

Oregon Dept. of Env. Quality - ODEQ

Sample Delivery Group: L1812653
Samples Received: 12/24/2024
Project Number:
Description: DEQ Forest Creek

Report To: Cathy Brown
700 NE Multnomah St. #600
Portland, OR 97124

Entire Report Reviewed By:



Brian Ford
Project Manager

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TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
DU1-ISM-DUP L1812653-01	5
DU1-ISM-DUP L1812653-02	7
TRIP BLANK L1812653-03	9
Qc: Quality Control Summary	10
Total Solids by Method 2540 G-2011	10
Mercury by Method 7471B	12
Metals (ICP) by Method 6010D	13
Volatile Organic Compounds (GC) by Method NWTPHGX	15
Volatile Organic Compounds (GC/MS) by Method 8260D	16
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	21
Chlorinated Acid Herbicides (GC) by Method 8151A	22
Pesticides (GC) by Method 8081B	24
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	26
Gl: Glossary of Terms	28
Al: Accreditations & Locations	29
Sc: Sample Chain of Custody	30

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

SAMPLE SUMMARY

DU1-ISM-DUP L1812653-01 Solid

Collected by Connor Armstrong
Collected date/time 12/20/24 07:50
Received date/time 12/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2424765	1	12/26/24 07:07	12/26/24 07:15	CMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2426606	25	12/26/24 08:01	12/31/24 02:48	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2426184	1	12/26/24 08:01	12/29/24 21:44	DWR	Mt. Juliet, TN

DU1-ISM-DUP L1812653-02 Solid

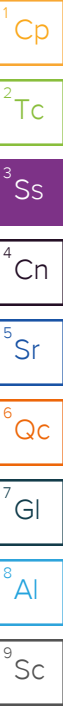
Collected by Connor Armstrong
Collected date/time 12/20/24 07:50
Received date/time 12/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2427274	1	01/02/25 09:52	01/02/25 10:01	MT	Mt. Juliet, TN
Mercury by Method 7471B	WG2427192	1	01/01/25 10:11	01/02/25 13:42	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2427250	1	01/01/25 14:30	01/02/25 10:01	JTM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2426695	2	12/31/24 10:29	01/02/25 15:11	SGB	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG2426593	1	01/01/25 15:14	01/06/25 16:28	LJD	Mt. Juliet, TN
Pesticides (GC) by Method 8081B	WG2426623	1	12/31/24 10:54	12/31/24 22:02	RDH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2426620	1	12/31/24 11:02	01/03/25 05:58	MBE	Mt. Juliet, TN

TRIP BLANK L1812653-03 GW

Collected by Connor Armstrong
Collected date/time 12/20/24 07:50
Received date/time 12/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2425234	1	12/27/24 02:09	12/27/24 02:09	DYW	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.



Brian Ford
Project Manager

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.6		1	12/26/2024 07:15	WG2424765

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.89	B J	1.37	4.03	25	12/31/2024 02:48	WG2426606
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		12/31/2024 02:48	WG2426606

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0588	0.0806	1	12/29/2024 21:44	WG2426184
Acrylonitrile	U		0.00582	0.0201	1	12/29/2024 21:44	WG2426184
Benzene	0.00109	J	0.000753	0.00161	1	12/29/2024 21:44	WG2426184
Bromobenzene	U		0.00145	0.0201	1	12/29/2024 21:44	WG2426184
Bromodichloromethane	U		0.00117	0.00403	1	12/29/2024 21:44	WG2426184
Bromoform	U	C3	0.00189	0.0403	1	12/29/2024 21:44	WG2426184
Bromomethane	U		0.00317	0.0201	1	12/29/2024 21:44	WG2426184
n-Butylbenzene	U		0.00846	0.0201	1	12/29/2024 21:44	WG2426184
sec-Butylbenzene	U		0.00464	0.0201	1	12/29/2024 21:44	WG2426184
tert-Butylbenzene	U		0.00314	0.00806	1	12/29/2024 21:44	WG2426184
Carbon tetrachloride	U		0.00145	0.00806	1	12/29/2024 21:44	WG2426184
Chlorobenzene	U		0.000338	0.00403	1	12/29/2024 21:44	WG2426184
Chlorodibromomethane	U	C3	0.000986	0.00403	1	12/29/2024 21:44	WG2426184
Chloroethane	U		0.00274	0.00806	1	12/29/2024 21:44	WG2426184
Chloroform	U		0.00166	0.00403	1	12/29/2024 21:44	WG2426184
Chloromethane	U	J4	0.00701	0.0201	1	12/29/2024 21:44	WG2426184
2-Chlorotoluene	U		0.00139	0.00403	1	12/29/2024 21:44	WG2426184
4-Chlorotoluene	U		0.000725	0.00806	1	12/29/2024 21:44	WG2426184
1,2-Dibromo-3-Chloropropane	U	C3	0.00628	0.0403	1	12/29/2024 21:44	WG2426184
1,2-Dibromoethane	U		0.00104	0.00403	1	12/29/2024 21:44	WG2426184
Dibromomethane	U		0.00121	0.00806	1	12/29/2024 21:44	WG2426184
1,2-Dichlorobenzene	U		0.000685	0.00806	1	12/29/2024 21:44	WG2426184
1,3-Dichlorobenzene	U		0.000967	0.00806	1	12/29/2024 21:44	WG2426184
1,4-Dichlorobenzene	U		0.00113	0.00806	1	12/29/2024 21:44	WG2426184
Dichlorodifluoromethane	U		0.00259	0.00806	1	12/29/2024 21:44	WG2426184
1,1-Dichloroethane	U		0.000791	0.00403	1	12/29/2024 21:44	WG2426184
1,2-Dichloroethane	U		0.00105	0.00403	1	12/29/2024 21:44	WG2426184
1,1-Dichloroethene	U	J4	0.000976	0.00403	1	12/29/2024 21:44	WG2426184
cis-1,2-Dichloroethene	U		0.00118	0.00403	1	12/29/2024 21:44	WG2426184
trans-1,2-Dichloroethene	U		0.00168	0.00806	1	12/29/2024 21:44	WG2426184
1,2-Dichloropropane	U		0.00229	0.00806	1	12/29/2024 21:44	WG2426184
1,1-Dichloropropene	U		0.00130	0.00403	1	12/29/2024 21:44	WG2426184
1,3-Dichloropropane	U		0.000807	0.00806	1	12/29/2024 21:44	WG2426184
cis-1,3-Dichloropropene	U		0.00122	0.00403	1	12/29/2024 21:44	WG2426184
trans-1,3-Dichloropropene	U		0.00184	0.00806	1	12/29/2024 21:44	WG2426184
2,2-Dichloropropane	U		0.00222	0.00403	1	12/29/2024 21:44	WG2426184
Di-isopropyl ether	U		0.000661	0.00161	1	12/29/2024 21:44	WG2426184
Ethylbenzene	U		0.00119	0.00403	1	12/29/2024 21:44	WG2426184
Hexachloro-1,3-butadiene	U		0.00967	0.0403	1	12/29/2024 21:44	WG2426184
Isopropylbenzene	U		0.000685	0.00403	1	12/29/2024 21:44	WG2426184
p-Isopropyltoluene	0.00556	J J	0.00411	0.00806	1	12/29/2024 21:44	WG2426184
2-Butanone (MEK)	0.118	J J	0.102	0.161	1	12/29/2024 21:44	WG2426184
Methylene Chloride	U		0.0107	0.0403	1	12/29/2024 21:44	WG2426184
4-Methyl-2-pentanone (MIBK)	U		0.00367	0.0403	1	12/29/2024 21:44	WG2426184

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000564	0.00161	1	12/29/2024 21:44	WG2426184
Naphthalene	U	C3	0.00786	0.0201	1	12/29/2024 21:44	WG2426184
n-Propylbenzene	U		0.00153	0.00806	1	12/29/2024 21:44	WG2426184
Styrene	0.000806	J	0.000369	0.0201	1	12/29/2024 21:44	WG2426184
1,1,1,2-Tetrachloroethane	U		0.00153	0.00403	1	12/29/2024 21:44	WG2426184
1,1,2,2-Tetrachloroethane	U		0.00112	0.00403	1	12/29/2024 21:44	WG2426184
1,1,2-Trichlorotrifluoroethane	U		0.00121	0.00403	1	12/29/2024 21:44	WG2426184
Tetrachloroethene	U	C3	0.00144	0.00403	1	12/29/2024 21:44	WG2426184
Toluene	0.00263	C3 J	0.00209	0.00806	1	12/29/2024 21:44	WG2426184
1,2,3-Trichlorobenzene	U	C3	0.0118	0.0201	1	12/29/2024 21:44	WG2426184
1,2,4-Trichlorobenzene	U		0.00709	0.0201	1	12/29/2024 21:44	WG2426184
1,1,1-Trichloroethane	U		0.00149	0.00403	1	12/29/2024 21:44	WG2426184
1,1,2-Trichloroethane	U		0.000962	0.00403	1	12/29/2024 21:44	WG2426184
Trichloroethene	U		0.000941	0.00161	1	12/29/2024 21:44	WG2426184
Trichlorofluoromethane	U		0.00133	0.00403	1	12/29/2024 21:44	WG2426184
1,2,3-Trichloropropane	U		0.00261	0.0201	1	12/29/2024 21:44	WG2426184
1,2,4-Trimethylbenzene	U		0.00255	0.00806	1	12/29/2024 21:44	WG2426184
1,2,3-Trimethylbenzene	U		0.00255	0.00806	1	12/29/2024 21:44	WG2426184
1,3,5-Trimethylbenzene	U		0.00322	0.00806	1	12/29/2024 21:44	WG2426184
Vinyl chloride	U		0.00187	0.00403	1	12/29/2024 21:44	WG2426184
Xylenes, Total	0.00330	J	0.00142	0.0105	1	12/29/2024 21:44	WG2426184
(S) Toluene-d8	94.5			75.0-131		12/29/2024 21:44	WG2426184
(S) 4-Bromofluorobenzene	106			67.0-138		12/29/2024 21:44	WG2426184
(S) 1,2-Dichloroethane-d4	110			70.0-130		12/29/2024 21:44	WG2426184

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	01/02/2025 10:01	WG2427274

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.104		0.0220	0.0428	1	01/02/2025 13:42	WG2427192

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.740	2.14	1	01/02/2025 10:01	WG2427250
Arsenic	2.39		0.896	2.14	1	01/02/2025 10:01	WG2427250
Beryllium	0.274		0.0511	0.214	1	01/02/2025 10:01	WG2427250
Cadmium	1.49		0.0699	0.535	1	01/02/2025 10:01	WG2427250
Chromium	179		0.229	1.07	1	01/02/2025 10:01	WG2427250
Copper	108		0.382	2.14	1	01/02/2025 10:01	WG2427250
Lead	38.9		0.349	0.535	1	01/02/2025 10:01	WG2427250
Nickel	242		0.214	2.14	1	01/02/2025 10:01	WG2427250
Selenium	U		1.15	2.14	1	01/02/2025 10:01	WG2427250
Silver	0.271	J	0.136	1.07	1	01/02/2025 10:01	WG2427250
Thallium	U		0.554	2.14	1	01/02/2025 10:01	WG2427250
Zinc	263		1.04	5.35	1	01/02/2025 10:01	WG2427250

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	34.8		2.85	8.56	2	01/02/2025 15:11	WG2426695
Residual Range Organics (RRO)	204		7.13	21.4	2	01/02/2025 15:11	WG2426695
(S) o-Terphenyl	63.3			18.0-148		01/02/2025 15:11	WG2426695

Sample Narrative:

L1812653-02 WG2426695: Sample resembles laboratory standard for Hydraulic Oil.

Chlorinated Acid Herbicides (GC) by Method 8151A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
2,4-D	U		0.0275	0.0749	1	01/06/2025 16:28	WG2426593
Dalapon	U		0.0471	0.0749	1	01/06/2025 16:28	WG2426593
2,4-DB	U		0.0199	0.0749	1	01/06/2025 16:28	WG2426593
Dicamba	U		0.0242	0.0749	1	01/06/2025 16:28	WG2426593
Dichloroprop	U	J4	0.0196	0.0749	1	01/06/2025 16:28	WG2426593
Dinoseb	U		0.0273	0.0749	1	01/06/2025 16:28	WG2426593
MCPA	U		1.99	6.96	1	01/06/2025 16:28	WG2426593
MCP	U		2.17	6.96	1	01/06/2025 16:28	WG2426593
2,4,5-T	U		0.0253	0.0749	1	01/06/2025 16:28	WG2426593
2,4,5-TP (Silvex)	U		0.0200	0.0749	1	01/06/2025 16:28	WG2426593
(S) 2,4-Dichlorophenyl Acetic Acid	89.2			22.0-132		01/06/2025 16:28	WG2426593

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Pesticides (GC) by Method 8081B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Aldrin	U		0.00690	0.0214	1	12/31/2024 22:02	WG2426623
Alpha BHC	U		0.00682	0.0214	1	12/31/2024 22:02	WG2426623
Beta BHC	U		0.00674	0.0214	1	12/31/2024 22:02	WG2426623
Delta BHC	U		0.00680	0.0214	1	12/31/2024 22:02	WG2426623
Gamma BHC	U		0.00724	0.0214	1	12/31/2024 22:02	WG2426623
Chlordane	U		0.106	0.321	1	12/31/2024 22:02	WG2426623
4,4-DDD	U		0.00739	0.0214	1	12/31/2024 22:02	WG2426623
4,4-DDE	U		0.00720	0.0214	1	12/31/2024 22:02	WG2426623
4,4-DDT	U		0.00820	0.0214	1	12/31/2024 22:02	WG2426623
Dieldrin	U		0.00746	0.0214	1	12/31/2024 22:02	WG2426623
Endosulfan I	U		0.00647	0.0214	1	12/31/2024 22:02	WG2426623
Endosulfan II	U		0.00708	0.0214	1	12/31/2024 22:02	WG2426623
Endosulfan sulfate	U		0.00687	0.0214	1	12/31/2024 22:02	WG2426623
Endrin	U		0.00798	0.0214	1	12/31/2024 22:02	WG2426623
Endrin aldehyde	U		0.00632	0.0214	1	12/31/2024 22:02	WG2426623
Endrin ketone	U		0.00744	0.0214	1	12/31/2024 22:02	WG2426623
Hexachlorobenzene	U		0.00651	0.0214	1	12/31/2024 22:02	WG2426623
Heptachlor	U		0.00742	0.0214	1	12/31/2024 22:02	WG2426623
Heptachlor epoxide	U		0.00696	0.0214	1	12/31/2024 22:02	WG2426623
Methoxychlor	U		0.00863	0.0214	1	12/31/2024 22:02	WG2426623
Toxaphene	U		0.229	0.428	1	12/31/2024 22:02	WG2426623
(S) Decachlorobiphenyl	69.2			10.0-135		12/31/2024 22:02	WG2426623
(S) Tetrachloro-m-xylene	71.2			10.0-139		12/31/2024 22:02	WG2426623

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00246	0.00642	1	01/03/2025 05:58	WG2426620
Acenaphthene	U		0.00224	0.00642	1	01/03/2025 05:58	WG2426620
Acenaphthylene	U		0.00231	0.00642	1	01/03/2025 05:58	WG2426620
Benzo(a)anthracene	U		0.00185	0.00642	1	01/03/2025 05:58	WG2426620
Benzo(a)pyrene	U		0.00192	0.00642	1	01/03/2025 05:58	WG2426620
Benzo(b)fluoranthene	0.00248	LC	0.00164	0.00642	1	01/03/2025 05:58	WG2426620
Benzo(g,h,i)perylene	0.00368	LC	0.00189	0.00642	1	01/03/2025 05:58	WG2426620
Benzo(k)fluoranthene	U		0.00230	0.00642	1	01/03/2025 05:58	WG2426620
Chrysene	U		0.00248	0.00642	1	01/03/2025 05:58	WG2426620
Dibenz(a,h)anthracene	U		0.00184	0.00642	1	01/03/2025 05:58	WG2426620
Fluoranthene	0.00277	LC	0.00243	0.00642	1	01/03/2025 05:58	WG2426620
Fluorene	U		0.00219	0.00642	1	01/03/2025 05:58	WG2426620
Indeno(1,2,3-cd)pyrene	U		0.00194	0.00642	1	01/03/2025 05:58	WG2426620
Naphthalene	U		0.00437	0.0214	1	01/03/2025 05:58	WG2426620
Phenanthrene	0.00339	LC	0.00247	0.00642	1	01/03/2025 05:58	WG2426620
Pyrene	0.00282	LC	0.00214	0.00642	1	01/03/2025 05:58	WG2426620
1-Methylnaphthalene	U		0.00481	0.0214	1	01/03/2025 05:58	WG2426620
2-Methylnaphthalene	U		0.00457	0.0214	1	01/03/2025 05:58	WG2426620
2-Chloronaphthalene	U		0.00499	0.0214	1	01/03/2025 05:58	WG2426620
(S) p-Terphenyl-d14	81.0			23.0-120		01/03/2025 05:58	WG2426620
(S) Nitrobenzene-d5	82.8			14.0-149		01/03/2025 05:58	WG2426620
(S) 2-Fluorobiphenyl	85.2			34.0-125		01/03/2025 05:58	WG2426620

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	12/27/2024 02:09	WG2425234
Toluene	U		0.278	1.00	1	12/27/2024 02:09	WG2425234
Ethylbenzene	U		0.137	1.00	1	12/27/2024 02:09	WG2425234
Total Xylenes	U		0.174	3.00	1	12/27/2024 02:09	WG2425234
(S) Toluene-d8	109			80.0-120		12/27/2024 02:09	WG2425234
(S) 4-Bromofluorobenzene	100			77.0-126		12/27/2024 02:09	WG2425234
(S) 1,2-Dichloroethane-d4	104			70.0-130		12/27/2024 02:09	WG2425234

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4162013-1 12/26/24 07:15

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1812761-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1812761-04 12/26/24 07:15 • (DUP) R4162013-3 12/26/24 07:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	92.0	91.8	1	0.283		10

Laboratory Control Sample (LCS)

(LCS) R4162013-2 12/26/24 07:15

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	90.0-110	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4163953-1 01/02/25 10:01

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1812209-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1812209-14 01/02/25 10:01 • (DUP) R4163953-3 01/02/25 10:01

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	53.5	57.2	1	6.66		10

Laboratory Control Sample (LCS)

(LCS) R4163953-2 01/02/25 10:01

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	90.0-110	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4163828-1 01/02/25 12:50

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0206	0.0400

Laboratory Control Sample (LCS)

(LCS) R4163828-2 01/02/25 12:52

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Mercury	0.500	0.466	93.1	80.0-120	

L1811286-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1811286-08 01/02/25 12:55 • (MS) R4163828-4 01/02/25 13:00 • (MSD) R4163828-5 01/02/25 13:03

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.663	0.0944	0.715	0.750	93.6	98.9	1	75.0-125			4.75	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4163794-1 01/02/25 09:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.691	2.00
Arsenic	U		0.837	2.00
Beryllium	U		0.0477	0.200
Cadmium	U		0.0653	0.500
Chromium	U		0.214	1.00
Copper	U		0.357	2.00
Lead	U		0.326	0.500
Nickel	U		0.200	2.00
Selenium	U		1.07	2.00
Silver	U		0.127	1.00
Thallium	U		0.518	2.00
Zinc	U		0.974	5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4163794-2 01/02/25 09:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	89.4	89.4	80.0-120	
Arsenic	100	97.3	97.3	80.0-120	
Beryllium	100	96.7	96.7	80.0-120	
Cadmium	100	95.9	95.9	80.0-120	
Chromium	100	99.5	99.5	80.0-120	
Copper	100	104	104	80.0-120	
Lead	100	95.5	95.5	80.0-120	
Nickel	100	97.3	97.3	80.0-120	
Selenium	100	96.9	96.9	80.0-120	
Silver	20.0	19.5	97.7	80.0-120	
Thallium	100	95.8	95.8	80.0-120	
Zinc	100	99.0	99.0	80.0-120	

L1813476-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1813476-09 01/02/25 09:53 • (MS) R4163794-5 01/02/25 09:58 • (MSD) R4163794-6 01/02/25 10:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	100	U	79.5	79.4	79.5	79.4	1	75.0-125			0.152	20
Arsenic	100	3.87	109	114	105	110	1	75.0-125			4.52	20
Beryllium	100	0.286	100	105	100	105	1	75.0-125			4.90	20

L1813476-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1813476-09 01/02/25 09:53 • (MS) R4163794-5 01/02/25 09:58 • (MSD) R4163794-6 01/02/25 10:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Cadmium	100	0.224	100	105	99.9	105	1	75.0-125			4.70	20
Chromium	100	8.62	110	111	102	102	1	75.0-125			0.393	20
Copper	100	4.61	112	113	108	109	1	75.0-125			0.883	20
Lead	100	13.4	120	121	106	108	1	75.0-125			1.45	20
Nickel	100	9.83	123	122	113	112	1	75.0-125			0.774	20
Selenium	100	U	104	111	104	111	1	75.0-125			5.67	20
Silver	20.0	1.31	22.8	24.0	108	114	1	75.0-125			5.03	20
Thallium	100	U	102	104	102	104	1	75.0-125			2.23	20
Zinc	100	23.5	122	122	98.4	98.1	1	75.0-125			0.168	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4163231-2 12/30/24 21:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.26	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	104			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4163231-1 12/30/24 20:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.00	5.51	110	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

L1813295-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1813295-02 12/31/24 05:28 • (MS) R4163231-3 12/31/24 06:07 • (MSD) R4163231-4 12/31/24 06:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	132	18.7	188	172	128	116	25.5	50.0-150			8.60	27
(S) a,a,a-Trifluorotoluene(FID)					105	104		77.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4162769-3 12/27/24 01:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
(S) Toluene-d8	105			80.0-120
(S) 4-Bromofluorobenzene	96.6			77.0-126
(S) 1,2-Dichloroethane-d4	101			70.0-130

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

(LCS) R4162769-1 12/26/24 23:39 • (LCSD) R4162769-2 12/26/24 23:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.58	5.49	112	110	70.0-123			1.63	20
Toluene	5.00	4.90	4.93	98.0	98.6	79.0-120			0.610	20
Ethylbenzene	5.00	5.30	5.04	106	101	79.0-123			5.03	20
Total Xylenes	15.0	15.4	15.1	103	101	79.0-123			1.97	20
(S) Toluene-d8				95.0	97.3	80.0-120				
(S) 4-Bromofluorobenzene				91.1	90.9	77.0-126				
(S) 1,2-Dichloroethane-d4				105	107	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4163779-2 12/29/24 19:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00500
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4163779-2 12/29/24 19:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	U		0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	95.9			75.0-131
(S) 4-Bromofluorobenzene	107			67.0-138
(S) 1,2-Dichloroethane-d4	97.1			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4163779-1 12/29/24 18:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.730	117	10.0-160	
Acrylonitrile	0.625	0.676	108	45.0-153	
Benzene	0.125	0.120	96.0	70.0-123	
Bromobenzene	0.125	0.103	82.4	73.0-121	
Bromodichloromethane	0.125	0.116	92.8	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R4163779-1 12/29/24 18:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromoform	0.125	0.0899	71.9	64.0-132	
Bromomethane	0.125	0.103	82.4	56.0-147	
n-Butylbenzene	0.125	0.119	95.2	68.0-135	
sec-Butylbenzene	0.125	0.114	91.2	74.0-130	
tert-Butylbenzene	0.125	0.115	92.0	75.0-127	
Carbon tetrachloride	0.125	0.120	96.0	66.0-128	
Chlorobenzene	0.125	0.108	86.4	76.0-128	
Chlorodibromomethane	0.125	0.0982	78.6	74.0-127	
Chloroethane	0.125	0.101	80.8	61.0-134	
Chloroform	0.125	0.119	95.2	72.0-123	
Chloromethane	0.125	0.181	145	51.0-138	J4
2-Chlorotoluene	0.125	0.113	90.4	75.0-124	
4-Chlorotoluene	0.125	0.111	88.8	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0851	68.1	59.0-130	
1,2-Dibromoethane	0.125	0.100	80.0	74.0-128	
Dibromomethane	0.125	0.115	92.0	75.0-122	
1,2-Dichlorobenzene	0.125	0.112	89.6	76.0-124	
1,3-Dichlorobenzene	0.125	0.111	88.8	76.0-125	
1,4-Dichlorobenzene	0.125	0.108	86.4	77.0-121	
Dichlorodifluoromethane	0.125	0.117	93.6	43.0-156	
1,1-Dichloroethane	0.125	0.145	116	70.0-127	
1,2-Dichloroethane	0.125	0.123	98.4	65.0-131	
1,1-Dichloroethene	0.125	0.165	132	65.0-131	J4
cis-1,2-Dichloroethene	0.125	0.118	94.4	73.0-125	
trans-1,2-Dichloroethene	0.125	0.129	103	71.0-125	
1,2-Dichloropropane	0.125	0.125	100	74.0-125	
1,1-Dichloropropene	0.125	0.124	99.2	73.0-125	
1,3-Dichloropropane	0.125	0.105	84.0	80.0-125	
cis-1,3-Dichloropropene	0.125	0.115	92.0	76.0-127	
trans-1,3-Dichloropropene	0.125	0.108	86.4	73.0-127	
2,2-Dichloropropane	0.125	0.129	103	59.0-135	
Di-isopropyl ether	0.125	0.154	123	60.0-136	
Ethylbenzene	0.125	0.109	87.2	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.102	81.6	57.0-150	
Isopropylbenzene	0.125	0.113	90.4	72.0-127	
p-Isopropyltoluene	0.125	0.120	96.0	72.0-133	
2-Butanone (MEK)	0.625	0.666	107	30.0-160	
Methylene Chloride	0.125	0.130	104	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.565	90.4	56.0-143	
Methyl tert-butyl ether	0.125	0.131	105	66.0-132	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R4163779-1 12/29/24 18:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Naphthalene	0.125	0.0979	78.3	59.0-130	
n-Propylbenzene	0.125	0.113	90.4	74.0-126	
Styrene	0.125	0.112	89.6	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.101	80.8	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.100	80.0	68.0-128	
1,1,2-Trichlorotrifluoroethane	0.125	0.142	114	61.0-139	
Tetrachloroethene	0.125	0.0974	77.9	70.0-136	
Toluene	0.125	0.0992	79.4	75.0-121	
1,2,3-Trichlorobenzene	0.125	0.0983	78.6	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.113	90.4	62.0-137	
1,1,1-Trichloroethane	0.125	0.129	103	69.0-126	
1,1,2-Trichloroethane	0.125	0.102	81.6	78.0-123	
Trichloroethene	0.125	0.115	92.0	76.0-126	
Trichlorofluoromethane	0.125	0.120	96.0	61.0-142	
1,2,3-Trichloropropane	0.125	0.106	84.8	67.0-129	
1,2,4-Trimethylbenzene	0.125	0.109	87.2	70.0-126	
1,2,3-Trimethylbenzene	0.125	0.112	89.6	74.0-124	
1,3,5-Trimethylbenzene	0.125	0.108	86.4	73.0-127	
Vinyl chloride	0.125	0.112	89.6	63.0-134	
Xylenes, Total	0.375	0.325	86.7	72.0-127	
(S) Toluene-d8			92.8	75.0-131	
(S) 4-Bromofluorobenzene			104	67.0-138	
(S) 1,2-Dichloroethane-d4			106	70.0-130	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4163906-1 01/02/25 09:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	80.0			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4163906-2 01/02/25 09:16

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	44.4	88.8	50.0-150	
(S) o-Terphenyl			112	18.0-148	

L1813127-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1813127-01 01/02/25 10:08 • (MS) R4163906-3 01/02/25 10:22 • (MSD) R4163906-4 01/02/25 10:34

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	52.2	U	39.8	37.9	76.3	72.5	1	50.0-150			4.86	20
(S) o-Terphenyl					102	95.3		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4165087-1 01/06/25 15:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2,4-D	U		0.0257	0.0700
Dalapon	U		0.0440	0.0700
2,4-DB	U		0.0186	0.0700
Dicamba	U		0.0226	0.0700
Dichloroprop	U		0.0183	0.0700
Dinoseb	U		0.0255	0.0700
MCPA	U		1.86	6.50
MCPP	U		2.03	6.50
2,4,5-T	U		0.0236	0.0700
2,4,5-TP (Silvex)	U		0.0187	0.0700
(S) 2,4-Dichlorophenyl Acetic Acid	87.4			22.0-132

Laboratory Control Sample (LCS)

(LCS) R4165087-2 01/06/25 15:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2,4-D	0.0833	0.0958	115	40.0-120	P
Dalapon	0.0833	0.0335	40.2	15.0-120	J
2,4-DB	0.0833	0.0791	95.0	25.0-143	
Dicamba	0.0833	0.0766	92.0	43.0-120	
Dichloroprop	0.0833	0.122	146	32.0-129	J4 P
Dinoseb	0.0833	0.0453	54.4	10.0-120	J
MCPA	8.33	7.05	84.6	31.0-121	
MCPP	8.33	8.02	96.3	28.0-133	
2,4,5-T	0.0833	0.0818	98.2	41.0-120	P
2,4,5-TP (Silvex)	0.0833	0.0738	88.6	42.0-120	
(S) 2,4-Dichlorophenyl Acetic Acid			91.0	22.0-132	

L1812209-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1812209-10 01/06/25 15:57 • (MS) R4165087-3 01/06/25 16:07 • (MSD) R4165087-4 01/06/25 16:18

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
2,4-D	0.141	U	0.141	0.157	100	111	1	10.0-160	P	P	10.7	24
Dalapon	0.141	U	U	U	32.5	30.9	1	10.0-121	J	J	5.30	27
2,4-DB	0.141	U	0.135	0.144	95.7	102	1	10.0-160	P	P	6.20	22

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1812209-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1812209-10 01/06/25 15:57 • (MS) R4165087-3 01/06/25 16:07 • (MSD) R4165087-4 01/06/25 16:18

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dicamba	0.141	U	0.117	0.128	82.7	90.9	1	10.0-154	J	P	9.41	21
Dichloroprop	0.141	U	0.197	0.212	139	150	1	10.0-158	P	P	7.47	20
Dinoseb	0.141	U	0.0675	0.0791	47.8	55.9	1	10.0-120	J	J	15.7	40
MCPA	14.1	U	12.8	11.7	90.3	82.8	1	10.0-160	P	P	8.60	40
MCPP	14.1	U	12.5	13.1	88.5	92.4	1	10.0-160			4.38	40
2,4,5-T	0.141	U	0.123	0.132	86.9	93.2	1	10.0-157	P	P	6.93	20
2,4,5-TP (Silvex)	0.141	U	0.116	0.127	82.4	90.2	1	10.0-156	J	P	9.05	20
(S) 2,4-Dichlorophenyl Acetic Acid					81.4	89.2		22.0-132				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4163677-1 12/31/24 20:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00645	0.0200
Alpha BHC	U		0.00637	0.0200
Beta BHC	U		0.00630	0.0200
Delta BHC	U		0.00635	0.0200
Gamma BHC	U		0.00676	0.0200
Chlordane	U		0.0990	0.300
4,4-DDD	U		0.00690	0.0200
4,4-DDE	U		0.00673	0.0200
4,4-DDT	U		0.00766	0.0200
Dieldrin	U		0.00697	0.0200
Endosulfan I	U		0.00604	0.0200
Endosulfan II	U		0.00661	0.0200
Endosulfan sulfate	U		0.00642	0.0200
Endrin	U		0.00746	0.0200
Endrin aldehyde	U		0.00590	0.0200
Endrin ketone	U		0.00695	0.0200
Hexachlorobenzene	U		0.00608	0.0200
Heptachlor	U		0.00693	0.0200
Heptachlor epoxide	U		0.00650	0.0200
Methoxychlor	U		0.00806	0.0200
Toxaphene	U		0.214	0.400
(S) Decachlorobiphenyl	86.0			10.0-135
(S) Tetrachloro-m-xylene	89.3			10.0-139

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R4163677-2 12/31/24 20:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0583	87.5	34.0-136	
Alpha BHC	0.0666	0.0597	89.6	34.0-139	
Beta BHC	0.0666	0.0571	85.7	34.0-133	
Delta BHC	0.0666	0.0458	68.8	34.0-135	
Gamma BHC	0.0666	0.0602	90.4	34.0-136	
4,4-DDD	0.0666	0.0614	92.2	33.0-141	
4,4-DDE	0.0666	0.0568	85.3	34.0-134	
4,4-DDT	0.0666	0.0574	86.2	30.0-143	
Dieldrin	0.0666	0.0585	87.8	35.0-137	
Endosulfan I	0.0666	0.0633	95.0	34.0-134	

Laboratory Control Sample (LCS)

(LCS) R4163677-2 12/31/24 20:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Endosulfan II	0.0666	0.0581	87.2	35.0-132	
Endosulfan sulfate	0.0666	0.0556	83.5	35.0-132	
Endrin	0.0666	0.0607	91.1	34.0-137	
Endrin aldehyde	0.0666	0.0482	72.4	23.0-121	
Endrin ketone	0.0666	0.0604	90.7	35.0-144	
Hexachlorobenzene	0.0666	0.0529	79.4	33.0-129	
Heptachlor	0.0666	0.0500	75.1	36.0-141	
Heptachlor epoxide	0.0666	0.0579	86.9	36.0-134	
Methoxychlor	0.0666	0.0556	83.5	28.0-150	
(S) Decachlorobiphenyl			81.4	10.0-135	
(S) Tetrachloro-m-xylene			88.3	10.0-139	

L1811713-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1811713-01 12/31/24 22:58 • (MS) R4163677-3 12/31/24 23:07 • (MSD) R4163677-4 12/31/24 23:16

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Aldrin	0.0708	U	0.0602	0.0513	85.0	72.1	1	20.0-135			15.8	37
Alpha BHC	0.0708	U	0.0678	0.0570	95.8	80.1	1	27.0-140			17.2	35
Beta BHC	0.0708	U	0.0606	0.0511	85.6	71.8	1	23.0-141			16.9	37
Delta BHC	0.0708	U	0.0490	0.0409	69.2	57.5	1	21.0-138			17.9	35
Gamma BHC	0.0708	U	0.0667	0.0561	94.2	78.7	1	27.0-137			17.3	36
4,4-DDD	0.0708	U	0.0607	0.0520	85.7	73.0	1	15.0-152			15.4	39
4,4-DDE	0.0708	U	0.0576	0.0480	81.3	67.4	1	10.0-152			18.1	40
4,4-DDT	0.0708	U	0.0582	0.0494	82.2	69.4	1	10.0-151			16.4	40
Dieldrin	0.0708	U	0.0607	0.0513	85.7	72.1	1	17.0-145			16.7	37
Endosulfan I	0.0708	U	0.0656	0.0539	92.7	75.7	1	20.0-137			19.6	36
Endosulfan II	0.0708	U	0.0607	0.0509	85.7	71.5	1	15.0-141			17.5	37
Endosulfan sulfate	0.0708	U	0.0593	0.0504	83.8	70.7	1	15.0-143			16.3	38
Endrin	0.0708	U	0.0649	0.0538	91.7	75.6	1	19.0-143			18.6	37
Endrin aldehyde	0.0708	U	0.0536	0.0441	75.7	62.0	1	10.0-139			19.3	40
Endrin ketone	0.0708	U	0.0617	0.0505	87.1	70.9	1	17.0-149			19.9	38
Hexachlorobenzene	0.0708	U	0.0593	0.0502	83.8	70.4	1	25.0-126			16.7	35
Heptachlor	0.0708	U	0.0584	0.0520	82.5	73.0	1	22.0-138			11.7	37
Heptachlor epoxide	0.0708	U	0.0600	0.0504	84.8	70.7	1	22.0-138			17.5	36
Methoxychlor	0.0708	U	0.0557	0.0486	78.8	68.2	1	10.0-159			13.8	40
(S) Decachlorobiphenyl					77.7	73.0		10.0-135				
(S) Tetrachloro-m-xylene					85.6	73.9		10.0-139				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4164024-2 12/31/24 15:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	114			23.0-120
(S) Nitrobenzene-d5	112			14.0-149
(S) 2-Fluorobiphenyl	115			34.0-125

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4164024-1 12/31/24 15:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0774	96.8	50.0-126	
Acenaphthene	0.0800	0.0744	93.0	50.0-120	
Acenaphthylene	0.0800	0.0780	97.5	50.0-120	
Benzo(a)anthracene	0.0800	0.0758	94.8	45.0-120	
Benzo(a)pyrene	0.0800	0.0733	91.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0810	101	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0802	100	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0771	96.4	49.0-125	
Chrysene	0.0800	0.0799	99.9	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0788	98.5	47.0-125	
Fluoranthene	0.0800	0.0813	102	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R4164024-1 12/31/24 15:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0813	102	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0748	93.5	46.0-125	
Naphthalene	0.0800	0.0750	93.8	50.0-120	
Phenanthrene	0.0800	0.0806	101	47.0-120	
Pyrene	0.0800	0.0780	97.5	43.0-123	
1-Methylnaphthalene	0.0800	0.0788	98.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0766	95.8	50.0-120	
2-Chloronaphthalene	0.0800	0.0851	106	50.0-120	
(S) p-Terphenyl-d14			103	23.0-120	
(S) Nitrobenzene-d5			100	14.0-149	
(S) 2-Fluorobiphenyl			106	34.0-125	

L1813004-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1813004-06 01/03/25 04:47 • (MS) R4164389-1 01/03/25 05:04 • (MSD) R4164389-2 01/03/25 05:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0952	U	0.0387	0.0531	40.6	55.2	1	10.0-145	U3		31.4	30
Acenaphthene	0.0952	U	0.0488	0.0615	51.3	64.0	1	14.0-127			23.0	27
Acenaphthylene	0.0952	U	0.0458	0.0577	48.1	60.0	1	21.0-124			23.1	25
Benzo(a)anthracene	0.0952	U	0.0375	0.0533	39.4	55.5	1	10.0-139	U3		34.9	30
Benzo(a)pyrene	0.0952	U	0.0409	0.0582	42.9	60.5	1	10.0-141	U3		35.0	31
Benzo(b)fluoranthene	0.0952	U	0.0472	0.0655	49.6	68.1	1	10.0-140			32.5	36
Benzo(g,h,i)perylene	0.0952	U	0.0530	0.0742	55.6	77.2	1	10.0-140	U3		33.4	33
Benzo(k)fluoranthene	0.0952	U	0.0425	0.0636	44.6	66.1	1	10.0-137	U3		39.8	31
Chrysene	0.0952	U	0.0453	0.0649	47.6	67.5	1	10.0-145	U3		35.7	30
Dibenz(a,h)anthracene	0.0952	U	0.0502	0.0708	52.7	73.6	1	10.0-132	U3		34.1	31
Fluoranthene	0.0952	U	0.0443	0.0619	46.5	64.3	1	10.0-153	U3		33.1	33
Fluorene	0.0952	U	0.0499	0.0649	52.4	67.5	1	11.0-130			26.1	29
Indeno(1,2,3-cd)pyrene	0.0952	U	0.0481	0.0676	50.5	70.3	1	10.0-137	U3		33.8	32
Naphthalene	0.0952	U	0.0616	0.0682	63.7	69.9	1	10.0-135			10.2	27
Phenanthrene	0.0952	U	0.0461	0.0629	48.5	65.4	1	10.0-144			30.7	31
Pyrene	0.0952	U	0.0459	0.0644	48.2	67.0	1	10.0-148			33.6	35
1-Methylnaphthalene	0.0952	U	0.0576	0.0684	59.8	70.3	1	10.0-142			17.1	28
2-Methylnaphthalene	0.0952	U	0.0561	0.0670	58.1	68.8	1	10.0-137			17.6	28
2-Chloronaphthalene	0.0952	U	0.0539	0.0666	56.6	69.2	1	29.0-120			21.1	24
(S) p-Terphenyl-d14					53.9	150		23.0-120	U1			
(S) Nitrobenzene-d5					62.9	145		14.0-149				
(S) 2-Fluorobiphenyl					64.9	155		34.0-125	U1			

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

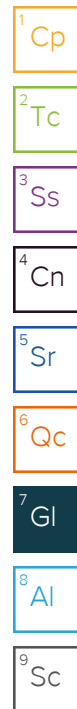
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
P	RPD between the primary and confirmatory analysis exceeded 40%.



ACCREDITATIONS & LOCATIONS

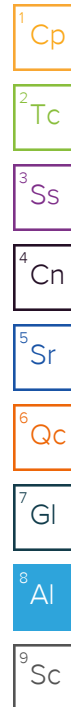
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



State of Oregon Chain of Custody

F159

Agency, Authorized Purchaser or Agent: Oregon DEQ				Contract Laboratory Name: ESC				Lab Selection Criteria: ☐ Proximity (if TAT < 48 hrs) ☐ Prior work on same project ☒ Cost (for anticipated analyses) ☐ Other labs disqualified or unable to perform requested services ☐ Emergency work				Turn Around Time: ☒ 10 days (std.) ☐ 5 days ☐ 72 hours ☐ 48 hours ☐ 24 hours ☐ Other	
Send Lab Report To: Cathy Brown Address: 165 E. 7 th Avenue, Suite 100 Eugene, OR 97401 Tel. #: 503-753-6153 E-mail: cathy.brown@deq.oregon.gov				Lab Batch #:				Invoice To: ODEQ/Business Office Address: 700 NE Multnomah St, Suite 600 Portland, OR 97232 Tel. #: 503-229-5696					
Project Name: DEQ Forest Creek				Sample Preservative									
Sampler Name: Connor Anderson													
Sample ID#	Collection Date/Time	Matrix	Number of Containers	NWTPH-Gx	NWTPH-Dx	VOCs EPA 8260D	SVOCs EPA 8270E-SIM	Dioxins/Furans EPA 1613B	*Priority Pollutant Metals EPA 6010D/7471B	Herbicides EPA 8151A	Pesticides EPA 8081B	BTEX EPA 8260D	Comments
DU1-ISM-DUP	12/20/24; 07:50	S	13	X	X	X	X	X	X	X	X		ISM processing 01/02
TRIP BLANK											X		03
*Priority Pollutant Metals: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc.													
Relinquished By: Connor Anderson				Agency/Agent: MFA				Received By: CRONERD				Agency/Agent:	
Signature: [Signature]				Time & Date: 12/23/24, 1100				Signature:				Time & Date: 12-24-24 0900	
Relinquished By:				Agency/Agent:				Received By:				Agency/Agent:	
Signature:				Time & Date:				Signature:				Time & Date:	

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Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N If Applicable

COC Signed/Accurate: ☒ Y ☐ N VOA Zero Headspace: ☒ Y ☐ N

Bottles arrive intact: ☒ Y ☐ N Pres. Correct/Check: ☒ Y ☐ N

Correct bottles used: ☒ Y ☐ N

Sufficient volume sent: ☒ Y ☐ N

RA Screen <0.5 mR/hr: ☒ Y ☐ N

1.710-1.77 LAM

(13) TION #102-1098-07 AND PRICE AGREEMENT # 8903. THE PRICE AGREEMENT INCLUDING CONTRACT TERMS "S) CONTAINED IN THE PRICE AGREEMENT ARE HEREBY INCORPORATED BY REFERENCE AND SHALL APPLY LICITING T'S AND C'S, EXPRESS OR IMPLIED.