

PES Environmental, Inc.- WA

Sample Delivery Group: L1709909
Samples Received: 02/28/2024
Project Number: 443022
Description: American Linen - 443022-1413001.10.701.02

Report To: Erik Hedberg
2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Entire Report Reviewed By:



Jared Starkey
Project Manager

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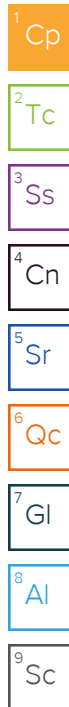
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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

W-MW-01-022624 L1709909-01 GW

				Collected by D. Del G	Collected date/time 02/26/24 15:57	Received date/time 02/28/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	1	03/04/24 05:00	03/04/24 05:00	DWR	Mt. Juliet, TN

¹ Cp

² Tc

MW107-022624 L1709909-02 GW

				Collected by D. Del G	Collected date/time 02/26/24 17:00	Received date/time 02/28/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	1	03/04/24 05:20	03/04/24 05:20	DWR	Mt. Juliet, TN

³ Ss

⁴ Cn

⁵ Sr

MW-349-022724 L1709909-03 GW

				Collected by D. Del G	Collected date/time 02/27/24 11:40	Received date/time 02/28/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2236237	1	02/28/24 17:07	02/28/24 17:07	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2238989	1	03/05/24 13:24	03/05/24 13:24	CNH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 22:37	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2236509	1	02/29/24 12:44	02/29/24 12:44	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2237096	10	03/01/24 11:19	03/01/24 11:19	OK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	1	03/04/24 05:40	03/04/24 05:40	DWR	Mt. Juliet, TN

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

TB-022724 L1709909-04 GW

				Collected by D. Del G	Collected date/time 02/26/24 00:00	Received date/time 02/28/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	1	03/04/24 02:43	03/04/24 02:43	DWR	Mt. Juliet, TN

MW-346-022724 L1709909-05 GW

				Collected by D. Del G	Collected date/time 02/27/24 15:00	Received date/time 02/28/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2237487	1	03/04/24 21:33	03/04/24 21:33	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2238989	1	03/05/24 13:52	03/05/24 13:52	CNH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 22:41	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2236509	1	02/29/24 14:07	02/29/24 14:07	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	1	03/04/24 05:59	03/04/24 05:59	DWR	Mt. Juliet, TN

MW-985-022724 L1709909-06 GW

				Collected by D. Del G	Collected date/time 02/27/24 11:11	Received date/time 02/28/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2237487	1	03/04/24 21:49	03/04/24 21:49	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2238989	1	03/05/24 14:06	03/05/24 14:06	CNH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 22:44	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2236509	1	02/29/24 14:22	02/29/24 14:22	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	1	03/04/24 06:19	03/04/24 06:19	DWR	Mt. Juliet, TN

SAMPLE SUMMARY

MW-348-022724 L1709909-07 GW

Collected by D. Del G Collected date/time 02/27/24 11:51 Received date/time 02/28/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2236237	1	02/28/24 16:52	02/28/24 16:52	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2238989	1	03/05/24 14:22	03/05/24 14:22	CNH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 22:47	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2236509	1	02/29/24 14:31	02/29/24 14:31	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2237096	10	03/01/24 11:28	03/01/24 11:28	OK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	10	03/04/24 07:57	03/04/24 07:57	DWR	Mt. Juliet, TN

MW-347-022724 L1709909-08 GW

Collected by D. Del G Collected date/time 02/27/24 14:55 Received date/time 02/28/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2237487	1	03/05/24 00:01	03/05/24 00:01	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2238989	1	03/05/24 14:35	03/05/24 14:35	CNH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 22:58	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2236509	1	02/29/24 14:39	02/29/24 14:39	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238716	1	03/04/24 06:39	03/04/24 06:39	DWR	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.



Jared Starkey
Project Manager

Report Revision History

Level II Report - Version 1: 03/07/24 10:45
Level II Report - Version 2: 04/16/24 20:42

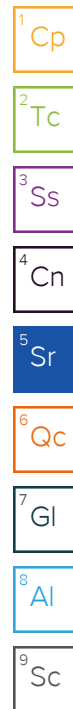
Project Narrative

ID Correction -03



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.48		0.548	1.00	1	03/04/2024 05:00	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:00	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:00	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:00	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:00	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:00	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:00	WG2238716
Bromomethane	U	C3	0.148	0.500	1	03/04/2024 05:00	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:00	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:00	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:00	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:00	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:00	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:00	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:00	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:00	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:00	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:00	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:00	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:00	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:00	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:00	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:00	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:00	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:00	WG2238716
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:00	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
cis-1,2-Dichloroethene	0.263		0.0276	0.100	1	03/04/2024 05:00	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:00	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:00	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:00	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:00	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:00	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:00	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:00	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 05:00	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:00	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:00	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:00	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:00	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:00	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:00	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:00	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:00	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:00	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:00	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:00	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:00	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:00	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:00	WG2238716



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:00	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:00	WG2238716
Toluene	0.329		0.0500	0.200	1	03/04/2024 05:00	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:00	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:00	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:00	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:00	WG2238716
Trichloroethene	0.0500		0.0160	0.0400	1	03/04/2024 05:00	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:00	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:00	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:00	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:00	WG2238716
Vinyl chloride	1.49		0.0273	0.100	1	03/04/2024 05:00	WG2238716
Xylenes, Total	0.313		0.191	0.260	1	03/04/2024 05:00	WG2238716
(S) Toluene-d8	99.8			75.0-131		03/04/2024 05:00	WG2238716
(S) 4-Bromofluorobenzene	99.6			67.0-138		03/04/2024 05:00	WG2238716
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		03/04/2024 05:00	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

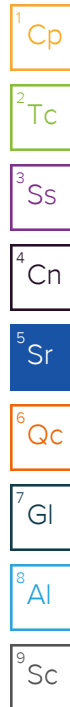
7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.27		0.548	1.00	1	03/04/2024 05:20	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:20	WG2238716
Benzene	0.111		0.0160	0.0400	1	03/04/2024 05:20	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:20	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:20	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:20	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:20	WG2238716
Bromomethane	U	C3	0.148	0.500	1	03/04/2024 05:20	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:20	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:20	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:20	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:20	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:20	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:20	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:20	WG2238716
Chloroethane	0.187	J	0.0432	0.200	1	03/04/2024 05:20	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:20	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:20	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:20	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:20	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:20	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:20	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:20	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:20	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:20	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:20	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:20	WG2238716
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:20	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
cis-1,2-Dichloroethene	3.71		0.0276	0.100	1	03/04/2024 05:20	WG2238716
trans-1,2-Dichloroethene	2.65		0.0572	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:20	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:20	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:20	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:20	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:20	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:20	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:20	WG2238716
Ethylbenzene	0.0780	J	0.0212	0.100	1	03/04/2024 05:20	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:20	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:20	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:20	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:20	WG2238716
Isopropylbenzene	0.0560	J	0.0345	0.100	1	03/04/2024 05:20	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:20	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:20	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:20	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:20	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:20	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:20	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:20	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:20	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:20	WG2238716



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:20	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:20	WG2238716
Toluene	0.319		0.0500	0.200	1	03/04/2024 05:20	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:20	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:20	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:20	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:20	WG2238716
Trichloroethene	0.103		0.0160	0.0400	1	03/04/2024 05:20	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:20	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:20	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:20	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:20	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:20	WG2238716
Vinyl chloride	1.07		0.0273	0.100	1	03/04/2024 05:20	WG2238716
Xylenes, Total	0.393		0.191	0.260	1	03/04/2024 05:20	WG2238716
(S) Toluene-d8	101			75.0-131		03/04/2024 05:20	WG2238716
(S) 4-Bromofluorobenzene	105			67.0-138		03/04/2024 05:20	WG2238716
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		03/04/2024 05:20	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	29200		379	1000	1	02/28/2024 17:07	WG2236237
Nitrate	223		48.0	100	1	02/28/2024 17:07	WG2236237
Sulfate	7970		594	5000	1	02/28/2024 17:07	WG2236237

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3740		102	1000	1	03/05/2024 13:24	WG2238989

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	2030		28.1	100	1	03/06/2024 22:37	WG2240631
Manganese	355		0.704	5.00	1	03/06/2024 22:37	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	21700		2.87	6.78	10	03/01/2024 11:19	WG2237096
Ethane	3.33		0.296	1.29	1	02/29/2024 12:44	WG2236509
Ethene	6.87		0.422	1.27	1	02/29/2024 12:44	WG2236509

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	110		0.548	1.00	1	03/04/2024 05:40	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:40	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:40	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:40	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:40	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:40	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:40	WG2238716
Bromomethane	U	C3	0.148	0.500	1	03/04/2024 05:40	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:40	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:40	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:40	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:40	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:40	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:40	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:40	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:40	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:40	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:40	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:40	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:40	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:40	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:40	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:40	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:40	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:40	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:40	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
cis-1,2-Dichloroethene	0.518		0.0276	0.100	1	03/04/2024 05:40	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:40	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:40	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:40	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:40	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:40	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:40	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:40	WG2238716
Ethylbenzene	0.0490	U	0.0212	0.100	1	03/04/2024 05:40	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:40	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:40	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:40	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:40	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:40	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:40	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:40	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:40	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:40	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:40	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:40	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:40	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:40	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:40	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:40	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:40	WG2238716
Toluene	0.246		0.0500	0.200	1	03/04/2024 05:40	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:40	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:40	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:40	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:40	WG2238716
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 05:40	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:40	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:40	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:40	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:40	WG2238716
Vinyl chloride	1.71		0.0273	0.100	1	03/04/2024 05:40	WG2238716
Xylenes, Total	0.328		0.191	0.260	1	03/04/2024 05:40	WG2238716
(S) Toluene-d8	103			75.0-131		03/04/2024 05:40	WG2238716
(S) 4-Bromofluorobenzene	103			67.0-138		03/04/2024 05:40	WG2238716
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		03/04/2024 05:40	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.23		0.548	1.00	1	03/04/2024 02:43	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 02:43	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 02:43	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 02:43	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 02:43	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 02:43	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 02:43	WG2238716
Bromomethane	U	C3	0.148	0.500	1	03/04/2024 02:43	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 02:43	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 02:43	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 02:43	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 02:43	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 02:43	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 02:43	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 02:43	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 02:43	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 02:43	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 02:43	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 02:43	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 02:43	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 02:43	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 02:43	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 02:43	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 02:43	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 02:43	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 02:43	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 02:43	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 02:43	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 02:43	WG2238716
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 02:43	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 02:43	WG2238716
cis-1,2-Dichloroethene	U		0.0276	0.100	1	03/04/2024 02:43	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 02:43	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 02:43	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 02:43	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 02:43	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 02:43	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 02:43	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 02:43	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 02:43	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 02:43	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 02:43	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 02:43	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 02:43	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 02:43	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 02:43	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 02:43	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 02:43	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 02:43	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 02:43	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 02:43	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 02:43	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 02:43	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 02:43	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 02:43	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 02:43	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 02:43	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 02:43	WG2238716
Toluene	U		0.0500	0.200	1	03/04/2024 02:43	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 02:43	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 02:43	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 02:43	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 02:43	WG2238716
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 02:43	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 02:43	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 02:43	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 02:43	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 02:43	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 02:43	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 02:43	WG2238716
Vinyl chloride	U		0.0273	0.100	1	03/04/2024 02:43	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 02:43	WG2238716
(S) Toluene-d8	102			75.0-131		03/04/2024 02:43	WG2238716
(S) 4-Bromofluorobenzene	101			67.0-138		03/04/2024 02:43	WG2238716
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		03/04/2024 02:43	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	20900		379	1000	1	03/04/2024 21:33	WG2237487
Nitrate	868	T8	48.0	100	1	03/04/2024 21:33	WG2237487
Sulfate	63500		594	5000	1	03/04/2024 21:33	WG2237487

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1780	B	102	1000	1	03/05/2024 13:52	WG2238989

Metals (ICPMS) by Method 6020B

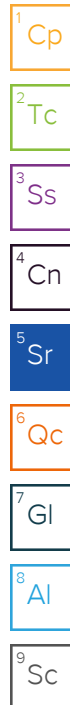
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2630		28.1	100	1	03/06/2024 22:41	WG2240631
Manganese	166		0.704	5.00	1	03/06/2024 22:41	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	120		0.287	0.678	1	02/29/2024 14:07	WG2236509
Ethane	U		0.296	1.29	1	02/29/2024 14:07	WG2236509
Ethene	1.19	J	0.422	1.27	1	02/29/2024 14:07	WG2236509

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	03/04/2024 05:59	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:59	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:59	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:59	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:59	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:59	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:59	WG2238716
Bromomethane	U	C3	0.148	0.500	1	03/04/2024 05:59	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:59	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:59	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:59	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:59	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:59	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:59	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:59	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:59	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:59	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:59	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:59	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:59	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:59	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:59	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:59	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:59	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:59	WG2238716



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:59	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
cis-1,2-Dichloroethene	0.872		0.0276	0.100	1	03/04/2024 05:59	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:59	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:59	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:59	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:59	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:59	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:59	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:59	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 05:59	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:59	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:59	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:59	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:59	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:59	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:59	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:59	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:59	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:59	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:59	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:59	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:59	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:59	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:59	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:59	WG2238716
Tetrachloroethene	0.0660	IL	0.0280	0.100	1	03/04/2024 05:59	WG2238716
Toluene	0.0980	IL	0.0500	0.200	1	03/04/2024 05:59	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:59	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:59	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:59	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:59	WG2238716
Trichloroethene	0.198		0.0160	0.0400	1	03/04/2024 05:59	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:59	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:59	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:59	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:59	WG2238716
Vinyl chloride	0.492		0.0273	0.100	1	03/04/2024 05:59	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 05:59	WG2238716
(S) Toluene-d8	99.2			75.0-131		03/04/2024 05:59	WG2238716
(S) 4-Bromofluorobenzene	102			67.0-138		03/04/2024 05:59	WG2238716
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		03/04/2024 05:59	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	22300		379	1000	1	03/04/2024 21:49	WG2237487
Nitrate	889	T8	48.0	100	1	03/04/2024 21:49	WG2237487
Sulfate	64200	J6	594	5000	1	03/04/2024 21:49	WG2237487

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1590	B	102	1000	1	03/05/2024 14:06	WG2238989

Metals (ICPMS) by Method 6020B

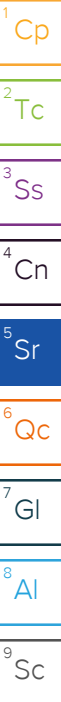
	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	3040		28.1	100	1	03/06/2024 22:44	WG2240631
Manganese	179		0.704	5.00	1	03/06/2024 22:44	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	114		0.287	0.678	1	02/29/2024 14:22	WG2236509
Ethane	U		0.296	1.29	1	02/29/2024 14:22	WG2236509
Ethene	0.718	J	0.422	1.27	1	02/29/2024 14:22	WG2236509

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	03/04/2024 06:19	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 06:19	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 06:19	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 06:19	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 06:19	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 06:19	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 06:19	WG2238716
Bromomethane	U	C3	0.148	0.500	1	03/04/2024 06:19	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 06:19	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 06:19	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 06:19	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 06:19	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 06:19	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 06:19	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 06:19	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 06:19	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 06:19	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 06:19	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 06:19	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 06:19	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 06:19	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 06:19	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 06:19	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 06:19	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 06:19	WG2238716



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 06:19	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
cis-1,2-Dichloroethene	0.836		0.0276	0.100	1	03/04/2024 06:19	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 06:19	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 06:19	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 06:19	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 06:19	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 06:19	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 06:19	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 06:19	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 06:19	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 06:19	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 06:19	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 06:19	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 06:19	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 06:19	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 06:19	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 06:19	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 06:19	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 06:19	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 06:19	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 06:19	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 06:19	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 06:19	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 06:19	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 06:19	WG2238716
Tetrachloroethene	0.0800	IL	0.0280	0.100	1	03/04/2024 06:19	WG2238716
Toluene	0.102	IL	0.0500	0.200	1	03/04/2024 06:19	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 06:19	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 06:19	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 06:19	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 06:19	WG2238716
Trichloroethene	0.262		0.0160	0.0400	1	03/04/2024 06:19	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 06:19	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 06:19	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 06:19	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 06:19	WG2238716
Vinyl chloride	0.463		0.0273	0.100	1	03/04/2024 06:19	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 06:19	WG2238716
(S) Toluene-d8	105			75.0-131		03/04/2024 06:19	WG2238716
(S) 4-Bromofluorobenzene	106			67.0-138		03/04/2024 06:19	WG2238716
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		03/04/2024 06:19	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	21200		379	1000	1	02/28/2024 16:52	WG2236237
Nitrate	213		48.0	100	1	02/28/2024 16:52	WG2236237
Sulfate	13300		594	5000	1	02/28/2024 16:52	WG2236237

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8480		102	1000	1	03/05/2024 14:22	WG2238989

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	8780		28.1	100	1	03/06/2024 22:47	WG2240631
Manganese	244		0.704	5.00	1	03/06/2024 22:47	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	33100		2.87	6.78	10	03/01/2024 11:28	WG2237096
Ethane	6.18		0.296	1.29	1	02/29/2024 14:31	WG2236509
Ethene	270		0.422	1.27	1	02/29/2024 14:31	WG2236509

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		5.48	10.0	10	03/04/2024 07:57	WG2238716
Acrylonitrile	U		0.760	5.00	10	03/04/2024 07:57	WG2238716
Benzene	U		0.160	0.400	10	03/04/2024 07:57	WG2238716
Bromobenzene	U		0.420	5.00	10	03/04/2024 07:57	WG2238716
Bromochloromethane	U		0.452	2.00	10	03/04/2024 07:57	WG2238716
Bromodichloromethane	U		0.315	1.00	10	03/04/2024 07:57	WG2238716
Bromoform	U		2.39	10.0	10	03/04/2024 07:57	WG2238716
Bromomethane	U	C3	1.48	5.00	10	03/04/2024 07:57	WG2238716
n-Butylbenzene	U		1.53	5.00	10	03/04/2024 07:57	WG2238716
sec-Butylbenzene	U		1.01	5.00	10	03/04/2024 07:57	WG2238716
tert-Butylbenzene	U		0.620	2.00	10	03/04/2024 07:57	WG2238716
Carbon disulfide	U		1.62	5.00	10	03/04/2024 07:57	WG2238716
Carbon tetrachloride	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Chlorobenzene	U		0.229	1.00	10	03/04/2024 07:57	WG2238716
Chlorodibromomethane	U		0.180	1.00	10	03/04/2024 07:57	WG2238716
Chloroethane	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Chloroform	U		0.166	1.00	10	03/04/2024 07:57	WG2238716
Chloromethane	U		0.556	5.00	10	03/04/2024 07:57	WG2238716
2-Chlorotoluene	U		0.368	1.00	10	03/04/2024 07:57	WG2238716
4-Chlorotoluene	U		0.452	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dibromo-3-Chloropropane	U		2.04	10.0	10	03/04/2024 07:57	WG2238716
1,2-Dibromoethane	U		0.210	1.00	10	03/04/2024 07:57	WG2238716
Dibromomethane	U		0.400	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dichlorobenzene	U		0.580	2.00	10	03/04/2024 07:57	WG2238716
1,3-Dichlorobenzene	U		0.680	2.00	10	03/04/2024 07:57	WG2238716
1,4-Dichlorobenzene	U		0.788	2.00	10	03/04/2024 07:57	WG2238716
trans-1,4-Dichloro-2-butene	U		0.560	2.00	10	03/04/2024 07:57	WG2238716
Dichlorodifluoromethane	U		0.327	2.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloroethane	U		0.230	1.00	10	03/04/2024 07:57	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.190	1.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloroethene	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
cis-1,2-Dichloroethene	7.17		0.276	1.00	10	03/04/2024 07:57	WG2238716
trans-1,2-Dichloroethene	U		0.572	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dichloropropane	U		0.508	2.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloropropene	U		0.280	1.00	10	03/04/2024 07:57	WG2238716
1,3-Dichloropropane	U		0.700	2.00	10	03/04/2024 07:57	WG2238716
cis-1,3-Dichloropropene	U		0.271	1.00	10	03/04/2024 07:57	WG2238716
trans-1,3-Dichloropropene	U		0.612	2.00	10	03/04/2024 07:57	WG2238716
2,2-Dichloropropane	U		0.317	1.00	10	03/04/2024 07:57	WG2238716
Di-isopropyl ether	U		0.140	0.400	10	03/04/2024 07:57	WG2238716
Ethylbenzene	U		0.212	1.00	10	03/04/2024 07:57	WG2238716
Hexachloro-1,3-butadiene	U		5.08	10.0	10	03/04/2024 07:57	WG2238716
2-Hexanone	U		4.00	10.0	10	03/04/2024 07:57	WG2238716
n-Hexane	U		0.424	2.00	10	03/04/2024 07:57	WG2238716
Iodomethane	U		2.42	5.00	10	03/04/2024 07:57	WG2238716
Isopropylbenzene	U		0.345	1.00	10	03/04/2024 07:57	WG2238716
p-Isopropyltoluene	U		0.932	2.00	10	03/04/2024 07:57	WG2238716
2-Butanone (MEK)	U		5.00	10.0	10	03/04/2024 07:57	WG2238716
Methylene Chloride	U		2.65	10.0	10	03/04/2024 07:57	WG2238716
4-Methyl-2-pentanone (MIBK)	U		4.00	10.0	10	03/04/2024 07:57	WG2238716
Methyl tert-butyl ether	U		0.118	0.400	10	03/04/2024 07:57	WG2238716
Naphthalene	U		1.24	5.00	10	03/04/2024 07:57	WG2238716
n-Propylbenzene	U		0.472	2.00	10	03/04/2024 07:57	WG2238716
Styrene	U		1.09	5.00	10	03/04/2024 07:57	WG2238716
1,1,1,2-Tetrachloroethane	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
1,1,2,2-Tetrachloroethane	U		0.156	1.00	10	03/04/2024 07:57	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.270	1.00	10	03/04/2024 07:57	WG2238716
Tetrachloroethene	U		0.280	1.00	10	03/04/2024 07:57	WG2238716
Toluene	U		0.500	2.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trichlorobenzene	U		0.250	5.00	10	03/04/2024 07:57	WG2238716
1,2,4-Trichlorobenzene	U		1.93	5.00	10	03/04/2024 07:57	WG2238716
1,1,1-Trichloroethane	U		0.110	1.00	10	03/04/2024 07:57	WG2238716
1,1,2-Trichloroethane	U		0.353	1.00	10	03/04/2024 07:57	WG2238716
Trichloroethene	U		0.160	0.400	10	03/04/2024 07:57	WG2238716
Trichlorofluoromethane	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trichloropropane	U		2.04	5.00	10	03/04/2024 07:57	WG2238716
1,2,4-Trimethylbenzene	U		0.464	2.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trimethylbenzene	U		0.460	2.00	10	03/04/2024 07:57	WG2238716
1,3,5-Trimethylbenzene	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Vinyl acetate	U		1.41	5.00	10	03/04/2024 07:57	WG2238716
Vinyl chloride	59.9		0.273	1.00	10	03/04/2024 07:57	WG2238716
Xylenes, Total	U		1.91	2.60	10	03/04/2024 07:57	WG2238716
(S) Toluene-d8	102			75.0-131		03/04/2024 07:57	WG2238716
(S) 4-Bromofluorobenzene	99.0			67.0-138		03/04/2024 07:57	WG2238716
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		03/04/2024 07:57	WG2238716

Sample Narrative:

L1709909-07 WG2238716: Lowest possible dilution due to sample foaming.

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2600		379	1000	1	03/05/2024 00:01	WG2237487
Nitrate	857	T8	48.0	100	1	03/05/2024 00:01	WG2237487
Sulfate	20900		594	5000	1	03/05/2024 00:01	WG2237487

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1830	B	102	1000	1	03/05/2024 14:35	WG2238989

Metals (ICPMS) by Method 6020B

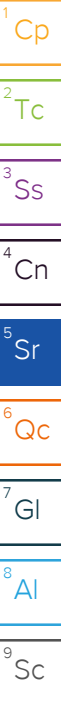
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	186		28.1	100	1	03/06/2024 22:58	WG2240631
Manganese	18.9		0.704	5.00	1	03/06/2024 22:58	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	94.5		0.287	0.678	1	02/29/2024 14:39	WG2236509
Ethane	1.25	J	0.296	1.29	1	02/29/2024 14:39	WG2236509
Ethene	1.91		0.422	1.27	1	02/29/2024 14:39	WG2236509

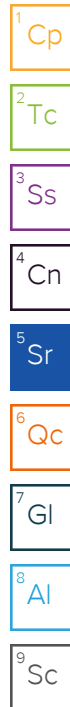
Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	128		0.548	1.00	1	03/04/2024 06:39	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 06:39	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 06:39	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 06:39	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 06:39	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 06:39	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 06:39	WG2238716
Bromomethane	U	C3	0.148	0.500	1	03/04/2024 06:39	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 06:39	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 06:39	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 06:39	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 06:39	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 06:39	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 06:39	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 06:39	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 06:39	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 06:39	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 06:39	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 06:39	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 06:39	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 06:39	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 06:39	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 06:39	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 06:39	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 06:39	WG2238716



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 06:39	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
cis-1,2-Dichloroethene	1.43		0.0276	0.100	1	03/04/2024 06:39	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 06:39	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 06:39	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 06:39	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 06:39	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 06:39	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 06:39	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 06:39	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 06:39	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 06:39	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 06:39	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 06:39	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 06:39	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 06:39	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 06:39	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 06:39	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 06:39	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 06:39	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 06:39	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 06:39	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 06:39	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 06:39	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 06:39	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 06:39	WG2238716
Tetrachloroethene	0.217		0.0280	0.100	1	03/04/2024 06:39	WG2238716
Toluene	0.106	U	0.0500	0.200	1	03/04/2024 06:39	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 06:39	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 06:39	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 06:39	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 06:39	WG2238716
Trichloroethene	0.148		0.0160	0.0400	1	03/04/2024 06:39	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 06:39	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 06:39	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 06:39	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 06:39	WG2238716
Vinyl chloride	0.670		0.0273	0.100	1	03/04/2024 06:39	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 06:39	WG2238716
(S) Toluene-d8	100			75.0-131		03/04/2024 06:39	WG2238716
(S) 4-Bromofluorobenzene	99.2			67.0-138		03/04/2024 06:39	WG2238716
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		03/04/2024 06:39	WG2238716



Method Blank (MB)

(MB) R4041683-1 02/28/24 14:57

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Chloride	U		379	1000
Nitrate	U		48.0	100
Sulfate	U		594	5000

L1709995-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1709995-02 02/29/24 02:24 • (DUP) R4041683-3 02/29/24 02:40

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	6800	6780	1	0.405		15
Nitrate	U	U	1	0.000		15
Sulfate	124000	125000	1	0.365		15

L1709863-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1709863-04 02/28/24 23:12 • (DUP) R4041683-6 02/29/24 05:19

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	1580	1580	1	0.101		15
Nitrate	788	741	1	6.14		15
Sulfate	2300	2280	1	0.769	U	15

Laboratory Control Sample (LCS)

(LCS) R4041683-2 02/28/24 15:13

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	39300	98.3	80.0-120	
Nitrate	8000	7990	99.9	80.0-120	
Sulfate	40000	40500	101	80.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1709995-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1709995-02 02/29/24 02:24 • (MS) R4041683-4 02/29/24 02:56 • (MSD) R4041683-5 02/29/24 03:12

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 %
Chloride	40000	6800	44300	44000	93.7	93.0	1	80.0-120			0.630	15
Nitrate	8000	U	8650	8790	108	110	1	80.0-120			1.53	15
Sulfate	40000	124000	141000	141000	41.8	41.8	1	80.0-120	J6	J6	0.0120	15

Sample Narrative:

MS: SO4 spike failed due to sample matrix

MSD: SO4 spike failed due to sample matrix

L1709863-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1709863-04 02/28/24 23:12 • (MS) R4041683-7 02/29/24 05:35

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	1580	40400	97.1	1	80.0-120	
Nitrate	8000	788	9360	107	1	80.0-120	
Sulfate	40000	2300	42200	99.7	1	80.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4041545-1 03/04/24 09:47

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Chloride	U		379	1000
Nitrate	U		48.0	100
Sulfate	U		594	5000

L1709909-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1709909-06 03/04/24 21:49 • (DUP) R4041545-3 03/04/24 22:04

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	22300	22300	1	0.306		15
Nitrate	889	896	1	0.818		15
Sulfate	64200	64300	1	0.126		15

L1709957-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1709957-07 03/05/24 04:00 • (DUP) R4041545-5 03/05/24 04:16

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Chloride	62300	62300	1	0.00289		15
Nitrate	7950	7960	1	0.147		15
Sulfate	2770	2710	1	2.31	U	15

Laboratory Control Sample (LCS)

(LCS) R4041545-2 03/04/24 10:03

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Chloride	40000	38900	97.3	80.0-120	
Nitrate	8000	7960	99.5	80.0-120	
Sulfate	40000	41000	102	80.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1709909-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1709909-06 03/04/24 21:49 • (MS) R4041545-4 03/04/24 22:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	22300	57400	87.9	1	80.0-120	
Nitrate	8000	889	8950	101	1	80.0-120	
Sulfate	40000	64200	93300	72.7	1	80.0-120	J6

L1709957-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1709957-07 03/05/24 04:00 • (MS) R4041545-6 03/05/24 04:32 • (MSD) R4041545-7 03/05/24 05:19

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 %
Chloride	40000	62300	89100	89100	66.9	67.0	1	80.0-120	J6	J6	0.0411	15
Nitrate	8000	7950	15300	15300	92.1	92.0	1	80.0-120			0.0457	15
Sulfate	40000	2770	42500	42600	99.3	99.6	1	80.0-120			0.245	15

1
Cp

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Tc

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Ss

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Cn

5
Sr

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Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4041948-1 03/05/24 11:31

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
TOC (Total Organic Carbon)	311	⬇	102	1000

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1709909-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1709909-03 03/05/24 13:24 • (DUP) R4041948-3 03/05/24 13:38

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	3740	3760	1	0.533		20

L1709995-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1709995-04 03/05/24 17:42 • (DUP) R4041948-8 03/05/24 17:58

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	4420	3850	1	13.7		20

Laboratory Control Sample (LCS)

(LCS) R4041948-2 03/05/24 12:50

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
TOC (Total Organic Carbon)	25000	24000	96.0	85.0-115	

L1709971-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1709971-01 03/05/24 14:50 • (MS) R4041948-4 03/05/24 15:09 • (MSD) R4041948-5 03/05/24 15:29

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	3040	26500	26500	94.0	94.0	1	85.0-115			0.0377	20

L1709995-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1709995-02 03/05/24 16:33 • (MS) R4041948-6 03/05/24 16:52 • (MSD) R4041948-7 03/05/24 17:10

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	1390	24400	24200	92.0	91.0	1	85.0-115			0.989	20

Method Blank (MB)

(MB) R4042470-1 03/06/24 22:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Iron	U		28.1	100
Manganese	U		0.704	5.00

Laboratory Control Sample (LCS)

(LCS) R4042470-2 03/06/24 22:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	1000	1040	104	80.0-120	
Manganese	50.0	52.3	105	80.0-120	

L1711112-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1711112-09 03/06/24 22:24 • (MS) R4042470-4 03/06/24 22:31 • (MSD) R4042470-5 03/06/24 22:34

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 %
Iron	1000	U	1070	1070	107	107	1	75.0-125			0.153	20
Manganese	50.0	U	51.6	52.7	103	105	1	75.0-125			2.10	20

1
Cp

2
Tc

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Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4039987-2 02/29/24 11:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L1709824-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1709824-01 02/29/24 11:35 • (DUP) R4039987-3 02/29/24 14:14

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

L1710135-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1710135-05 02/29/24 15:20 • (DUP) R4039987-4 02/29/24 15:48

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

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

(LCS) R4039987-1 02/29/24 11:27 • (LCSD) R4039987-7 02/29/24 16:11

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 %
Methane	67.8	64.5	65.9	95.1	97.2	85.0-115			2.15	20
Ethane	129	123	122	95.3	94.6	85.0-115			0.816	20
Ethene	127	123	122	96.9	96.1	85.0-115			0.816	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1710135-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1710135-02 02/29/24 14:51 • (MS) R4039987-5 02/29/24 15:51 • (MSD) R4039987-6 02/29/24 15:54

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 %
Methane	67.8	U	69.4	67.3	102	99.3	1	85.0-115			3.07	20
Ethane	129	U	122	120	94.6	93.0	1	85.0-115			1.65	20
Ethene	127	U	121	121	95.3	95.3	1	85.0-115			0.000	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4040340-2 03/01/24 10:00

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Methane	U		0.287	0.678

L1710244-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1710244-05 03/01/24 11:40 • (DUP) R4040340-3 03/01/24 11:56

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20

L1710248-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1710248-03 03/01/24 12:06 • (DUP) R4040340-4 03/01/24 12:43

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20

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

(LCS) R4040340-1 03/01/24 09:57 • (LCSD) R4040340-5 03/01/24 12:46

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	72.1	69.9	106	103	85.0-115			3.10	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4042271-3 03/04/24 02:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromochloromethane	U		0.0452	0.200
Bromodichloromethane	U		0.0315	0.100
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon disulfide	U		0.162	0.500
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
trans-1,4-Dichloro-2-butene	U		0.0560	0.200
Dichlorodifluoromethane	U		0.0327	0.200
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400

1
Cp

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Tc

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Ss

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Cn

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R4042271-3 03/04/24 02:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
2-Hexanone	U		0.400	1.00
n-Hexane	U		0.0424	0.200
Iodomethane	U		0.242	0.500
Isopropylbenzene	U		0.0345	0.100
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl acetate	U		0.141	0.500
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	100			75.0-131
(S) 4-Bromofluorobenzene	103			67.0-138
(S) 1,2-Dichloroethane-d4	98.3			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4042271-1 03/04/24 00:45 • (LCSD) R4042271-2 03/04/24 01:04

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 %
Acetone	25.0	24.8	23.6	99.2	94.4	10.0-160			4.96	31
Acrylonitrile	25.0	25.0	25.9	100	104	45.0-153			3.54	22
Benzene	5.00	4.47	4.75	89.4	95.0	70.0-123			6.07	20
Bromobenzene	5.00	4.72	4.86	94.4	97.2	73.0-121			2.92	20
Bromochloromethane	5.00	4.85	5.10	97.0	102	77.0-128			5.03	20
Bromodichloromethane	5.00	4.67	4.96	93.4	99.2	73.0-121			6.02	20
Bromoform	5.00	5.09	5.01	102	100	64.0-132			1.58	20
Bromomethane	5.00	3.85	4.31	77.0	86.2	56.0-147			11.3	20
n-Butylbenzene	5.00	4.32	4.69	86.4	93.8	68.0-135			8.21	20
sec-Butylbenzene	5.00	4.69	4.84	93.8	96.8	74.0-130			3.15	20
tert-Butylbenzene	5.00	4.46	4.83	89.2	96.6	75.0-127			7.97	20
Carbon disulfide	5.00	4.47	4.82	89.4	96.4	56.0-133			7.53	20
Carbon tetrachloride	5.00	4.86	5.26	97.2	105	66.0-128			7.91	20
Chlorobenzene	5.00	5.26	5.13	105	103	76.0-128			2.50	20
Chlorodibromomethane	5.00	4.93	5.13	98.6	103	74.0-127			3.98	20
Chloroethane	5.00	5.01	5.38	100	108	61.0-134			7.12	20
Chloroform	5.00	4.87	5.17	97.4	103	72.0-123			5.98	20
Chloromethane	5.00	4.54	4.78	90.8	95.6	51.0-138			5.15	20
2-Chlorotoluene	5.00	4.74	5.01	94.8	100	75.0-124			5.54	20
4-Chlorotoluene	5.00	4.69	4.88	93.8	97.6	75.0-124			3.97	20
1,2-Dibromo-3-Chloropropane	5.00	4.32	4.32	86.4	86.4	59.0-130			0.000	20
1,2-Dibromoethane	5.00	4.73	4.87	94.6	97.4	74.0-128			2.92	20
Dibromomethane	5.00	5.10	5.17	102	103	75.0-122			1.36	20
1,2-Dichlorobenzene	5.00	4.60	4.80	92.0	96.0	76.0-124			4.26	20
1,3-Dichlorobenzene	5.00	4.60	4.95	92.0	99.0	76.0-125			7.33	20
1,4-Dichlorobenzene	5.00	4.51	5.04	90.2	101	77.0-121			11.1	20
trans-1,4-Dichloro-2-butene	5.00	4.00	4.83	80.0	96.6	45.0-143			18.8	20
Dichlorodifluoromethane	5.00	4.75	5.30	95.0	106	43.0-156			10.9	20
1,1-Dichloroethane	5.00	5.13	5.40	103	108	70.0-127			5.13	20
1,2-Dichloroethane	5.00	4.83	4.91	96.6	98.2	65.0-131			1.64	20
1,1-Dichloroethene	5.00	5.03	5.53	101	111	65.0-131			9.47	20
cis-1,2-Dichloroethene	5.00	4.78	4.99	95.6	99.8	73.0-125			4.30	20
trans-1,2-Dichloroethene	5.00	4.88	5.33	97.6	107	71.0-125			8.81	20
1,2-Dichloropropane	5.00	5.15	5.34	103	107	74.0-125			3.62	20
1,1-Dichloropropene	5.00	4.75	5.06	95.0	101	73.0-125			6.32	20
1,3-Dichloropropane	5.00	4.81	4.92	96.2	98.4	80.0-125			2.26	20
cis-1,3-Dichloropropene	5.00	4.49	4.77	89.8	95.4	76.0-127			6.05	20
trans-1,3-Dichloropropene	5.00	5.20	5.21	104	104	73.0-127			0.192	20
2,2-Dichloropropane	5.00	5.06	5.13	101	103	59.0-135			1.37	20
Di-isopropyl ether	5.00	5.12	5.19	102	104	60.0-136			1.36	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4042271-1 03/04/24 00:45 • (LCSD) R4042271-2 03/04/24 01:04

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 %
Ethylbenzene	5.00	5.03	5.07	101	101	74.0-126			0.792	20
Hexachloro-1,3-butadiene	5.00	4.83	5.14	96.6	103	57.0-150			6.22	20
2-Hexanone	25.0	25.7	26.2	103	105	54.0-147			1.93	20
n-Hexane	5.00	4.84	4.87	96.8	97.4	55.0-137			0.618	20
Iodomethane	25.0	24.9	25.8	99.6	103	74.0-134			3.55	20
Isopropylbenzene	5.00	5.03	5.07	101	101	72.0-127			0.792	20
p-Isopropyltoluene	5.00	4.53	4.81	90.6	96.2	72.0-133			6.00	20
2-Butanone (MEK)	25.0	22.9	23.9	91.6	95.6	30.0-160			4.27	24
Methylene Chloride	5.00	4.63	4.85	92.6	97.0	68.0-123			4.64	20
4-Methyl-2-pentanone (MIBK)	25.0	25.9	25.9	104	104	56.0-143			0.000	20
Methyl tert-butyl ether	5.00	4.86	5.10	97.2	102	66.0-132			4.82	20
Naphthalene	5.00	4.98	5.24	99.6	105	59.0-130			5.09	20
n-Propylbenzene	5.00	4.80	5.07	96.0	101	74.0-126			5.47	20
Styrene	5.00	5.16	5.25	103	105	72.0-127			1.73	20
1,1,1,2-Tetrachloroethane	5.00	4.56	4.89	91.2	97.8	74.0-129			6.98	20
1,1,2,2-Tetrachloroethane	5.00	4.48	4.51	89.6	90.2	68.0-128			0.667	20
1,1,2-Trichlorotrifluoroethane	5.00	4.55	4.91	91.0	98.2	61.0-139			7.61	20
Tetrachloroethene	5.00	5.97	5.59	119	112	70.0-136			6.57	20
Toluene	5.00	4.88	5.14	97.6	103	75.0-121			5.19	20
1,2,3-Trichlorobenzene	5.00	4.82	5.25	96.4	105	59.0-139			8.54	20
1,2,4-Trichlorobenzene	5.00	4.70	5.13	94.0	103	62.0-137			8.75	20
1,1,1-Trichloroethane	5.00	4.80	5.04	96.0	101	69.0-126			4.88	20
1,1,2-Trichloroethane	5.00	5.67	5.20	113	104	78.0-123			8.65	20
Trichloroethene	5.00	4.68	5.18	93.6	104	76.0-126			10.1	20
Trichlorofluoromethane	5.00	5.12	5.45	102	109	61.0-142			6.24	20
1,2,3-Trichloropropane	5.00	4.52	4.70	90.4	94.0	67.0-129			3.90	20
1,2,4-Trimethylbenzene	5.00	4.33	4.67	86.6	93.4	70.0-126			7.56	20
1,2,3-Trimethylbenzene	5.00	4.63	5.07	92.6	101	74.0-124			9.07	20
1,3,5-Trimethylbenzene	5.00	4.63	4.92	92.6	98.4	73.0-127			6.07	20
Vinyl acetate	25.0	25.5	21.8	102	87.2	43.0-159			15.6	20
Vinyl chloride	5.00	4.95	5.20	99.0	104	63.0-134			4.93	20
Xylenes, Total	15.0	15.5	15.7	103	105	72.0-127			1.28	20
(S) Toluene-d8				99.9	98.3	75.0-131				
(S) 4-Bromofluorobenzene				103	101	67.0-138				
(S) 1,2-Dichloroethane-d4				99.4	98.8	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

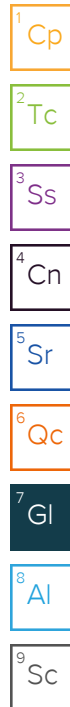
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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
B	The same analyte is found in the associated blank.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

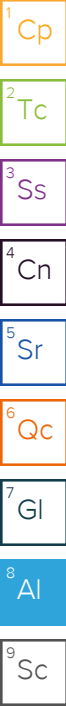
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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 ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	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 ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	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 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ 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.



Company Name/Address:
PES Environmental, Inc.- WA

2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Billing Information:

Attn: Accounts Payable
2101 4th Avenue, Suite 1310
Seattle, WA 98121

Pres
Chk

Report to:
Erik Hedberg- Daniel Balbiani

Email To:
jessica.babb@nv5.com;natalie.wisdom@nv5.co

Project Description:
American Linen - 443022-1413001.10.701.02

City/State
Collected: **Seattle, WA**

Please Circle:
PT MT CT ET

Phone: 206-529-3980

Client Project #
443022

Lab Project #
PESENVSWA-ALP

Collected by (print):

D. Del Giudice

Site/Facility ID #

P.O. #
443022-1413001.10.701

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

No.
of
Cnts

Immediately
Packed on Ice N ___ Y ☒

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

W-MW-01-022624

Grab

GW

—

2/26/24

1557

3

MW107-022624

Grab

GW

—

2/26/24

1700

3

MW-349-022724

Grab

GW

—

2/27/24

1140

9

TB-022724

—

GW

—

2/27/24

—

1

MW-346-022724

Grab

GW

—

2/27/24

1500

9

MW-985-022724

Grab

GW

—

2/27/24

1111

9

MW-348-022724

Grab

GW

—

2/27/24

1151

9

MW-347-022724

Grab

GW

—

2/27/24

1455

9

* Matrix:

SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
___ UPS ___ FedEx ___ Courier

Tracking #

60643 4313 3312

Relinquished by: (Signature)

Date:

2/27/24

Time:

1638

Received by: (Signature)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

pH _____ Temp _____

Flow _____ Other _____

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Bottles Received:

Temp: **DPAPC**

4.6 to 51

Date: **2/28/24**

Time: **0900**

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
RAD Screen <0.5 mR/hr: ___ Y ___ N

PH-10BDH5021 TRC-2352362
CR6-20221V

Condition:
NCF / **OK**

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody
constitutes acknowledgment and acceptance of the
Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # **1709909**
C014

Acctnum: **PESENVSWA**
Template: **T247110**
Prelogin: **P1055621**
PM: **546 - Jared Starkey**
PB:

Shipped Via:
Remarks Sample # (lab only)

Company Name/Address: PES Environmental, Inc.- WA

2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Billing Information:

Attn: Accounts Payable
2101 4th Avenue, Suite 1310
Seattle, WA 98121

Pres
Chk

Analysis / Container / Preservative

Chain of Custody



MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody
constitutes acknowledgment and acceptance of the
Pace Terms and Conditions found at:
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SPG # 11709909
C014

Acctnum: **PESENVSWA**

Template: **T247110**

Prelogin: **P1055621**

PM: **546 - Jared Starkey**

PB:

Shipped Via:

Remarks Sample # (lab only)

Report to:

~~Eric Hedberg~~ **Daniel Balbani**

Email To:

jessica.babb@nv5.com; natalie.wisdom@nv5.com

Project Description:

American Linen - 443022-1413001.10.701.02

City/State

Collected: **Seattle, WA**

Please Circle:

PT MT CT ET

Phone: **206-529-3980**

Client Project

443022

Lab Project

PESENVSWA-ALP

Collected by (print):

D. Del Giudice

Site/Facility ID

P.O.

443022-1413001.10.701

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

Quote

Date Results Needed

No.
of
Cntrs

Immediately
Packed on Ice ☒ ☐

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

W-MW-01-022624

Grab

GW

—

2/26/24

1557

3

MW107-022624

Grab

GW

—

2/26/24

1700

3

MW-344-022724

Grab

GW

—

2/27/24

1140

9

TB-022724

—

GW

—

2/27/24

—

1

MW-346-022724

Grab

GW

—

2/27/24

1500

9

MW-985-022724

Grab

GW

—

2/27/24

1111

9

MW-348-022724

Grab

GW

—

2/27/24

1151

9

MW-347-022724

Grab

GW

—

2/27/24

1455

9

Remarks:

Samples returned via:

☐ UPS ☐ FedEx ☐ Courier

Tracking

60643 4313 3312

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
RAD Screen <0.5 mR/hr: ☒ Y ☐ N

* Matrix:

SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Relinquished by: (Signature) *[Signature]*

Date:

2/27/24

Time:

1638

Received by: (Signature)

Trip Blank Received: Yes / No

HCL / MeOH
TBR

Date:

Time:

Received by: (Signature)

Temp: **DPA°C** Bottles Received: **4.6 TO 51**

Date:

Time:

Received for lab by: (Signature)

Date: **2/28/24** Time: **0900**

Hold:

Condition:
NCF / **DR**

PH-10BDH5021 TRC-2352362
CR6-20221V

PES Environmental, Inc.- WA

Sample Delivery Group: L1710248
Samples Received: 02/29/2024
Project Number: 443022
Description: American Linen-443022-1413001.10.603.04

Report To: Erik Hedberg
2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Entire Report Reviewed By:



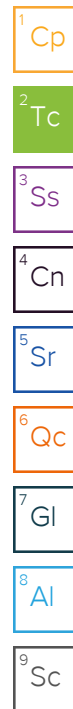
Jared Starkey
Project Manager

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 National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

HMW-9IB-022824 L1710248-01 GW

Collected by
N. Wisdom

Collected date/time
02/28/24 12:03

Received date/time
02/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2236754	1	03/01/24 00:33	03/01/24 00:33	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2239765	1	03/07/24 12:11	03/07/24 12:11	CNH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 23:02	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2237755	1	03/01/24 13:18	03/01/24 13:18	OK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2237803	10	03/01/24 14:45	03/01/24 14:45	OK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2239120	1	03/04/24 17:15	03/04/24 17:15	ACG	Mt. Juliet, TN

MW-350-022824 L1710248-02 GW

Collected by
N. Wisdom

Collected date/time
02/28/24 12:03

Received date/time
02/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2236754	1	03/01/24 01:24	03/01/24 01:24	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2239767	1	03/05/24 17:05	03/05/24 17:05	SJF	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 23:05	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2237096	1	03/01/24 11:59	03/01/24 11:59	OK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2239120	1	03/04/24 17:34	03/04/24 17:34	ACG	Mt. Juliet, TN

EQ-022824 L1710248-03 GW

Collected by
N. Wisdom

Collected date/time
02/28/24 12:03

Received date/time
02/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG2236754	1	03/01/24 01:36	03/01/24 01:36	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2239765	1	03/07/24 18:28	03/07/24 18:28	CNH	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2240631	1	03/06/24 18:03	03/06/24 23:08	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2237096	1	03/01/24 12:06	03/01/24 12:06	OK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2239120	1	03/04/24 16:19	03/04/24 16:19	ACG	Mt. Juliet, TN

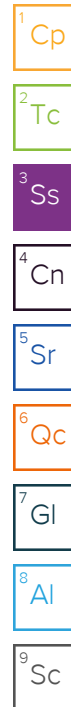
TB-022824 L1710248-04 GW

Collected by
N. Wisdom

Collected date/time
02/28/24 12:03

Received date/time
02/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2239120	1	03/04/24 16:38	03/04/24 16:38	ACG	Mt. Juliet, TN

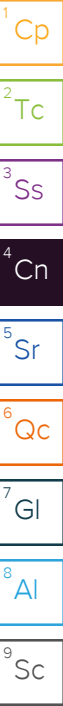


CASE NARRATIVE

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.



Jared Starkey
Project Manager



Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	60500	J6	379	1000	1	03/01/2024 00:33	WG2236754
Nitrate	212	P1	48.0	100	1	03/01/2024 00:33	WG2236754
Sulfate	1460	J	594	5000	1	03/01/2024 00:33	WG2236754

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6790		102	1000	1	03/07/2024 12:11	WG2239765

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	11300		28.1	100	1	03/06/2024 23:02	WG2240631
Manganese	2210		0.704	5.00	1	03/06/2024 23:02	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	30300		2.87	6.78	10	03/01/2024 14:45	WG2237803
Ethane	343		0.296	1.29	1	03/01/2024 13:18	WG2237755
Ethene	U		0.422	1.27	1	03/01/2024 13:18	WG2237755

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	8.41	C5	0.548	1.00	1	03/04/2024 17:15	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 17:15	WG2239120
Benzene	0.0270	J	0.0160	0.0400	1	03/04/2024 17:15	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 17:15	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 17:15	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 17:15	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 17:15	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 17:15	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 17:15	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 17:15	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 17:15	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 17:15	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 17:15	WG2239120
Chloroethane	0.114	J	0.0432	0.200	1	03/04/2024 17:15	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 17:15	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 17:15	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 17:15	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 17:15	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 17:15	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 17:15	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 17:15	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 17:15	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 17:15	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 17:15	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 17:15	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
cis-1,2-Dichloroethene	1.76		0.0276	0.100	1	03/04/2024 17:15	WG2239120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	0.189	<u>J</u>	0.0572	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 17:15	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 17:15	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 17:15	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 17:15	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 17:15	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 17:15	WG2239120
Di-isopropyl ether	0.103		0.0140	0.0400	1	03/04/2024 17:15	WG2239120
Ethylbenzene	0.0580	<u>J</u>	0.0212	0.100	1	03/04/2024 17:15	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 17:15	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 17:15	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 17:15	WG2239120
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 17:15	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 17:15	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 17:15	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 17:15	WG2239120
Naphthalene	U	<u>J4</u>	0.124	0.500	1	03/04/2024 17:15	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 17:15	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 17:15	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 17:15	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 17:15	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 17:15	WG2239120
Toluene	0.307		0.0500	0.200	1	03/04/2024 17:15	WG2239120
1,2,3-Trichlorobenzene	U	<u>J4</u>	0.0250	0.500	1	03/04/2024 17:15	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 17:15	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 17:15	WG2239120
1,1,2-Trichloroethane	U	<u>J4</u>	0.0353	0.100	1	03/04/2024 17:15	WG2239120
Trichloroethene	0.308		0.0160	0.0400	1	03/04/2024 17:15	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 17:15	WG2239120
1,2,4-Trimethylbenzene	0.0870	<u>J</u>	0.0464	0.200	1	03/04/2024 17:15	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 17:15	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 17:15	WG2239120
Vinyl chloride	0.811	<u>C5</u>	0.0273	0.100	1	03/04/2024 17:15	WG2239120
Xylenes, Total	0.375		0.191	0.260	1	03/04/2024 17:15	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 17:15	WG2239120
Tetrahydrofuran	0.734	<u>B C5</u>	0.0900	0.500	1	03/04/2024 17:15	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 17:15	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 17:15	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 17:15	WG2239120
(S) Toluene-d8	102			75.0-131		03/04/2024 17:15	WG2239120
(S) 4-Bromofluorobenzene	99.4			67.0-138		03/04/2024 17:15	WG2239120
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/04/2024 17:15	WG2239120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	17100		379	1000	1	03/01/2024 01:24	WG2236754
Nitrate	170		48.0	100	1	03/01/2024 01:24	WG2236754
Sulfate	27600		594	5000	1	03/01/2024 01:24	WG2236754

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1600	B	102	1000	1	03/05/2024 17:05	WG2239767

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	2300		28.1	100	1	03/06/2024 23:05	WG2240631
Manganese	724		0.704	5.00	1	03/06/2024 23:05	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	5550		0.287	0.678	1	03/01/2024 11:59	WG2237096
Ethane	56.1		0.296	1.29	1	03/01/2024 11:59	WG2237096
Ethene	53.7		0.422	1.27	1	03/01/2024 11:59	WG2237096

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	0.754	J	0.548	1.00	1	03/04/2024 17:34	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 17:34	WG2239120
Benzene	0.0160	J	0.0160	0.0400	1	03/04/2024 17:34	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 17:34	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 17:34	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 17:34	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 17:34	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 17:34	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 17:34	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 17:34	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 17:34	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 17:34	WG2239120
Chloroethane	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 17:34	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 17:34	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 17:34	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 17:34	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 17:34	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 17:34	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 17:34	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 17:34	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 17:34	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 17:34	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 17:34	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
cis-1,2-Dichloroethene	U		0.0276	0.100	1	03/04/2024 17:34	WG2239120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 17:34	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 17:34	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 17:34	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 17:34	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 17:34	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 17:34	WG2239120
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 17:34	WG2239120
Ethylbenzene	0.0450	J	0.0212	0.100	1	03/04/2024 17:34	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 17:34	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 17:34	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 17:34	WG2239120
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 17:34	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 17:34	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 17:34	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 17:34	WG2239120
Naphthalene	U	J4	0.124	0.500	1	03/04/2024 17:34	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 17:34	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 17:34	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 17:34	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 17:34	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 17:34	WG2239120
Toluene	0.146	J	0.0500	0.200	1	03/04/2024 17:34	WG2239120
1,2,3-Trichlorobenzene	U	J4	0.0250	0.500	1	03/04/2024 17:34	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 17:34	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 17:34	WG2239120
1,1,2-Trichloroethane	U	J4	0.0353	0.100	1	03/04/2024 17:34	WG2239120
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 17:34	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 17:34	WG2239120
1,2,4-Trimethylbenzene	0.0600	J	0.0464	0.200	1	03/04/2024 17:34	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 17:34	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Vinyl chloride	19.7	C5	0.0273	0.100	1	03/04/2024 17:34	WG2239120
Xylenes, Total	U		0.191	0.260	1	03/04/2024 17:34	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 17:34	WG2239120
Tetrahydrofuran	0.881	B C5	0.0900	0.500	1	03/04/2024 17:34	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 17:34	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 17:34	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 17:34	WG2239120
(S) Toluene-d8	105			75.0-131		03/04/2024 17:34	WG2239120
(S) 4-Bromofluorobenzene	96.1			67.0-138		03/04/2024 17:34	WG2239120
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/04/2024 17:34	WG2239120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	U		379	1000	1	03/01/2024 01:36	WG2236754
Nitrate	U		48.0	100	1	03/01/2024 01:36	WG2236754
Sulfate	U		594	5000	1	03/01/2024 01:36	WG2236754

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	273	J	102	1000	1	03/07/2024 18:28	WG2239765

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	28.7	J	28.1	100	1	03/06/2024 23:08	WG2240631
Manganese	1.07	J	0.704	5.00	1	03/06/2024 23:08	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	U		0.287	0.678	1	03/01/2024 12:06	WG2237096
Ethane	U		0.296	1.29	1	03/01/2024 12:06	WG2237096
Ethene	U		0.422	1.27	1	03/01/2024 12:06	WG2237096

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	14.6	C5	0.548	1.00	1	03/04/2024 16:19	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 16:19	WG2239120
Benzene	U		0.0160	0.0400	1	03/04/2024 16:19	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 16:19	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 16:19	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 16:19	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 16:19	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 16:19	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 16:19	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 16:19	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 16:19	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 16:19	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 16:19	WG2239120
Chloroethane	U		0.0432	0.200	1	03/04/2024 16:19	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 16:19	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 16:19	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 16:19	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 16:19	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 16:19	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 16:19	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 16:19	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 16:19	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 16:19	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 16:19	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 16:19	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 16:19	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 16:19	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 16:19	WG2239120
cis-1,2-Dichloroethene	U		0.0276	0.100	1	03/04/2024 16:19	WG2239120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

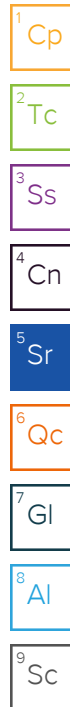
7 Gl

8 Al

9 Sc

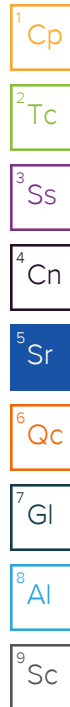
Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 16:19	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 16:19	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 16:19	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 16:19	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 16:19	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 16:19	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 16:19	WG2239120
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 16:19	WG2239120
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 16:19	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 16:19	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 16:19	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 16:19	WG2239120
2-Butanone (MEK)	1.49	C5	0.500	1.00	1	03/04/2024 16:19	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 16:19	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 16:19	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 16:19	WG2239120
Naphthalene	U	J4	0.124	0.500	1	03/04/2024 16:19	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 16:19	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 16:19	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 16:19	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 16:19	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 16:19	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 16:19	WG2239120
Toluene	U		0.0500	0.200	1	03/04/2024 16:19	WG2239120
1,2,3-Trichlorobenzene	U	J4	0.0250	0.500	1	03/04/2024 16:19	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 16:19	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 16:19	WG2239120
1,1,2-Trichloroethane	U	J4	0.0353	0.100	1	03/04/2024 16:19	WG2239120
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 16:19	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 16:19	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 16:19	WG2239120
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 16:19	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 16:19	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 16:19	WG2239120
Vinyl chloride	U		0.0273	0.100	1	03/04/2024 16:19	WG2239120
Xylenes, Total	U		0.191	0.260	1	03/04/2024 16:19	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 16:19	WG2239120
Tetrahydrofuran	U		0.0900	0.500	1	03/04/2024 16:19	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 16:19	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 16:19	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 16:19	WG2239120
(S) Toluene-d8	103			75.0-131		03/04/2024 16:19	WG2239120
(S) 4-Bromofluorobenzene	99.9			67.0-138		03/04/2024 16:19	WG2239120
(S) 1,2-Dichloroethane-d4	102			70.0-130		03/04/2024 16:19	WG2239120



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.25	C5	0.548	1.00	1	03/04/2024 16:38	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 16:38	WG2239120
Benzene	U		0.0160	0.0400	1	03/04/2024 16:38	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 16:38	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 16:38	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 16:38	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 16:38	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 16:38	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 16:38	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 16:38	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 16:38	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 16:38	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 16:38	WG2239120
Chloroethane	U		0.0432	0.200	1	03/04/2024 16:38	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 16:38	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 16:38	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 16:38	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 16:38	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 16:38	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 16:38	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 16:38	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 16:38	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 16:38	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 16:38	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 16:38	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 16:38	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 16:38	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 16:38	WG2239120
cis-1,2-Dichloroethene	U		0.0276	0.100	1	03/04/2024 16:38	WG2239120
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 16:38	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 16:38	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 16:38	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 16:38	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 16:38	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 16:38	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 16:38	WG2239120
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 16:38	WG2239120
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 16:38	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 16:38	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 16:38	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 16:38	WG2239120
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 16:38	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 16:38	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 16:38	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 16:38	WG2239120
Naphthalene	U	J4	0.124	0.500	1	03/04/2024 16:38	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 16:38	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 16:38	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 16:38	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 16:38	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 16:38	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 16:38	WG2239120
Toluene	U		0.0500	0.200	1	03/04/2024 16:38	WG2239120
1,2,3-Trichlorobenzene	U	J4	0.0250	0.500	1	03/04/2024 16:38	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 16:38	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 16:38	WG2239120



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U	J4	0.0353	0.100	1	03/04/2024 16:38	WG2239120
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 16:38	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 16:38	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 16:38	WG2239120
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 16:38	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 16:38	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 16:38	WG2239120
Vinyl chloride	U		0.0273	0.100	1	03/04/2024 16:38	WG2239120
Xylenes, Total	U		0.191	0.260	1	03/04/2024 16:38	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 16:38	WG2239120
Tetrahydrofuran	U		0.0900	0.500	1	03/04/2024 16:38	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 16:38	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 16:38	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 16:38	WG2239120
(S) Toluene-d8	103			75.0-131		03/04/2024 16:38	WG2239120
(S) 4-Bromofluorobenzene	99.7			67.0-138		03/04/2024 16:38	WG2239120
(S) 1,2-Dichloroethane-d4	98.9			70.0-130		03/04/2024 16:38	WG2239120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4042249-1 02/29/24 19:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Nitrate	U		48.0	100
Sulfate	U		594	5000

L1710248-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710248-01 03/01/24 00:33 • (DUP) R4042249-3 03/01/24 00:46

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	60500	60200	1	0.465		15
Nitrate	212	392	1	59.8	P1	15
Sulfate	1460	1580	1	8.36	J	15

L1710290-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710290-01 03/01/24 03:42 • (DUP) R4042249-6 03/01/24 03:55

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	124000	123000	1	0.314		15
Nitrate	128	U	1	200	P1	15
Sulfate	35400	35600	1	0.331		15

Laboratory Control Sample (LCS)

(LCS) R4042249-2 02/29/24 20:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40700	102	80.0-120	
Nitrate	8000	8050	101	80.0-120	
Sulfate	40000	40400	101	80.0-120	

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

L1710248-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1710248-01 03/01/24 00:33 • (MS) R4042249-4 03/01/24 00:58 • (MSD) R4042249-5 03/01/24 01:11

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 %
Chloride	40000	60500	89300	89300	72.1	72.0	1	80.0-120	J6	J6	0.0301	15
Nitrate	8000	212	8500	8450	104	103	1	80.0-120			0.608	15
Sulfate	40000	1460	40100	40100	96.5	96.7	1	80.0-120			0.133	15

L1710290-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1710290-01 03/01/24 03:42 • (MS) R4042249-7 03/01/24 04:07

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	40000	124000	139000	39.8	1	80.0-120	J6
Nitrate	8000	128	8370	103	1	80.0-120	
Sulfate	40000	35400	69500	85.2	1	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4042959-2 03/07/24 11:36

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
TOC (Total Organic Carbon)	U		102	1000

L1710248-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710248-01 03/07/24 12:11 • (DUP) R4042959-3 03/07/24 12:31

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	6790	6700	1	1.32		20

L1710290-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710290-01 03/07/24 12:49 • (DUP) R4042959-4 03/07/24 13:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	11500	11600	1	0.260		20

Laboratory Control Sample (LCS)

(LCS) R4042959-1 03/07/24 11:19

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
TOC (Total Organic Carbon)	25000	24500	97.9	85.0-115	

L1710326-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1710326-05 03/07/24 13:26 • (MS) R4042959-5 03/07/24 13:48 • (MSD) R4042959-6 03/07/24 14:10

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	2250	27700	27300	102	100	1	85.0-115			1.67	20

L1710326-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1710326-07 03/07/24 14:28 • (MS) R4042959-7 03/07/24 14:51 • (MSD) R4042959-8 03/07/24 15:51

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	1800	26200	26500	97.8	98.6	1	85.0-115			0.835	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4041987-2 03/05/24 16:24

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
TOC (Total Organic Carbon)	220	⬇	102	1000

L1710592-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710592-01 03/06/24 01:34 • (DUP) R4041987-6 03/06/24 02:09

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	210000	211000	1	0.571	⬇	20

L1710248-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1710248-02 03/05/24 17:05 • (DUP) R4041987-3 03/05/24 17:29

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
TOC (Total Organic Carbon)	1600	1720	1	7.46		20

Laboratory Control Sample (LCS)

(LCS) R4041987-1 03/05/24 16:07

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
TOC (Total Organic Carbon)	25000	25300	101	85.0-115	

L1710556-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1710556-01 03/05/24 22:51 • (MS) R4041987-4 03/05/24 23:18 • (MSD) R4041987-5 03/05/24 23:44

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	13100	38300	38600	101	102	1	85.0-115			0.832	20

L1710597-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1710597-02 03/06/24 02:53 • (MS) R4041987-7 03/06/24 03:19 • (MSD) R4041987-8 03/06/24 03:46

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
TOC (Total Organic Carbon)	25000	4060	28800	28800	99.0	99.0	1	85.0-115			0.000	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4042470-1 03/06/24 22:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Iron	U		28.1	100
Manganese	U		0.704	5.00

Laboratory Control Sample (LCS)

(LCS) R4042470-2 03/06/24 22:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	1000	1040	104	80.0-120	
Manganese	50.0	52.3	105	80.0-120	

L1711112-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1711112-09 03/06/24 22:24 • (MS) R4042470-4 03/06/24 22:31 • (MSD) R4042470-5 03/06/24 22:34

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 %
Iron	1000	U	1070	1070	107	107	1	75.0-125			0.153	20
Manganese	50.0	U	51.6	52.7	103	105	1	75.0-125			2.10	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4040340-2 03/01/24 10:00

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methane	U		0.287	0.678
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L1710244-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1710244-05 03/01/24 11:40 • (DUP) R4040340-3 03/01/24 11:56

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

L1710248-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1710248-03 03/01/24 12:06 • (DUP) R4040340-4 03/01/24 12:43

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Ethene	U	U	1	0.000		20

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

(LCS) R4040340-1 03/01/24 09:57 • (LCSD) R4040340-5 03/01/24 12:46

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 %
Methane	67.8	72.1	69.9	106	103	85.0-115			3.10	20
Ethane	129	120	117	93.0	90.7	85.0-115			2.53	20
Ethene	127	119	116	93.7	91.3	85.0-115			2.55	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4040383-2 03/01/24 13:03

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Ethane	U		0.296	1.29
Ethene	U		0.422	1.27

L1710244-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1710244-02 03/01/24 13:07 • (DUP) R4040383-3 03/01/24 13:21

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Ethane	U	15.7	10	0.000	P1	20
Ethene	U	U	10	0.000		20

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

(LCS) R4040383-1 03/01/24 13:00 • (LCSD) R4040383-4 03/01/24 13:24

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Ethane	129	120	124	93.0	96.1	85.0-115			3.28	20
Ethene	127	119	125	93.7	98.4	85.0-115			4.92	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4040464-2 03/01/24 13:43

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Methane	U		0.287	0.678

L1710248-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710248-01 03/01/24 14:45 • (DUP) R4040464-3 03/01/24 14:48

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	ug/l	ug/l		%		%
Methane	30300	29900	10	1.33		20

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

(LCS) R4040464-1 03/01/24 13:40 • (LCSD) R4040464-4 03/01/24 14:50

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	68.4	68.7	101	101	85.0-115			0.438	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

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Method Blank (MB)

(MB) R4041792-3 03/04/24 11:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromodichloromethane	U		0.0315	0.100
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	0.0310	U	0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
Dichlorodifluoromethane	U		0.0327	0.200
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
Isopropylbenzene	U		0.0345	0.100

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Method Blank (MB)

(MB) R4041792-3 03/04/24 11:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
Ethyl Ether	U		0.0170	0.100
Tetrahydrofuran	0.286	U	0.0900	0.500
Iodomethane	U		0.242	0.500
Allyl chloride	U		0.580	1.00
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200
(S) Toluene-d8	104			75.0-131
(S) 4-Bromofluorobenzene	102			67.0-138
(S) 1,2-Dichloroethane-d4	93.3			70.0-130

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

(LCS) R4041792-1 03/04/24 10:00 • (LCSD) R4041792-2 03/04/24 10:19

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	30.6	24.7	122	98.8	10.0-160			21.3	31
Acrylonitrile	25.0	27.1	25.9	108	104	45.0-153			4.53	22
Benzene	5.00	5.16	5.10	103	102	70.0-123			1.17	20
Bromobenzene	5.00	5.62	5.87	112	117	73.0-121			4.35	20
Bromodichloromethane	5.00	5.71	5.41	114	108	73.0-121			5.40	20
Bromoform	5.00	5.18	5.53	104	111	64.0-132			6.54	20
Bromomethane	5.00	5.21	4.85	104	97.0	56.0-147			7.16	20
n-Butylbenzene	5.00	5.60	5.71	112	114	68.0-135			1.95	20
sec-Butylbenzene	5.00	5.63	5.93	113	119	74.0-130			5.19	20
tert-Butylbenzene	5.00	5.58	5.79	112	116	75.0-127			3.69	20
Carbon tetrachloride	5.00	6.08	5.91	122	118	66.0-128			2.84	20
Chlorobenzene	5.00	5.22	5.50	104	110	76.0-128			5.22	20
Chlorodibromomethane	5.00	5.59	5.95	112	119	74.0-127			6.24	20
Chloroethane	5.00	5.61	4.84	112	96.8	61.0-134			14.7	20
Chloroform	5.00	5.46	4.84	109	96.8	72.0-123			12.0	20
Chloromethane	5.00	5.59	5.18	112	104	51.0-138			7.61	20
2-Chlorotoluene	5.00	5.88	6.08	118	122	75.0-124			3.34	20
4-Chlorotoluene	5.00	5.87	6.11	117	122	75.0-124			4.01	20
1,2-Dibromo-3-Chloropropane	5.00	5.56	6.00	111	120	59.0-130			7.61	20
1,2-Dibromoethane	5.00	5.69	6.17	114	123	74.0-128			8.09	20
Dibromomethane	5.00	5.79	5.68	116	114	75.0-122			1.92	20
1,2-Dichlorobenzene	5.00	5.50	5.79	110	116	76.0-124			5.14	20
1,3-Dichlorobenzene	5.00	5.54	5.71	111	114	76.0-125			3.02	20
1,4-Dichlorobenzene	5.00	5.56	5.66	111	113	77.0-121			1.78	20
Dichlorodifluoromethane	5.00	8.05	7.65	161	153	43.0-156	J4		5.10	20
1,1-Dichloroethane	5.00	5.46	5.31	109	106	70.0-127			2.79	20
1,2-Dichloroethane	5.00	5.36	5.24	107	105	65.0-131			2.26	20
1,1-Dichloroethene	5.00	5.97	5.71	119	114	65.0-131			4.45	20
cis-1,2-Dichloroethene	5.00	5.22	4.94	104	98.8	73.0-125			5.51	20
trans-1,2-Dichloroethene	5.00	5.32	5.14	106	103	71.0-125			3.44	20
1,2-Dichloropropane	5.00	5.50	5.32	110	106	74.0-125			3.33	20
1,1-Dichloropropene	5.00	6.00	5.74	120	115	73.0-125			4.43	20
1,3-Dichloropropane	5.00	5.76	6.10	115	122	80.0-125			5.73	20
cis-1,3-Dichloropropene	5.00	5.80	5.68	116	114	76.0-127			2.09	20
trans-1,3-Dichloropropene	5.00	5.82	6.09	116	122	73.0-127			4.53	20
2,2-Dichloropropane	5.00	5.79	5.50	116	110	59.0-135			5.14	20
Di-isopropyl ether	5.00	5.53	5.40	111	108	60.0-136			2.38	20
Ethylbenzene	5.00	5.52	5.62	110	112	74.0-126			1.80	20
Hexachloro-1,3-butadiene	5.00	4.83	5.09	96.6	102	57.0-150			5.24	20
Isopropylbenzene	5.00	5.74	5.86	115	117	72.0-127			2.07	20

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

(LCS) R4041792-1 03/04/24 10:00 • (LCSD) R4041792-2 03/04/24 10:19

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 %
p-Isopropyltoluene	5.00	5.51	5.79	110	116	72.0-133			4.96	20
2-Butanone (MEK)	25.0	31.1	25.2	124	101	30.0-160			21.0	24
Methylene Chloride	5.00	5.26	5.14	105	103	68.0-123			2.31	20
4-Methyl-2-pentanone (MIBK)	25.0	30.4	33.0	122	132	56.0-143			8.20	20
Methyl tert-butyl ether	5.00	5.42	5.63	108	113	66.0-132			3.80	20
Naphthalene	5.00	5.62	6.64	112	133	59.0-130		J4	16.6	20
n-Propylbenzene	5.00	5.78	6.09	116	122	74.0-126			5.22	20
Styrene	5.00	5.33	5.55	107	111	72.0-127			4.04	20
1,1,1,2-Tetrachloroethane	5.00	5.31	5.61	106	112	74.0-129			5.49	20
1,1,2,2-Tetrachloroethane	5.00	5.62	6.05	112	121	68.0-128			7.37	20
1,1,2-Trichlorotrifluoroethane	5.00	5.52	4.99	110	99.8	61.0-139			10.1	20
Tetrachloroethene	5.00	5.85	6.04	117	121	70.0-136			3.20	20
Toluene	5.00	5.41	5.59	108	112	75.0-121			3.27	20
1,2,3-Trichlorobenzene	5.00	6.95	7.31	139	146	59.0-139		J4	5.05	20
1,2,4-Trichlorobenzene	5.00	5.84	6.54	117	131	62.0-137			11.3	20
1,1,1-Trichloroethane	5.00	6.05	5.68	121	114	69.0-126			6.31	20
1,1,2-Trichloroethane	5.00	5.63	6.20	113	124	78.0-123		J4	9.64	20
Trichloroethene	5.00	5.51	5.40	110	108	76.0-126			2.02	20
Trichlorofluoromethane	5.00	5.52	5.02	110	100	61.0-142			9.49	20
1,2,3-Trichloropropane	5.00	5.84	6.42	117	128	67.0-129			9.46	20
1,2,4-Trimethylbenzene	5.00	5.81	5.94	116	119	70.0-126			2.21	20
1,2,3-Trimethylbenzene	5.00	5.49	5.84	110	117	74.0-124			6.18	20
1,3,5-Trimethylbenzene	5.00	5.53	5.79	111	116	73.0-127			4.59	20
Vinyl chloride	5.00	6.17	5.72	123	114	63.0-134			7.57	20
Xylenes, Total	15.0	16.4	17.2	109	115	72.0-127			4.76	20
Ethyl Ether	5.00	5.48	5.35	110	107	64.0-137			2.40	20
Tetrahydrofuran	5.00	6.19	5.34	124	107	37.0-146			14.7	24
Iodomethane	25.0	25.8	24.2	103	96.8	74.0-134			6.40	20
Allyl chloride	25.0	25.7	24.9	103	99.6	70.0-131			3.16	20
Trans-1,4-Dichloro-2-butene	5.00	5.68	6.00	114	120	45.0-143			5.48	20
(S) Toluene-d8				102	106	75.0-131				
(S) 4-Bromofluorobenzene				98.9	101	67.0-138				
(S) 1,2-Dichloroethane-d4				99.1	97.8	70.0-130				

1Cp

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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
B	The same analyte is found in the associated blank.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

⁹ Sc

ACCREDITATIONS & LOCATIONS

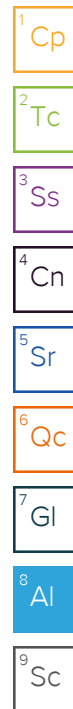
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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 ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	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 ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	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 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ 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.



Remarks	Sample # (lab only)
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MEMORANDUM

TO: Project File **DATE:** April 24, 2024

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 443022-1413001.10.701.02

TASK: EIM Data Validation Level EPA2A for 1st Quarter Monitoring 2024 – Groundwater Samples

LAB: Pace Sample Delivery Groups (SDGs): L1709909 and L1710248

Nine (9) groundwater samples (including one field duplicate), one equipment blank, and two trip blanks were collected as part of the 1st Quarterly Monitoring Round for 2024 for the ongoing Remedial Investigation (RI) sampling at the Former American Linen Supply Site, in Seattle, Washington. The samples were collected February 26-28, 2024, shipped, and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260D;
- VOCs (dissolved gases – methane, ethane, and ethene) by EPA SOP RSK 175;
- Anions (chloride, nitrate, and sulfate) by USEPA Method 9056A;
- Total Organic Carbon (TOC) by USEPA Method 9060A; and
- Metals (iron and manganese) by USEPA Method 6020B.

The Q1 2024 RI sampling event (including soil vapor samples) was conducted in February and March of 2024. Results for soil vapor samples are reported in one SDG by Pace. The quality assurance review of the groundwater sample data associated with SDGs L1709909 and L1710248 are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020) and USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020). Following Guidelines, non-project-specific laboratory duplicates and matrix spike results were not evaluated as part of this data validation.

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussions:

- SDG L1709909: Sample identification was revised and corrected from MW-344-022624 to read MW-349-022624. SDG L1709909 Level 2 report was reissued on April 16, 2024 (Version 1). Refer to the discussion below for details on additional revisions.
- SDG L1709909: Review of the chain of custody and sample identifications showed that laboratory reported sample collection dates are incorrect for the following samples:
 - Sample MW-349-022~~6~~24 and collection date 02/~~26~~/2024 should read MW-349-022724 and sample collection date should read 02/27/2024. Pace was contacted and the report was revised and reissued on April 18, 2024 (Version 2).
 - Sample MW-346-022724, MW-985-022724, MW-348-022724, and MW-347-022724 collection dates are reported as 02/26/2024 should be corrected to read 02/27/2024. Pace was contacted and the report was revised and reissued on April 18, 2024 (Version 2).
 - Nitrate results for samples MW-349-022724 and MW-348-022724 were originally qualified (T8) due to hold time exceedance but are within hold time with the correct sample collection dates. Per NV5 request the T8 qualifier was removed from the nitrate results for samples MW-349-022724 and MW-348-022724.
- SDGs L1709909 and L1710248: Review of the chain of custodies (marked up copies) indicates that iron and manganese requests for analyses were added on February 28, 2024, per NV5.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation of 6°C. Samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260D:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of collection. All holding time criteria are met.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

All samples were analyzed within RSK 175 recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria are met.

General Chemistry (Chloride, Nitrate, Sulfate, and TOC):

All samples were analyzed within the USEPA recommended holding time for chloride (28 days), sulfate (28 days), nitrate (48 hours), and TOC (28 days) for preserved waters from the date of sample collection. All holding time criteria are met with the following exceptions:

- SDG L1709909: Nitrate analysis was conducted up to five days past holding time for samples MW-346-022724, MW-985-022724, and MW-347-022724. **Nitrate results for samples MW-346-022724, MW-985-022724, and MW-347-022724 are estimated (J-) with potential low bias due to holding time exceedance.**

USEPA Method 6020B:

All samples were analyzed within the USEPA recommended holding time for iron and manganese of 180 days for preserved waters from the date of sample collection. All holding time criteria are met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however Pace's notes indicate the following:

- SDG L1709909 - *USEPA Method 8260D*: Continuing calibration verification (CCV) issues were noted by Pace for one compound associated with the analytical batches. The compound (bromomethane) is qualified by the laboratory "C3" to indicate that percent difference CCV is below laboratory acceptance criteria and showing potential low bias. Low level reporting limit check standard (sensitivity) requirements are within criteria. **Associated sample results with laboratory qualified (C3) results are estimated with potential low bias and qualified (UJ).**
- SDG L1710248 - *USEPA Method 8260D*: Continuing calibration verification (CCV) issues were noted by Pace for three compounds. These compounds (acetone, vinyl chloride and tetrahydrofuran) are qualified by the laboratory "C5" to indicate that percent difference CCVs are above laboratory acceptance criteria and showing potential high bias. **Associated sample results for vinyl chloride and tetrahydrofuran laboratory qualified (C5) results are estimated with potential high bias and qualified (J+).** Refer to the sections on Equipment Blank Results and Trip Blank Results for qualifiers applied to acetone.

Method Blank Results

USEPA Method 8260D:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes are not detected in the method blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDG L1710248 - Analytical batch WG2239120: Chloroform and tetrahydrofuran are detected in the method blank at low levels below the RDL. No action is needed for chloroform since it is not detected in the associated samples. Tetrahydrofuran was detected in the method blank below the RDL (0.500 µg/L) at 0.286 µg/L and is detected in both samples (HMW-9IB-022824 and MW-350-022824) above the RDL.
Tetrahydrofuran results for samples HMW-9IB-022824 and MW-350-022824 are qualified as estimated (J+) with positive bias due to method blank contamination and high CCV % recovery. Refer to the section on Initial and Continuing Calibration for additional details.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (dissolved gases) are not detected in the method blanks at or above the RDLs.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC) and Metals (Iron and Manganese):

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were detected in the method blanks below the RDLs. Per Guidance, no action is taken for blank detections less than the RDL when associated sample detections are greater than the RDL. General chemistry blank detections are shown below:

SDG	Batch	Method	Analyte	Method Blank Result	Qualifier	RDL	Units	Associated Result(s) Qualified
L1709909	WG2238989	9060A	TOC	311	J	1000	µg/L	NO
L1710248	WG2239767	9060A	TOC	220	J	1000	µg/L	NO

Target analytes were detected in method blanks at low levels with no impact to the associated samples.

Trip Blank Results

USEPA Method 8260D:

Two trip blanks were collected. The target analytes were not detected in the trip blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDG L1709909: Acetone was detected in the trip blank (TB-022724) at 1.23 µg/L and above the RDL (1.00 µg/L). Per Guidance, for common laboratory contaminants, if the blank concentration is greater than the RDL and less than twice the blank result the common lab contaminant is qualified as non-detect (U). No action is taken for samples with acetone detections greater than the established action level (2.46 ug/L). **Acetone was detected below the established action level in sample MW107-022624 and is qualified as non-detected (U) due to trip blank contamination.**
- SDG L1710248: Acetone was detected in the trip blank (TB-022824) at 2.25 µg/L and above the RDL (1.00 µg/L). **Acetone was detected below the established action level in sample MW-350-022824 and is qualified as non-detected (U) due to trip blank contamination.**

Field, Rinsate, or Equipment Blank Results

One equipment blank (EQ-022824) was collected. Details are as follows:

SDG L1710248: The equipment blank (EQ-022824) is associated with sample HMW-9IB-022824 which was collected from the bladder pump on February 28, 2024. Low levels of TOC, iron, manganese and VOCs (acetone and 2-butanone (MEK)) are detected in the equipment blank. Per Guidance, for common laboratory contaminants (e.g., acetone), if the blank concentration is greater than the RDL and less than twice the blank result the common lab contaminant is qualified as non-detect (U). Actions are as follows:

- TOC is detected in the equipment blank at 273 ug/L and below the RDL (1000 µg/L). TOC was also detected in the method blank. No action is taken since TOC is detected above the RDL in the associated sample.
- Iron and manganese are detected in the equipment blank and below their respective RDLs. No action is needed since iron and manganese are detected significantly above the iron and manganese RDLs in the associated sample.
- Acetone was detected in the equipment blank at 14.6 µg/L and above the RDL (1.00 µg/L). Acetone was also detected in the trip blank. **Acetone was detected below the established action level in sample HMW-9IB-022824 and is qualified as non-detect (U) due to equipment blank contamination.** Sample HMW-9IB-022824 acetone result was also laboratory qualified (C5) due to an elevated CCV. In this case, due to multiple deficiencies, the reviewer applied the most stringent qualifier using qualifier hierarchy.
- MEK is detected in the equipment blank at 1.49 µg/L below the RDL (1.00 µg/L). No action is needed since MEK is not detected in the associated sample.

Field Duplicate Analyses

Field duplicate pair was submitted and analyzed. Field duplicate sample pair is as follows:

- SDG L1709909: Samples MW-346-022724 and MW-985-022724

Target analyte results are comparable and within a relative percent difference (RPD) of 30% ($\pm$ 1x RDL for groundwater results <5X the RDL) for the field duplicate pair.

Laboratory Duplicate Analyses

USEPA Method 8260D:

Laboratory duplicate samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Laboratory duplicate sample analyses were performed on client and/or on non-client samples within the analytical batches. The primary/duplicate RPDs for client samples on dissolved gas analyses are within the laboratory control limit of 20%.

General Chemistry (Chloride, Nitrate, Sulfate, and TOC):

Laboratory duplicate sample analyses were performed on client samples and/or on non-client samples. The primary/duplicate RPDs for client samples on general chemistry parameters are within the laboratory control RPD limits or $\pm 1 \times$ RDL for groundwater results $< 5 \times$ the RDL with the following exceptions:

- SDG L1710248: Laboratory duplicate analysis for nitrate by EPA method 9056A was performed on sample HMW-9IB-022824. Nitrate RPD exceeds acceptance criteria and is laboratory qualified (P1). **Sample HMW-9IB-022824 nitrate result is qualified (J) because the absolute difference between the sample and laboratory duplicate result is greater than the reporting limit.**

USEPA Method 6020B:

Laboratory duplicate samples were not analyzed. Refer to MS/MSD results for precision data.

Surrogate Recoveries

USEPA Method 8260D:

The surrogate recovery results for the samples, laboratory control samples, and the method blanks are within the laboratory surrogate control limits for all the analyses.

Laboratory Control Samples

USEPA Method 8260D:

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) were analyzed by USEPA Method 8260D method. The LCS/LCSD % Rs and RPDs for all target compounds are within the laboratory control criteria for waters with the following exceptions:

- SDG L1710248 - Analytical batch WG2239120: LCS % R for dichlorodifluoromethane is above criteria and is laboratory qualified (J4). No action is needed since dichlorodifluoromethane is not detected in the associated samples.
- SDG L1710248 - Analytical batch WG2239120: LCSD % Rs for naphthalene, 1,2,3-trichlorobenzene, and 1,1,2-trichloroethane are above criteria and are laboratory qualified (J4). No action is needed since these compounds are not detected in the associated samples.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

The LCS/LCSD % Rs and RPDs for the target compound (dissolved gases) are within the laboratory control criteria for waters.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC) and Metals (Iron, Manganese):

The LCS % Rs for general chemistry parameters and metals are within the laboratory control criteria for waters.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260D:

MS/MSD analyses were not performed. Refer to LCS/LCSD results for precision and accuracy data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

MS/MSD analyses were performed on non-client samples within the analytical batches. The MS/MSD % Rs and RPDs for project samples were acceptable and within laboratory control limit criteria for water samples.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC) and Metals (Iron and Manganese):

MS or MS/MSD analyses were performed on client and/or on non-client samples within the analytical batches. Client sample MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following exceptions:

- SDG L1709909: MS analysis was performed on field duplicate sample MW-985-022724. The MS recovery for sulfate by EPA Method 9056A is below acceptance criteria and laboratory qualified (J6). **Sulfate results for field duplicate pair (MW-346-022724 and MW-985-022724) are estimated and qualified (J-) due to low matrix spike recovery.**
- SDG L1710248: MS/MSD analyses for chloride by EPA Method 9056A were performed on sample HMW-9IB-022824. MS/MSD % Rs for chloride are below acceptance criteria and laboratory qualified (J6). **Chloride result for sample HMW-9IB-022824 is estimated (J-) and qualified with low bias due to the low MS/MSD % Rs.**

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussions:

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are used between the EDD and the hardcopy. However, associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.
- SDG L1709909: Laboratory narrative indicates that sample MW-348-022724 for VOC analyses was diluted (ten-fold) due to sample foaming. No action is taken on this basis.

Compound Identification and Quantitation Limits

Results of the analyses were reported based on laboratory RDLs for all compounds. RDLs for selected compounds are elevated due to method-required dilutions. No action is taken other than to note that diluted samples have proportionally elevated reporting limits.

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

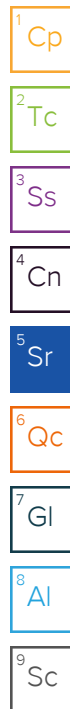
- USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.48		0.548	1.00	1	03/04/2024 05:00	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:00	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:00	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:00	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:00	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:00	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:00	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:00	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:00	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:00	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:00	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:00	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:00	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:00	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:00	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:00	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:00	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:00	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:00	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:00	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:00	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:00	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:00	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:00	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:00	WG2238716
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:00	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
cis-1,2-Dichloroethene	0.263		0.0276	0.100	1	03/04/2024 05:00	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:00	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:00	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:00	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:00	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:00	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:00	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:00	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 05:00	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:00	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:00	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:00	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:00	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:00	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:00	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:00	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:00	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:00	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:00	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:00	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:00	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:00	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:00	WG2238716

JC 4/23/24



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:00	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:00	WG2238716
Toluene	0.329		0.0500	0.200	1	03/04/2024 05:00	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:00	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:00	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:00	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:00	WG2238716
Trichloroethene	0.0500		0.0160	0.0400	1	03/04/2024 05:00	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:00	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:00	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:00	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:00	WG2238716
Vinyl chloride	1.49		0.0273	0.100	1	03/04/2024 05:00	WG2238716
Xylenes, Total	0.313		0.191	0.260	1	03/04/2024 05:00	WG2238716
(S) Toluene-d8	99.8			75.0-131		03/04/2024 05:00	WG2238716
(S) 4-Bromofluorobenzene	99.6			67.0-138		03/04/2024 05:00	WG2238716
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		03/04/2024 05:00	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.27	U	0.548	1.00	1	03/04/2024 05:20	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:20	WG2238716
Benzene	0.111		0.0160	0.0400	1	03/04/2024 05:20	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:20	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:20	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:20	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:20	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:20	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:20	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:20	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:20	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:20	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:20	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:20	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:20	WG2238716
Chloroethane	0.187	J	0.0432	0.200	1	03/04/2024 05:20	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:20	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:20	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:20	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:20	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:20	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:20	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:20	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:20	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:20	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:20	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:20	WG2238716
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:20	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
cis-1,2-Dichloroethene	3.71		0.0276	0.100	1	03/04/2024 05:20	WG2238716
trans-1,2-Dichloroethene	2.65		0.0572	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:20	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:20	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:20	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:20	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:20	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:20	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:20	WG2238716
Ethylbenzene	0.0780	J	0.0212	0.100	1	03/04/2024 05:20	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:20	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:20	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:20	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:20	WG2238716
Isopropylbenzene	0.0560	J	0.0345	0.100	1	03/04/2024 05:20	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:20	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:20	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:20	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:20	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:20	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:20	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:20	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:20	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:20	WG2238716

JC 4/23/24



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:20	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:20	WG2238716
Toluene	0.319		0.0500	0.200	1	03/04/2024 05:20	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:20	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:20	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:20	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:20	WG2238716
Trichloroethene	0.103		0.0160	0.0400	1	03/04/2024 05:20	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:20	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:20	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:20	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:20	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:20	WG2238716
Vinyl chloride	1.07		0.0273	0.100	1	03/04/2024 05:20	WG2238716
Xylenes, Total	0.393		0.191	0.260	1	03/04/2024 05:20	WG2238716
(S) Toluene-d8	101			75.0-131		03/04/2024 05:20	WG2238716
(S) 4-Bromofluorobenzene	105			67.0-138		03/04/2024 05:20	WG2238716
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		03/04/2024 05:20	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	29200		379	1000	1	02/28/2024 17:07	WG2236237
Nitrate	223		48.0	100	1	02/28/2024 17:07	WG2236237
Sulfate	7970		594	5000	1	02/28/2024 17:07	WG2236237

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3740		102	1000	1	03/05/2024 13:24	WG2238989

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	2030		28.1	100	1	03/06/2024 22:37	WG2240631
Manganese	355		0.704	5.00	1	03/06/2024 22:37	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	21700		2.87	6.78	10	03/01/2024 11:19	WG2237096
Ethane	3.33		0.296	1.29	1	02/29/2024 12:44	WG2236509
Ethene	6.87		0.422	1.27	1	02/29/2024 12:44	WG2236509

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	110		0.548	1.00	1	03/04/2024 05:40	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:40	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:40	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:40	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:40	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:40	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:40	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:40	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:40	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:40	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:40	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:40	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:40	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:40	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:40	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:40	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:40	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:40	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:40	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:40	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:40	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:40	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:40	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:40	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:40	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:40	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
cis-1,2-Dichloroethene	0.518		0.0276	0.100	1	03/04/2024 05:40	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:40	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:40	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:40	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:40	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:40	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:40	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:40	WG2238716
Ethylbenzene	0.0490	U	0.0212	0.100	1	03/04/2024 05:40	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:40	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:40	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:40	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:40	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:40	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:40	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:40	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:40	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:40	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:40	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:40	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:40	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:40	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:40	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:40	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:40	WG2238716
Toluene	0.246		0.0500	0.200	1	03/04/2024 05:40	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:40	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:40	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:40	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:40	WG2238716
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 05:40	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:40	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:40	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:40	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:40	WG2238716
Vinyl chloride	1.71		0.0273	0.100	1	03/04/2024 05:40	WG2238716
Xylenes, Total	0.328		0.191	0.260	1	03/04/2024 05:40	WG2238716
(S) Toluene-d8	103			75.0-131		03/04/2024 05:40	WG2238716
(S) 4-Bromofluorobenzene	103			67.0-138		03/04/2024 05:40	WG2238716
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		03/04/2024 05:40	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	20900		379	1000	1	03/04/2024 21:33	WG2237487
Nitrate	868	J- TS	48.0	100	1	03/04/2024 21:33	WG2237487
Sulfate	63500	J-	594	5000	1	03/04/2024 21:33	WG2237487

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1780	E	102	1000	1	03/05/2024 13:52	WG2238989

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2630		28.1	100	1	03/06/2024 22:41	WG2240631
Manganese	166		0.704	5.00	1	03/06/2024 22:41	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	120		0.287	0.678	1	02/29/2024 14:07	WG2236509
Ethane	U		0.296	1.29	1	02/29/2024 14:07	WG2236509
Ethene	1.19	J	0.422	1.27	1	02/29/2024 14:07	WG2236509

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	03/04/2024 05:59	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:59	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:59	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:59	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:59	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:59	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:59	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:59	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:59	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:59	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:59	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:59	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:59	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:59	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:59	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:59	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:59	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:59	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:59	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:59	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:59	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:59	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:59	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:59	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:59	WG2238716

JC 4/23/24

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:59	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
cis-1,2-Dichloroethene	0.872		0.0276	0.100	1	03/04/2024 05:59	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:59	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:59	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:59	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:59	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:59	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:59	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:59	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 05:59	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:59	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:59	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:59	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:59	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:59	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:59	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:59	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:59	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:59	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:59	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:59	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:59	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:59	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:59	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:59	WG2238716
Tetrachloroethene	0.0660	IL	0.0280	0.100	1	03/04/2024 05:59	WG2238716
Toluene	0.0980	IL	0.0500	0.200	1	03/04/2024 05:59	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:59	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:59	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:59	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:59	WG2238716
Trichloroethene	0.198		0.0160	0.0400	1	03/04/2024 05:59	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:59	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:59	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:59	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:59	WG2238716
Vinyl chloride	0.492		0.0273	0.100	1	03/04/2024 05:59	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 05:59	WG2238716
(S) Toluene-d8	99.2			75.0-131		03/04/2024 05:59	WG2238716
(S) 4-Bromofluorobenzene	102			67.0-138		03/04/2024 05:59	WG2238716
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		03/04/2024 05:59	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	22300		379	1000	1	03/04/2024 21:49	WG2237487
Nitrate	889	J- F8	48.0	100	1	03/04/2024 21:49	WG2237487
Sulfate	64200	J- J6	594	5000	1	03/04/2024 21:49	WG2237487

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1590	B	102	1000	1	03/05/2024 14:06	WG2238989

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	3040		28.1	100	1	03/06/2024 22:44	WG2240631
Manganese	179		0.704	5.00	1	03/06/2024 22:44	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	114		0.287	0.678	1	02/29/2024 14:22	WG2236509
Ethane	U		0.296	1.29	1	02/29/2024 14:22	WG2236509
Ethene	0.718	J	0.422	1.27	1	02/29/2024 14:22	WG2236509

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	03/04/2024 06:19	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 06:19	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 06:19	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 06:19	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 06:19	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 06:19	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 06:19	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 06:19	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 06:19	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 06:19	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 06:19	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 06:19	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 06:19	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 06:19	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 06:19	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 06:19	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 06:19	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 06:19	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 06:19	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 06:19	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 06:19	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 06:19	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 06:19	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 06:19	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 06:19	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 06:19	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
cis-1,2-Dichloroethene	0.836		0.0276	0.100	1	03/04/2024 06:19	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 06:19	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 06:19	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 06:19	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 06:19	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 06:19	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 06:19	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 06:19	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 06:19	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 06:19	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 06:19	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 06:19	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 06:19	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 06:19	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 06:19	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 06:19	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 06:19	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 06:19	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 06:19	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 06:19	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 06:19	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 06:19	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 06:19	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 06:19	WG2238716
Tetrachloroethene	0.0800	IL	0.0280	0.100	1	03/04/2024 06:19	WG2238716
Toluene	0.102	IL	0.0500	0.200	1	03/04/2024 06:19	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 06:19	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 06:19	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 06:19	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 06:19	WG2238716
Trichloroethene	0.262		0.0160	0.0400	1	03/04/2024 06:19	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 06:19	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 06:19	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 06:19	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 06:19	WG2238716
Vinyl chloride	0.463		0.0273	0.100	1	03/04/2024 06:19	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 06:19	WG2238716
(S) Toluene-d8	105			75.0-131		03/04/2024 06:19	WG2238716
(S) 4-Bromofluorobenzene	106			67.0-138		03/04/2024 06:19	WG2238716
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		03/04/2024 06:19	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	21200		379	1000	1	02/28/2024 16:52	WG2236237
Nitrate	213		48.0	100	1	02/28/2024 16:52	WG2236237
Sulfate	13300		594	5000	1	02/28/2024 16:52	WG2236237

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8480		102	1000	1	03/05/2024 14:22	WG2238989

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	8780		28.1	100	1	03/06/2024 22:47	WG2240631
Manganese	244		0.704	5.00	1	03/06/2024 22:47	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	33100		2.87	6.78	10	03/01/2024 11:28	WG2237096
Ethane	6.18		0.296	1.29	1	02/29/2024 14:31	WG2236509
Ethene	270		0.422	1.27	1	02/29/2024 14:31	WG2236509

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	U		5.48	10.0	10	03/04/2024 07:57	WG2238716
Acrylonitrile	U		0.760	5.00	10	03/04/2024 07:57	WG2238716
Benzene	U		0.160	0.400	10	03/04/2024 07:57	WG2238716
Bromobenzene	U		0.420	5.00	10	03/04/2024 07:57	WG2238716
Bromochloromethane	U		0.452	2.00	10	03/04/2024 07:57	WG2238716
Bromodichloromethane	U		0.315	1.00	10	03/04/2024 07:57	WG2238716
Bromoform	U		2.39	10.0	10	03/04/2024 07:57	WG2238716
Bromomethane	U	UJ C3	1.48	5.00	10	03/04/2024 07:57	WG2238716
n-Butylbenzene	U		1.53	5.00	10	03/04/2024 07:57	WG2238716
sec-Butylbenzene	U		1.01	5.00	10	03/04/2024 07:57	WG2238716
tert-Butylbenzene	U		0.620	2.00	10	03/04/2024 07:57	WG2238716
Carbon disulfide	U		1.62	5.00	10	03/04/2024 07:57	WG2238716
Carbon tetrachloride	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Chlorobenzene	U		0.229	1.00	10	03/04/2024 07:57	WG2238716
Chlorodibromomethane	U		0.180	1.00	10	03/04/2024 07:57	WG2238716
Chloroethane	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Chloroform	U		0.166	1.00	10	03/04/2024 07:57	WG2238716
Chloromethane	U		0.556	5.00	10	03/04/2024 07:57	WG2238716
2-Chlorotoluene	U		0.368	1.00	10	03/04/2024 07:57	WG2238716
4-Chlorotoluene	U		0.452	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dibromo-3-Chloropropane	U		2.04	10.0	10	03/04/2024 07:57	WG2238716
1,2-Dibromoethane	U		0.210	1.00	10	03/04/2024 07:57	WG2238716
Dibromomethane	U		0.400	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dichlorobenzene	U		0.580	2.00	10	03/04/2024 07:57	WG2238716
1,3-Dichlorobenzene	U		0.680	2.00	10	03/04/2024 07:57	WG2238716
1,4-Dichlorobenzene	U		0.788	2.00	10	03/04/2024 07:57	WG2238716
trans-1,4-Dichloro-2-butene	U		0.560	2.00	10	03/04/2024 07:57	WG2238716
Dichlorodifluoromethane	U		0.327	2.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloroethane	U		0.230	1.00	10	03/04/2024 07:57	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

JC 4/23/24

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.190	1.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloroethene	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
cis-1,2-Dichloroethene	7.17		0.276	1.00	10	03/04/2024 07:57	WG2238716
trans-1,2-Dichloroethene	U		0.572	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dichloropropane	U		0.508	2.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloropropene	U		0.280	1.00	10	03/04/2024 07:57	WG2238716
1,3-Dichloropropane	U		0.700	2.00	10	03/04/2024 07:57	WG2238716
cis-1,3-Dichloropropene	U		0.271	1.00	10	03/04/2024 07:57	WG2238716
trans-1,3-Dichloropropene	U		0.612	2.00	10	03/04/2024 07:57	WG2238716
2,2-Dichloropropane	U		0.317	1.00	10	03/04/2024 07:57	WG2238716
Di-isopropyl ether	U		0.140	0.400	10	03/04/2024 07:57	WG2238716
Ethylbenzene	U		0.212	1.00	10	03/04/2024 07:57	WG2238716
Hexachloro-1,3-butadiene	U		5.08	10.0	10	03/04/2024 07:57	WG2238716
2-Hexanone	U		4.00	10.0	10	03/04/2024 07:57	WG2238716
n-Hexane	U		0.424	2.00	10	03/04/2024 07:57	WG2238716
Iodomethane	U		2.42	5.00	10	03/04/2024 07:57	WG2238716
Isopropylbenzene	U		0.345	1.00	10	03/04/2024 07:57	WG2238716
p-Isopropyltoluene	U		0.932	2.00	10	03/04/2024 07:57	WG2238716
2-Butanone (MEK)	U		5.00	10.0	10	03/04/2024 07:57	WG2238716
Methylene Chloride	U		2.65	10.0	10	03/04/2024 07:57	WG2238716
4-Methyl-2-pentanone (MIBK)	U		4.00	10.0	10	03/04/2024 07:57	WG2238716
Methyl tert-butyl ether	U		0.118	0.400	10	03/04/2024 07:57	WG2238716
Naphthalene	U		1.24	5.00	10	03/04/2024 07:57	WG2238716
n-Propylbenzene	U		0.472	2.00	10	03/04/2024 07:57	WG2238716
Styrene	U		1.09	5.00	10	03/04/2024 07:57	WG2238716
1,1,1,2-Tetrachloroethane	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
1,1,2,2-Tetrachloroethane	U		0.156	1.00	10	03/04/2024 07:57	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.270	1.00	10	03/04/2024 07:57	WG2238716
Tetrachloroethene	U		0.280	1.00	10	03/04/2024 07:57	WG2238716
Toluene	U		0.500	2.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trichlorobenzene	U		0.250	5.00	10	03/04/2024 07:57	WG2238716
1,2,4-Trichlorobenzene	U		1.93	5.00	10	03/04/2024 07:57	WG2238716
1,1,1-Trichloroethane	U		0.110	1.00	10	03/04/2024 07:57	WG2238716
1,1,2-Trichloroethane	U		0.353	1.00	10	03/04/2024 07:57	WG2238716
Trichloroethene	U		0.160	0.400	10	03/04/2024 07:57	WG2238716
Trichlorofluoromethane	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trichloropropane	U		2.04	5.00	10	03/04/2024 07:57	WG2238716
1,2,4-Trimethylbenzene	U		0.464	2.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trimethylbenzene	U		0.460	2.00	10	03/04/2024 07:57	WG2238716
1,3,5-Trimethylbenzene	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Vinyl acetate	U		1.41	5.00	10	03/04/2024 07:57	WG2238716
Vinyl chloride	59.9		0.273	1.00	10	03/04/2024 07:57	WG2238716
Xylenes, Total	U		1.91	2.60	10	03/04/2024 07:57	WG2238716
(S) Toluene-d8	102			75.0-131		03/04/2024 07:57	WG2238716
(S) 4-Bromofluorobenzene	99.0			67.0-138		03/04/2024 07:57	WG2238716
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		03/04/2024 07:57	WG2238716

Sample Narrative:

L1709909-07 WG2238716: Lowest possible dilution due to sample foaming.

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2600		379	1000	1	03/05/2024 00:01	WG2237487
Nitrate	857	J- T8	48.0	100	1	03/05/2024 00:01	WG2237487
Sulfate	20900		594	5000	1	03/05/2024 00:01	WG2237487

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1830	E	102	1000	1	03/05/2024 14:35	WG2238989

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	186		28.1	100	1	03/06/2024 22:58	WG2240631
Manganese	18.9		0.704	5.00	1	03/06/2024 22:58	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	94.5		0.287	0.678	1	02/29/2024 14:39	WG2236509
Ethane	1.25	J	0.296	1.29	1	02/29/2024 14:39	WG2236509
Ethene	1.91		0.422	1.27	1	02/29/2024 14:39	WG2236509

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	128		0.548	1.00	1	03/04/2024 06:39	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 06:39	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 06:39	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 06:39	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 06:39	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 06:39	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 06:39	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 06:39	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 06:39	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 06:39	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 06:39	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 06:39	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 06:39	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 06:39	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 06:39	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 06:39	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 06:39	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 06:39	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 06:39	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 06:39	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 06:39	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 06:39	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 06:39	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 06:39	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 06:39	WG2238716

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 06:39	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
cis-1,2-Dichloroethene	1.43		0.0276	0.100	1	03/04/2024 06:39	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 06:39	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 06:39	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 06:39	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 06:39	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 06:39	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 06:39	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 06:39	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 06:39	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 06:39	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 06:39	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 06:39	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 06:39	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 06:39	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 06:39	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 06:39	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 06:39	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 06:39	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 06:39	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 06:39	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 06:39	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 06:39	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 06:39	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 06:39	WG2238716
Tetrachloroethene	0.217		0.0280	0.100	1	03/04/2024 06:39	WG2238716
Toluene	0.106	U	0.0500	0.200	1	03/04/2024 06:39	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 06:39	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 06:39	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 06:39	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 06:39	WG2238716
Trichloroethene	0.148		0.0160	0.0400	1	03/04/2024 06:39	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 06:39	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 06:39	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 06:39	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 06:39	WG2238716
Vinyl chloride	0.670		0.0273	0.100	1	03/04/2024 06:39	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 06:39	WG2238716
(S) Toluene-d8	100			75.0-131		03/04/2024 06:39	WG2238716
(S) 4-Bromofluorobenzene	99.2			67.0-138		03/04/2024 06:39	WG2238716
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		03/04/2024 06:39	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 4/23/24

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	60500	J- <u>J6</u>	379	1000	1	03/01/2024 00:33	WG2236754
Nitrate	212	J <u>P1</u>	48.0	100	1	03/01/2024 00:33	WG2236754
Sulfate	1460	<u>J</u>	594	5000	1	03/01/2024 00:33	WG2236754

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6790		102	1000	1	03/07/2024 12:11	WG2239765

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	11300		28.1	100	1	03/06/2024 23:02	WG2240631
Manganese	2210		0.704	5.00	1	03/06/2024 23:02	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	30300		2.87	6.78	10	03/01/2024 14:45	WG2237803
Ethane	343		0.296	1.29	1	03/01/2024 13:18	WG2237755
Ethene	U		0.422	1.27	1	03/01/2024 13:18	WG2237755

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	8.41	U C5	0.548	1.00	1	03/04/2024 17:15	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 17:15	WG2239120
Benzene	0.0270	<u>J</u>	0.0160	0.0400	1	03/04/2024 17:15	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 17:15	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 17:15	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 17:15	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 17:15	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 17:15	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 17:15	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 17:15	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 17:15	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 17:15	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 17:15	WG2239120
Chloroethane	0.114	<u>J</u>	0.0432	0.200	1	03/04/2024 17:15	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 17:15	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 17:15	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 17:15	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 17:15	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 17:15	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 17:15	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 17:15	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 17:15	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 17:15	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 17:15	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 17:15	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
cis-1,2-Dichloroethene	1.76		0.0276	0.100	1	03/04/2024 17:15	WG2239120

JC 4/23/24

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

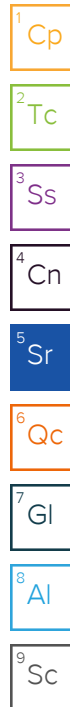
7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	0.189	J	0.0572	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 17:15	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 17:15	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 17:15	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 17:15	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 17:15	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 17:15	WG2239120
Di-isopropyl ether	0.103		0.0140	0.0400	1	03/04/2024 17:15	WG2239120
Ethylbenzene	0.0580	J	0.0212	0.100	1	03/04/2024 17:15	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 17:15	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 17:15	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 17:15	WG2239120
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 17:15	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 17:15	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 17:15	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 17:15	WG2239120
Naphthalene	U	J4	0.124	0.500	1	03/04/2024 17:15	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 17:15	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 17:15	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 17:15	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 17:15	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 17:15	WG2239120
Toluene	0.307		0.0500	0.200	1	03/04/2024 17:15	WG2239120
1,2,3-Trichlorobenzene	U	J4	0.0250	0.500	1	03/04/2024 17:15	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 17:15	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 17:15	WG2239120
1,1,2-Trichloroethane	U	J4	0.0353	0.100	1	03/04/2024 17:15	WG2239120
Trichloroethene	0.308		0.0160	0.0400	1	03/04/2024 17:15	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 17:15	WG2239120
1,2,4-Trimethylbenzene	0.0870	J	0.0464	0.200	1	03/04/2024 17:15	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 17:15	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 17:15	WG2239120
Vinyl chloride	0.811	J+ C5	0.0273	0.100	1	03/04/2024 17:15	WG2239120
Xylenes, Total	0.375		0.191	0.260	1	03/04/2024 17:15	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 17:15	WG2239120
Tetrahydrofuran	0.734	J+ B C5	0.0900	0.500	1	03/04/2024 17:15	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 17:15	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 17:15	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 17:15	WG2239120
(S) Toluene-d8	102			75.0-131		03/04/2024 17:15	WG2239120
(S) 4-Bromofluorobenzene	99.4			67.0-138		03/04/2024 17:15	WG2239120
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/04/2024 17:15	WG2239120



JC 4/23/24

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	17100		379	1000	1	03/01/2024 01:24	WG2236754
Nitrate	170		48.0	100	1	03/01/2024 01:24	WG2236754
Sulfate	27600		594	5000	1	03/01/2024 01:24	WG2236754

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1600	B	102	1000	1	03/05/2024 17:05	WG2239767

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	2300		28.1	100	1	03/06/2024 23:05	WG2240631
Manganese	724		0.704	5.00	1	03/06/2024 23:05	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	5550		0.287	0.678	1	03/01/2024 11:59	WG2237096
Ethane	56.1		0.296	1.29	1	03/01/2024 11:59	WG2237096
Ethene	53.7		0.422	1.27	1	03/01/2024 11:59	WG2237096

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	0.754	U	0.548	1.00	1	03/04/2024 17:34	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 17:34	WG2239120
Benzene	0.0160	J	0.0160	0.0400	1	03/04/2024 17:34	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 17:34	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 17:34	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 17:34	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 17:34	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 17:34	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 17:34	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 17:34	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 17:34	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 17:34	WG2239120
Chloroethane	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 17:34	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 17:34	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 17:34	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 17:34	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 17:34	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 17:34	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 17:34	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 17:34	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 17:34	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 17:34	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 17:34	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
cis-1,2-Dichloroethene	U		0.0276	0.100	1	03/04/2024 17:34	WG2239120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

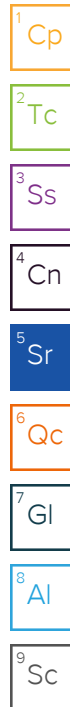
7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 17:34	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 17:34	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 17:34	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 17:34	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 17:34	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 17:34	WG2239120
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 17:34	WG2239120
Ethylbenzene	0.0450	<u>U</u>	0.0212	0.100	1	03/04/2024 17:34	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 17:34	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 17:34	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 17:34	WG2239120
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 17:34	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 17:34	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 17:34	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 17:34	WG2239120
Naphthalene	U	<u>J4</u>	0.124	0.500	1	03/04/2024 17:34	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 17:34	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 17:34	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 17:34	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 17:34	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 17:34	WG2239120
Toluene	0.146	<u>U</u>	0.0500	0.200	1	03/04/2024 17:34	WG2239120
1,2,3-Trichlorobenzene	U	<u>J4</u>	0.0250	0.500	1	03/04/2024 17:34	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 17:34	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 17:34	WG2239120
1,1,2-Trichloroethane	U	<u>J4</u>	0.0353	0.100	1	03/04/2024 17:34	WG2239120
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 17:34	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 17:34	WG2239120
1,2,4-Trimethylbenzene	0.0600	<u>U</u>	0.0464	0.200	1	03/04/2024 17:34	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 17:34	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Vinyl chloride	19.7	J+ <u>C5</u>	0.0273	0.100	1	03/04/2024 17:34	WG2239120
Xylenes, Total	U		0.191	0.260	1	03/04/2024 17:34	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 17:34	WG2239120
Tetrahydrofuran	0.881	J+ <u>B C5</u>	0.0900	0.500	1	03/04/2024 17:34	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 17:34	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 17:34	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 17:34	WG2239120
(S) Toluene-d8	105			75.0-131		03/04/2024 17:34	WG2239120
(S) 4-Bromofluorobenzene	96.1			67.0-138		03/04/2024 17:34	WG2239120
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/04/2024 17:34	WG2239120



JC 4/23/24

March 27, 2024

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

PES Environmental, Inc.- WA

Sample Delivery Group: L1716997
Samples Received: 03/20/2024
Project Number: 443022-1413001.10.70
Description: American Linen

Report To: Erik Hedberg
2101 Fourth Ave., Suite 1310
Seattle, WA 98121

Entire Report Reviewed By:



Jared Starkey
Project Manager

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Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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		⁹ Sc

SAMPLE SUMMARY

SV-18-031924 L1716997-01 Air

Collected by
Devlin Del Giudice

Collected date/time
03/19/24 12:59

Received date/time
03/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2251198	1	03/21/24 18:04	03/21/24 18:04	MNP	Mt. Juliet, TN

SV-910-031924 L1716997-02 Air

Collected by
Devlin Del Giudice

Collected date/time
03/19/24 11:15

Received date/time
03/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2251198	1	03/21/24 18:31	03/21/24 18:31	MNP	Mt. Juliet, TN

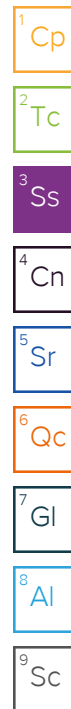
SV01-031924 L1716997-03 Air

Collected by
Devlin Del Giudice

Collected date/time
03/19/24 15:13

Received date/time
03/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2251198	1	03/21/24 18:59	03/21/24 18:59	MNP	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.



Jared Starkey
Project Manager

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	29.5	70.1		1	WG2251198
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2251198
Benzene	71-43-2	78.10	0.200	0.639	1.68	5.37		1	WG2251198
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2251198
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2251198
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2251198
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2251198
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2251198
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.776	2.42		1	WG2251198
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2251198
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2251198
Chloroethane	75-00-3	64.50	0.200	0.528	0.315	0.831		1	WG2251198
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2251198
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2251198
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2251198
Cyclohexane	110-82-7	84.20	0.200	0.689	2.58	8.88		1	WG2251198
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2251198
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2251198
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2251198
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2251198
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2251198
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2251198
1,1-Dichloroethane	75-34-3	98	0.200	0.802	5.18	20.8		1	WG2251198
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2251198
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2251198
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2251198
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2251198
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2251198
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2251198
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2251198
Ethanol	64-17-5	46.10	2.50	4.71	48.3	91.1		1	WG2251198
Ethylbenzene	100-41-4	106	0.200	0.867	2.06	8.93		1	WG2251198
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.381	1.87		1	WG2251198
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2251198
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.234	1.16		1	WG2251198
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2251198
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2251198
Heptane	142-82-5	100	0.200	0.818	5.57	22.8		1	WG2251198
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2251198
n-Hexane	110-54-3	86.20	0.630	2.22	3.97	14.0		1	WG2251198
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.346	1.70		1	WG2251198
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.738	2.56		1	WG2251198
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2251198
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	10.0	29.5		1	WG2251198
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2251198
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2251198
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2251198
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2251198
2-Propanol	67-63-0	60.10	1.25	3.07	9.27	22.8		1	WG2251198
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2251198
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2251198
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2251198
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2251198
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	8.79	25.9		1	WG2251198
Toluene	108-88-3	92.10	0.500	1.88	17.3	65.2		1	WG2251198
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2251198

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.77	9.63		1	WG2251198
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2251198
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2251198
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.65	8.10		1	WG2251198
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.520	2.55		1	WG2251198
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	2.84	13.3		1	WG2251198
Vinyl chloride	75-01-4	62.50	0.200	0.511	6.99	17.9		1	WG2251198
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2251198
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2251198
Xylenes, Total	1330-20-7	106.16	0.600	2.61	9.66	41.9		1	WG2251198
m&p-Xylene	179601-23-1	106	0.400	1.73	6.87	29.8		1	WG2251198
o-Xylene	95-47-6	106	0.200	0.867	2.79	12.1		1	WG2251198
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG2251198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	6.49	15.4		1	WG2251198
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2251198
Benzene	71-43-2	78.10	0.200	0.639	0.376	1.20		1	WG2251198
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2251198
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2251198
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2251198
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2251198
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2251198
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.820	2.55		1	WG2251198
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2251198
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2251198
Chloroethane	75-00-3	64.50	0.200	0.528	0.370	0.976		1	WG2251198
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2251198
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2251198
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2251198
Cyclohexane	110-82-7	84.20	0.200	0.689	0.467	1.61		1	WG2251198
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2251198
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2251198
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2251198
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2251198
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2251198
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2251198
1,1-Dichloroethane	75-34-3	98	0.200	0.802	7.68	30.8		1	WG2251198
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2251198
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2251198
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2251198
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2251198
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2251198
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2251198
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2251198
Ethanol	64-17-5	46.10	2.50	4.71	23.4	44.1		1	WG2251198
Ethylbenzene	100-41-4	106	0.200	0.867	0.902	3.91		1	WG2251198
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.458	2.25		1	WG2251198
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2251198
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2251198
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2251198
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2251198
Heptane	142-82-5	100	0.200	0.818	1.85	7.57		1	WG2251198
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2251198
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2251198
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2251198
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.454	1.58		1	WG2251198
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2251198
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.90	5.60		1	WG2251198
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2251198
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2251198
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2251198
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2251198
2-Propanol	67-63-0	60.10	1.25	3.07	2.24	5.51		1	WG2251198
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2251198
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2251198
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2251198
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2251198
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.27	3.75		1	WG2251198
Toluene	108-88-3	92.10	0.500	1.88	3.28	12.4		1	WG2251198
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2251198

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	2.64	14.4		1	WG2251198
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2251198
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2251198
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.79	8.79		1	WG2251198
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.537	2.64		1	WG2251198
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.85	8.64		1	WG2251198
Vinyl chloride	75-01-4	62.50	0.200	0.511	10.3	26.3		1	WG2251198
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2251198
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2251198
Xylenes, Total	1330-20-7	106.16	0.600	2.61	5.32	23.1		1	WG2251198
m&p-Xylene	179601-23-1	106	0.400	1.73	3.74	16.2		1	WG2251198
o-Xylene	95-47-6	106	0.200	0.867	1.58	6.85		1	WG2251198
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.7				WG2251198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	7.40	17.6		1	WG2251198
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2251198
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2251198
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2251198
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2251198
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2251198
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2251198
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2251198
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.595	1.85		1	WG2251198
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2251198
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2251198
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2251198
Chloroform	67-66-3	119	0.200	0.973	0.699	3.40		1	WG2251198
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2251198
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2251198
Cyclohexane	110-82-7	84.20	0.200	0.689	0.249	0.857		1	WG2251198
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2251198
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2251198
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2251198
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2251198
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2251198
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2251198
1,1-Dichloroethane	75-34-3	98	0.200	0.802	0.774	3.10		1	WG2251198
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2251198
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2251198
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2251198
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2251198
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2251198
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2251198
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2251198
Ethanol	64-17-5	46.10	2.50	4.71	20.2	38.1		1	WG2251198
Ethylbenzene	100-41-4	106	0.200	0.867	0.675	2.93		1	WG2251198
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.359	1.76		1	WG2251198
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.251	1.41		1	WG2251198
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.232	1.15		1	WG2251198
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2251198
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2251198
Heptane	142-82-5	100	0.200	0.818	1.33	5.44		1	WG2251198
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2251198
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2251198
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2251198
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2251198
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2251198
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	5.35	15.8		1	WG2251198
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2251198
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2251198
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2251198
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2251198
2-Propanol	67-63-0	60.10	1.25	3.07	3.32	8.16		1	WG2251198
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2251198
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2251198
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2251198
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.472	3.20		1	WG2251198
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	3.04	8.96		1	WG2251198
Toluene	108-88-3	92.10	0.500	1.88	1.91	7.19		1	WG2251198
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2251198

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	3.09	16.8		1	WG2251198
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2251198
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2251198
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.41	6.92		1	WG2251198
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.421	2.07		1	WG2251198
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2251198
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2251198
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2251198
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2251198
Xylenes, Total	1330-20-7	106.16	0.600	2.61	4.12	17.9		1	WG2251198
m&p-Xylene	179601-23-1	106	0.400	1.73	2.85	12.4		1	WG2251198
o-Xylene	95-47-6	106	0.200	0.867	1.27	5.51		1	WG2251198
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.3				WG2251198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4048658-2 03/21/24 09:49

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.630
Ethanol	U		0.265	2.50
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorodifluoromethane	U		0.137	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4048658-2 03/21/24 09:49

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Methyl methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	0.562	U	0.350	0.630
2-Propanol	U		0.264	1.25
Propene	U		0.0932	1.25
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.630
Xylenes, Total	U		0.135	0.600
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	88.2			60.0-140

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R4048658-1 03/21/24 09:21 • (LCSD) R4048658-3 03/21/24 11:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	4.58	4.49	122	120	70.0-130			1.98	25
Allyl chloride	3.75	4.17	4.10	111	109	70.0-130			1.69	25
Benzene	3.75	4.12	4.08	110	109	70.0-130			0.976	25
Benzyl Chloride	3.75	4.61	4.63	123	123	70.0-152			0.433	25

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

(LCS) R4048658-1 03/21/24 09:21 • (LCSD) R4048658-3 03/21/24 11:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromodichloromethane	3.75	4.01	3.97	107	106	70.0-130			1.00	25
Bromoform	3.75	4.10	4.07	109	109	70.0-130			0.734	25
Bromomethane	3.75	3.96	4.10	106	109	70.0-130			3.47	25
1,3-Butadiene	3.75	3.72	3.71	99.2	98.9	70.0-130			0.269	25
Carbon disulfide	3.75	4.25	4.21	113	112	70.0-130			0.946	25
Carbon tetrachloride	3.75	4.11	4.05	110	108	70.0-130			1.47	25
Chlorobenzene	3.75	4.04	3.90	108	104	70.0-130			3.53	25
Chloroethane	3.75	3.97	3.97	106	106	70.0-130			0.000	25
Chloroform	3.75	4.01	3.97	107	106	70.0-130			1.00	25
Chloromethane	3.75	3.80	3.86	101	103	70.0-130			1.57	25
2-Chlorotoluene	3.75	4.27	4.30	114	115	70.0-130			0.700	25
Cyclohexane	3.75	4.36	4.22	116	113	70.0-130			3.26	25
Dibromochloromethane	3.75	4.07	4.07	109	109	70.0-130			0.000	25
1,2-Dibromoethane	3.75	4.16	4.14	111	110	70.0-130			0.482	25
1,2-Dichlorobenzene	3.75	4.26	4.30	114	115	70.0-130			0.935	25
1,3-Dichlorobenzene	3.75	4.38	4.42	117	118	70.0-130			0.909	25
1,4-Dichlorobenzene	3.75	4.34	4.45	116	119	70.0-130			2.50	25
1,2-Dichloroethane	3.75	3.89	3.91	104	104	70.0-130			0.513	25
1,1-Dichloroethane	3.75	4.13	4.09	110	109	70.0-130			0.973	25
1,1-Dichloroethene	3.75	4.01	4.00	107	107	70.0-130			0.250	25
cis-1,2-Dichloroethene	3.75	4.12	4.06	110	108	70.0-130			1.47	25
trans-1,2-Dichloroethene	3.75	4.30	4.12	115	110	70.0-130			4.28	25
1,2-Dichloropropane	3.75	4.01	3.94	107	105	70.0-130			1.76	25
cis-1,3-Dichloropropene	3.75	4.43	4.14	118	110	70.0-130			6.77	25
trans-1,3-Dichloropropene	3.75	4.20	3.99	112	106	70.0-130			5.13	25
1,4-Dioxane	3.75	4.84	4.79	129	128	70.0-140			1.04	25
Ethanol	3.75	3.68	3.70	98.1	98.7	55.0-148			0.542	25
Ethylbenzene	3.75	4.33	4.32	115	115	70.0-130			0.231	25
4-Ethyltoluene	3.75	4.51	4.60	120	123	70.0-130			1.98	25
Trichlorofluoromethane	3.75	3.94	3.95	105	105	70.0-130			0.253	25
Dichlorodifluoromethane	3.75	3.74	3.80	99.7	101	64.0-139			1.59	25
1,1,2-Trichlorotrifluoroethane	3.75	4.09	4.11	109	110	70.0-130			0.488	25
1,2-Dichlorotetrafluoroethane	3.75	3.93	4.00	105	107	70.0-130			1.77	25
Heptane	3.75	4.28	4.16	114	111	70.0-130			2.84	25
Hexachloro-1,3-butadiene	3.75	3.80	4.01	101	107	70.0-151			5.38	25
n-Hexane	3.75	4.23	4.19	113	112	70.0-130			0.950	25
Isopropylbenzene	3.75	4.27	4.26	114	114	70.0-130			0.234	25
Methylene Chloride	3.75	3.99	3.97	106	106	70.0-130			0.503	25
Methyl Butyl Ketone	3.75	4.29	4.21	114	112	70.0-149			1.88	25
2-Butanone (MEK)	3.75	4.13	4.18	110	111	70.0-130			1.20	25

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R4048658-1 03/21/24 09:21 • (LCSD) R4048658-3 03/21/24 11:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	3.78	3.50	101	93.3	70.0-139			7.69	25
Methyl methacrylate	3.75	4.20	4.03	112	107	70.0-130			4.13	25
MTBE	3.75	4.32	4.26	115	114	70.0-130			1.40	25
Naphthalene	3.75	3.86	4.19	103	112	70.0-159			8.20	25
2-Propanol	3.75	4.04	3.95	108	105	70.0-139			2.25	25
Propene	3.75	3.83	3.79	102	101	64.0-144			1.05	25
Styrene	3.75	4.47	4.49	119	120	70.0-130			0.446	25
1,1,2,2-Tetrachloroethane	3.75	4.14	4.17	110	111	70.0-130			0.722	25
Tetrachloroethylene	3.75	4.07	3.98	109	106	70.0-130			2.24	25
Tetrahydrofuran	3.75	4.16	4.15	111	111	70.0-137			0.241	25
Toluene	3.75	4.26	4.17	114	111	70.0-130			2.14	25
1,2,4-Trichlorobenzene	3.75	4.32	4.73	115	126	70.0-160			9.06	25
1,1,1-Trichloroethane	3.75	4.04	4.02	108	107	70.0-130			0.496	25
1,1,2-Trichloroethane	3.75	4.11	4.02	110	107	70.0-130			2.21	25
Trichloroethylene	3.75	4.08	4.02	109	107	70.0-130			1.48	25
1,2,4-Trimethylbenzene	3.75	4.48	4.54	119	121	70.0-130			1.33	25
1,3,5-Trimethylbenzene	3.75	4.52	4.55	121	121	70.0-130			0.662	25
2,2,4-Trimethylpentane	3.75	4.30	4.23	115	113	70.0-130			1.64	25
Vinyl chloride	3.75	4.01	3.98	107	106	70.0-130			0.751	25
Vinyl Bromide	3.75	4.10	4.08	109	109	70.0-130			0.489	25
Vinyl acetate	3.75	4.24	3.34	113	89.1	70.0-130			23.7	25
Xylenes, Total	11.3	13.4	13.4	119	119	70.0-130			0.000	25
m&p-Xylene	7.50	8.87	8.90	118	119	70.0-130			0.338	25
o-Xylene	3.75	4.50	4.47	120	119	70.0-130			0.669	25
(S) 1,4-Bromofluorobenzene				97.9	98.2	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
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.
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

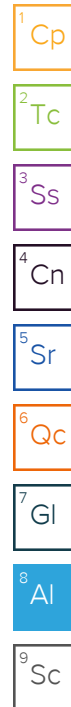
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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 ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	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 ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	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 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ 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.



MEMORANDUM

TO: Project File **DATE:** April 18, 2024
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: American Linen Data Validation
PROJECT #: 443022-1413001.10.701.03
TASK: EIM Data Validation Level EPA2A for Q1 2024 – Soil Vapor Samples
LAB: Pace Sample Delivery Group (SDG): L1716997

Three soil vapor samples (including one field duplicate) were collected as part of the 2024 quarterly (Q1) monitoring event at the Former American Linen Supply Site, in Seattle, Washington on March 19, 2024. The samples were shipped and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method TO-15.

The first quarter of RI groundwater and soil vapor sampling was conducted in March 2024. Results for groundwater are reported in two Sample Delivery Groups (SDGs) by Pace. The quality assurance review of the soil vapor extraction sample data associated with SDG L1716997 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

The laboratory supplied Summa Canister TM (1 Liter) for the air samples. The samples were shipped, delivered by FedEx, and received in good condition by the laboratory. The samples

were collected, managed, and delivered in an appropriate manner. No data qualifications were warranted based upon sampling techniques or preservation.

Holding Times

USEPA Method TO-15:

The analyses for VOCs by Method TO-15 were performed within the 30-day recommended holding time limit for the air samples collected in Summa canisters. All holding time criteria are met.

Initial and Continuing Calibration

Initial and continuing calibration data for this project are retained by the laboratory and available for review if necessary. Case narrative and laboratory notes do not indicate that there are any issues with calibration.

Method Blank Results

USEPA Method TO-15:

A laboratory method blank is included with the analytical batch per method requirement. The target analytes were not detected in the method blank at or above the reporting detection limits (RDLs) with the following discussion:

- Analytical Batch WG2251198: A low level of naphthalene is detected below the RDL in the method blank. No action is needed since naphthalene is not detected in the associated samples.

Trip Blank Results

A trip blank is not required for the VOCs by TO-15 analyses.

Field Duplicate Analyses

Field duplicates (SV-18-031924 and SV-910-031924) associated were submitted and analyzed for VOCs. VOC target analyte results are comparable and within 30 relative percent difference (RPD) or ($\pm 1 \times$ RDL for detections $< 5 \times$ RDL) with the following exceptions:

- Field duplicate samples SV-18-031924 and SV-910-031924 – Acetone, benzene, cyclohexane, 1,1-dichloroethane, ethanol, ethylbenzene, heptane, hexane, isopropanol (2-propanol), methyl ethyl ketone (2-butanone), methylene chloride, tetrahydrofuran, toluene, 1,1,1-trichloroethane, 2,2,4-trimethylpentane, vinyl chloride, total xylene, m,p-xylene, and o-xylene RPDs exceed 30% RPD (or absolute difference) criteria. **The above-mentioned target analyte results for samples SV-18-031924 and SV-910-031924 are estimated and qualified (UJ/J).**

Laboratory Duplicate/Replicate Analyses

USEPA Method TO-15:

A laboratory replicate was not performed. Refer to the Laboratory Control Sample section for additional information.

Surrogate Recoveries

USEPA Method TO-15

The surrogate percent recovery (% R) results for the VOCs by TO-15 air samples, method blanks, and laboratory control sample are within the laboratory surrogate control limits of 60 - 140% R.

Laboratory Control Samples

USEPA Method TO-15:

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) samples were analyzed for the VOCs by TO-15 along with the analytical batch. The LCS/LCSD recoveries and RPDs for all control compounds met laboratory control limit criteria.

Matrix Spike/Matrix Spike Duplicates

A matrix spike/matrix spike duplicate (MS/MSD) is not required for the VOCs by TO-15.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussion:

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are used between the EDD and the hardcopy. However, associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.

Quantitation Limits

Results of the VOCs by TO-15 analysis are reported based on laboratory RDLs (assuming standard temperature and pressure is equal to 24.45) and reported in units of parts per million volume (ppbv) and micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Quality control results are reported in ppbv units only.

The RDLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The RDLs are acceptable for the project.

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	29.5	70.1	J	1	WG2251198
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2251198
Benzene	71-43-2	78.10	0.200	0.639	1.68	5.37	J	1	WG2251198
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2251198
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2251198
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2251198
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2251198
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2251198
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.776	2.42		1	WG2251198
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2251198
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2251198
Chloroethane	75-00-3	64.50	0.200	0.528	0.315	0.831		1	WG2251198
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2251198
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2251198
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2251198
Cyclohexane	110-82-7	84.20	0.200	0.689	2.58	8.88	J	1	WG2251198
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2251198
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2251198
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2251198
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2251198
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2251198
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2251198
1,1-Dichloroethane	75-34-3	98	0.200	0.802	5.18	20.8	J	1	WG2251198
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2251198
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2251198
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2251198
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2251198
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2251198
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2251198
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2251198
Ethanol	64-17-5	46.10	2.50	4.71	48.3	91.1	J	1	WG2251198
Ethylbenzene	100-41-4	106	0.200	0.867	2.06	8.93	J	1	WG2251198
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.381	1.87		1	WG2251198
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2251198
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.234	1.16		1	WG2251198
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2251198
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2251198
Heptane	142-82-5	100	0.200	0.818	5.57	22.8	J	1	WG2251198
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2251198
n-Hexane	110-54-3	86.20	0.630	2.22	3.97	14.0	J	1	WG2251198
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.346	1.70		1	WG2251198
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.738	2.56	J	1	WG2251198
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2251198
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	10.0	29.5	J	1	WG2251198
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2251198
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2251198
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2251198
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2251198
2-Propanol	67-63-0	60.10	1.25	3.07	9.27	22.8	J	1	WG2251198
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2251198
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2251198
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2251198
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2251198
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	8.79	25.9	J	1	WG2251198
Toluene	108-88-3	92.10	0.500	1.88	17.3	65.2	J	1	WG2251198
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2251198

JC 4/18/24

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.77	9.63	J	1	WG2251198
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2251198
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2251198
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.65	8.10		1	WG2251198
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.520	2.55		1	WG2251198
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	2.84	13.3	J	1	WG2251198
Vinyl chloride	75-01-4	62.50	0.200	0.511	6.99	17.9	J	1	WG2251198
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2251198
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2251198
Xylenes, Total	1330-20-7	106.16	0.600	2.61	9.66	41.9	J	1	WG2251198
m&p-Xylene	179601-23-1	106	0.400	1.73	6.87	29.8	J	1	WG2251198
o-Xylene	95-47-6	106	0.200	0.867	2.79	12.1	J	1	WG2251198
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG2251198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

JC 4/18/24

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	6.49	15.4	J	1	WG2251198
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2251198
Benzene	71-43-2	78.10	0.200	0.639	0.376	1.20	J	1	WG2251198
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2251198
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2251198
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2251198
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2251198
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2251198
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.820	2.55		1	WG2251198
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2251198
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2251198
Chloroethane	75-00-3	64.50	0.200	0.528	0.370	0.976		1	WG2251198
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2251198
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2251198
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2251198
Cyclohexane	110-82-7	84.20	0.200	0.689	0.467	1.61	J	1	WG2251198
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2251198
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2251198
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2251198
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2251198
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2251198
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2251198
1,1-Dichloroethane	75-34-3	98	0.200	0.802	7.68	30.8	J	1	WG2251198
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2251198
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2251198
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2251198
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2251198
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2251198
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2251198
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2251198
Ethanol	64-17-5	46.10	2.50	4.71	23.4	44.1	J	1	WG2251198
Ethylbenzene	100-41-4	106	0.200	0.867	0.902	3.91	J	1	WG2251198
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.458	2.25		1	WG2251198
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2251198
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2251198
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2251198
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2251198
Heptane	142-82-5	100	0.200	0.818	1.85	7.57	J	1	WG2251198
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2251198
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND	UJ	1	WG2251198
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2251198
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.454	1.58	J	1	WG2251198
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2251198
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.90	5.60	J	1	WG2251198
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2251198
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2251198
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2251198
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2251198
2-Propanol	67-63-0	60.10	1.25	3.07	2.24	5.51	J	1	WG2251198
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2251198
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2251198
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2251198
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2251198
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.27	3.75	J	1	WG2251198
Toluene	108-88-3	92.10	0.500	1.88	3.28	12.4	J	1	WG2251198
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2251198

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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JC 4/18/24

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	2.64	14.4	J	1	WG2251198
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2251198
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2251198
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.79	8.79		1	WG2251198
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.537	2.64		1	WG2251198
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.85	8.64	J	1	WG2251198
Vinyl chloride	75-01-4	62.50	0.200	0.511	10.3	26.3	J	1	WG2251198
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2251198
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2251198
Xylenes, Total	1330-20-7	106.16	0.600	2.61	5.32	23.1	J	1	WG2251198
m&p-Xylene	179601-23-1	106	0.400	1.73	3.74	16.2	J	1	WG2251198
o-Xylene	95-47-6	106	0.200	0.867	1.58	6.85	J	1	WG2251198
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.7				WG2251198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

MEMORANDUM

TO: Project File **DATE:** April 24, 2024

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 443022-1413001.10.701.02

TASK: EIM Data Validation Level EPA2A for 1st Quarter Monitoring 2024 – Groundwater Samples

LAB: Pace Sample Delivery Groups (SDGs): L1709909 and L1710248

Nine (9) groundwater samples (including one field duplicate), one equipment blank, and two trip blanks were collected as part of the 1st Quarterly Monitoring Round for 2024 for the ongoing Remedial Investigation (RI) sampling at the Former American Linen Supply Site, in Seattle, Washington. The samples were collected February 26-28, 2024, shipped, and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260D;
- VOCs (dissolved gases – methane, ethane, and ethene) by EPA SOP RSK 175;
- Anions (chloride, nitrate, and sulfate) by USEPA Method 9056A;
- Total Organic Carbon (TOC) by USEPA Method 9060A; and
- Metals (iron and manganese) by USEPA Method 6020B.

The Q1 2024 RI sampling event (including soil vapor samples) was conducted in February and March of 2024. Results for soil vapor samples are reported in one SDG by Pace. The quality assurance review of the groundwater sample data associated with SDGs L1709909 and L1710248 are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020) and USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020). Following Guidelines, non-project-specific laboratory duplicates and matrix spike results were not evaluated as part of this data validation.

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussions:

- SDG L1709909: Sample identification was revised and corrected from MW-344-022624 to read MW-349-022624. SDG L1709909 Level 2 report was reissued on April 16, 2024 (Version 1). Refer to the discussion below for details on additional revisions.
- SDG L1709909: Review of the chain of custody and sample identifications showed that laboratory reported sample collection dates are incorrect for the following samples:
 - Sample MW-349-022~~6~~24 and collection date 02/~~26~~/2024 should read MW-349-022724 and sample collection date should read 02/27/2024. Pace was contacted and the report was revised and reissued on April 18, 2024 (Version 2).
 - Sample MW-346-022724, MW-985-022724, MW-348-022724, and MW-347-022724 collection dates are reported as 02/26/2024 should be corrected to read 02/27/2024. Pace was contacted and the report was revised and reissued on April 18, 2024 (Version 2).
 - Nitrate results for samples MW-349-022724 and MW-348-022724 were originally qualified (T8) due to hold time exceedance but are within hold time with the correct sample collection dates. Per NV5 request the T8 qualifier was removed from the nitrate results for samples MW-349-022724 and MW-348-022724.
- SDGs L1709909 and L1710248: Review of the chain of custodies (marked up copies) indicates that iron and manganese requests for analyses were added on February 28, 2024, per NV5.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation of 6°C. Samples were received in good condition. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260D:

All samples were analyzed for VOCs within the USEPA recommended holding time of fourteen days for preserved waters from the date of collection. All holding time criteria are met.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

All samples were analyzed within RSK 175 recommended holding time of fourteen days for preserved waters from the date of sample collection. All holding time criteria are met.

General Chemistry (Chloride, Nitrate, Sulfate, and TOC):

All samples were analyzed within the USEPA recommended holding time for chloride (28 days), sulfate (28 days), nitrate (48 hours), and TOC (28 days) for preserved waters from the date of sample collection. All holding time criteria are met with the following exceptions:

- SDG L1709909: Nitrate analysis was conducted up to five days past holding time for samples MW-346-022724, MW-985-022724, and MW-347-022724. **Nitrate results for samples MW-346-022724, MW-985-022724, and MW-347-022724 are estimated (J-) with potential low bias due to holding time exceedance.**

USEPA Method 6020B:

All samples were analyzed within the USEPA recommended holding time for iron and manganese of 180 days for preserved waters from the date of sample collection. All holding time criteria are met.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however Pace's notes indicate the following:

- SDG L1709909 - *USEPA Method 8260D*: Continuing calibration verification (CCV) issues were noted by Pace for one compound associated with the analytical batches. The compound (bromomethane) is qualified by the laboratory "C3" to indicate that percent difference CCV is below laboratory acceptance criteria and showing potential low bias. Low level reporting limit check standard (sensitivity) requirements are within criteria. **Associated sample results with laboratory qualified (C3) results are estimated with potential low bias and qualified (UJ).**
- SDG L1710248 - *USEPA Method 8260D*: Continuing calibration verification (CCV) issues were noted by Pace for three compounds. These compounds (acetone, vinyl chloride and tetrahydrofuran) are qualified by the laboratory "C5" to indicate that percent difference CCVs are above laboratory acceptance criteria and showing potential high bias. **Associated sample results for vinyl chloride and tetrahydrofuran laboratory qualified (C5) results are estimated with potential high bias and qualified (J+).** Refer to the sections on Equipment Blank Results and Trip Blank Results for qualifiers applied to acetone.

Method Blank Results

USEPA Method 8260D:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes are not detected in the method blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDG L1710248 - Analytical batch WG2239120: Chloroform and tetrahydrofuran are detected in the method blank at low levels below the RDL. No action is needed for chloroform since it is not detected in the associated samples. Tetrahydrofuran was detected in the method blank below the RDL (0.500 µg/L) at 0.286 µg/L and is detected in both samples (HMW-9IB-022824 and MW-350-022824) above the RDL.
Tetrahydrofuran results for samples HMW-9IB-022824 and MW-350-022824 are qualified as estimated (J+) with positive bias due to method blank contamination and high CCV % recovery. Refer to the section on Initial and Continuing Calibration for additional details.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (dissolved gases) are not detected in the method blanks at or above the RDLs.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC) and Metals (Iron and Manganese):

Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were detected in the method blanks below the RDLs. Per Guidance, no action is taken for blank detections less than the RDL when associated sample detections are greater than the RDL. General chemistry blank detections are shown below:

SDG	Batch	Method	Analyte	Method Blank Result	Qualifier	RDL	Units	Associated Result(s) Qualified
L1709909	WG2238989	9060A	TOC	311	J	1000	µg/L	NO
L1710248	WG2239767	9060A	TOC	220	J	1000	µg/L	NO

Target analytes were detected in method blanks at low levels with no impact to the associated samples.

Trip Blank Results

USEPA Method 8260D:

Two trip blanks were collected. The target analytes were not detected in the trip blanks at or above the reporting detection limits (RDLs) with the following exceptions:

- SDG L1709909: Acetone was detected in the trip blank (TB-022724) at 1.23 µg/L and above the RDL (1.00 µg/L). Per Guidance, for common laboratory contaminants, if the blank concentration is greater than the RDL and less than twice the blank result the common lab contaminant is qualified as non-detect (U). No action is taken for samples with acetone detections greater than the established action level (2.46 ug/L). **Acetone was detected below the established action level in sample MW107-022624 and is qualified as non-detected (U) due to trip blank contamination.**
- SDG L1710248: Acetone was detected in the trip blank (TB-022824) at 2.25 µg/L and above the RDL (1.00 µg/L). **Acetone was detected below the established action level in sample MW-350-022824 and is qualified as non-detected (U) due to trip blank contamination.**

Field, Rinsate, or Equipment Blank Results

One equipment blank (EQ-022824) was collected. Details are as follows:

SDG L1710248: The equipment blank (EQ-022824) is associated with sample HMW-9IB-022824 which was collected from the bladder pump on February 28, 2024. Low levels of TOC, iron, manganese and VOCs (acetone and 2-butanone (MEK)) are detected in the equipment blank. Per Guidance, for common laboratory contaminants (e.g., acetone), if the blank concentration is greater than the RDL and less than twice the blank result the common lab contaminant is qualified as non-detect (U). Actions are as follows:

- TOC is detected in the equipment blank at 273 ug/L and below the RDL (1000 µg/L). TOC was also detected in the method blank. No action is taken since TOC is detected above the RDL in the associated sample.
- Iron and manganese are detected in the equipment blank and below their respective RDLs. No action is needed since iron and manganese are detected significantly above the iron and manganese RDLs in the associated sample.
- Acetone was detected in the equipment blank at 14.6 µg/L and above the RDL (1.00 µg/L). Acetone was also detected in the trip blank. **Acetone was detected below the established action level in sample HMW-9IB-022824 and is qualified as non-detect (U) due to equipment blank contamination.** Sample HMW-9IB-022824 acetone result was also laboratory qualified (C5) due to an elevated CCV. In this case, due to multiple deficiencies, the reviewer applied the most stringent qualifier using qualifier hierarchy.
- MEK is detected in the equipment blank at 1.49 µg/L below the RDL (1.00 µg/L). No action is needed since MEK is not detected in the associated sample.

Field Duplicate Analyses

Field duplicate pair was submitted and analyzed. Field duplicate sample pair is as follows:

- SDG L1709909: Samples MW-346-022724 and MW-985-022724

Target analyte results are comparable and within a relative percent difference (RPD) of 30% ($\pm$ 1x RDL for groundwater results <5X the RDL) for the field duplicate pair.

Laboratory Duplicate Analyses

USEPA Method 8260D:

Laboratory duplicate samples were not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) results for precision data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

Laboratory duplicate sample analyses were performed on client and/or on non-client samples within the analytical batches. The primary/duplicate RPDs for client samples on dissolved gas analyses are within the laboratory control limit of 20%.

General Chemistry (Chloride, Nitrate, Sulfate, and TOC):

Laboratory duplicate sample analyses were performed on client samples and/or on non-client samples. The primary/duplicate RPDs for client samples on general chemistry parameters are within the laboratory control RPD limits or $\pm 1 \times$ RDL for groundwater results $< 5 \times$ the RDL with the following exceptions:

- SDG L1710248: Laboratory duplicate analysis for nitrate by EPA method 9056A was performed on sample HMW-9IB-022824. Nitrate RPD exceeds acceptance criteria and is laboratory qualified (P1). **Sample HMW-9IB-022824 nitrate result is qualified (J) because the absolute difference between the sample and laboratory duplicate result is greater than the reporting limit.**

USEPA Method 6020B:

Laboratory duplicate samples were not analyzed. Refer to MS/MSD results for precision data.

Surrogate Recoveries

USEPA Method 8260D:

The surrogate recovery results for the samples, laboratory control samples, and the method blanks are within the laboratory surrogate control limits for all the analyses.

Laboratory Control Samples

USEPA Method 8260D:

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) were analyzed by USEPA Method 8260D method. The LCS/LCSD % Rs and RPDs for all target compounds are within the laboratory control criteria for waters with the following exceptions:

- SDG L1710248 - Analytical batch WG2239120: LCS % R for dichlorodifluoromethane is above criteria and is laboratory qualified (J4). No action is needed since dichlorodifluoromethane is not detected in the associated samples.
- SDG L1710248 - Analytical batch WG2239120: LCSD % Rs for naphthalene, 1,2,3-trichlorobenzene, and 1,1,2-trichloroethane are above criteria and are laboratory qualified (J4). No action is needed since these compounds are not detected in the associated samples.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

The LCS/LCSD % Rs and RPDs for the target compound (dissolved gases) are within the laboratory control criteria for waters.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC) and Metals (Iron, Manganese):

The LCS % Rs for general chemistry parameters and metals are within the laboratory control criteria for waters.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260D:

MS/MSD analyses were not performed. Refer to LCS/LCSD results for precision and accuracy data.

Dissolved Gases (Methane, Ethane, and Ethene) by RSK 175:

MS/MSD analyses were performed on non-client samples within the analytical batches. The MS/MSD % Rs and RPDs for project samples were acceptable and within laboratory control limit criteria for water samples.

General Chemistry (Chloride, Sulfate, Nitrate, and TOC) and Metals (Iron and Manganese):

MS or MS/MSD analyses were performed on client and/or on non-client samples within the analytical batches. Client sample MS/MSD % Rs and RPDs are acceptable and within laboratory control limit criteria for water samples with the following exceptions:

- SDG L1709909: MS analysis was performed on field duplicate sample MW-985-022724. The MS recovery for sulfate by EPA Method 9056A is below acceptance criteria and laboratory qualified (J6). **Sulfate results for field duplicate pair (MW-346-022724 and MW-985-022724) are estimated and qualified (J-) due to low matrix spike recovery.**
- SDG L1710248: MS/MSD analyses for chloride by EPA Method 9056A were performed on sample HMW-9IB-022824. MS/MSD % Rs for chloride are below acceptance criteria and laboratory qualified (J6). **Chloride result for sample HMW-9IB-022824 is estimated (J-) and qualified with low bias due to the low MS/MSD % Rs.**

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussions:

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are used between the EDD and the hardcopy. However, associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.
- SDG L1709909: Laboratory narrative indicates that sample MW-348-022724 for VOC analyses was diluted (ten-fold) due to sample foaming. No action is taken on this basis.

Compound Identification and Quantitation Limits

Results of the analyses were reported based on laboratory RDLs for all compounds. RDLs for selected compounds are elevated due to method-required dilutions. No action is taken other than to note that diluted samples have proportionally elevated reporting limits.

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

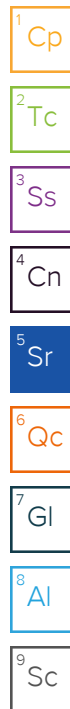
- USEPA National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2020); and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.48		0.548	1.00	1	03/04/2024 05:00	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:00	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:00	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:00	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:00	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:00	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:00	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:00	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:00	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:00	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:00	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:00	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:00	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:00	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:00	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:00	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:00	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:00	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:00	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:00	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:00	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:00	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:00	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:00	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:00	WG2238716
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:00	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
cis-1,2-Dichloroethene	0.263		0.0276	0.100	1	03/04/2024 05:00	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:00	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:00	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:00	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:00	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:00	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:00	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:00	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:00	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 05:00	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:00	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:00	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:00	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:00	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:00	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:00	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:00	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:00	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:00	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:00	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:00	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:00	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:00	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:00	WG2238716

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:00	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:00	WG2238716
Toluene	0.329		0.0500	0.200	1	03/04/2024 05:00	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:00	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:00	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:00	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:00	WG2238716
Trichloroethene	0.0500		0.0160	0.0400	1	03/04/2024 05:00	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:00	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:00	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:00	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:00	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:00	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:00	WG2238716
Vinyl chloride	1.49		0.0273	0.100	1	03/04/2024 05:00	WG2238716
Xylenes, Total	0.313		0.191	0.260	1	03/04/2024 05:00	WG2238716
(S) Toluene-d8	99.8			75.0-131		03/04/2024 05:00	WG2238716
(S) 4-Bromofluorobenzene	99.6			67.0-138		03/04/2024 05:00	WG2238716
(S) 1,2-Dichloroethane-d4	96.6			70.0-130		03/04/2024 05:00	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

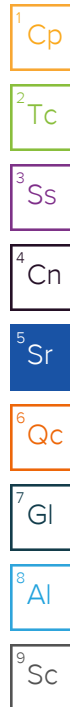
7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.27	U	0.548	1.00	1	03/04/2024 05:20	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:20	WG2238716
Benzene	0.111		0.0160	0.0400	1	03/04/2024 05:20	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:20	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:20	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:20	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:20	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:20	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:20	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:20	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:20	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:20	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:20	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:20	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:20	WG2238716
Chloroethane	0.187	J	0.0432	0.200	1	03/04/2024 05:20	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:20	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:20	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:20	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:20	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:20	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:20	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:20	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:20	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:20	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:20	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:20	WG2238716
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:20	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
cis-1,2-Dichloroethene	3.71		0.0276	0.100	1	03/04/2024 05:20	WG2238716
trans-1,2-Dichloroethene	2.65		0.0572	0.200	1	03/04/2024 05:20	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:20	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:20	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:20	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:20	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:20	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:20	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:20	WG2238716
Ethylbenzene	0.0780	J	0.0212	0.100	1	03/04/2024 05:20	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:20	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:20	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:20	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:20	WG2238716
Isopropylbenzene	0.0560	J	0.0345	0.100	1	03/04/2024 05:20	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:20	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:20	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:20	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:20	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:20	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:20	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:20	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:20	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:20	WG2238716



JC 4/23/24

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

443022

SDG:

L1709909

DATE/TIME:

04/19/24 16:55

PAGE:

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:20	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:20	WG2238716
Toluene	0.319		0.0500	0.200	1	03/04/2024 05:20	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:20	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:20	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:20	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:20	WG2238716
Trichloroethene	0.103		0.0160	0.0400	1	03/04/2024 05:20	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:20	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:20	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:20	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:20	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:20	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:20	WG2238716
Vinyl chloride	1.07		0.0273	0.100	1	03/04/2024 05:20	WG2238716
Xylenes, Total	0.393		0.191	0.260	1	03/04/2024 05:20	WG2238716
(S) Toluene-d8	101			75.0-131		03/04/2024 05:20	WG2238716
(S) 4-Bromofluorobenzene	105			67.0-138		03/04/2024 05:20	WG2238716
(S) 1,2-Dichloroethane-d4	96.3			70.0-130		03/04/2024 05:20	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	29200		379	1000	1	02/28/2024 17:07	WG2236237
Nitrate	223		48.0	100	1	02/28/2024 17:07	WG2236237
Sulfate	7970		594	5000	1	02/28/2024 17:07	WG2236237

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	3740		102	1000	1	03/05/2024 13:24	WG2238989

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	2030		28.1	100	1	03/06/2024 22:37	WG2240631
Manganese	355		0.704	5.00	1	03/06/2024 22:37	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	21700		2.87	6.78	10	03/01/2024 11:19	WG2237096
Ethane	3.33		0.296	1.29	1	02/29/2024 12:44	WG2236509
Ethene	6.87		0.422	1.27	1	02/29/2024 12:44	WG2236509

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	110		0.548	1.00	1	03/04/2024 05:40	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:40	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:40	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:40	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:40	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:40	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:40	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:40	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:40	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:40	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:40	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:40	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:40	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:40	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:40	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:40	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:40	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:40	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:40	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:40	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:40	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:40	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:40	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:40	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:40	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:40	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
cis-1,2-Dichloroethene	0.518		0.0276	0.100	1	03/04/2024 05:40	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:40	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:40	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:40	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:40	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:40	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:40	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:40	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:40	WG2238716
Ethylbenzene	0.0490	U	0.0212	0.100	1	03/04/2024 05:40	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:40	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:40	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:40	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:40	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:40	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:40	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:40	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:40	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:40	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:40	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:40	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:40	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:40	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:40	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:40	WG2238716
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 05:40	WG2238716
Toluene	0.246		0.0500	0.200	1	03/04/2024 05:40	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:40	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:40	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:40	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:40	WG2238716
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 05:40	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:40	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:40	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:40	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:40	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:40	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:40	WG2238716
Vinyl chloride	1.71		0.0273	0.100	1	03/04/2024 05:40	WG2238716
Xylenes, Total	0.328		0.191	0.260	1	03/04/2024 05:40	WG2238716
(S) Toluene-d8	103			75.0-131		03/04/2024 05:40	WG2238716
(S) 4-Bromofluorobenzene	103			67.0-138		03/04/2024 05:40	WG2238716
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		03/04/2024 05:40	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	20900		379	1000	1	03/04/2024 21:33	WG2237487
Nitrate	868	J- TS	48.0	100	1	03/04/2024 21:33	WG2237487
Sulfate	63500	J-	594	5000	1	03/04/2024 21:33	WG2237487

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1780	E	102	1000	1	03/05/2024 13:52	WG2238989

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2630		28.1	100	1	03/06/2024 22:41	WG2240631
Manganese	166		0.704	5.00	1	03/06/2024 22:41	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	120		0.287	0.678	1	02/29/2024 14:07	WG2236509
Ethane	U		0.296	1.29	1	02/29/2024 14:07	WG2236509
Ethene	1.19	J	0.422	1.27	1	02/29/2024 14:07	WG2236509

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	03/04/2024 05:59	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 05:59	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 05:59	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 05:59	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 05:59	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 05:59	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 05:59	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 05:59	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 05:59	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 05:59	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 05:59	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 05:59	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 05:59	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 05:59	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 05:59	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 05:59	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 05:59	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 05:59	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 05:59	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 05:59	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 05:59	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 05:59	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 05:59	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 05:59	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 05:59	WG2238716

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 05:59	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
cis-1,2-Dichloroethene	0.872		0.0276	0.100	1	03/04/2024 05:59	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 05:59	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 05:59	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 05:59	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 05:59	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 05:59	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 05:59	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 05:59	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 05:59	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 05:59	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 05:59	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 05:59	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 05:59	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 05:59	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 05:59	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 05:59	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 05:59	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 05:59	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 05:59	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 05:59	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 05:59	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 05:59	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 05:59	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 05:59	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 05:59	WG2238716
Tetrachloroethene	0.0660	U	0.0280	0.100	1	03/04/2024 05:59	WG2238716
Toluene	0.0980	U	0.0500	0.200	1	03/04/2024 05:59	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 05:59	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 05:59	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 05:59	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 05:59	WG2238716
Trichloroethene	0.198		0.0160	0.0400	1	03/04/2024 05:59	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 05:59	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 05:59	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 05:59	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 05:59	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 05:59	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 05:59	WG2238716
Vinyl chloride	0.492		0.0273	0.100	1	03/04/2024 05:59	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 05:59	WG2238716
(S) Toluene-d8	99.2			75.0-131		03/04/2024 05:59	WG2238716
(S) 4-Bromofluorobenzene	102			67.0-138		03/04/2024 05:59	WG2238716
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		03/04/2024 05:59	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	22300		379	1000	1	03/04/2024 21:49	WG2237487
Nitrate	889	J- F8	48.0	100	1	03/04/2024 21:49	WG2237487
Sulfate	64200	J- J6	594	5000	1	03/04/2024 21:49	WG2237487

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1590	B	102	1000	1	03/05/2024 14:06	WG2238989

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	3040		28.1	100	1	03/06/2024 22:44	WG2240631
Manganese	179		0.704	5.00	1	03/06/2024 22:44	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	114		0.287	0.678	1	02/29/2024 14:22	WG2236509
Ethane	U		0.296	1.29	1	02/29/2024 14:22	WG2236509
Ethene	0.718	J	0.422	1.27	1	02/29/2024 14:22	WG2236509

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	03/04/2024 06:19	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 06:19	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 06:19	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 06:19	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 06:19	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 06:19	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 06:19	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 06:19	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 06:19	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 06:19	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 06:19	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 06:19	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 06:19	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 06:19	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 06:19	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 06:19	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 06:19	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 06:19	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 06:19	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 06:19	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 06:19	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 06:19	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 06:19	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 06:19	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 06:19	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

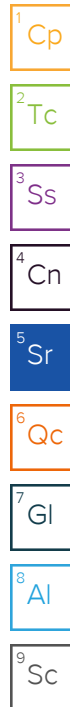
7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 06:19	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
cis-1,2-Dichloroethene	0.836		0.0276	0.100	1	03/04/2024 06:19	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 06:19	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 06:19	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 06:19	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 06:19	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 06:19	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 06:19	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 06:19	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 06:19	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 06:19	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 06:19	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 06:19	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 06:19	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 06:19	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 06:19	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 06:19	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 06:19	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 06:19	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 06:19	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 06:19	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 06:19	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 06:19	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 06:19	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 06:19	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 06:19	WG2238716
Tetrachloroethene	0.0800	IL	0.0280	0.100	1	03/04/2024 06:19	WG2238716
Toluene	0.102	IL	0.0500	0.200	1	03/04/2024 06:19	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 06:19	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 06:19	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 06:19	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 06:19	WG2238716
Trichloroethene	0.262		0.0160	0.0400	1	03/04/2024 06:19	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 06:19	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 06:19	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 06:19	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 06:19	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 06:19	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 06:19	WG2238716
Vinyl chloride	0.463		0.0273	0.100	1	03/04/2024 06:19	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 06:19	WG2238716
(S) Toluene-d8	105			75.0-131		03/04/2024 06:19	WG2238716
(S) 4-Bromofluorobenzene	106			67.0-138		03/04/2024 06:19	WG2238716
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		03/04/2024 06:19	WG2238716



Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	21200		379	1000	1	02/28/2024 16:52	WG2236237
Nitrate	213		48.0	100	1	02/28/2024 16:52	WG2236237
Sulfate	13300		594	5000	1	02/28/2024 16:52	WG2236237

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	8480		102	1000	1	03/05/2024 14:22	WG2238989

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	8780		28.1	100	1	03/06/2024 22:47	WG2240631
Manganese	244		0.704	5.00	1	03/06/2024 22:47	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	33100		2.87	6.78	10	03/01/2024 11:28	WG2237096
Ethane	6.18		0.296	1.29	1	02/29/2024 14:31	WG2236509
Ethene	270		0.422	1.27	1	02/29/2024 14:31	WG2236509

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	U		5.48	10.0	10	03/04/2024 07:57	WG2238716
Acrylonitrile	U		0.760	5.00	10	03/04/2024 07:57	WG2238716
Benzene	U		0.160	0.400	10	03/04/2024 07:57	WG2238716
Bromobenzene	U		0.420	5.00	10	03/04/2024 07:57	WG2238716
Bromochloromethane	U		0.452	2.00	10	03/04/2024 07:57	WG2238716
Bromodichloromethane	U		0.315	1.00	10	03/04/2024 07:57	WG2238716
Bromoform	U		2.39	10.0	10	03/04/2024 07:57	WG2238716
Bromomethane	U	UJ C3	1.48	5.00	10	03/04/2024 07:57	WG2238716
n-Butylbenzene	U		1.53	5.00	10	03/04/2024 07:57	WG2238716
sec-Butylbenzene	U		1.01	5.00	10	03/04/2024 07:57	WG2238716
tert-Butylbenzene	U		0.620	2.00	10	03/04/2024 07:57	WG2238716
Carbon disulfide	U		1.62	5.00	10	03/04/2024 07:57	WG2238716
Carbon tetrachloride	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Chlorobenzene	U		0.229	1.00	10	03/04/2024 07:57	WG2238716
Chlorodibromomethane	U		0.180	1.00	10	03/04/2024 07:57	WG2238716
Chloroethane	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Chloroform	U		0.166	1.00	10	03/04/2024 07:57	WG2238716
Chloromethane	U		0.556	5.00	10	03/04/2024 07:57	WG2238716
2-Chlorotoluene	U		0.368	1.00	10	03/04/2024 07:57	WG2238716
4-Chlorotoluene	U		0.452	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dibromo-3-Chloropropane	U		2.04	10.0	10	03/04/2024 07:57	WG2238716
1,2-Dibromoethane	U		0.210	1.00	10	03/04/2024 07:57	WG2238716
Dibromomethane	U		0.400	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dichlorobenzene	U		0.580	2.00	10	03/04/2024 07:57	WG2238716
1,3-Dichlorobenzene	U		0.680	2.00	10	03/04/2024 07:57	WG2238716
1,4-Dichlorobenzene	U		0.788	2.00	10	03/04/2024 07:57	WG2238716
trans-1,4-Dichloro-2-butene	U		0.560	2.00	10	03/04/2024 07:57	WG2238716
Dichlorodifluoromethane	U		0.327	2.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloroethane	U		0.230	1.00	10	03/04/2024 07:57	WG2238716

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.190	1.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloroethene	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
cis-1,2-Dichloroethene	7.17		0.276	1.00	10	03/04/2024 07:57	WG2238716
trans-1,2-Dichloroethene	U		0.572	2.00	10	03/04/2024 07:57	WG2238716
1,2-Dichloropropane	U		0.508	2.00	10	03/04/2024 07:57	WG2238716
1,1-Dichloropropene	U		0.280	1.00	10	03/04/2024 07:57	WG2238716
1,3-Dichloropropane	U		0.700	2.00	10	03/04/2024 07:57	WG2238716
cis-1,3-Dichloropropene	U		0.271	1.00	10	03/04/2024 07:57	WG2238716
trans-1,3-Dichloropropene	U		0.612	2.00	10	03/04/2024 07:57	WG2238716
2,2-Dichloropropane	U		0.317	1.00	10	03/04/2024 07:57	WG2238716
Di-isopropyl ether	U		0.140	0.400	10	03/04/2024 07:57	WG2238716
Ethylbenzene	U		0.212	1.00	10	03/04/2024 07:57	WG2238716
Hexachloro-1,3-butadiene	U		5.08	10.0	10	03/04/2024 07:57	WG2238716
2-Hexanone	U		4.00	10.0	10	03/04/2024 07:57	WG2238716
n-Hexane	U		0.424	2.00	10	03/04/2024 07:57	WG2238716
Iodomethane	U		2.42	5.00	10	03/04/2024 07:57	WG2238716
Isopropylbenzene	U		0.345	1.00	10	03/04/2024 07:57	WG2238716
p-Isopropyltoluene	U		0.932	2.00	10	03/04/2024 07:57	WG2238716
2-Butanone (MEK)	U		5.00	10.0	10	03/04/2024 07:57	WG2238716
Methylene Chloride	U		2.65	10.0	10	03/04/2024 07:57	WG2238716
4-Methyl-2-pentanone (MIBK)	U		4.00	10.0	10	03/04/2024 07:57	WG2238716
Methyl tert-butyl ether	U		0.118	0.400	10	03/04/2024 07:57	WG2238716
Naphthalene	U		1.24	5.00	10	03/04/2024 07:57	WG2238716
n-Propylbenzene	U		0.472	2.00	10	03/04/2024 07:57	WG2238716
Styrene	U		1.09	5.00	10	03/04/2024 07:57	WG2238716
1,1,1,2-Tetrachloroethane	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
1,1,2,2-Tetrachloroethane	U		0.156	1.00	10	03/04/2024 07:57	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.270	1.00	10	03/04/2024 07:57	WG2238716
Tetrachloroethene	U		0.280	1.00	10	03/04/2024 07:57	WG2238716
Toluene	U		0.500	2.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trichlorobenzene	U		0.250	5.00	10	03/04/2024 07:57	WG2238716
1,2,4-Trichlorobenzene	U		1.93	5.00	10	03/04/2024 07:57	WG2238716
1,1,1-Trichloroethane	U		0.110	1.00	10	03/04/2024 07:57	WG2238716
1,1,2-Trichloroethane	U		0.353	1.00	10	03/04/2024 07:57	WG2238716
Trichloroethene	U		0.160	0.400	10	03/04/2024 07:57	WG2238716
Trichlorofluoromethane	U		0.200	1.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trichloropropane	U		2.04	5.00	10	03/04/2024 07:57	WG2238716
1,2,4-Trimethylbenzene	U		0.464	2.00	10	03/04/2024 07:57	WG2238716
1,2,3-Trimethylbenzene	U		0.460	2.00	10	03/04/2024 07:57	WG2238716
1,3,5-Trimethylbenzene	U		0.432	2.00	10	03/04/2024 07:57	WG2238716
Vinyl acetate	U		1.41	5.00	10	03/04/2024 07:57	WG2238716
Vinyl chloride	59.9		0.273	1.00	10	03/04/2024 07:57	WG2238716
Xylenes, Total	U		1.91	2.60	10	03/04/2024 07:57	WG2238716
(S) Toluene-d8	102			75.0-131		03/04/2024 07:57	WG2238716
(S) 4-Bromofluorobenzene	99.0			67.0-138		03/04/2024 07:57	WG2238716
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		03/04/2024 07:57	WG2238716

Sample Narrative:

L1709909-07 WG2238716: Lowest possible dilution due to sample foaming.

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2600		379	1000	1	03/05/2024 00:01	WG2237487
Nitrate	857	J- T8	48.0	100	1	03/05/2024 00:01	WG2237487
Sulfate	20900		594	5000	1	03/05/2024 00:01	WG2237487

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1830	E	102	1000	1	03/05/2024 14:35	WG2238989

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	186		28.1	100	1	03/06/2024 22:58	WG2240631
Manganese	18.9		0.704	5.00	1	03/06/2024 22:58	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	94.5		0.287	0.678	1	02/29/2024 14:39	WG2236509
Ethane	1.25	J	0.296	1.29	1	02/29/2024 14:39	WG2236509
Ethene	1.91		0.422	1.27	1	02/29/2024 14:39	WG2236509

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	128		0.548	1.00	1	03/04/2024 06:39	WG2238716
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 06:39	WG2238716
Benzene	U		0.0160	0.0400	1	03/04/2024 06:39	WG2238716
Bromobenzene	U		0.0420	0.500	1	03/04/2024 06:39	WG2238716
Bromochloromethane	U		0.0452	0.200	1	03/04/2024 06:39	WG2238716
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 06:39	WG2238716
Bromoform	U		0.239	1.00	1	03/04/2024 06:39	WG2238716
Bromomethane	U	UJ C3	0.148	0.500	1	03/04/2024 06:39	WG2238716
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 06:39	WG2238716
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 06:39	WG2238716
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 06:39	WG2238716
Carbon disulfide	U		0.162	0.500	1	03/04/2024 06:39	WG2238716
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 06:39	WG2238716
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 06:39	WG2238716
Chloroethane	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Chloroform	U		0.0166	0.100	1	03/04/2024 06:39	WG2238716
Chloromethane	U		0.0556	0.500	1	03/04/2024 06:39	WG2238716
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 06:39	WG2238716
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 06:39	WG2238716
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 06:39	WG2238716
Dibromomethane	U		0.0400	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 06:39	WG2238716
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 06:39	WG2238716
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 06:39	WG2238716
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 06:39	WG2238716
Dichlorodifluoromethane	U		0.0327	0.200	1	03/04/2024 06:39	WG2238716
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 06:39	WG2238716

JC 4/23/24

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 06:39	WG2238716
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
cis-1,2-Dichloroethene	1.43		0.0276	0.100	1	03/04/2024 06:39	WG2238716
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 06:39	WG2238716
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 06:39	WG2238716
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 06:39	WG2238716
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 06:39	WG2238716
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 06:39	WG2238716
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 06:39	WG2238716
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 06:39	WG2238716
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 06:39	WG2238716
Ethylbenzene	U		0.0212	0.100	1	03/04/2024 06:39	WG2238716
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 06:39	WG2238716
2-Hexanone	U		0.400	1.00	1	03/04/2024 06:39	WG2238716
n-Hexane	U		0.0424	0.200	1	03/04/2024 06:39	WG2238716
Iodomethane	U		0.242	0.500	1	03/04/2024 06:39	WG2238716
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 06:39	WG2238716
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 06:39	WG2238716
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 06:39	WG2238716
Methylene Chloride	U		0.265	1.00	1	03/04/2024 06:39	WG2238716
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 06:39	WG2238716
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 06:39	WG2238716
Naphthalene	U		0.124	0.500	1	03/04/2024 06:39	WG2238716
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 06:39	WG2238716
Styrene	U		0.109	0.500	1	03/04/2024 06:39	WG2238716
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 06:39	WG2238716
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 06:39	WG2238716
Tetrachloroethene	0.217		0.0280	0.100	1	03/04/2024 06:39	WG2238716
Toluene	0.106	U	0.0500	0.200	1	03/04/2024 06:39	WG2238716
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	03/04/2024 06:39	WG2238716
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 06:39	WG2238716
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 06:39	WG2238716
1,1,2-Trichloroethane	U		0.0353	0.100	1	03/04/2024 06:39	WG2238716
Trichloroethene	0.148		0.0160	0.0400	1	03/04/2024 06:39	WG2238716
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 06:39	WG2238716
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 06:39	WG2238716
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	03/04/2024 06:39	WG2238716
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 06:39	WG2238716
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 06:39	WG2238716
Vinyl acetate	U		0.141	0.500	1	03/04/2024 06:39	WG2238716
Vinyl chloride	0.670		0.0273	0.100	1	03/04/2024 06:39	WG2238716
Xylenes, Total	U		0.191	0.260	1	03/04/2024 06:39	WG2238716
(S) Toluene-d8	100			75.0-131		03/04/2024 06:39	WG2238716
(S) 4-Bromofluorobenzene	99.2			67.0-138		03/04/2024 06:39	WG2238716
(S) 1,2-Dichloroethane-d4	98.8			70.0-130		03/04/2024 06:39	WG2238716

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 4/23/24

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	60500	J- J6	379	1000	1	03/01/2024 00:33	WG2236754
Nitrate	212	J P1	48.0	100	1	03/01/2024 00:33	WG2236754
Sulfate	1460	J	594	5000	1	03/01/2024 00:33	WG2236754

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	6790		102	1000	1	03/07/2024 12:11	WG2239765

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	11300		28.1	100	1	03/06/2024 23:02	WG2240631
Manganese	2210		0.704	5.00	1	03/06/2024 23:02	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	30300		2.87	6.78	10	03/01/2024 14:45	WG2237803
Ethane	343		0.296	1.29	1	03/01/2024 13:18	WG2237755
Ethene	U		0.422	1.27	1	03/01/2024 13:18	WG2237755

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	8.41	U C5	0.548	1.00	1	03/04/2024 17:15	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 17:15	WG2239120
Benzene	0.0270	J	0.0160	0.0400	1	03/04/2024 17:15	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 17:15	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 17:15	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 17:15	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 17:15	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 17:15	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 17:15	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 17:15	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 17:15	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 17:15	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 17:15	WG2239120
Chloroethane	0.114	J	0.0432	0.200	1	03/04/2024 17:15	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 17:15	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 17:15	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 17:15	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 17:15	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 17:15	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 17:15	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 17:15	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 17:15	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 17:15	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 17:15	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 17:15	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
cis-1,2-Dichloroethene	1.76		0.0276	0.100	1	03/04/2024 17:15	WG2239120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	0.189	J	0.0572	0.200	1	03/04/2024 17:15	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 17:15	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 17:15	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 17:15	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 17:15	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 17:15	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 17:15	WG2239120
Di-isopropyl ether	0.103		0.0140	0.0400	1	03/04/2024 17:15	WG2239120
Ethylbenzene	0.0580	J	0.0212	0.100	1	03/04/2024 17:15	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 17:15	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 17:15	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 17:15	WG2239120
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 17:15	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 17:15	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 17:15	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 17:15	WG2239120
Naphthalene	U	J4	0.124	0.500	1	03/04/2024 17:15	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 17:15	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 17:15	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 17:15	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 17:15	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 17:15	WG2239120
Toluene	0.307		0.0500	0.200	1	03/04/2024 17:15	WG2239120
1,2,3-Trichlorobenzene	U	J4	0.0250	0.500	1	03/04/2024 17:15	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 17:15	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 17:15	WG2239120
1,1,2-Trichloroethane	U	J4	0.0353	0.100	1	03/04/2024 17:15	WG2239120
Trichloroethene	0.308		0.0160	0.0400	1	03/04/2024 17:15	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 17:15	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 17:15	WG2239120
1,2,4-Trimethylbenzene	0.0870	J	0.0464	0.200	1	03/04/2024 17:15	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 17:15	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 17:15	WG2239120
Vinyl chloride	0.811	J+ C5	0.0273	0.100	1	03/04/2024 17:15	WG2239120
Xylenes, Total	0.375		0.191	0.260	1	03/04/2024 17:15	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 17:15	WG2239120
Tetrahydrofuran	0.734	J+ B C5	0.0900	0.500	1	03/04/2024 17:15	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 17:15	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 17:15	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 17:15	WG2239120
(S) Toluene-d8	102			75.0-131		03/04/2024 17:15	WG2239120
(S) 4-Bromofluorobenzene	99.4			67.0-138		03/04/2024 17:15	WG2239120
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/04/2024 17:15	WG2239120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 4/23/24

Wet Chemistry by Method 9056A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Chloride	17100		379	1000	1	03/01/2024 01:24	WG2236754
Nitrate	170		48.0	100	1	03/01/2024 01:24	WG2236754
Sulfate	27600		594	5000	1	03/01/2024 01:24	WG2236754

Wet Chemistry by Method 9060A

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	1600	B	102	1000	1	03/05/2024 17:05	WG2239767

Metals (ICPMS) by Method 6020B

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Iron	2300		28.1	100	1	03/06/2024 23:05	WG2240631
Manganese	724		0.704	5.00	1	03/06/2024 23:05	WG2240631

Volatile Organic Compounds (GC) by Method RSK175

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Methane	5550		0.287	0.678	1	03/01/2024 11:59	WG2237096
Ethane	56.1		0.296	1.29	1	03/01/2024 11:59	WG2237096
Ethene	53.7		0.422	1.27	1	03/01/2024 11:59	WG2237096

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

	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Analyte	ug/l		ug/l	ug/l		date / time	
Acetone	0.754	U	0.548	1.00	1	03/04/2024 17:34	WG2239120
Acrylonitrile	U		0.0760	0.500	1	03/04/2024 17:34	WG2239120
Benzene	0.0160	J	0.0160	0.0400	1	03/04/2024 17:34	WG2239120
Bromobenzene	U		0.0420	0.500	1	03/04/2024 17:34	WG2239120
Bromodichloromethane	U		0.0315	0.100	1	03/04/2024 17:34	WG2239120
Bromoform	U		0.239	1.00	1	03/04/2024 17:34	WG2239120
Bromomethane	U		0.148	0.500	1	03/04/2024 17:34	WG2239120
n-Butylbenzene	U		0.153	0.500	1	03/04/2024 17:34	WG2239120
sec-Butylbenzene	U		0.101	0.500	1	03/04/2024 17:34	WG2239120
tert-Butylbenzene	U		0.0620	0.200	1	03/04/2024 17:34	WG2239120
Carbon tetrachloride	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Chlorobenzene	U		0.0229	0.100	1	03/04/2024 17:34	WG2239120
Chlorodibromomethane	U		0.0180	0.100	1	03/04/2024 17:34	WG2239120
Chloroethane	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Chloroform	U		0.0166	0.100	1	03/04/2024 17:34	WG2239120
Chloromethane	U		0.0556	0.500	1	03/04/2024 17:34	WG2239120
2-Chlorotoluene	U		0.0368	0.100	1	03/04/2024 17:34	WG2239120
4-Chlorotoluene	U		0.0452	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	03/04/2024 17:34	WG2239120
1,2-Dibromoethane	U		0.0210	0.100	1	03/04/2024 17:34	WG2239120
Dibromomethane	U		0.0400	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dichlorobenzene	U		0.0580	0.200	1	03/04/2024 17:34	WG2239120
1,3-Dichlorobenzene	U		0.0680	0.200	1	03/04/2024 17:34	WG2239120
1,4-Dichlorobenzene	U		0.0788	0.200	1	03/04/2024 17:34	WG2239120
Dichlorodifluoromethane	U	J4	0.0327	0.200	1	03/04/2024 17:34	WG2239120
1,1-Dichloroethane	U		0.0230	0.100	1	03/04/2024 17:34	WG2239120
1,2-Dichloroethane	U		0.0190	0.100	1	03/04/2024 17:34	WG2239120
1,1-Dichloroethene	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
cis-1,2-Dichloroethene	U		0.0276	0.100	1	03/04/2024 17:34	WG2239120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/04/2024 17:34	WG2239120
1,2-Dichloropropane	U		0.0508	0.200	1	03/04/2024 17:34	WG2239120
1,1-Dichloropropene	U		0.0280	0.100	1	03/04/2024 17:34	WG2239120
1,3-Dichloropropane	U		0.0700	0.200	1	03/04/2024 17:34	WG2239120
cis-1,3-Dichloropropene	U		0.0271	0.100	1	03/04/2024 17:34	WG2239120
trans-1,3-Dichloropropene	U		0.0612	0.200	1	03/04/2024 17:34	WG2239120
2,2-Dichloropropane	U		0.0317	0.100	1	03/04/2024 17:34	WG2239120
Di-isopropyl ether	U		0.0140	0.0400	1	03/04/2024 17:34	WG2239120
Ethylbenzene	0.0450	<u>J</u>	0.0212	0.100	1	03/04/2024 17:34	WG2239120
Hexachloro-1,3-butadiene	U		0.508	1.00	1	03/04/2024 17:34	WG2239120
Isopropylbenzene	U		0.0345	0.100	1	03/04/2024 17:34	WG2239120
p-Isopropyltoluene	U		0.0932	0.200	1	03/04/2024 17:34	WG2239120
2-Butanone (MEK)	U		0.500	1.00	1	03/04/2024 17:34	WG2239120
Methylene Chloride	U		0.265	1.00	1	03/04/2024 17:34	WG2239120
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	03/04/2024 17:34	WG2239120
Methyl tert-butyl ether	U		0.0118	0.0400	1	03/04/2024 17:34	WG2239120
Naphthalene	U	<u>J4</u>	0.124	0.500	1	03/04/2024 17:34	WG2239120
n-Propylbenzene	U		0.0472	0.200	1	03/04/2024 17:34	WG2239120
Styrene	U		0.109	0.500	1	03/04/2024 17:34	WG2239120
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	03/04/2024 17:34	WG2239120
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	03/04/2024 17:34	WG2239120
Tetrachloroethene	U		0.0280	0.100	1	03/04/2024 17:34	WG2239120
Toluene	0.146	<u>J</u>	0.0500	0.200	1	03/04/2024 17:34	WG2239120
1,2,3-Trichlorobenzene	U	<u>J4</u>	0.0250	0.500	1	03/04/2024 17:34	WG2239120
1,2,4-Trichlorobenzene	U		0.193	0.500	1	03/04/2024 17:34	WG2239120
1,1,1-Trichloroethane	U		0.0110	0.100	1	03/04/2024 17:34	WG2239120
1,1,2-Trichloroethane	U	<u>J4</u>	0.0353	0.100	1	03/04/2024 17:34	WG2239120
Trichloroethene	U		0.0160	0.0400	1	03/04/2024 17:34	WG2239120
Trichlorofluoromethane	U		0.0200	0.100	1	03/04/2024 17:34	WG2239120
1,2,3-Trichloropropane	U		0.204	0.500	1	03/04/2024 17:34	WG2239120
1,2,4-Trimethylbenzene	0.0600	<u>J</u>	0.0464	0.200	1	03/04/2024 17:34	WG2239120
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	03/04/2024 17:34	WG2239120
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	03/04/2024 17:34	WG2239120
Vinyl chloride	19.7	J+ <u>C5</u>	0.0273	0.100	1	03/04/2024 17:34	WG2239120
Xylenes, Total	U		0.191	0.260	1	03/04/2024 17:34	WG2239120
Ethyl Ether	U		0.0170	0.100	1	03/04/2024 17:34	WG2239120
Tetrahydrofuran	0.881	J+ <u>B C5</u>	0.0900	0.500	1	03/04/2024 17:34	WG2239120
Iodomethane	U		0.242	0.500	1	03/04/2024 17:34	WG2239120
Allyl chloride	U		0.580	1.00	1	03/04/2024 17:34	WG2239120
Trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	03/04/2024 17:34	WG2239120
(S) Toluene-d8	105			75.0-131		03/04/2024 17:34	WG2239120
(S) 4-Bromofluorobenzene	96.1			67.0-138		03/04/2024 17:34	WG2239120
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/04/2024 17:34	WG2239120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 4/23/24

MEMORANDUM

TO: Project File **DATE:** April 18, 2024
FROM: Jessie Compeau
SUBJECT: Laboratory Data Validation Review
PROJECT: American Linen Data Validation
PROJECT #: 443022-1413001.10.701.03
TASK: EIM Data Validation Level EPA2A for Q1 2024 – Soil Vapor Samples
LAB: Pace Sample Delivery Group (SDG): L1716997

Three soil vapor samples (including one field duplicate) were collected as part of the 2024 quarterly (Q1) monitoring event at the Former American Linen Supply Site, in Seattle, Washington on March 19, 2024. The samples were shipped and delivered to Pace Lab Sciences (Pace) of Mount Juliet, TN for laboratory analysis. Samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method TO-15.

The first quarter of RI groundwater and soil vapor sampling was conducted in March 2024. Results for groundwater are reported in two Sample Delivery Groups (SDGs) by Pace. The quality assurance review of the soil vapor extraction sample data associated with SDG L1716997 is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

The laboratory supplied Summa Canister TM (1 Liter) for the air samples. The samples were shipped, delivered by FedEx, and received in good condition by the laboratory. The samples

were collected, managed, and delivered in an appropriate manner. No data qualifications were warranted based upon sampling techniques or preservation.

Holding Times

USEPA Method TO-15:

The analyses for VOCs by Method TO-15 were performed within the 30-day recommended holding time limit for the air samples collected in Summa canisters. All holding time criteria are met.

Initial and Continuing Calibration

Initial and continuing calibration data for this project are retained by the laboratory and available for review if necessary. Case narrative and laboratory notes do not indicate that there are any issues with calibration.

Method Blank Results

USEPA Method TO-15:

A laboratory method blank is included with the analytical batch per method requirement. The target analytes were not detected in the method blank at or above the reporting detection limits (RDLs) with the following discussion:

- Analytical Batch WG2251198: A low level of naphthalene is detected below the RDL in the method blank. No action is needed since naphthalene is not detected in the associated samples.

Trip Blank Results

A trip blank is not required for the VOCs by TO-15 analyses.

Field Duplicate Analyses

Field duplicates (SV-18-031924 and SV-910-031924) associated were submitted and analyzed for VOCs. VOC target analyte results are comparable and within 30 relative percent difference (RPD) or ($\pm 1 \times$ RDL for detections $< 5 \times$ RDL) with the following exceptions:

- Field duplicate samples SV-18-031924 and SV-910-031924 – Acetone, benzene, cyclohexane, 1,1-dichloroethane, ethanol, ethylbenzene, heptane, hexane, isopropanol (2-propanol), methyl ethyl ketone (2-butanone), methylene chloride, tetrahydrofuran, toluene, 1,1,1-trichloroethane, 2,2,4-trimethylpentane, vinyl chloride, total xylene, m,p-xylene, and o-xylene RPDs exceed 30% RPD (or absolute difference) criteria. **The above-mentioned target analyte results for samples SV-18-031924 and SV-910-031924 are estimated and qualified (UJ/J).**

Laboratory Duplicate/Replicate Analyses

USEPA Method TO-15:

A laboratory replicate was not performed. Refer to the Laboratory Control Sample section for additional information.

Surrogate Recoveries

USEPA Method TO-15

The surrogate percent recovery (% R) results for the VOCs by TO-15 air samples, method blanks, and laboratory control sample are within the laboratory surrogate control limits of 60 - 140% R.

Laboratory Control Samples

USEPA Method TO-15:

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) samples were analyzed for the VOCs by TO-15 along with the analytical batch. The LCS/LCSD recoveries and RPDs for all control compounds met laboratory control limit criteria.

Matrix Spike/Matrix Spike Duplicates

A matrix spike/matrix spike duplicate (MS/MSD) is not required for the VOCs by TO-15.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory report with the following discussion:

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered. In some cases, different chemical synonyms are used between the EDD and the hardcopy. However, associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications.

Quantitation Limits

Results of the VOCs by TO-15 analysis are reported based on laboratory RDLs (assuming standard temperature and pressure is equal to 24.45) and reported in units of parts per million volume (ppbv) and micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Quality control results are reported in ppbv units only.

The RDLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The RDLs are acceptable for the project.

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

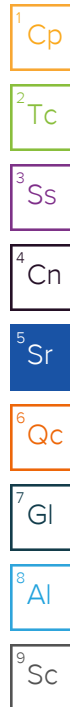
- USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020).

Data qualifiers were assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	29.5	70.1	J	1	WG2251198
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2251198
Benzene	71-43-2	78.10	0.200	0.639	1.68	5.37	J	1	WG2251198
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2251198
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2251198
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2251198
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2251198
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2251198
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.776	2.42		1	WG2251198
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2251198
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2251198
Chloroethane	75-00-3	64.50	0.200	0.528	0.315	0.831		1	WG2251198
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2251198
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2251198
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2251198
Cyclohexane	110-82-7	84.20	0.200	0.689	2.58	8.88	J	1	WG2251198
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2251198
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2251198
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2251198
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2251198
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2251198
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2251198
1,1-Dichloroethane	75-34-3	98	0.200	0.802	5.18	20.8	J	1	WG2251198
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2251198
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2251198
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2251198
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2251198
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2251198
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2251198
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2251198
Ethanol	64-17-5	46.10	2.50	4.71	48.3	91.1	J	1	WG2251198
Ethylbenzene	100-41-4	106	0.200	0.867	2.06	8.93	J	1	WG2251198
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.381	1.87		1	WG2251198
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2251198
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.234	1.16		1	WG2251198
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2251198
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2251198
Heptane	142-82-5	100	0.200	0.818	5.57	22.8	J	1	WG2251198
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2251198
n-Hexane	110-54-3	86.20	0.630	2.22	3.97	14.0	J	1	WG2251198
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.346	1.70		1	WG2251198
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.738	2.56	J	1	WG2251198
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2251198
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	10.0	29.5	J	1	WG2251198
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2251198
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2251198
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2251198
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2251198
2-Propanol	67-63-0	60.10	1.25	3.07	9.27	22.8	J	1	WG2251198
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2251198
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2251198
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2251198
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2251198
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	8.79	25.9	J	1	WG2251198
Toluene	108-88-3	92.10	0.500	1.88	17.3	65.2	J	1	WG2251198
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2251198

JC 4/18/24



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	1.77	9.63	J	1	WG2251198
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2251198
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2251198
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.65	8.10		1	WG2251198
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.520	2.55		1	WG2251198
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	2.84	13.3	J	1	WG2251198
Vinyl chloride	75-01-4	62.50	0.200	0.511	6.99	17.9	J	1	WG2251198
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2251198
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2251198
Xylenes, Total	1330-20-7	106.16	0.600	2.61	9.66	41.9	J	1	WG2251198
m&p-Xylene	179601-23-1	106	0.400	1.73	6.87	29.8	J	1	WG2251198
o-Xylene	95-47-6	106	0.200	0.867	2.79	12.1	J	1	WG2251198
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG2251198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

JC 4/18/24

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	6.49	15.4	J	1	WG2251198
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2251198
Benzene	71-43-2	78.10	0.200	0.639	0.376	1.20	J	1	WG2251198
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2251198
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2251198
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG2251198
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2251198
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2251198
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.820	2.55		1	WG2251198
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2251198
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2251198
Chloroethane	75-00-3	64.50	0.200	0.528	0.370	0.976		1	WG2251198
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2251198
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2251198
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2251198
Cyclohexane	110-82-7	84.20	0.200	0.689	0.467	1.61	J	1	WG2251198
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2251198
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2251198
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2251198
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2251198
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2251198
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2251198
1,1-Dichloroethane	75-34-3	98	0.200	0.802	7.68	30.8	J	1	WG2251198
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2251198
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2251198
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2251198
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2251198
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2251198
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2251198
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2251198
Ethanol	64-17-5	46.10	2.50	4.71	23.4	44.1	J	1	WG2251198
Ethylbenzene	100-41-4	106	0.200	0.867	0.902	3.91	J	1	WG2251198
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.458	2.25		1	WG2251198
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2251198
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2251198
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2251198
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2251198
Heptane	142-82-5	100	0.200	0.818	1.85	7.57	J	1	WG2251198
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2251198
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND	UJ	1	WG2251198
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2251198
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.454	1.58	J	1	WG2251198
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2251198
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.90	5.60	J	1	WG2251198
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2251198
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2251198
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2251198
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2251198
2-Propanol	67-63-0	60.10	1.25	3.07	2.24	5.51	J	1	WG2251198
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2251198
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG2251198
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2251198
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2251198
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.27	3.75	J	1	WG2251198
Toluene	108-88-3	92.10	0.500	1.88	3.28	12.4	J	1	WG2251198
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2251198

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

JC 4/18/24

ACCOUNT:

PES Environmental, Inc.- WA

PROJECT:

443022-1413001.10.70

SDG:

L1716997

DATE/TIME:

03/27/24 12:32

PAGE:

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	2.64	14.4	J	1	WG2251198
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2251198
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2251198
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.79	8.79		1	WG2251198
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.537	2.64		1	WG2251198
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.85	8.64	J	1	WG2251198
Vinyl chloride	75-01-4	62.50	0.200	0.511	10.3	26.3	J	1	WG2251198
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2251198
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2251198
Xylenes, Total	1330-20-7	106.16	0.600	2.61	5.32	23.1	J	1	WG2251198
m&p-Xylene	179601-23-1	106	0.400	1.73	3.74	16.2	J	1	WG2251198
o-Xylene	95-47-6	106	0.200	0.867	1.58	6.85	J	1	WG2251198
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.7				WG2251198

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc