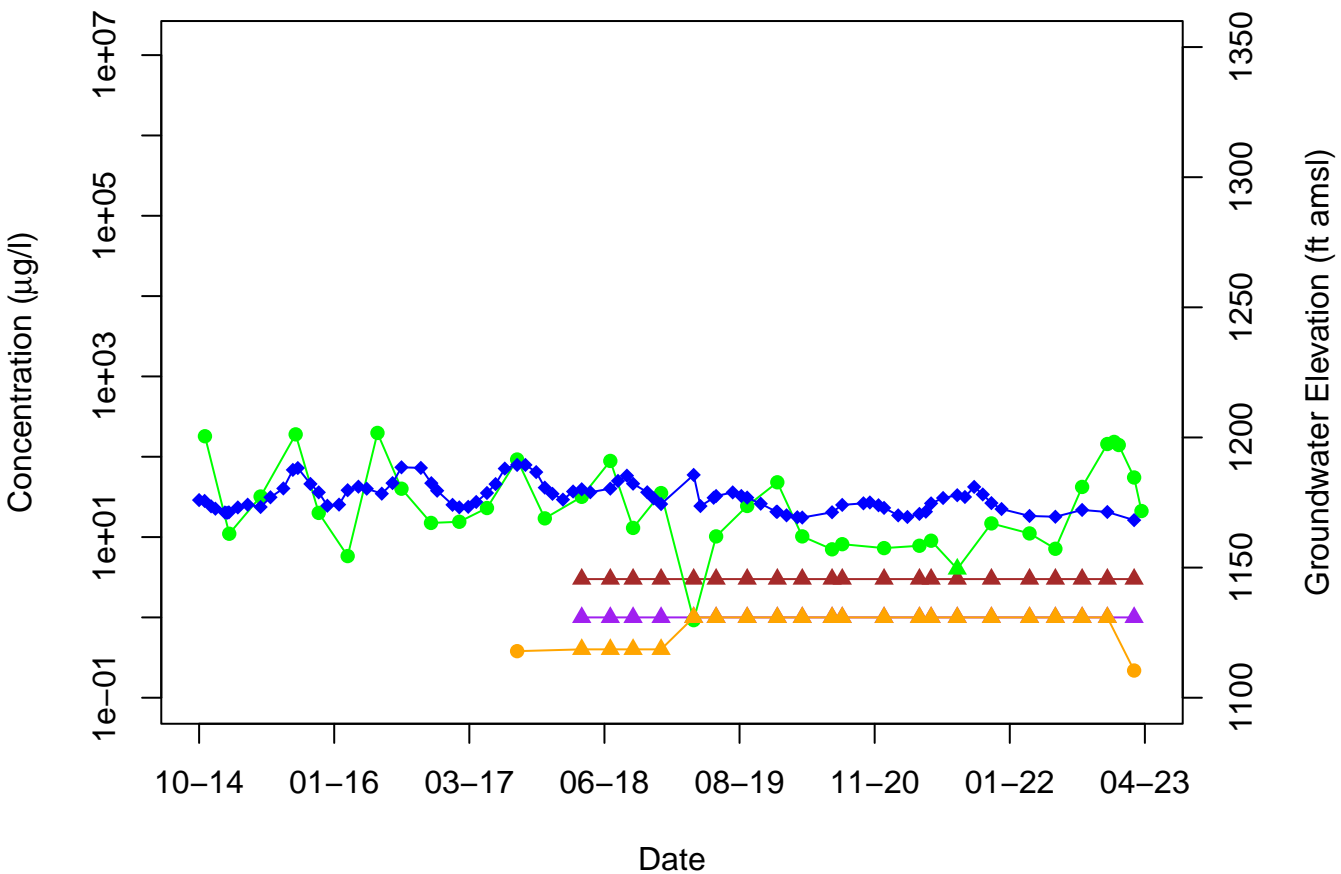
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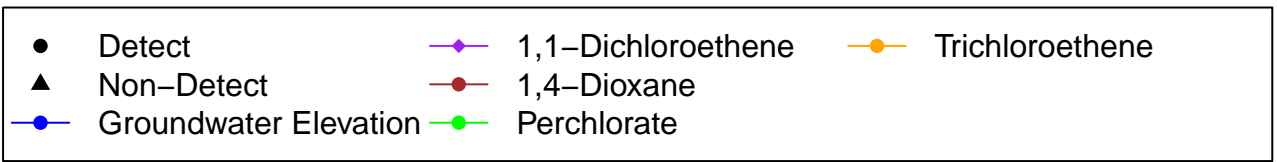
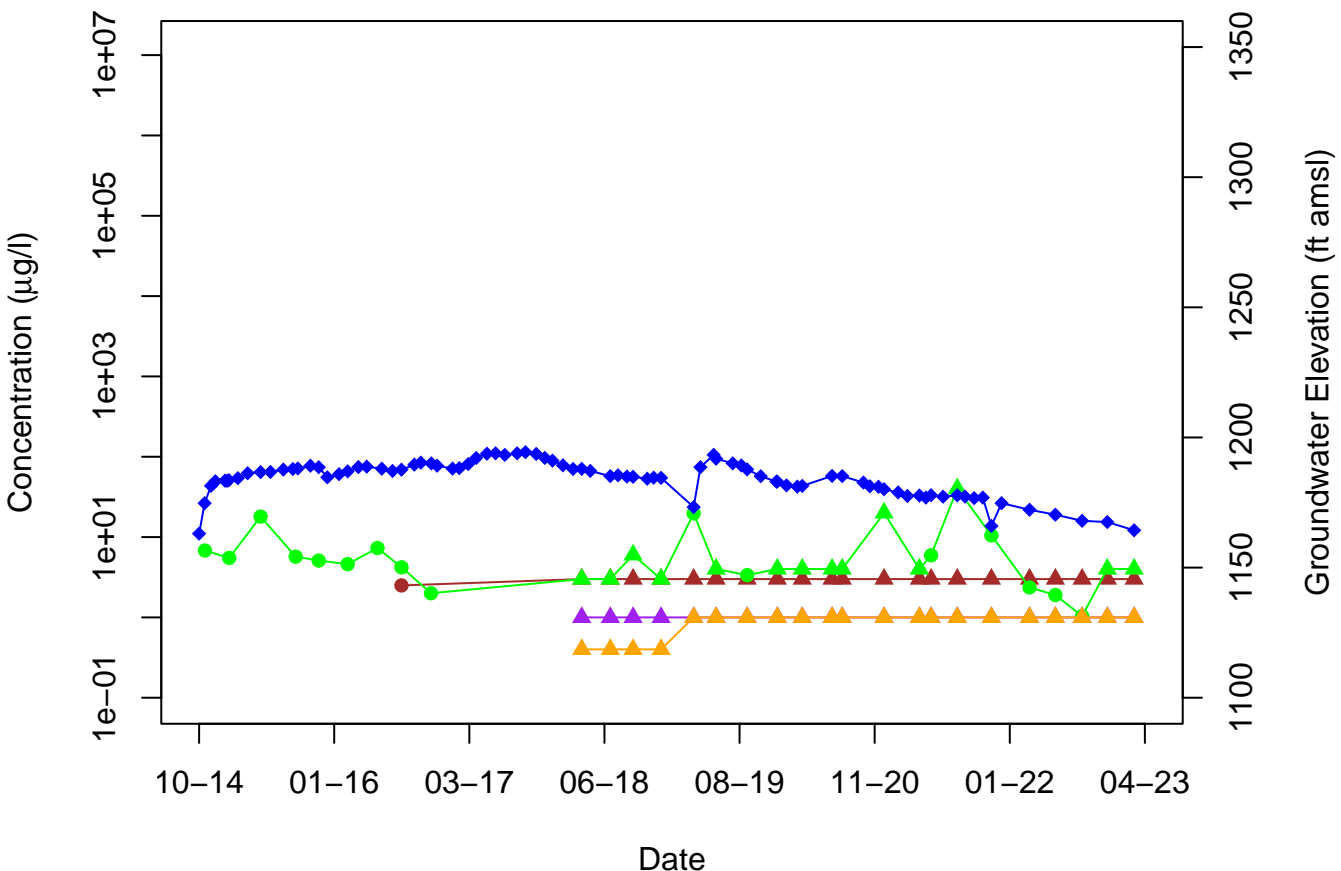
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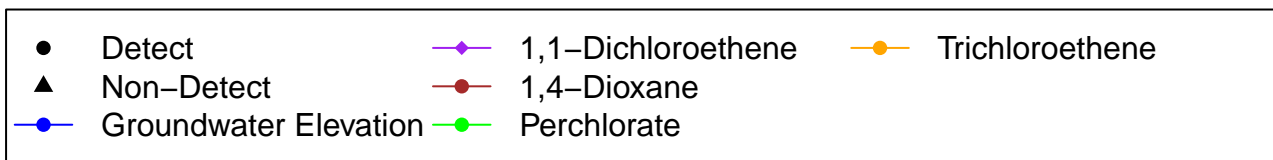
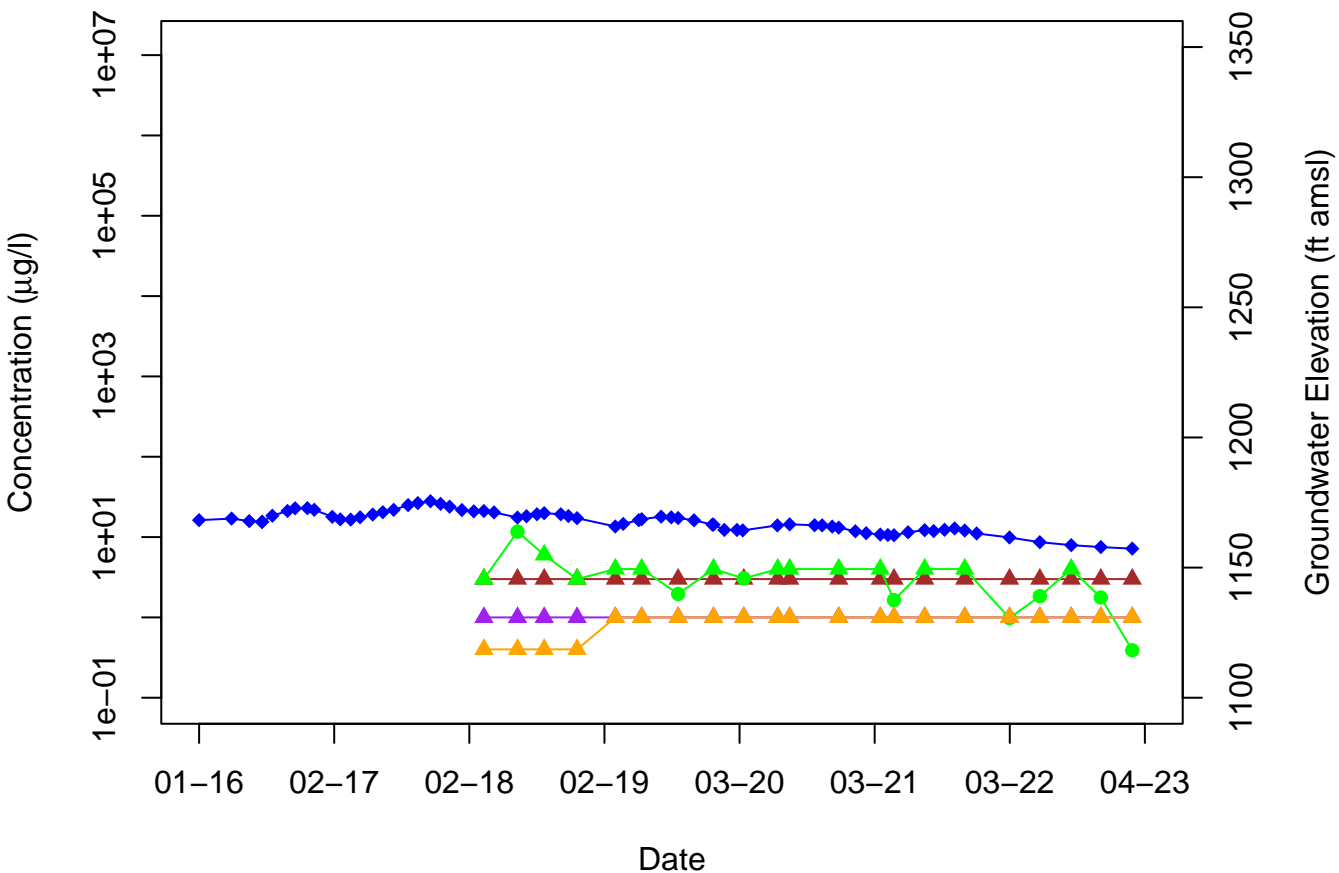
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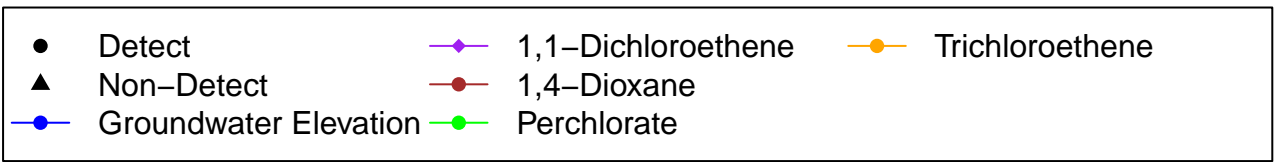
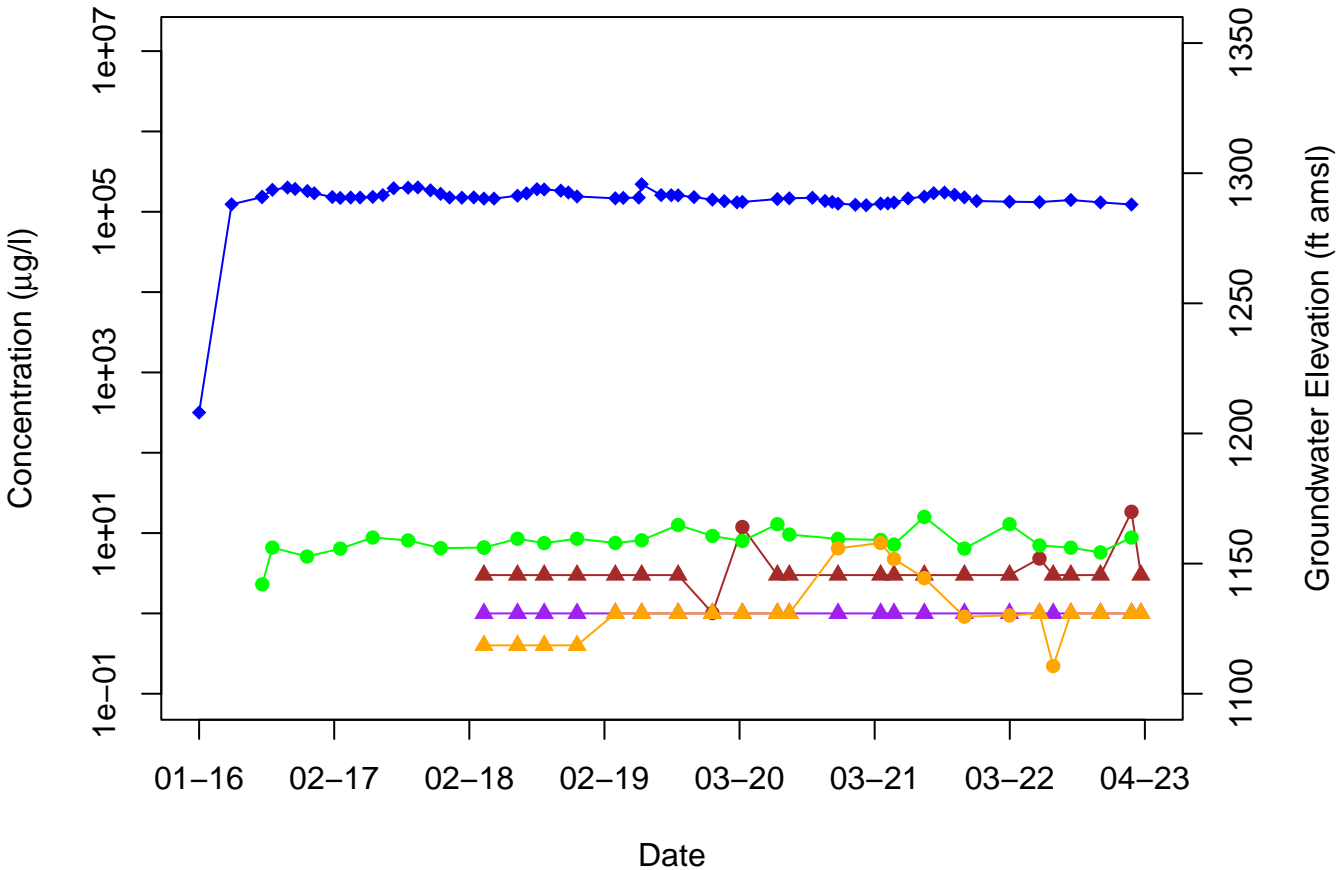
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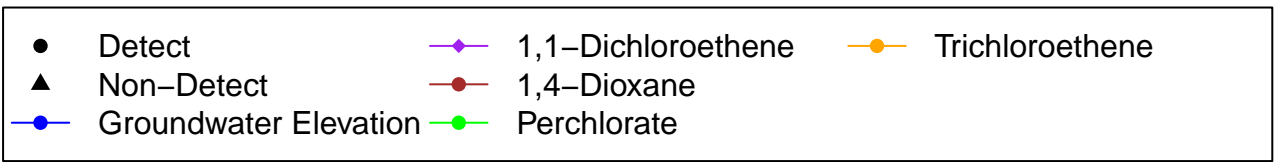
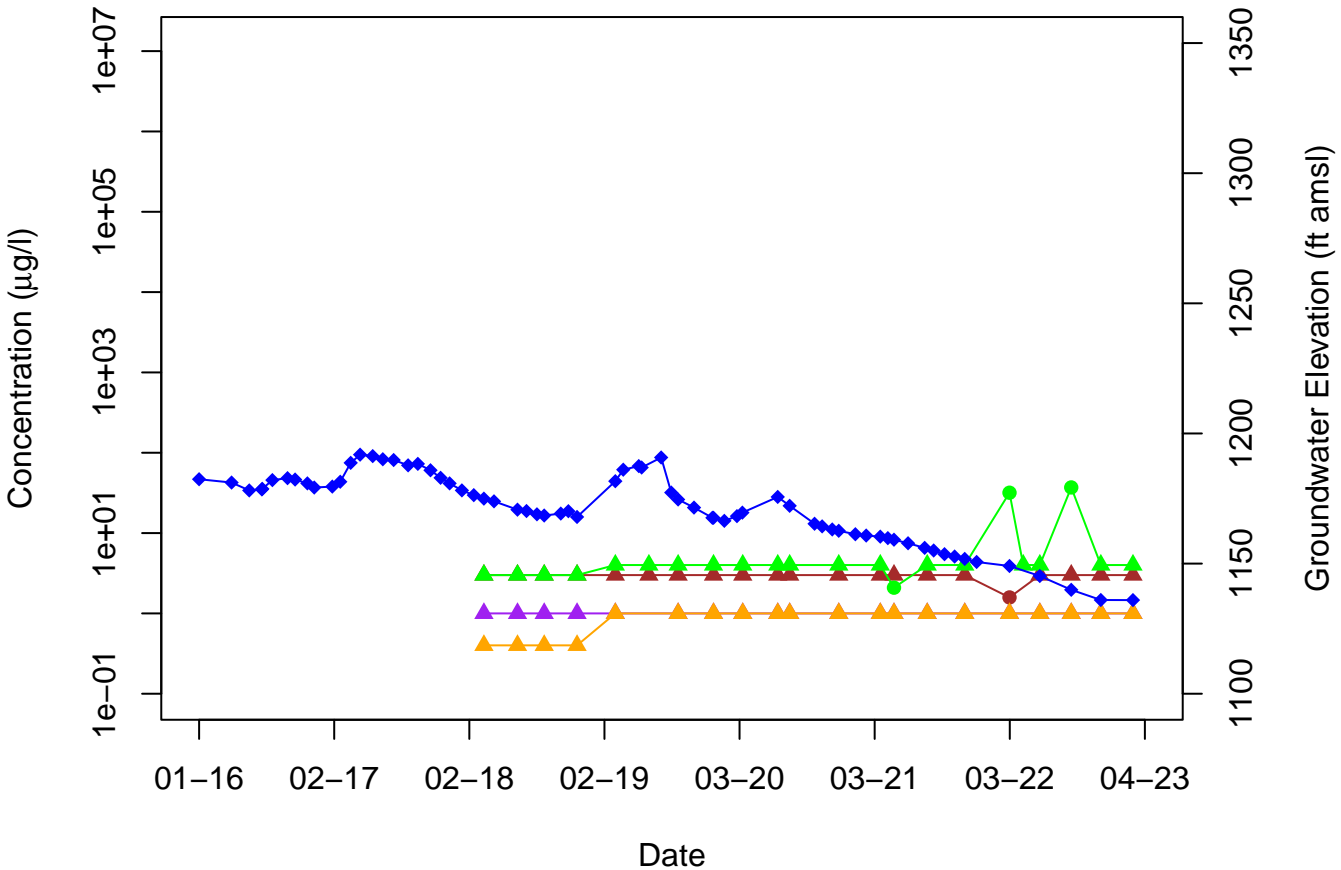
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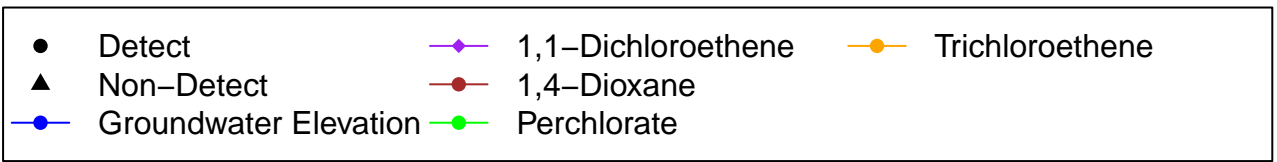
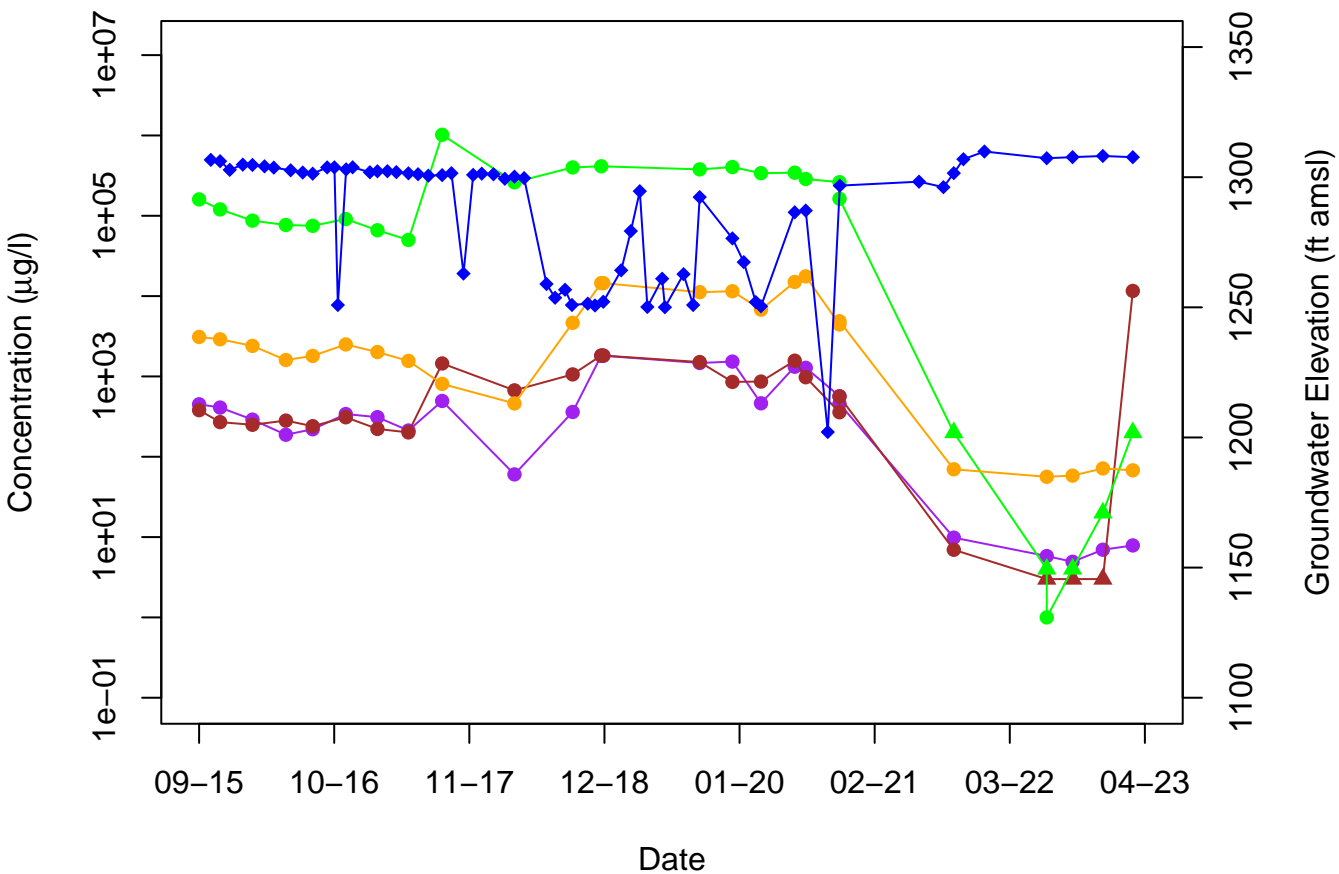
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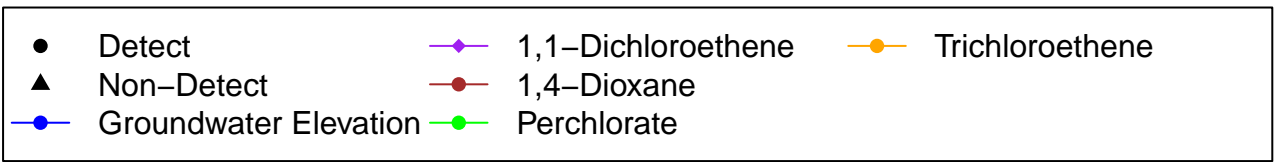
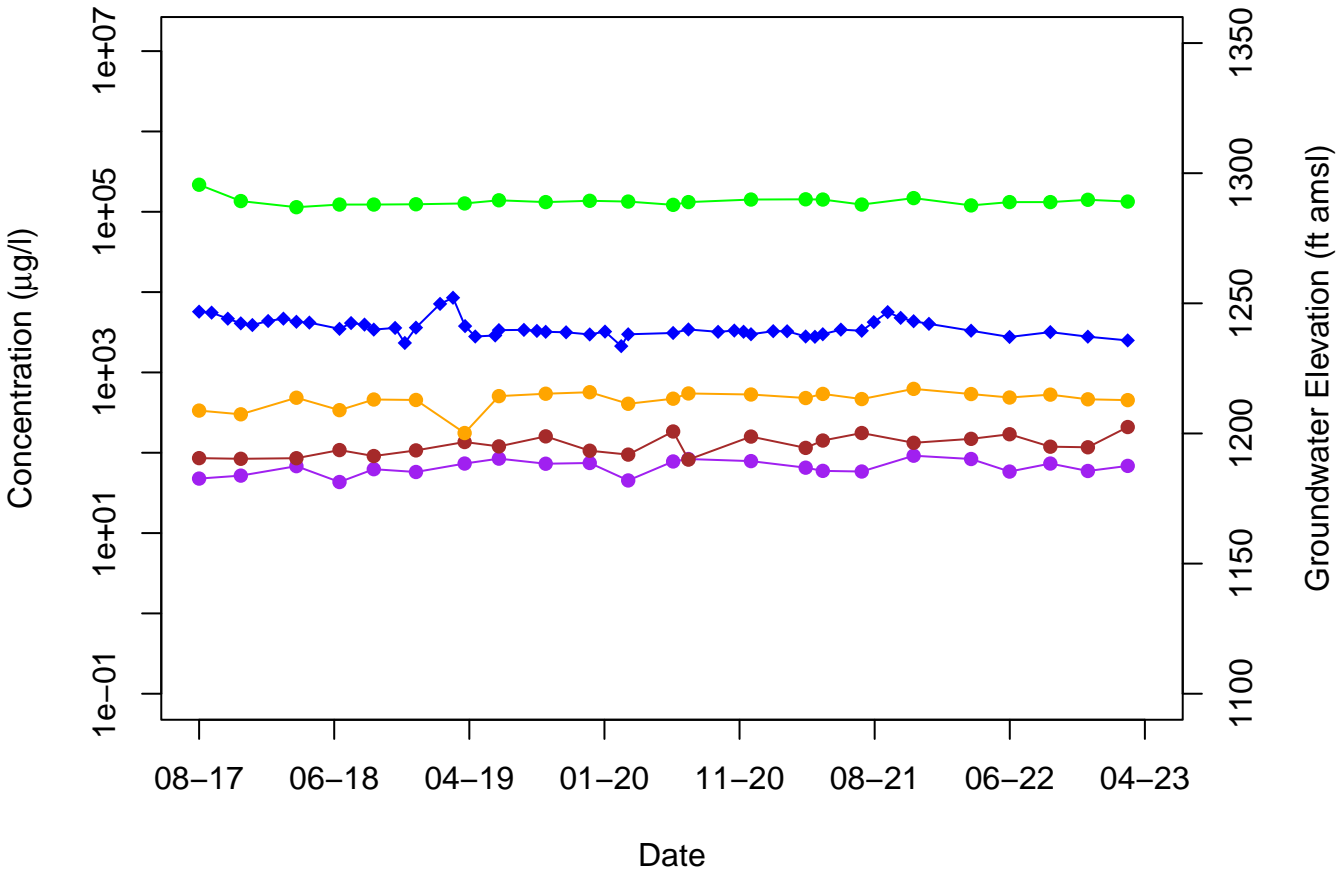


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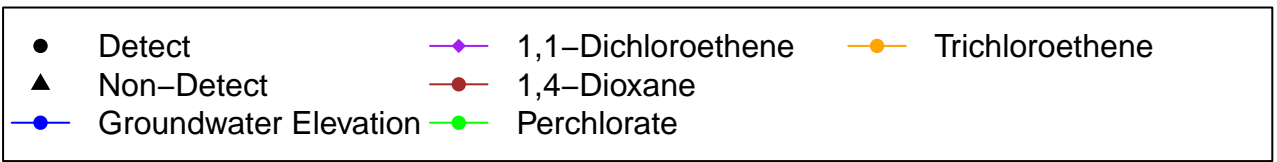
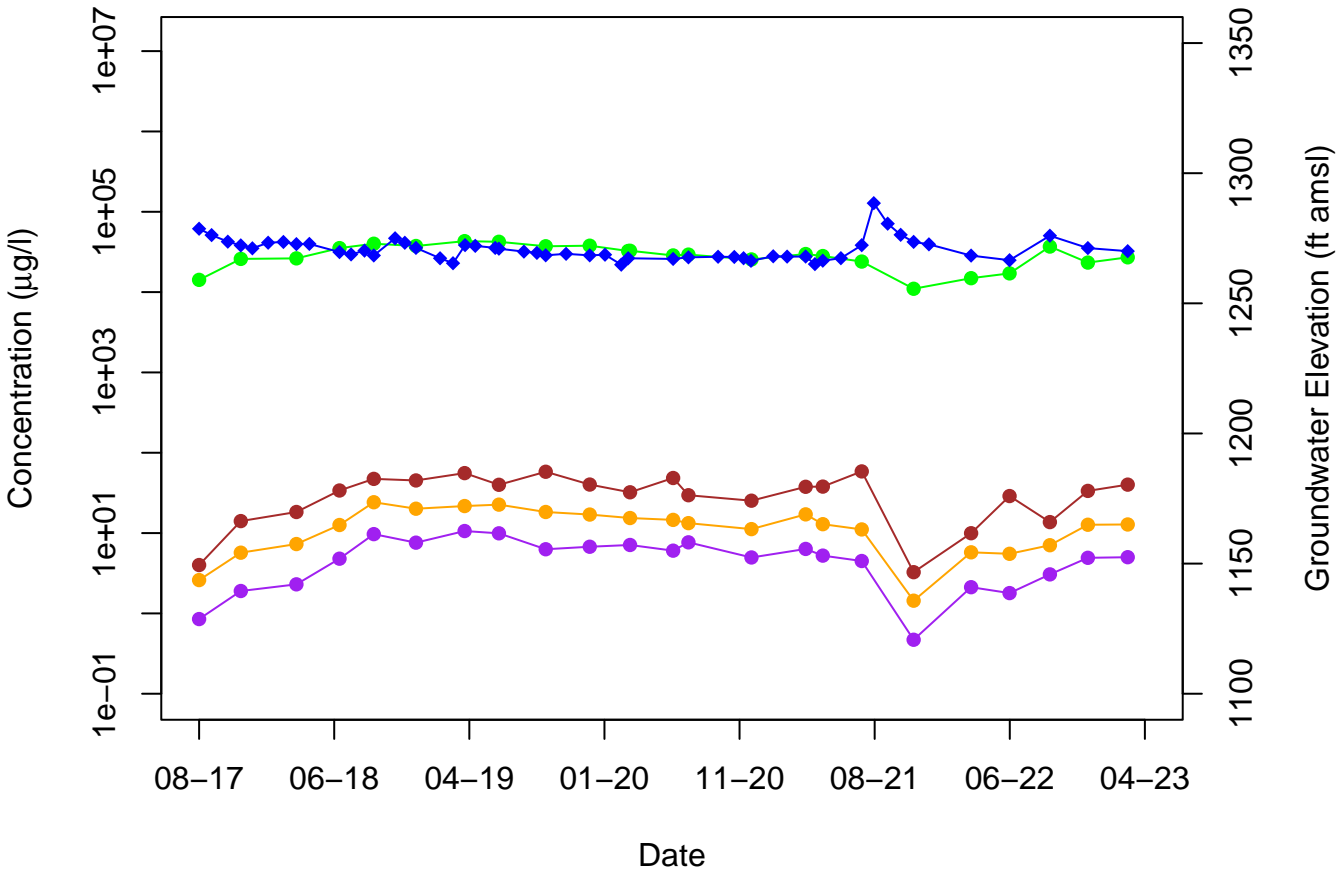




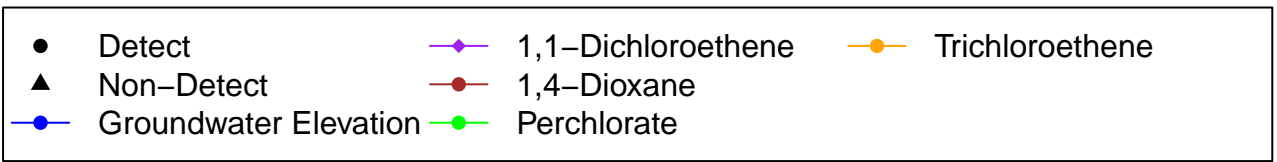
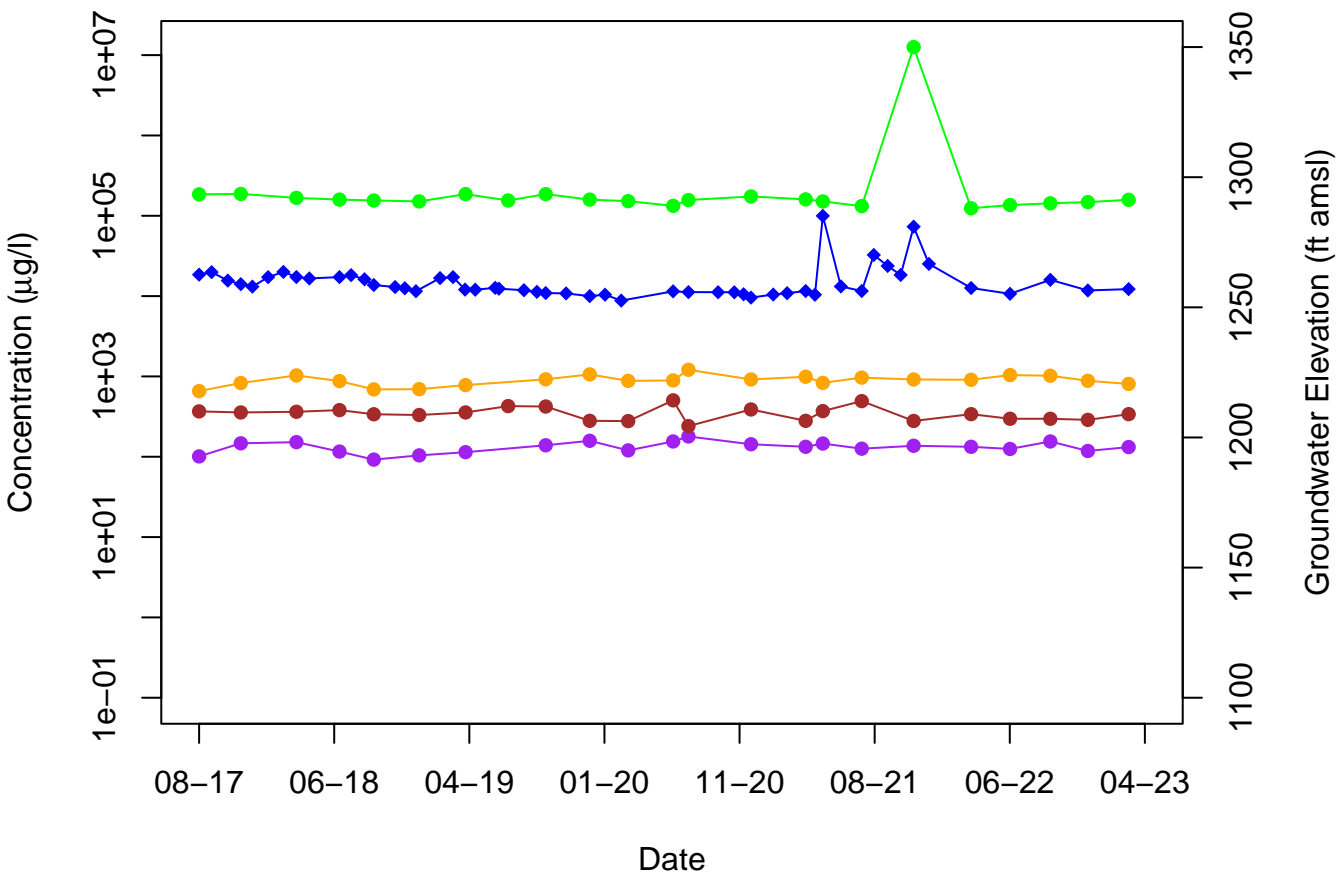
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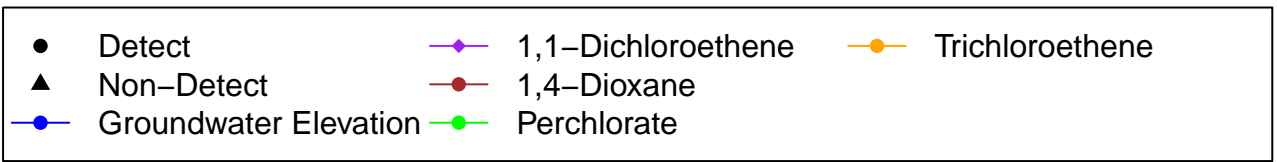
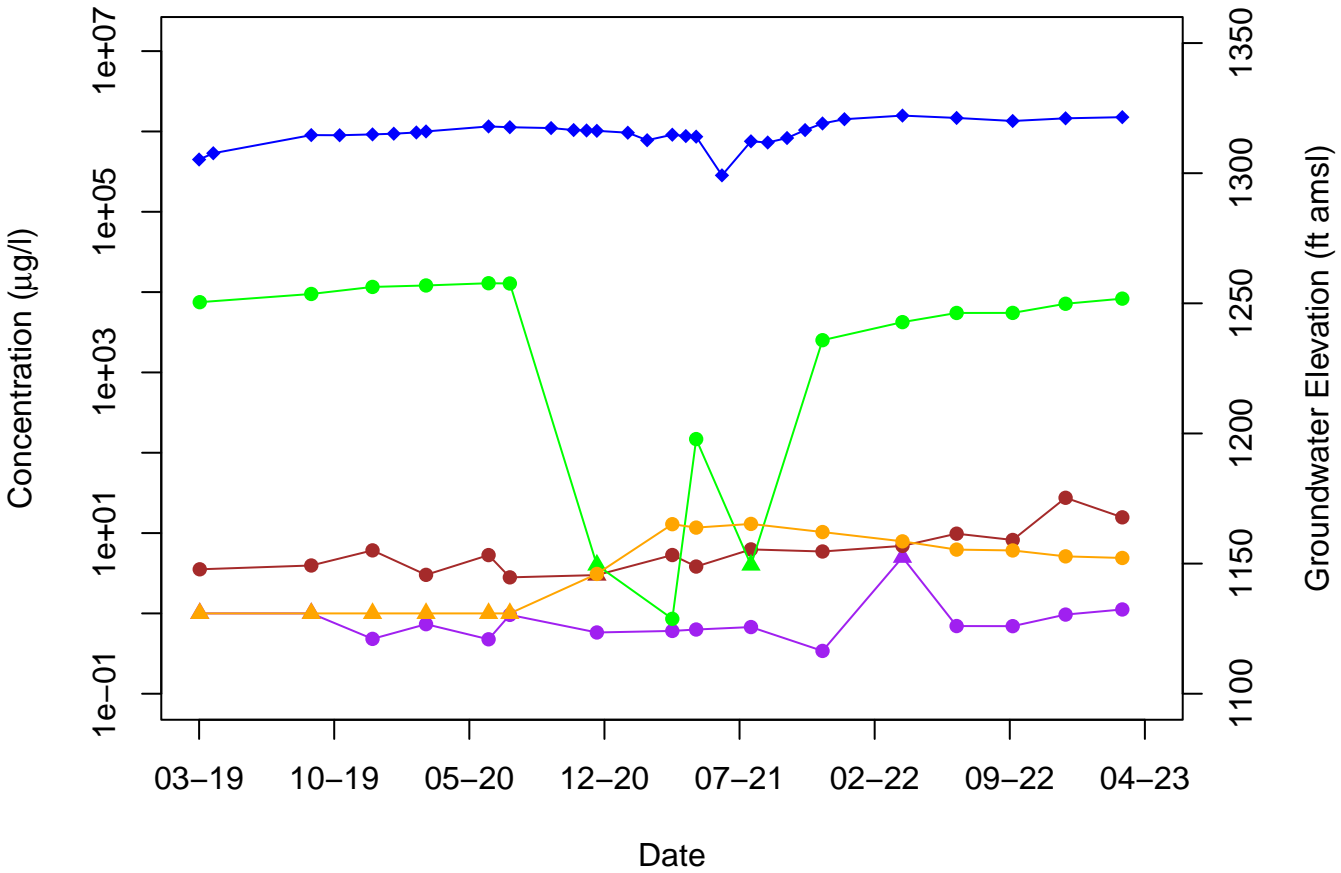
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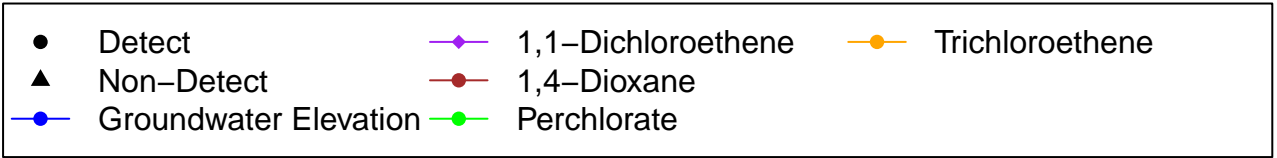
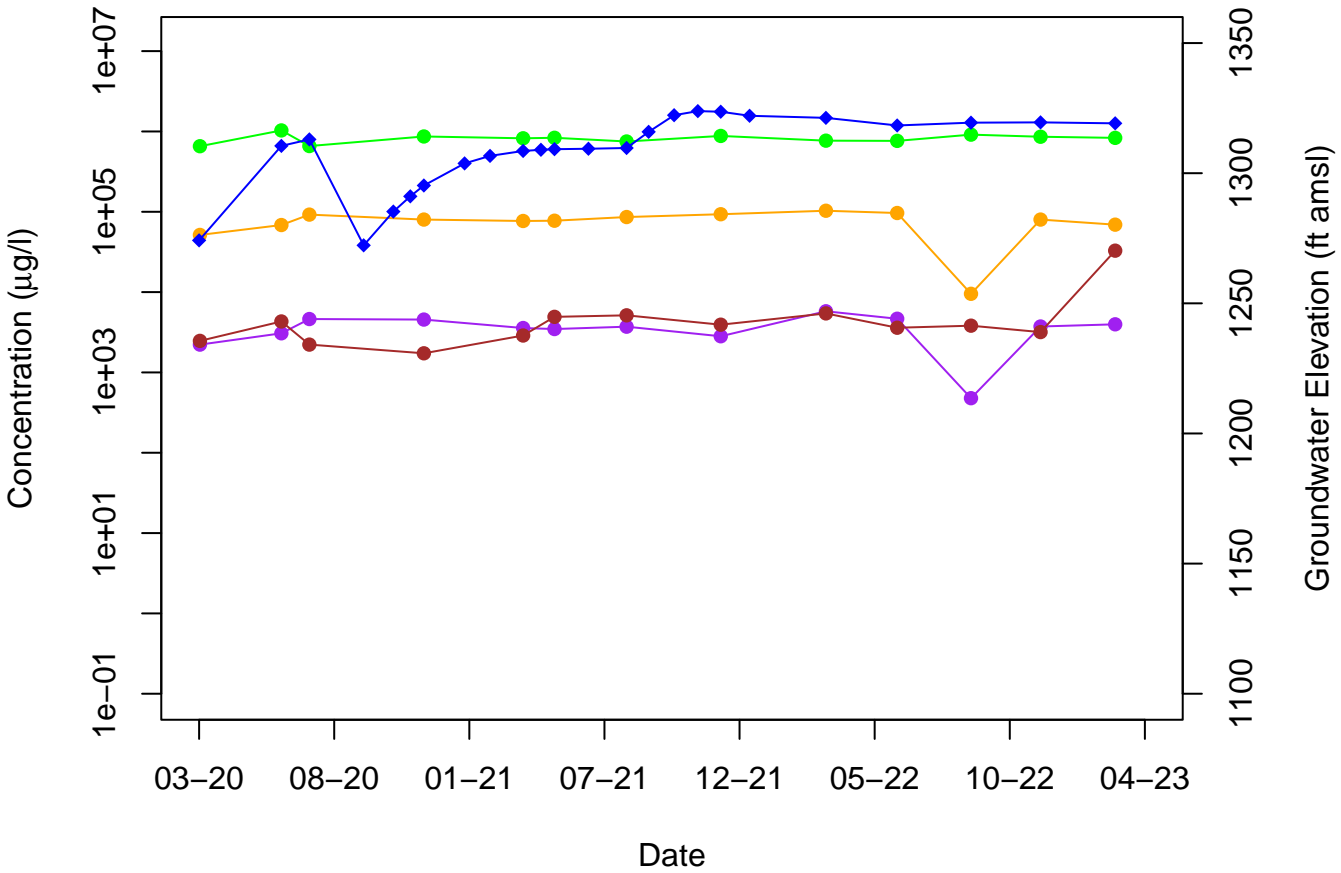
# TTU-14



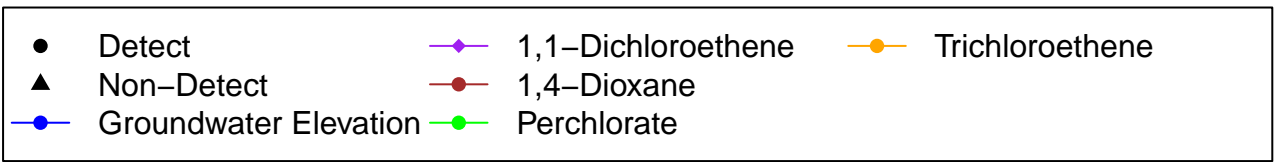
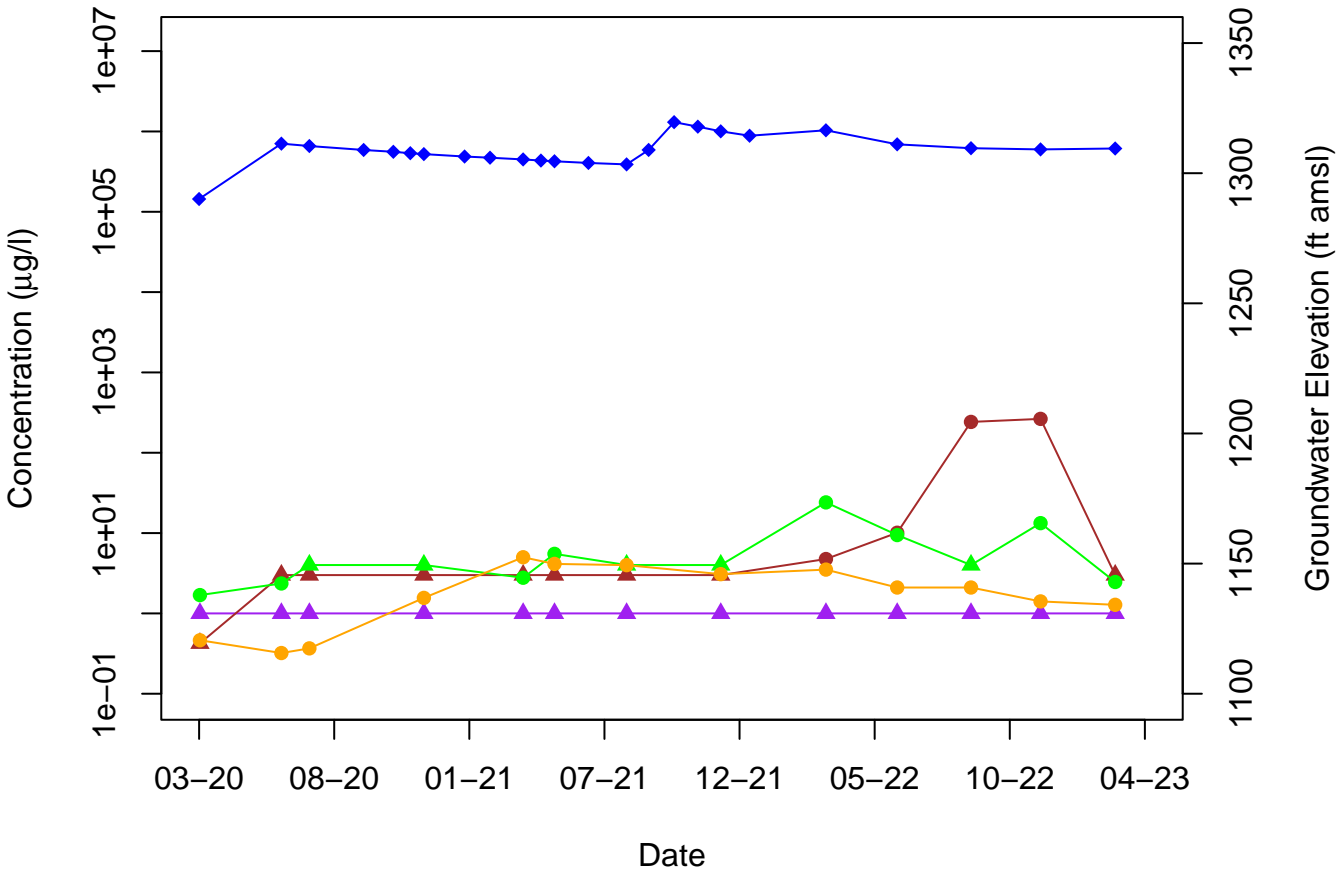
# TTU-15



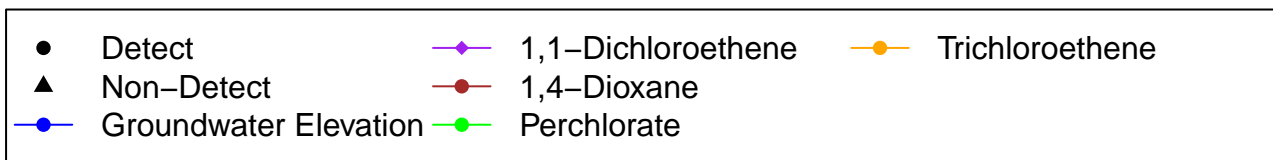
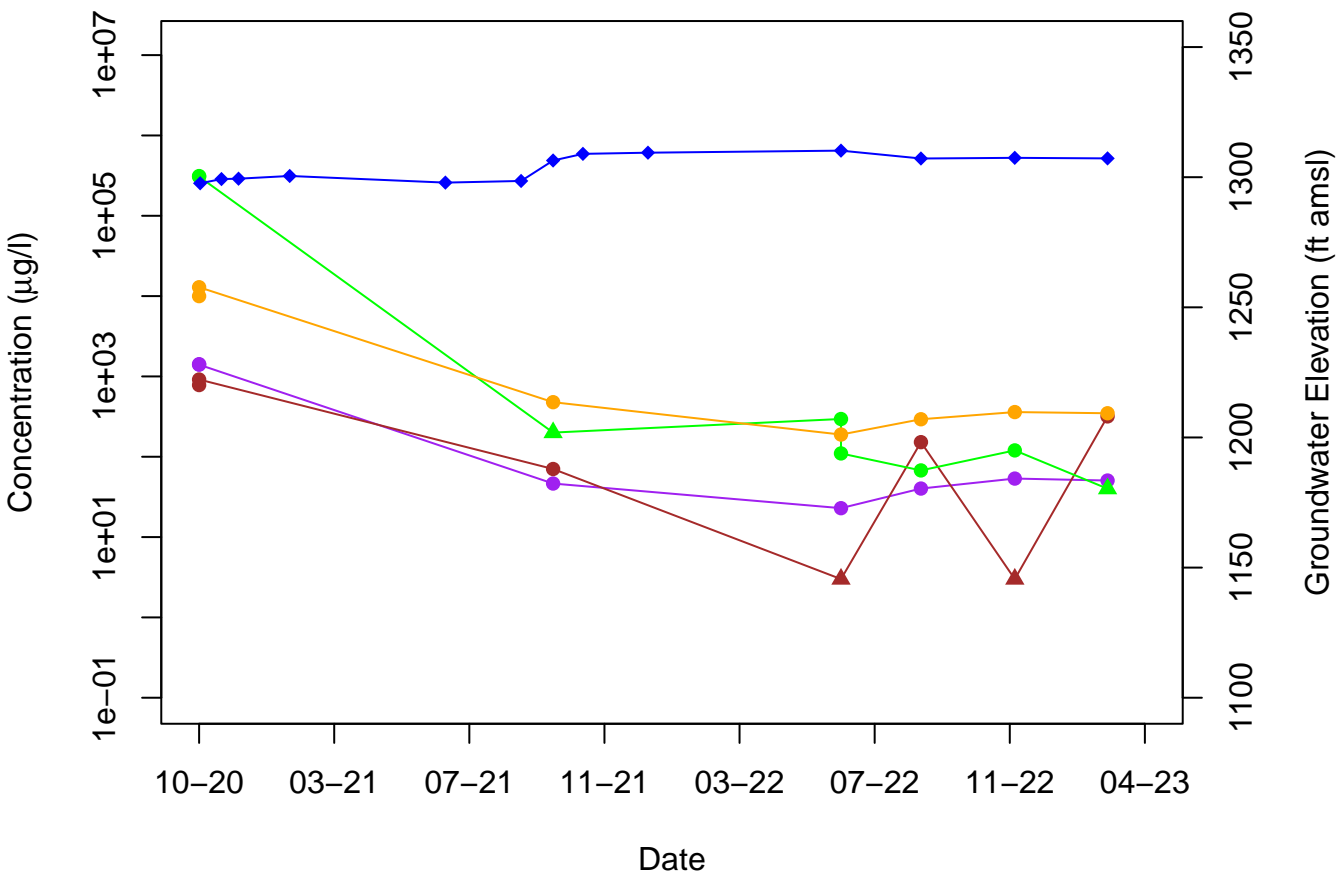
# TTU-16



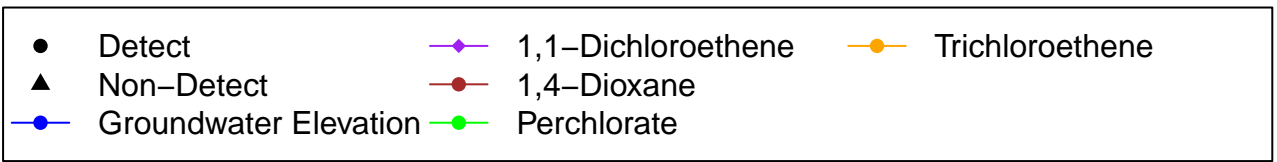
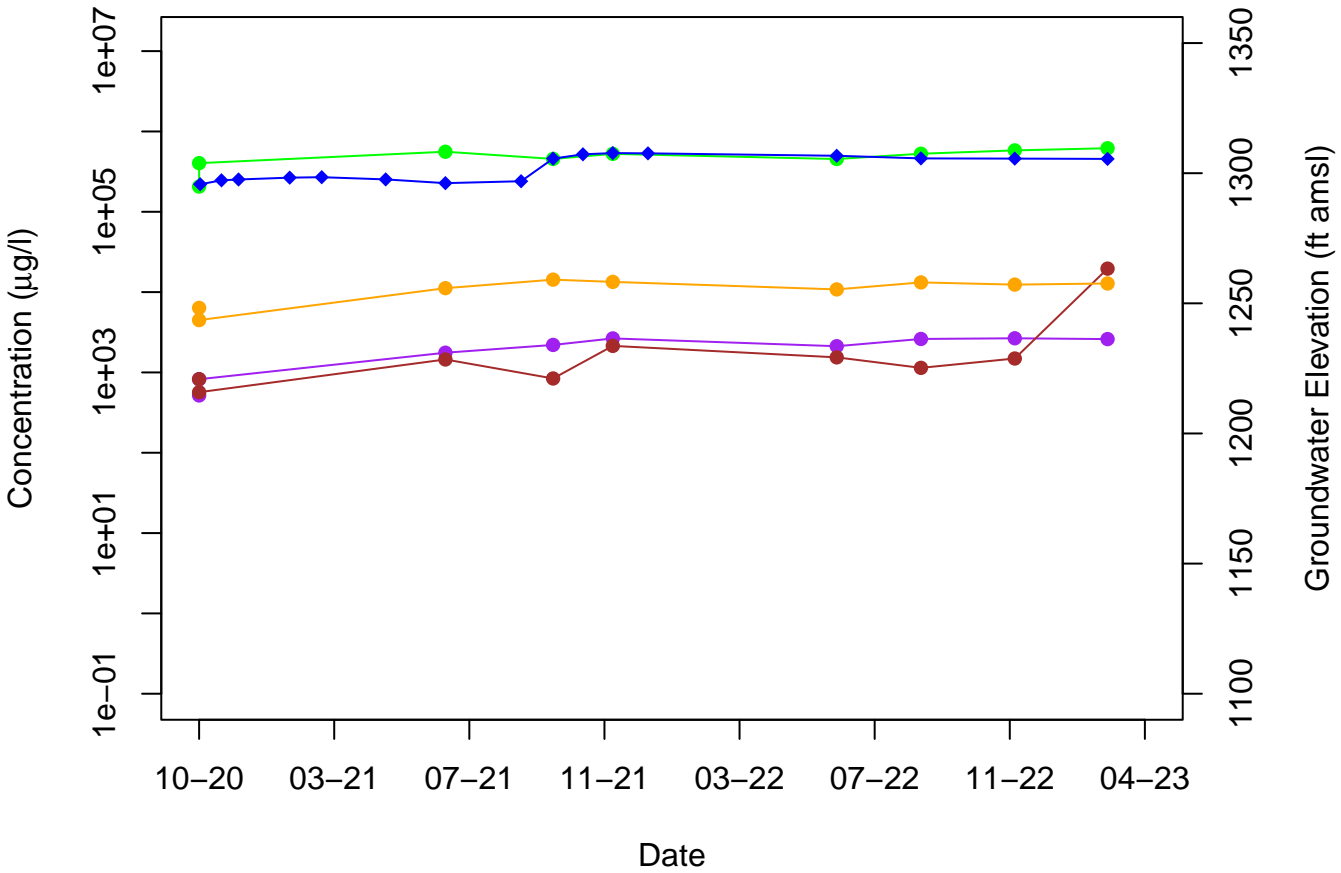
# TTU-17



# TTU-19

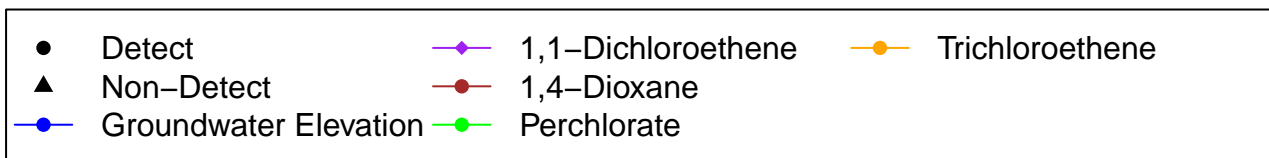
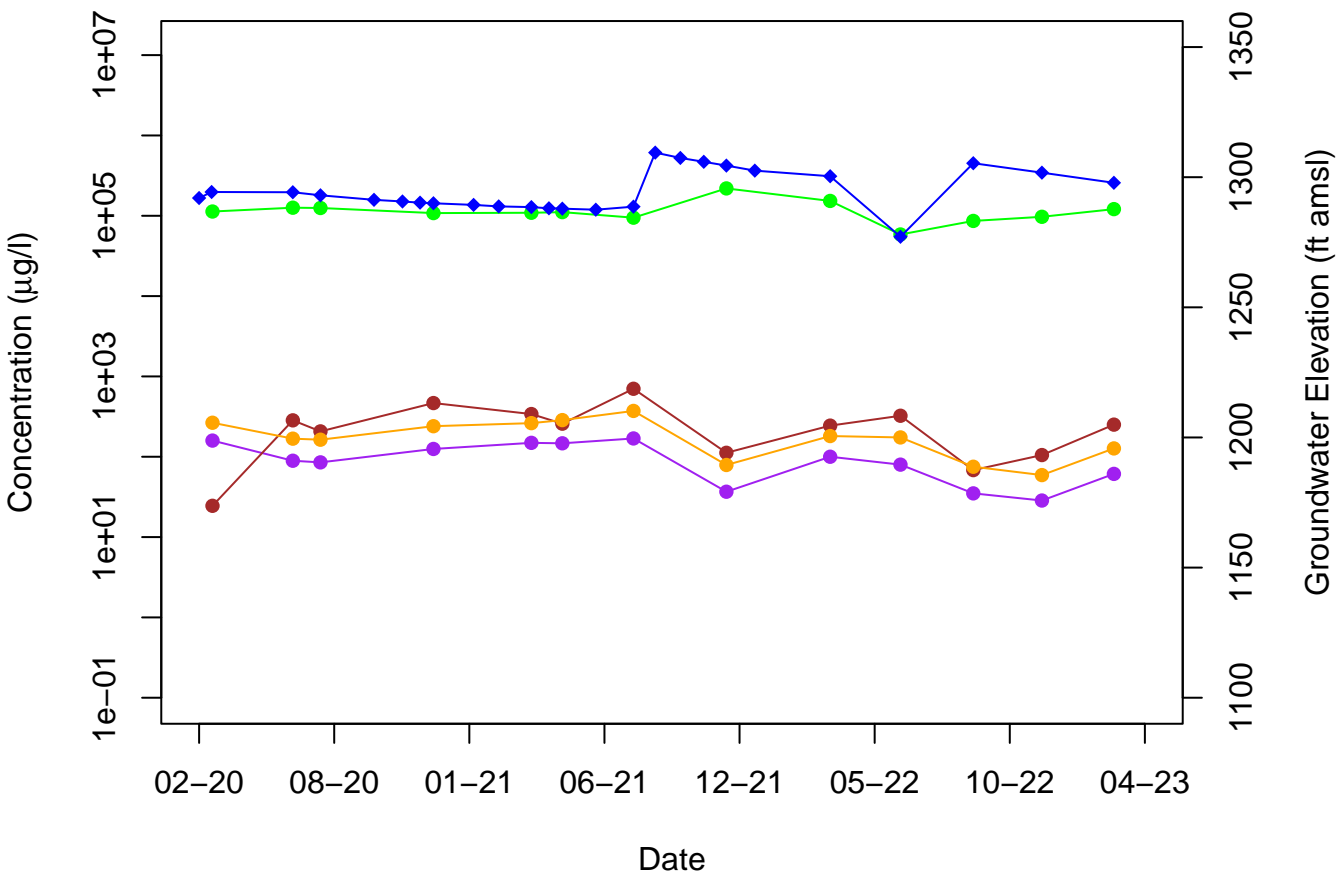


# TTU-20

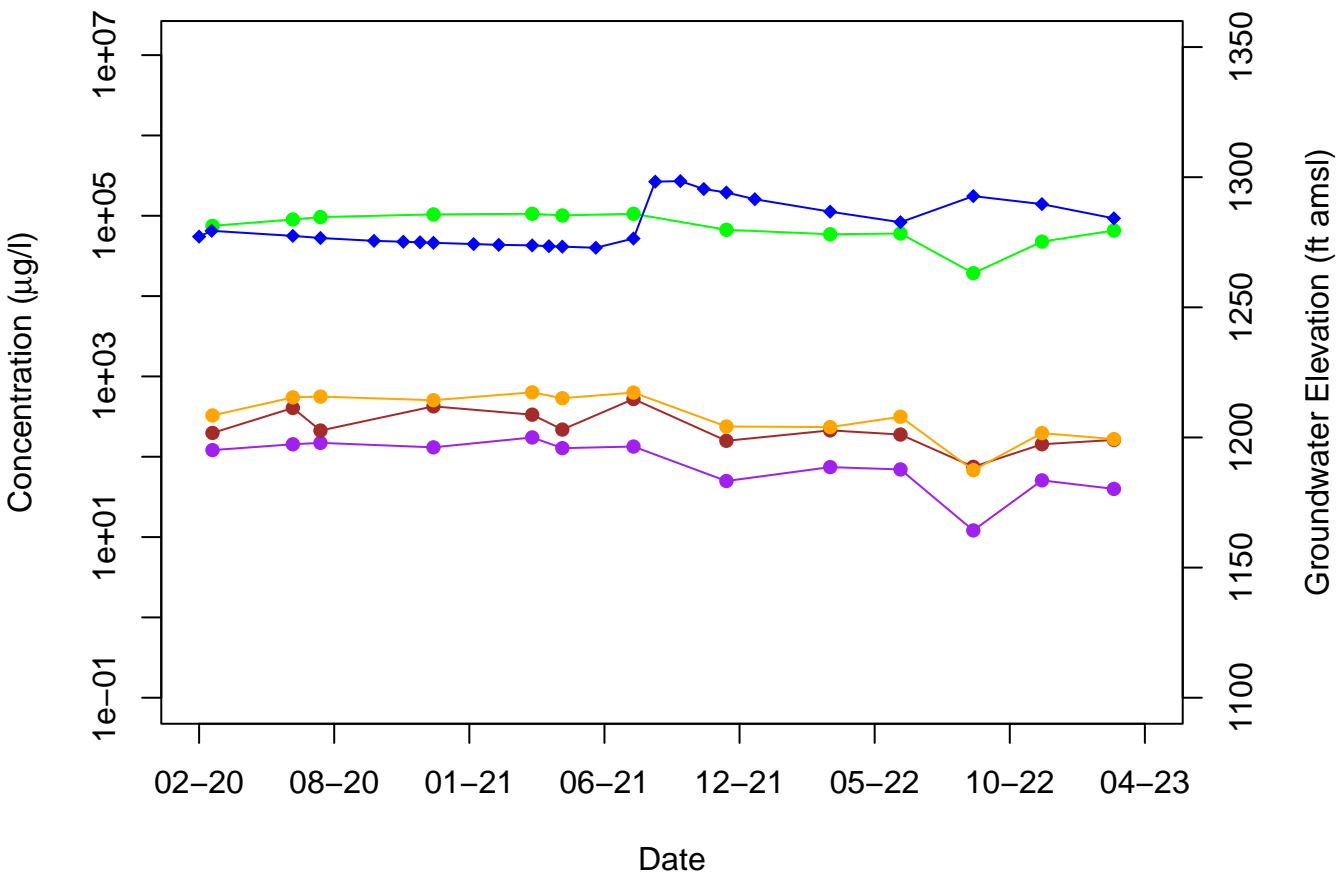




# TTU-EX-1

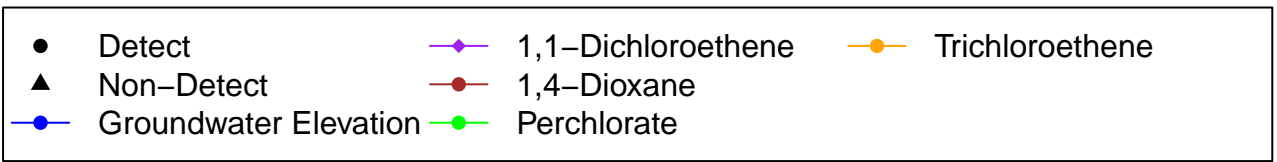
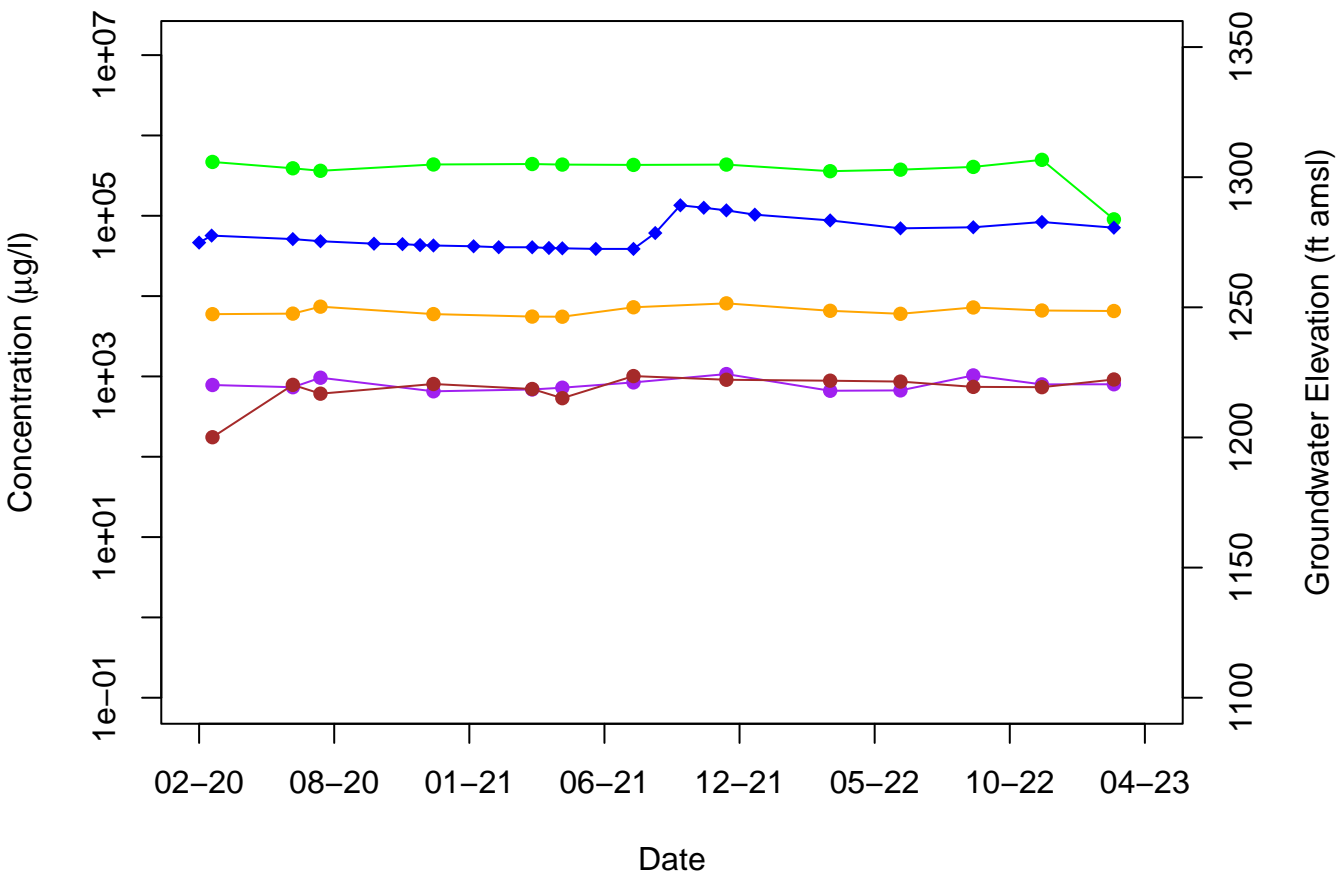


# TTU-EX-2

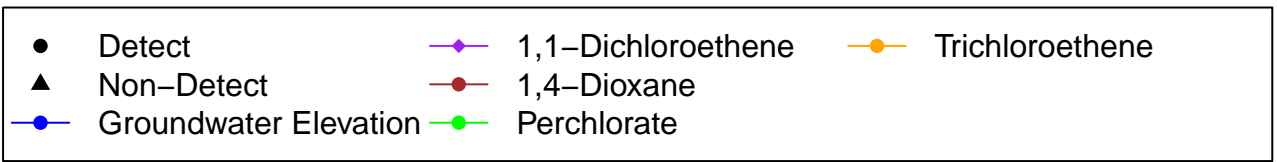
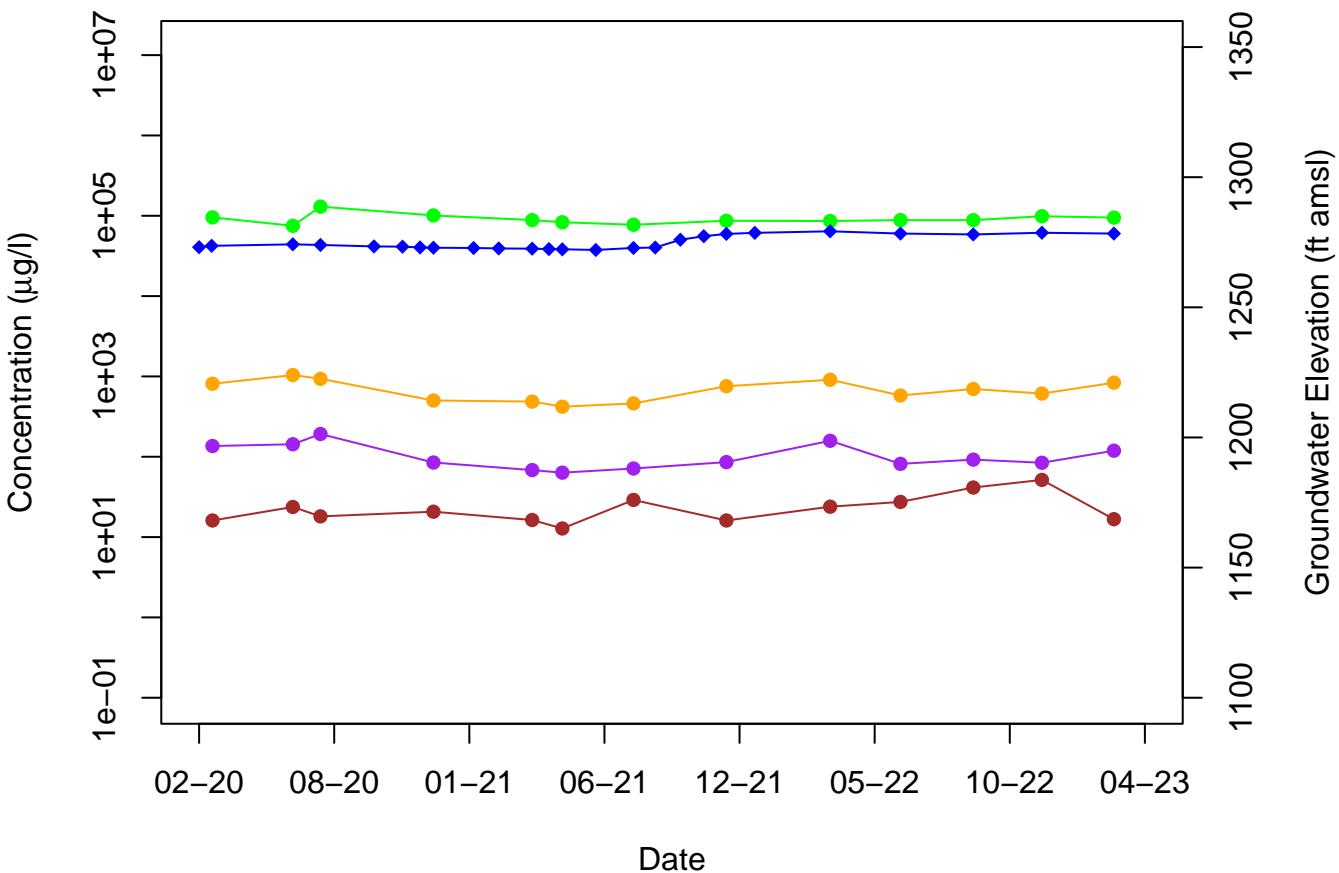


- Detect
- ▲ Non-Detect
- ◆ 1,1-Dichloroethene
- 1,4-Dioxane
- Groundwater Elevation
- Perchlorate
- Trichloroethene

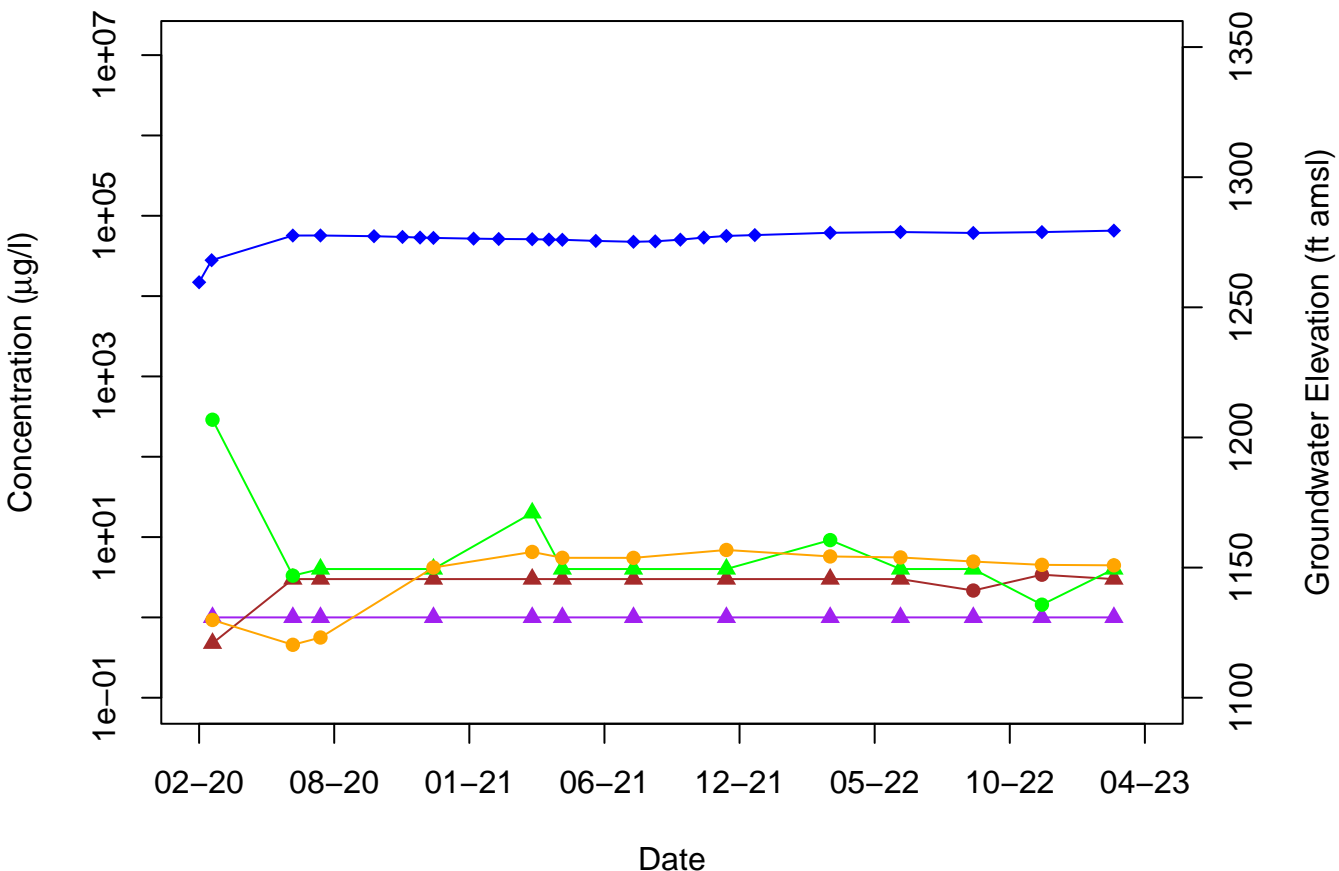
# TTU-EX-3



# TTU-EX-4



# TTU-EX-5



- Detect
- ▲ Non-Detect
- Groundwater Elevation
- ◆ 1,1-Dichloroethene
- 1,4-Dioxane
- Perchlorate

**Attachment 4 – Data Validation Memo**

## Memorandum

**Date:** April 27, 2023  
**To:** Angel Soto, Nammo Defense Systems Inc.  
**From:** Mary G. Weiss  
**Subject:** Nammo Defense Systems (NDS) Inc. – Former Thermal Treatment Unit (TTU) First Quarter 2023 Groundwater Sampling Tier IA Data Validation – Level II Data Deliverables, Pace Analytical Sample Delivery Groups (SDGs) J195887-1, J198342-1, L1573838, L1589562, L1590633, L1590813, L1597157

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## Introduction

Pinyon Environmental, Inc. (Pinyon), completed groundwater sampling activities for the Nammo Defense Systems (NDS) Inc. Former Thermal Treatment Unit (TTU) Site in January, February, and March of 2023. Subsequently, Pinyon performed a Tier IA data validation of the groundwater samples collected during the sampling event as part of the NDS TTU first quarter 2023 reporting.

Analytical data was reviewed by Pinyon based on the following documents:

Quality Assurance Project Plan, Nammo Defense Systems Inc. Facility, Mesa Arizona, April 28, 2022

United States Environmental Protection Agency (EPA) National Functional Guidelines for Organic Superfund Methods Data Review, January 2017 (EPA-540-R-2017-002)

Draft Region 9 Superfund Data Evaluation/Validation Guidance, December 2001 (R9QA/006.1)

Arizona Department of Environmental Quality (ADEQ) Remedial Projects Section Quality Assurance Program Plan (QAPP), February 2017

Groundwater Sampling and Analysis Plan (SAP), Former Thermal Treatment Unit, Nammo Defense Systems Inc. , Mesa, Arizona, September 2022

To reduce the occurrence of transcription errors, Pinyon has retained the laboratory qualifiers for use in the completed data validation rather than adhering to the data qualifiers defined in the *Quality Assurance Project Plan: Nammo Defense Systems Inc. Facility, (NDS Facility QAPP)*.

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### Data Validation Technical Memorandum

Nammo Defense Systems (NDS) Inc. – Former Thermal Treatment Unit (TTU)  
First Quarter 2023 Groundwater Sampling

## Preliminary Review

Groundwater samples were submitted to Pace Analytical Laboratory (Pace), Mount Juliet, Tennessee and Eurofins Scientific (Eurofins), Phoenix, Arizona under Pinyon chain-of-custody (COC) for the following analyses:

- Perchlorate by EPA Modified Method 314.0
- Perchlorate by EPA Method 6850 (PF-2 only)
- Volatile Organic Compounds (VOCs) by EPA Method 8260B
- 1,4-Dioxane by EPA Method 8260B using selective ion monitoring (SIM) mode

## Quarter 1 2023 – January, February, and March 2023

A total of 30 primary samples, 3 duplicate samples, 2 trip blank samples, and 3 matrix spike (MS) and matrix spike duplicate (MSD) samples were collected between January 6 and March 21, 2023 (Table 1). The samples were relinquished to a representative at the laboratory on January 6, February 24, February 27, and March 21, 2023.

Samples arrived at the laboratory for analysis on January 7, January 10, February 25, February 27, March 1, and March 22. Upon arrival at the laboratory for analysis, the temperatures of the coolers were recorded. Sample temperatures ranged between 2.4°C and 4.8°C. The laboratory noted that one trip blank was received with samples received on February 25 and March 1 and preserved with hydrochloric acid (HCl). Trip blanks were not submitted with the samples received on January 6, February 27, and March 21.

The collection times for the trip blanks were not recorded on the COC. The laboratory assigned the following dates and times to the trip blanks samples:

- TRIP BLANK 2 (LI589562-12) – 2/23/23 00:00
- TRIP BLANK (LI590633-18) – 2/25/23 00:00

The laboratory made note of “Insufficient sample volume to perform MS/MSD analyses per method QC requirements” for analysis of VOCs by 8260B or 1,4-dioxane by 8260B-SIM for the following samples:

- LI589562-02 (TTU-2-114-20230223)
- LI589562-03 (TTU-9A-61-20230223)
- LI589562-04 (TTU-12-82-20230223)
- LI589562-09 (TTU-EXT-3-76-20230223)
- LI589562-10 (TTU-EXT-4-77-20230223)
- LI590633-01 (TTU-3-108-20230225)
- LI590633-02 (TTU-4-57-20230225)
- LI590633-03 (TTU-5-110-20230225)
- LI590633-04 (TTU-6-143-20230225)
- LI590633-05 (TTU-7-345-20230225)
- LI590633-06 (TTU-8-164-20230225)
- LI590633-07 (TTU-10-172-20230227)
- LI590633-08 (TTU-11-73-20230225)
- LI590633-09 (TTU-14-67-20230225)
- LI590633-10 (TTU-15-75-20230225)
- LI590633-11 (TTU-16-80-20230225)

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### Data Validation Technical Memorandum



- LI590633-12 (TTU-17-80-20230225)
- LI590633-13 (TTU-19-73-20230225)
- LI590633-14 (TTU-20-73-20230225)
- LI590633-15 (PF-2-400-20230227)
- LI590633-16 (DUP-02)
- LI590633-17 (DUP-03)
- LI590633-18 (TRIP BLANK)
- LI597157-02 (TTU-9A-61-20230321)

Based on conversations with the laboratory, there was no extra sample volume to rerun MS samples for original samples that required dilution; however, there was sufficient volume to run the original sample. As one MS/MSD was reported for the sample delivery groups (SDGs) associated with the above samples, laboratory quality control requirements were met.

The laboratory made note of “pH outside of method requirement” for analysis of VOCs by 8260B for LI590633-13 (TTU-19-73-20230225). Based on conversations with the laboratory, the above items are the result of the sample having a pH greater than 2 standardized units (S.U.) upon receipt. According to the laboratory, the sample can be analyzed by 8260B as deviations of pH impact the extent of a sample’s hold time but not reported concentration. As the sample was analyzed within hold time, the above item does not impact sample validity.

The laboratory made note of “analyzed from headspace vial.” for analysis of VOCs by 8260B-SIM for LI589562-10 (TTU-EXT-4-77-20230223). Based on conversations with the laboratory, the above item is the result of headspace being noted in the sample vial upon receipt. As the sample was analyzed within hold time and no analytes were detected in the trip blank sample, the above item does not impact sample validity.

### **Field Duplicates**

A total of three field duplicates were collected and analyzed. This meets the requirements of 1 per batch of 10 samples. The field duplicates match as follows:

- LI589562-08 (DUP-01) = LI589562-07 (TTU-EXT-2-74-20230223)
- LI590633-16 (DUP-02) = LI590633-11 (TTU-16-80-20230225)
- LI590633-17 (DUP-03) = LI590633-01 (TTU-3-108-20230225)

### **Equipment Blanks**

Groundwater sampling activities were completed using Hydrasleeves in accordance with the SAP. As such, equipment blanks were not collected.

### **Perchlorate**

#### **Overall Assessment**

The samples were analyzed for perchlorate by EPA Methods 314.0 and 6850 (Table I). The data reported for perchlorate are considered to be usable with the identified qualifiers. Results for the target analytes for this specific project are usable and valid.

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#### **Data Validation Technical Memorandum**

## Preservation and Holding Times

The holding time (time between sample collection and analysis) for perchlorate analysis for a preserved sample is 28 days from sample collection to analysis. The holding times for preserved water samples were met for perchlorate analyses (Table I).

## Method Blank

At least one method blank was analyzed for each batch of analysis completed. This resulted in 11 method blanks. Perchlorate was not detected in the method blanks above the laboratory method reporting limit.

## Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Matrix Spike/Matrix Spike Duplicate (MS/MSD) sample sets were analyzed at the frequency for the number and types of samples analyzed (one MS/MSD set per batch of 10 samples). Twelve sample MS/MSD sets were reported using the following original samples:

- LI573116-10 (batch)
- LI589562-01 (TTU-1-50-20230223)
- LI589557-06 (batch)
- LI590623-05 (batch)
- LI590633-08 (TTU-11-73-20230225)
- LI590633-09 (TTU-14-67-20230225)
- LI590633-13 (TTU-19-73-20230225)
- LI590813-01 (TTU-6-143-20230225)
- LI596909-01 (batch)
- LI596909-02 (batch)
- 550-195887-1 (PF-2-20230106)
- 550-198342-1 (PF-2-400-20230227)

Eleven sample set specific MSs were reported using the following original samples:

- LI589557-03 (batch)
- LI589557-04 (batch)
- LI589557-05 (batch)
- LI589557-07 (batch)
- LI589557-10 (batch)
- LI589562-03 (TTU-9A-61-20230223)
- LI590633-02 (TTU-4-57-20230225)
- LI590633-05 (TTU-7-345-20230225)
- LI590633-06 (TTU-8-164-20230225)
- LI590633-07 (TTU-10-172-20230227)
- LI597157-01 (TTU-6-143-20230321)

The percent recovery (%R) and relative percent difference (RPD) results for the MS samples and MS/MSD sample sets were within the limits stated in the laboratory report or results were appropriately qualified. The qualifiers were applied to the MS, MSD, and corresponding sample results as appropriate.

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## Data Validation Technical Memorandum

## Laboratory Control Sample (LCS)

One laboratory control sample (LCS) or laboratory control sample/laboratory control sample duplicate (LCS/LCSD) was analyzed for each batch of analysis completed, resulting in seven LCSs and three LCS/LCSDs. The %R and RPD results were within the limits stated in the laboratory report or results were appropriately qualified. The qualifiers were applied to the LCS, and corresponding sample results as appropriate.

## Laboratory Duplicate

Ten laboratory duplicates were analyzed. The laboratory duplicates were analyzed using original sample from:

- LI573650-15 (batch)
- LI589557-03 (batch)
- LI589562-10 (TTU-EXT-4-77-20230223)
- LI590623-02 (batch)
- LI590633-08 (TTU-11-73-20230225)
- LI590633-12 (TTU-17-80-20230225)
- LI590633-13 (TTU-19-73-20230225)
- LI590813-01 (TTU-6-143-20230225)
- LI596909-03 (batch)
- LI597157-01 (TTU-6-143-20230321)

The RPD results were within the limits stated in the laboratory report or results were appropriately qualified.

## Field Duplicate

A total of three field duplicates were collected and analyzed. This meets the requirements of 1 per batch of 10 samples.

The RPD was calculated in accordance with the method discussed in the NDS Facility QAPP. RPD for each pair met acceptable precision limits (<30%) for perchlorate analyses, excluding the results for the sample and duplicate from LI589562-07 (TTU-EXT-2-74-20230223) (Table 2). The results for perchlorate for this duplicate pair was qualified as “E4” (Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL). This qualifier does not impact the validity of the results.

## Sensitivity

The samples were reported to MDLs. Elevated non-detect results were reported for 550-195887 (PF-2-20230106), LI573838-01 (TTU-6-143), LI590633-08 (TTU-11-73-20230225), and LI590633-13 (TTU-19-73-20230225) due to required sample dilution. Undiluted MDLs and reporting detection limits (RDLs) for perchlorate met the Arizona Department of Environmental Quality (ADEQ) Health Based Guidance Level (HBGL) for perchlorate of 14 micrograms per liter ( $\mu\text{g/L}$ ) in Table 2 of the NDS Facility QAPP. Concentrations greater than the MDL and less than the RDL were flagged by the laboratory with “E4” or “E8” to indicate the concentrations were estimated.

## **VOCs**

### **Overall Assessment**

The samples were analyzed for VOCs by EPA Method 8260B (Table I). The data reported for VOCs are considered to be usable with the identified qualifiers. Results for the target analytes for this specific project are usable and valid.

### **Holding Times**

The holding time (time between sample collection and analysis) for VOCs analyses for a preserved sample is 14 days from sample collection to analysis. The holding times for preserved water samples were met for VOCs analyses (Table I).

### **Method Blank**

One method blank was analyzed for each batch of analysis completed. This resulted in 12 method blanks. VOCs were not detected in the method blanks above the laboratory method reporting limits.

### **MS/MSD**

The MS/MSD sample sets were analyzed at the frequency for the number and types of samples analyzed (one MS/MSD set per batch of 20 samples). Four sample MS/MSD sets were reported using samples LI589557-06 (batch), LI589562-01 (TTU-1-50-20230223), LI590633-09 (TTU-14-67-20230225), and LI591329-02 (batch). The %R and RPD results were within the limits stated in the laboratory report or results were appropriately qualified. The qualifiers were applied to the MS, MSD, and corresponding sample results as appropriate.

### **LCS**

One laboratory control sample/laboratory control sample duplicate (LCS/LCSD) was analyzed for each batch of analysis completed, resulting in 12 LCS/LCSD. The %R and RPD results were within the limits stated in the laboratory report or results were appropriately qualified. The qualifiers were applied to the LCS, LCSD, and corresponding sample results as appropriate.

### **Surrogates**

The surrogate recoveries were within the limits stated in the laboratory reports for the SDGs.

### **Field Duplicate**

A total of three field duplicates were collected and analyzed. This meets the requirements of 1 per batch of 10 samples.

For the duplicate pairs in the above list, trichloroethene was detected in the original sample but not the duplicate sample collected from LI590633-01 (TTU-3-108-20230225).

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#### **Data Validation Technical Memorandum**

The following analytes were detected in the duplicate sample but not the original sample collected from LI590633-11 (TTU-16-80-20230225):

- Bromodichloromethane
- Bromoform
- Chlorobenzene
- Chlorodibromomethane
- 1,2-Dichlorobenzene
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 1,2-Dichloroethane
- cis-1,2-Dichloroethene
- trans-1,2-Dichloroethene
- Di-isopropyl ether
- Ethylbenzene
- 4-Ethyltoluene
- Isopropylbenzene
- Propene
- n-Propylbenzene
- 1,2,4-Trimethylbenzene
- 1,2,3-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- Vinyl chloride

The RPD was not calculated for results where the analyte was not detected in either or both the original sample and the duplicate sample.

The RPD was calculated in accordance with the method discussed in the NDS Facility QAPP. RPD for each pair met acceptable precision limits (<30%) for VOCs analyses, excluding the results for 1,1-dichloroethene and total xylenes for the sample and duplicate from LI590633-11 (TTU-16-80-20230225) (Table 2). The results for these analytes for this duplicate pair were qualified as estimated concentrations with an “E4” qualifier. This does not impact the validity of the results.

### **Trip Blank**

Two trip blanks were collected during the sampling event. Trip blanks are a requirement of the NDS Facility QAPP. Concentrations of VOCs were not detected above MDLs in either trip blank.

### **Sensitivity**

The samples were reported to MDLs. Elevated non-detect results were reported for the following samples due to the dilutions during analysis:

- LI590633-08 (TTU-11-73-20230225)
- LI590633-13 (TTU-19-73-20230225)
- LI590633-11 (TTU-16-80-20230225)
- LI590633-14 (TTU-20-73-20230225)

Undiluted MDLs and RDLs for 1,1-dichloroethene met the AWQS of 7.0 µg/L in Table 2 of the QAPP. Concentrations greater than the MDL and less than the RDL were flagged by the laboratory with “E4” to indicate the concentrations were estimated.

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### **Data Validation Technical Memorandum**

## **1,4-Dioxane**

### **Overall Assessment**

The samples were analyzed for 1,4-dioxane by EPA Method 8260B-SIM (Table 1). The data reported for 1,4-dioxane is considered to be usable with the identified qualifiers. Results for the target analytes for this specific project are usable and valid.

### **Holding Times**

The holding time (time between sample collection and analysis) for 1,4-dioxane analyses for a preserved sample is 14 days from sample collection to analysis. The holding times for preserved water samples were met for 1,4-dioxane analyses (Table 1).

### **Method Blank**

One method blank was analyzed for each batch of analysis completed. This resulted in eight method blanks. Concentrations of 1,4-dioxane were not in the method blanks above the laboratory method reporting limit.

### **MS/MSD**

The MS/MSD sample sets were analyzed at the frequency for the number and types of samples analyzed (one MS/MSD set per batch of 20 samples). Two sample MS/MSD sets were reported using samples L1589562-01 (TTU-1-50-20230223) and L1589562-11 (TTU-EXT-5-80-20230223). The %R and RPD results were within the limits stated in the laboratory report or results were appropriately qualified.

### **LCS**

One LCS/LCSD was analyzed for each batch of analysis completed, resulting in eight LCS/LCSD. The %R and RPD results were within the limits stated in the laboratory report or results were appropriately qualified. The qualifiers were applied to the LCS, LCSD, and corresponding sample results as appropriate.

### **Field Duplicate**

A total of three field duplicates were collected and analyzed. This meets the requirements of 1 per batch of 10 samples.

1,4-dioxane was not detected in either the original sample or duplicate sample collected from L1590633-01 (TTU-3-108-20230225). The RPD was not calculated for these results.

The RPD for the duplicate pairs collected from L1590633-11 (TTU-16-80-20230225) and L1589562-07 (TTU-EXT-2-74-20230223) were calculated in accordance with the method discussed in the NDS Facility QAPP. RPD for these pairs met acceptable precision limits (<30%) for 1,4-dioxane analyses (Table 2).

### **Sensitivity**

The samples were reported to MDLs, and no elevated non-detect results were reported. Site specific technical and regulatory standards for 1,4-dioxane were not included in Table 2 of the NDS Facility QAPP.

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#### **Data Validation Technical Memorandum**

**Tables and Attachments:**

Table 1. Analysis Summary

Table 2. Field Duplicates – Detections Only

Attachment A. Data Validation Checklists

## Tables



**Table I**  
**Analysis Summary**  
**Nammo Defense Systems**  
**Former Thermal Treatment Unit**  
**First Quarter 2023 Groundwater Sampling**

Laboratory Sample ID	Client Sample ID	Date Collected	Preparation Date	Date Analyzed	Analysis Batch	Hold Time (days)	Notes
<b>Perchlorate by 314.0 Mod</b>							
LI573838-01	TTU-6-143	1/6/2023	1/11/2023	1/11/2023	WG1985615	5	Sample required dilution.
LI589562-01	TTU-1-50-20230223	2/23/2023	2/28/2023	2/28/2023	WG2013803	5	Sample required dilution.
LI589562-02	TTU-2-114-20230223	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-03	TTU-9A-61-20230223	2/23/2023	2/28/2023	2/28/2023	WG2016909	5	
LI589562-04	TTU-12-82-20230223	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-05	TTU-13-51-20230223	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-06	TTU-EXT-1-69-20230223	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-07	TTU-EXT-2-74-20230223	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-08	DUP-01	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-09	TTU-EXT-3-76-20230223	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-10	TTU-EXT-4-77-20230223	2/23/2023	3/1/2023	3/1/2023	WG2013803	6	Sample required dilution.
LI589562-11	TTU-EXT-5-80-20230223	2/23/2023	2/28/2023	2/28/2023	WG2013803	5	
LI590633-01	TTU-3-108-20230225	2/25/2023	3/4/2023	3/4/2023	WG2016165	7	Sample required dilution.
LI590633-02	TTU-4-57-20230225	2/25/2023	3/3/2023	3/3/2023	WG2018776	6	
LI590633-03	TTU-5-110-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016165	6	
LI590633-05	TTU-7-345-20230225	2/25/2023	3/3/2023	3/3/2023	WG2018776	6	
LI590633-06	TTU-8-164-20230225	2/25/2023	3/3/2023	3/3/2023	WG2018776	6	
LI590633-07	TTU-10-172-20230227	2/27/2023	3/3/2023	3/3/2023	WG2018776	4	
LI590633-08	TTU-11-73-20230225	2/25/2023	3/9/2023	3/9/2023	WG2019604	12	Sample required dilution.
LI590633-09	TTU-14-67-20230225	2/25/2023	3/4/2023	3/4/2023	WG2016165	7	Sample required dilution.
LI590633-10	TTU-15-75-20230225	2/25/2023	3/4/2023	3/4/2023	WG2016165	7	Sample required dilution.
LI590633-11	TTU-16-80-20230225	2/25/2023	3/4/2023	3/4/2023	WG2016165	7	Sample required dilution.
LI590633-12	TTU-17-80-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016165	6	
LI590633-13	TTU-19-73-20230225	2/25/2023	3/9/2023	3/9/2023	WG2019604	12	Sample required dilution.
LI590633-14	TTU-20-73-20230225	2/25/2023	3/4/2023	3/4/2023	WG2016165	7	Sample required dilution.
LI590633-16	DUP-02	2/25/2023	3/4/2023	3/4/2023	WG2016165	7	Sample required dilution.
LI590633-17	DUP-03	2/25/2023	3/4/2023	3/4/2023	WG2016165	7	Sample required dilution.
LI590813-01	TTU-6-143-20230225	2/25/2023	3/2/2023	3/2/2023	WG2015996	5	
LI597157-01	TTU-6-143-20230321	3/21/2023	3/29/2023	3/29/2023	WG2031535	8	
<b>Perchlorate by 6850</b>							
550-195887-1	PF-2-20230106	1/6/2023	1/11/2023	1/15/2023	646539	9	Sample required dilution.
550-198342-1	PF-2-400-20230227	2/27/2023	3/9/2023	3/10/2023	660007	11	
<b>Volatile Organic Compounds by 8260B</b>							
LI589562-01	TTU-1-50-20230223	2/23/2023	2/28/2023	2/28/2023	WG2014084	5	
LI589562-02	TTU-2-114-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
			3/2/2023	3/2/2023	WG2015811	7	Sample required dilution.
LI589562-03	TTU-9A-61-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
			3/2/2023	3/2/2023	WG2015811	7	
LI589562-04	TTU-12-82-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
			3/2/2023	3/2/2023	WG2015811	7	Sample required dilution.
LI589562-05	TTU-13-51-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
LI589562-06	TTU-EXT-1-69-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
LI589562-07	TTU-EXT-2-74-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
LI589562-08	DUP-01	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
LI589562-09	TTU-EXT-3-76-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
			3/2/2023	3/2/2023	WG2015811	7	Sample required dilution.
			3/3/2023	3/3/2023	WG2016398	8	Sample required dilution.
LI589562-10	TTU-EXT-4-77-20230223	2/23/2023	2/27/2023	2/27/2023	WG2013558	4	
			3/2/2023	3/2/2023	WG2015811	7	Sample required dilution.
LI589562-11	TTU-EXT-5-80-20230223	2/23/2023	2/28/2023	2/28/2023	WG2014084	5	
LI589562-12	TRIP BLANK	2/23/2023	2/28/2023	2/28/2023	WG2014084	5	
LI590633-01	TTU-3-108-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
LI590633-02	TTU-4-57-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
LI590633-03	TTU-5-110-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
LI590633-04	TTU-6-143-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
LI590633-05	TTU-7-345-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
LI590633-06	TTU-8-164-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
LI590633-07	TTU-10-172-20230227	2/27/2023	3/3/2023	3/3/2023	WG2016487	4	
LI590633-08	TTU-11-73-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	Sample required dilution.
LI590633-09	TTU-14-67-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
			3/7/2023	3/7/2023	WG2017615	10	Sample required dilution.
LI590633-10	TTU-15-75-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016487	6	
			3/6/2023	3/6/2023	WG2017615	9	
LI590633-11	TTU-16-80-20230225	2/25/2023	3/4/2023	3/4/2023	WG2016872	7	Sample required dilution.
			3/6/2023	3/6/2023	WG2017864	9	Sample required dilution.

**Table I**  
**Analysis Summary**  
**Nammo Defense Systems**  
**Former Thermal Treatment Unit**  
**First Quarter 2023 Groundwater Sampling**

Laboratory Sample ID	Client Sample ID	Date Collected	Preparation Date	Date Analyzed	Analysis Batch	Hold Time (days)	Notes
<b>Volatile Organic Compounds by 8260B</b>							
LI590633-12	TTU-17-80-20230225	2/25/2023	3/4/2023	3/4/2023	WG2016872	7	
LI590633-13	TTU-19-73-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016515	6	Sample required dilution.
			3/7/2023	3/7/2023	WG2018468	10	Sample required dilution.
LI590633-14	TTU-20-73-20230225	2/25/2023	3/3/2023	3/3/2023	WG2016515	6	Sample required dilution.
			3/7/2023	3/7/2023	WG2018468	10	Sample required dilution.
LI590633-15	PF-2-400-20230227	2/27/2023	3/3/2023	3/3/2023	WG2016515	4	
LI590633-16	DUP-02	2/25/2023	3/3/2023	3/3/2023	WG2016515	6	
			3/7/2023	3/7/2023	WG2018468	10	Sample required dilution.
			3/8/2023	3/8/2023	WG2018954	11	Sample required dilution.
LI590633-17	DUP-03	2/25/2023	3/3/2023	3/3/2023	WG2016515	6	
			3/7/2023	3/7/2023	WG2018468	10	
			3/8/2023	3/8/2023	WG2018954	11	
LI590633-18	TRIP BLANK	2/25/2023	3/3/2023	3/3/2023	WG2016515	6	
LI597157-02	TTU-9A-61-20230321	3/21/2023	3/24/2023	3/24/2023	WG2029452	3	
<b>1,4-Dioxane by 8260B-SIM</b>							
LI589562-01	TTU-1-50-20230223	2/23/2023	2/26/2023	2/26/2023	WG2013178	3	
LI589562-02	TTU-2-114-20230223	2/23/2023	2/26/2023	2/26/2023	WG2013178	3	
LI589562-03	TTU-9A-61-20230223	2/23/2023	2/26/2023	2/26/2023	WG2013178	3	
LI589562-04	TTU-12-82-20230223	2/23/2023	2/26/2023	2/26/2023	WG2013178	3	
LI589562-05	TTU-13-51-20230223	2/23/2023	2/26/2023	2/26/2023	WG2013178	3	
LI589562-06	TTU-EXT-1-69-20230223	2/23/2023	2/26/2023	2/26/2023	WG2013178	3	
LI589562-07	TTU-EXT-2-74-20230223	2/23/2023	2/26/2023	2/26/2023	WG2013178	3	
LI589562-08	DUP-01	2/23/2023	3/1/2023	3/1/2023	WG2014826	6	
LI589562-09	TTU-EXT-3-76-20230223	2/23/2023	3/5/2023	3/5/2023	WG2015261	10	Sample required dilution.
LI589562-10	TTU-EXT-4-77-20230223	2/23/2023	3/5/2023	3/5/2023	WG2015261	10	
LI589562-11	TTU-EXT-5-80-20230223	2/23/2023	3/1/2023	3/1/2023	WG2014826	6	
LI589562-12	TRIP BLANK	2/23/2023	3/1/2023	3/1/2023	WG2014826	6	
LI590633-01	TTU-3-108-20230225	2/25/2023	3/5/2023	3/5/2023	WG2017361	8	
LI590633-02	TTU-4-57-20230225	2/25/2023	3/5/2023	3/5/2023	WG2017361	8	
LI590633-03	TTU-5-110-20230225	2/25/2023	3/5/2023	3/5/2023	WG2017361	8	
LI590633-04	TTU-6-143-20230225	2/25/2023	3/6/2023	3/6/2023	WG2017361	9	
LI590633-05	TTU-7-345-20230225	2/25/2023	3/6/2023	3/6/2023	WG2017361	9	
LI590633-06	TTU-8-164-20230225	2/25/2023	3/6/2023	3/6/2023	WG2017361	9	
LI590633-07	TTU-10-172-20230227	2/27/2023	3/6/2023	3/6/2023	WG2017361	7	
LI590633-08	TTU-11-73-20230225	2/25/2023	3/6/2023	3/6/2023	WG2017590	9	Sample required dilution.
LI590633-09	TTU-14-67-20230225	2/25/2023	3/6/2023	3/6/2023	WG2017890	9	
LI590633-10	TTU-15-75-20230225	2/25/2023	3/6/2023	3/6/2023	WG2017890	9	
LI590633-11	TTU-16-80-20230225	2/25/2023	3/8/2023	3/8/2023	WG2018325	11	Sample required dilution.
LI590633-12	TTU-17-80-20230225	2/25/2023	3/8/2023	3/8/2023	WG2018325	11	
LI590633-13	TTU-19-73-20230225	2/25/2023	3/6/2023	3/6/2023	WG2017890	9	
LI590633-14	TTU-20-73-20230225	2/25/2023	3/8/2023	3/8/2023	WG2018325	11	Sample required dilution.
LI590633-15	PF-2-400-20230227	2/27/2023	3/8/2023	3/8/2023	WG2018325	9	
LI590633-16	DUP-02	2/25/2023	3/8/2023	3/8/2023	WG2018325	11	Sample required dilution.
LI590633-17	DUP-03	2/25/2023	3/8/2023	3/8/2023	WG2018325	11	
LI590633-18	TRIP BLANK	2/25/2023	3/6/2023	3/6/2023	WG2017890	9	
LI597157-02	TTU-9A-61-20230321	3/21/2023	3/28/2023	3/28/2023	WG2031204	7	

**Notes:**

SIM = Selected Ion Monitoring

Mod = Modified

**Table 2**  
**Field Duplicates - Detections Only**  
**Nammo Defense Systems**  
**Former Thermal Treatment Unit**  
**First Quarter 2023 Groundwater Sampling**

Analyte	Original Sample ID	Laboratory Result (µg/L)	Laboratory Flag	Duplicate Sample ID	Duplicate Laboratory Result (µg/L)	Duplicate Laboratory Flag	RPD (%)	Laboratory Result Validation Qualifier	Duplicate Laboratory Result Validation Qualifier	Reason for Validation Qualifier
Perchlorate	LI589562-07 (TTU-EXT-2-74-20230223)	65,700	-	LI589562-08 (DUP-01)	614,000	-	161%	E4	E4	I
Benzene	LI589562-07 (TTU-EXT-2-74-20230223)	0.337	E4	LI589562-08 (DUP-01)	0.279	E4	18.8%	-	-	-
Chloroform	LI589562-07 (TTU-EXT-2-74-20230223)	0.603	E4	LI589562-08 (DUP-01)	0.485	E4	21.7%	-	-	-
I,1-Dichloroethane	LI589562-07 (TTU-EXT-2-74-20230223)	0.349	E4	LI589562-08 (DUP-01)	0.268	E4	26.3%	-	-	-
I,1-Dichloroethene	LI589562-07 (TTU-EXT-2-74-20230223)	39.8	-	LI589562-08 (DUP-01)	34.2	-	15.1%	-	-	-
cis-1,2-Dichloroethene	LI589562-07 (TTU-EXT-2-74-20230223)	0.553	E4	LI589562-08 (DUP-01)	0.458	E4	18.8%	-	-	-
Tetrachloroethene	LI589562-07 (TTU-EXT-2-74-20230223)	0.834	E4	LI589562-08 (DUP-01)	0.842	E4	1.0%	-	-	-
I,1,2-Trichloroethane	LI589562-07 (TTU-EXT-2-74-20230223)	0.649	E4	LI589562-08 (DUP-01)	0.553	E4	16.0%	-	-	-
Trichloroethene	LI589562-07 (TTU-EXT-2-74-20230223)	166	-	LI589562-08 (DUP-01)	143	-	14.9%	-	-	-
I,4-Dioxane	LI589562-07 (TTU-EXT-2-74-20230223)	162	-	LI589562-08 (DUP-01)	197	-	19.5%	-	-	-
Perchlorate	LI590633-11 (TTU-16-80-20230225)	832,000	-	LI590633-16 (DUP-02)	826,000	-	0.7%	-	-	-
Benzene	LI590633-11 (TTU-16-80-20230225)	268	-	LI590633-16 (DUP-02)	228	E4	16.1%	-	-	-
Bromodichloromethane	LI590633-11 (TTU-16-80-20230225)	<13.6	-	LI590633-16 (DUP-02)	1.64	-	NC	-	-	-
Bromoform	LI590633-11 (TTU-16-80-20230225)	<12.9	-	LI590633-16 (DUP-02)	2.57	-	NC	-	-	-
Chlorobenzene	LI590633-11 (TTU-16-80-20230225)	<11.6	-	LI590633-16 (DUP-02)	2.03	-	NC	-	-	-
Chlorodibromomethane	LI590633-11 (TTU-16-80-20230225)	<14.0	-	LI590633-16 (DUP-02)	0.703	E4	NC	-	-	-
Chloroform	LI590633-11 (TTU-16-80-20230225)	82.9	E4	LI590633-16 (DUP-02)	81.5	-	1.7%	-	-	-
I,2-Dichlorobenzene	LI590633-11 (TTU-16-80-20230225)	<10.7	-	LI590633-16 (DUP-02)	3.15	-	NC	-	-	-
I,3-Dichlorobenzene	LI590633-11 (TTU-16-80-20230225)	<11.0	-	LI590633-16 (DUP-02)	0.287	E4	NC	-	-	-
I,4-Dichlorobenzene	LI590633-11 (TTU-16-80-20230225)	<12.0	-	LI590633-16 (DUP-02)	0.721	E4	NC	-	-	-
I,1-Dichloroethane	LI590633-11 (TTU-16-80-20230225)	63.3	E4	LI590633-16 (DUP-02)	59.6	-	6.0%	-	-	-
I,2-Dichloroethane	LI590633-11 (TTU-16-80-20230225)	<8.19	-	LI590633-16 (DUP-02)	28.2	-	NC	-	-	-
I,1-Dichloroethene	LI590633-11 (TTU-16-80-20230225)	3,970	-	LI590633-16 (DUP-02)	2,900	-	31.1%	E4	E4	I
cis-1,2-Dichloroethene	LI590633-11 (TTU-16-80-20230225)	<12.6	-	LI590633-16 (DUP-02)	12.5	-	NC	-	-	-
trans-1,2-Dichloroethene	LI590633-11 (TTU-16-80-20230225)	<14.9	-	LI590633-16 (DUP-02)	7.98	-	NC	-	-	-
Di-isopropyl ether	LI590633-11 (TTU-16-80-20230225)	<10.5	-	LI590633-16 (DUP-02)	0.564	E4	NC	-	-	-
Ethylbenzene	LI590633-11 (TTU-16-80-20230225)	<13.7	-	LI590633-16 (DUP-02)	0.996	E4	NC	-	-	-
4-Ethyltoluene	LI590633-11 (TTU-16-80-20230225)	<20.8	-	LI590633-16 (DUP-02)	0.269	E4	NC	-	-	-
Isopropylbenzene	LI590633-11 (TTU-16-80-20230225)	<10.5	-	LI590633-16 (DUP-02)	0.503	E4	NC	-	-	-
Methylene Chloride	LI590633-11 (TTU-16-80-20230225)	84,800	-	LI590633-16 (DUP-02)	106,000	-	22.2%	-	-	-
Propene	LI590633-11 (TTU-16-80-20230225)	<93.6	-	LI590633-16 (DUP-02)	1.67	E4 R7	NC	-	-	-
n-Propylbenzene	LI590633-11 (TTU-16-80-20230225)	<9.93	-	LI590633-16 (DUP-02)	0.177	E4	NC	-	-	-
Tetrachloroethene	LI590633-11 (TTU-16-80-20230225)	47.7	E4	LI590633-16 (DUP-02)	61.7	-	25.6%	-	-	-
Toluene	LI590633-11 (TTU-16-80-20230225)	49.8	E4	LI590633-16 (DUP-02)	56.7	-	13.0%	-	-	-
I,1,2-Trichloroethane	LI590633-11 (TTU-16-80-20230225)	73.7	E4	LI590633-16 (DUP-02)	69.7	-	5.6%	-	-	-
Trichloroethene	LI590633-11 (TTU-16-80-20230225)	69,100	-	LI590633-16 (DUP-02)	83,600	-	19.0%	-	-	-
I,2,4-Trimethylbenzene	LI590633-11 (TTU-16-80-20230225)	<32.2	-	LI590633-16 (DUP-02)	0.457	E4	NC	-	-	-
I,2,3-Trimethylbenzene	LI590633-11 (TTU-16-80-20230225)	<10.4	-	LI590633-16 (DUP-02)	1.19	-	NC	-	-	-
I,3,5-Trimethylbenzene	LI590633-11 (TTU-16-80-20230225)	<10.4	-	LI590633-16 (DUP-02)	0.178	E4	NC	-	-	-
Vinyl chloride	LI590633-11 (TTU-16-80-20230225)	<23.4	-	LI590633-16 (DUP-02)	0.755	E4	NC	-	-	-
Xylenes, Total	LI590633-11 (TTU-16-80-20230225)	38	E4	LI590633-16 (DUP-02)	66.3	-	54.3%	E4	E4	I
I,4-Dioxane	LI590633-11 (TTU-16-80-20230225)	32,800	-	LI590633-16 (DUP-02)	39,600	-	18.8%	-	-	-
Perchlorate	LI590633-01 (TTU-3-108-20230225)	227	-	LI590633-17 (DUP-03)	278	-	20.2%	-	-	-
Trichloroethene	LI590633-01 (TTU-3-108-20230225)	0.226	E4	LI590633-17 (DUP-03)	<0.190	-	NC	-	-	-

**Notes:**

RPD = Relative Percent Difference

µg/L = micrograms per liter

I - Field duplicate RPD exceeded 30%.

NC - Not Calculated

< = Less than

% = Percent

E4 - Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.

R7 - Lab Field Blank/Lab Field Blank Duplicate (LFB/LFBD) RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

## **Attachment A. Data Validation Checklists**



### Data Validation Checklist

Project Name: NAMMO - TTU Quarter 1 2023 Sampling      Date Collected: 2/23/23

Laboratory Report(s): J198342-1

**Samples Submitted:** 10 Original Samples, 1 Field Duplicates, 1 MS/MSD, 1 Trip Blank

Sample Type	Analysis: 314	Analysis:	Analysis:	Analysis:
Total number of samples	1			
Duplicate samples	0			
Trip blanks	0			
Field blanks	0			
Equipment blanks	0			
MS/MSD	0			
Other:	0			

Yes  No  Does sample summary match the COC? \_\_\_\_\_

Yes  No  Were samples preserved appropriately? \_\_\_\_\_

Yes  No  Were samples analyzed within holding time? \_\_\_\_\_

Yes  No  Were surrogate recoveries within limits? \_\_\_\_\_

Yes  No  Were samples reported to MDLs? \_\_\_\_\_

Yes  No  Any elevated reporting limits for non-detects? \_\_\_\_\_

Yes  No  Any analytes detect in the trip blank/field blank/equipment blank? \_\_\_\_\_

Yes  No  Was anything noted in the case narrative? \_\_\_\_\_

**Laboratory QC Samples:**

Batch Number	Analysis	Method Blank	MS/MSD	Lab Duplicate	LCS/LCSD	Other
<i>Example 1234</i>	<i>8260B</i>	<i>1</i>	<i>2; 1 (MS only)</i>	<i>0</i>	<i>1</i>	<i>0</i>
660007	314	1	1 ; 1	0	1; 1	0

Yes  No  Are there qualifiers reported for laboratory QC samples? E4, E8

Data Validator: Ben Boesen      Date: 3/14/23

\*Revised report received on 4/12/23\*



### Data Validation Checklist

Project Name: Nammo Q1 2023 TTU Date Collected: 1/6/23

Laboratory Report(s): J195887-1

**Analysis Notes:**

Yes  No  Was anything noted in the case narrative? \_\_\_\_\_

Yes  No  Were surrogate recoveries within limits? N/A

Yes  No  Were samples reported to MDLs? Reported to RLs only.

Yes  No  Any elevated reporting limits for non-detects? \_\_\_\_\_

Yes  No  Any analytes detected in the method blank? \_\_\_\_\_

Yes  No  Are there qualifiers reported for laboratory QC samples? \_\_\_\_\_

Data Validator: Mary G. Weiss Date: 4/11/23



### Data Validation Checklist

Laboratory Report(s): J195887-1

**Laboratory QC Samples:**

Batch Number	Analysis	Method Blank	MS/MSD	Lab Duplicate	LCS/LCSD	Other
<i>Example 1234</i>	<i>8260B</i>	<i>1</i>	<i>2; 1 (MS only)</i>	<i>0</i>	<i>1</i>	<i>0</i>
<b>646539</b>	<b>6850</b>	<b>1</b>	1;1 (OS = 550-195887-1)	<b>0</b>	<b>1 LCS only</b>	<b>0</b>

Data Validator: Mary G. Weiss

Date: 4/11/23

Page: 2 of 2



### Data Validation Checklist

Project Name: Nammo Q1 2023 TTU Date Collected: 1/6/23

Laboratory Report(s): L1573838

**Analysis Notes:**

Yes  No  Was anything noted in the case narrative? \_\_\_\_\_

Yes  No  Were surrogate recoveries within limits? N/A

Yes  No  Were samples reported to MDLs? \_\_\_\_\_

Yes  No  Any elevated reporting limits for non-detects? \_\_\_\_\_

Yes  No  Any analytes detected in the method blank? \_\_\_\_\_

Yes  No  Are there qualifiers reported for laboratory QC samples? \_\_\_\_\_

Data Validator: Mary G. Weiss Date: 4/11/23





Data Validation Checklist

Laboratory Report(s): L1573838

Laboratory QC Samples:

Batch Number	Analysis	Method Blank	MS/MSD	Lab Duplicate	LCS/LCSD	Other
Example 1234	8260B	1	2; 1 (MS only)	0	1	0
WG1985615314		1	1;1 (OS = L1573116-10)	1 (OS = L1573650-15)	1 LCS only	0

Data Validator: Mary G. Weiss

Date: 4/11/23

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Data Validation Checklist

Project Name: Nammo TTU Q1 2023 Date Collected: 3/21/23

Laboratory Report(s): L1597157

**Analysis Notes:**

Yes  No  Was anything noted in the case narrative? L1597157-02 for 8260B:

Insufficient sample volume to perform MS/MSD analyses per method QC requirements

Yes  No  Were surrogate recoveries within limits? \_\_\_\_\_

Yes  No  Were samples reported to MDLs? \_\_\_\_\_

Yes  No  Any elevated reporting limits for non-detects? \_\_\_\_\_

Yes  No  Any analytes detected in the method blank? \_\_\_\_\_

Yes  No  Are there qualifiers reported for laboratory QC samples? M2 ; E4

Data Validator: Mary G. Weiss Date: 4/7/23





### Data Validation Checklist

Project Name: NAMMO - TTU Quarter 1 2023 Sampling Date Collected: 2/23/23

Laboratory Report(s): L1589562

**Samples Submitted:** 10 Original Samples, 1 Field Duplicates, 1 MS/MSD, 1 Trip Blank

Sample Type	Analysis: VOCs 8260B	Analysis: 8260B-SIM	Analysis: 314	Analysis:
Total number of samples	10	10	10	
Duplicate samples	1	1	1	
Trip blanks	1	1	0	
Field blanks	0	0	0	
Equipment blanks	0	0	0	
MS/MSD	1	1	1	
Other:	0	0	0	

Yes  No  Does sample summary match the COC? -03 SS is labeled as 9A061 - COC is 9A-61

Yes  No  Were samples preserved appropriately? \_\_\_\_\_

Yes  No  Where samples analyzed within holding time? \_\_\_\_\_

Yes  No  Were surrogate recoveries within limits? \_\_\_\_\_

Yes  No  Were samples reported to MDLs? \_\_\_\_\_

Yes  No  Any elevated reporting limits for non-detects? \_\_\_\_\_

Yes  No  Any analytes detect in the trip blank/field blank/equipment blank? \_\_\_\_\_

Yes  No  Was anything noted in the case narrative? No extra volume for MS samples for -02,03,04,09,10 for 8260B; -09 and -10 for SIM; -10 SIM analyzed from headspace vial

**Laboratory QC Samples:**

Batch Number	Analysis	Method Blank	MS/MSD	Lab Duplicate	LCS/LCSD	Other
<i>Example 1234</i>	<i>8260B</i>	<i>1</i>	<i>2; 1 (MS only)</i>	<i>0</i>	<i>1</i>	<i>0</i>
WG2013803	314	1	1 ; 1	1	1 LCS only	0
WG2016909	314	1	7; 6 MS only	1	1 LCS only	0
WG2013558	8260B	1	1 ; 1	0	1	0
WG2014084	8260B	1	1 ; 1	0	1	0
WG2015811	8260B	1	0	0	1	0
WG2016398	8260B	1	0	0	1	0
WG2013178	8260B-SIM	1	1 ; 1	0	1	0
WG2014826	8260B-SIM	1	1 ; 1	0	1	0
WG2015261	8260B-SIM	1	0	0	1	0

Yes  No  Are there qualifiers reported for laboratory QC samples? J, J3, J4, J5, V

\*Qualifiers updated to DEQ qualifiers per PM request\*

Data Validator: Ben Boesen Date: 3/14/23

## Data Validation Checklist

Project Name: NAMMO - TTU Quarter 1 2023 Sampling      Date Collected: 2/25/23, 2/27/23

Laboratory Report(s): L1590633

**Samples Submitted:** 15 Original Samples, 2 Field Duplicates, 1 MS/MSD, 1 Trip Blank

Sample Type	Analysis: VOCs 8260B	Analysis: 8260B-SIM	Analysis: 314	Analysis:
Total number of samples	15	15	14	
Duplicate samples	2	2	2	
Trip blanks	1	1	0	
Field blanks	0	0	0	
Equipment blanks	0	0	0	
MS/MSD	1	1	1	
Other:	0	0	0	

Yes  No  Does sample summary match the COC? \_\_\_\_\_

Yes  No  Were samples preserved appropriately? \_\_\_\_\_

Yes  No  Were samples analyzed within holding time? \_\_\_\_\_

Yes  No  Were surrogate recoveries within limits? \_\_\_\_\_

Yes  No  Were samples reported to MDLs? \_\_\_\_\_

Yes  No  Any elevated reporting limits for non-detects? Perchlorate for -08 and -13; 8260B for -08, -11, -13, and -14

Yes  No  Any analytes detect in the trip blank/field blank/equipment blank? \_\_\_\_\_

Yes  No  Was anything noted in the case narrative? No extra volume for MS/MSD for **all samples** for SIM, -11 and -13-18 for 8260B; -13 had pH outside of method requirement for 8260B

**Laboratory QC Samples:**

Batch Number	Analysis	Method Blank	MS/MSD	Lab Duplicate	LCS/LCSD	Other
<i>Example 1234</i>	<i>8260B</i>	<i>1</i>	<i>2; 1 (MS only)</i>	<i>0</i>	<i>1</i>	<i>0</i>
WG2016165	314	1	1 ; 1	2	1 LCS only	0
WG2018776	314	1	5; 4 MS only	0	1 LCS only	0
WG2019604	314	1	3 ; 3	2	1	0
WG2016487	8260B	1	1 ; 1	0	1	0
WG2016515	8260B	1	0	0	1	0
WG2016872	8260B	1	1 ; 1	0	1	0
WG2017615	8260B	1	0	0	1	0
WG2017864	8260B	1	0	0	1	0
WG2018468	8260B	1	0	0	1	0

Yes  No  Are there qualifiers reported for laboratory QC samples? E1, E4, L2, M1, M2, M3, R5, R7, R8

Data Validator: Ben Boesen      Date: 3/15/23

<b>Batch Number</b>	<b>Analysis</b>	<b>Method Blank</b>	<b>MS/MSD</b>	<b>Lab Duplicate</b>	<b>LCS/LCSD</b>	<b>Other</b>
<i>Example 1234</i>	<i>8260B</i>	<i>1</i>	<i>2; 1 (MS only)</i>	<i>0</i>	<i>1</i>	<i>0</i>
WG2018954	8260B	1	0	0	1	0
WG2017361	8260B-SIM	1	0	0	1	0
WG2017590	8260B-SIM	1	0	0	1	0
WG2017890	8260B-SIM	1	0	0	1	0
WG2018325	8260B-SIM	1	0	0	1	0

## Data Validation Checklist

Project Name: NAMMO - TTU Quarter 1 2023 Sampling      Date Collected: 2/25/23

Laboratory Report(s): L1590813

**Samples Submitted:** 10 Original Samples, 1 Field Duplicates, 1 MS/MSD, 1 Trip Blank

Sample Type	Analysis: VOCs 8260B	Analysis: 8260B-SIM	Analysis: 314	Analysis:
Total number of samples	0	0	1	
Duplicate samples	0	0	0	
Trip blanks	0	0	0	
Field blanks	0	0	0	
Equipment blanks	0	0	0	
MS/MSD	0	0	0	
Other:	0	0	0	

Yes  No  Does sample summary match the COC? \_\_\_\_\_

Yes  No  Were samples preserved appropriately? \_\_\_\_\_

Yes  No  Were samples analyzed within holding time? \_\_\_\_\_

Yes  No  Were surrogate recoveries within limits? \_\_\_\_\_

Yes  No  Were samples reported to MDLs? \_\_\_\_\_

Yes  No  Any elevated reporting limits for non-detects? \_\_\_\_\_

Yes  No  Any analytes detect in the trip blank/field blank/equipment blank? \_\_\_\_\_

Yes  No  Was anything noted in the case narrative? \_\_\_\_\_

**Laboratory QC Samples:**

Batch Number	Analysis	Method Blank	MS/MSD	Lab Duplicate	LCS/LCSD	Other
<i>Example 1234</i>	<i>8260B</i>	<i>1</i>	<i>2; 1 (MS only)</i>	<i>0</i>	<i>1</i>	<i>0</i>
WG2015996	314	1	1 ; 1	1	1	0

Yes  No  Are there qualifiers reported for laboratory QC samples? M3

Data Validator: Benjamin Boesen      Date: 3/15/23