

AUTHORIZATION TO SUBMIT REPORT

Stantec has been authorized by the client, Tesoro Refining & Marketing Company LLC (Tesoro) c/o Marathon Petroleum Company LP (MPC - representative Eric Swaisgood, Advanced HES Professional, ES&S-Waste and Remediation) to submit the attached memo report dated December 9, 2024, on the sampling of Remediation Well CRW for Former Tesoro NorthStore 101/IFC (MPC Site 157575)" to the Alaska Department of Environmental Conservation (Attn: Pete Campbell, PE). If you have any questions or need additional information concerning this report, please contact me at (907) 227-9883 or via email at bob.gilfilian@stantec.com.

Regards,

STANTEC CONSULTING SERVICES, INC.

A handwritten signature in cursive script that reads "Bob Gilfilian".

Robert (Bob) Gilfilian, P.E.

Project Technical Lead

Principal Senior Civil Engineer



Memo

To: Pete Campbell. ADEC From: Bob Gilfilian, Sydney Souza, and Geoff Moorhead

Project/File: Sampling Remediation Well CRW at TNS 101/IFC - Crowley Property/ Stantec #203723629 Date: December 9, 2024

This Groundwater Monitoring Report for Remediation Well CRW was prepared by Stantec Consulting Services Inc. (Stantec) on behalf of Tesoro Refining and Marketing Company (Tesoro) c/o Marathon Petroleum Company (MPC) for MPC Site #157575 - TNS101/ IFC, located at the northeast corner of the intersection of South Cushman Street and Van Horn Road at 3569 South Cushman Street, in Fairbanks, Alaska (**Figure 1**).

The sampling of remediation well CRW was proposed in the 2024 CAP for this site by the methods approved by Alaska Department of Environmental Conservation (ADEC). Water samples were processed and analyzed by Pace (PACE) Analytical, Inc for following tests:

- Gasoline Range Organics (GRO) by Alaska Test Method (AK)101;
- Diesel Range Organics (DRO) by AK102;
- Alaska expanded list of Volatile Organic Compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260C, reporting benzene, toluene, ethylbenzene, total xylenes, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB;
- Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270D Selective Ion Monitoring (SIM), reporting naphthalene;
- EPA Method 6010D metals for sodium to establish a baseline for sodium levels in the groundwater.

Analytical results from this sampling event are in Table 1. The laboratory analysis report can be found in Attachment 1.

Remediation well CRW is an existing well on the Crowley property (former IFC site) that is located in the northwest corner of the property adjacent to former Tesoro Northstore (TNS) 101. A one-half horsepower submersible well pump was installed about 22 feet below ground surface (bgs) on May 22, 2024. The pump was placed about two feet from the bottom of the well. The depth to water was found to be 13.37 feet bgs and the depth to the bottom of the well was 24.20 feet bgs. After measuring the well depth, the well was purged of three well volumes of groundwater (roughly 85 gallons) and then sampled. The pump operates on a full-time basis (24-hours a day) and discharges at a constant rate of approximately 1.5 gallons per minute (gpm) into the existing aeration treatment tank located on the former TNS 101 property.

Field sampling of remediation well CRW was conducted by Stantec environmental staff Geoff Moorhead, PE, and Remi Malenfant, Geologist-in-Training. and sampled five times in 2024 on a nearly monthly basis. The initial sampling of remediation well CRW occurred on May 22, 2024, when the submersible pump was installed. Prior to the completion of seasonal sampling, the pump was shut down on September 3 and then turned back on after a month of recovery for the final yearly sampling on November 1, 2024. Field personnel sampled monitoring well CRW on May 22, June 13, July 31, September 3, and November 1, 2024.

Reference: Sampling Remediation Well CRW at former TNS 101/IFC, Project #203723629

Table 1 – Groundwater Analytical Results for Remediation Well CRW

ID	Date	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENE	GRO	DRO	1,2,4-TMB	1,3,5-TMB	NAPH-THALENE ¹	SODIUM
UNITS	-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CRW	10/5/2023	0.00515	0.000488 J	0.0295	0.176	0.541	2.01 B	0.0773	0.0220	0.0151	10.50
	5/22/2024	0.00314	U(0.00100)	0.0191	0.108	0.329	0.450	0.0568	0.0178	0.0210	9.40
	6/13/2024	0.00188	U(0.00100)	0.0101	0.0632	0.245	0.281 J	0.0316	0.00835	0.0113	NM
	7/31/2024	0.00163	U(0.00100)	0.0106	0.0512	0.218	1.94	0.0287	0.00786	0.0128	NM
	9/3/2024	0.00125	U(0.00100)	0.00798	0.0330	0.208	2.01	0.0203	0.00634	0.00991	NM
	11/1/2024	0.00258	U(0.00100)	0.0243	0.125	0.544 B	U(0.800)	0.0660	0.0175	0.0314	NM
GCLs	-	0.0046	1.1	0.015	0.19	2.2	1.5	0.056	0.06	0.0017	NA

Key:

1	Results from VOC Method 8270 D	GCLs	Groundwater cleanup levels, 18 AAC 75.345, Table C, (9/18/2019)
B	Analyte found in associated blank.	GRO	Gasoline range organics analyzed by AK101.
Bold	Concentration or estimated quantitation limit exceeds the GCL	J	The identification of the analyte is acceptable; reported value estimated.
TMB	Trimethylbenzene	DUP	Duplicate sample of the preceding sample
DRO	Diesel Range Organics analyzed by AK 102		
NM	Not measured		

The sampling results in the table above show a decreasing trend of analytes except for DRO in the groundwater at this site while the pump ran over the summer. The sample in November (after the pump had been shut down for two months) shows a rebound of BTEX, GRO, and naphthalene, but not DRO.

These results are inconclusive and additional monitoring of the CRW well will be performed in 2025. Details of this will be presented in the 2025 CAP that will be discussed with ADEC during the annual work plan meeting scheduled for December 10, 2024.

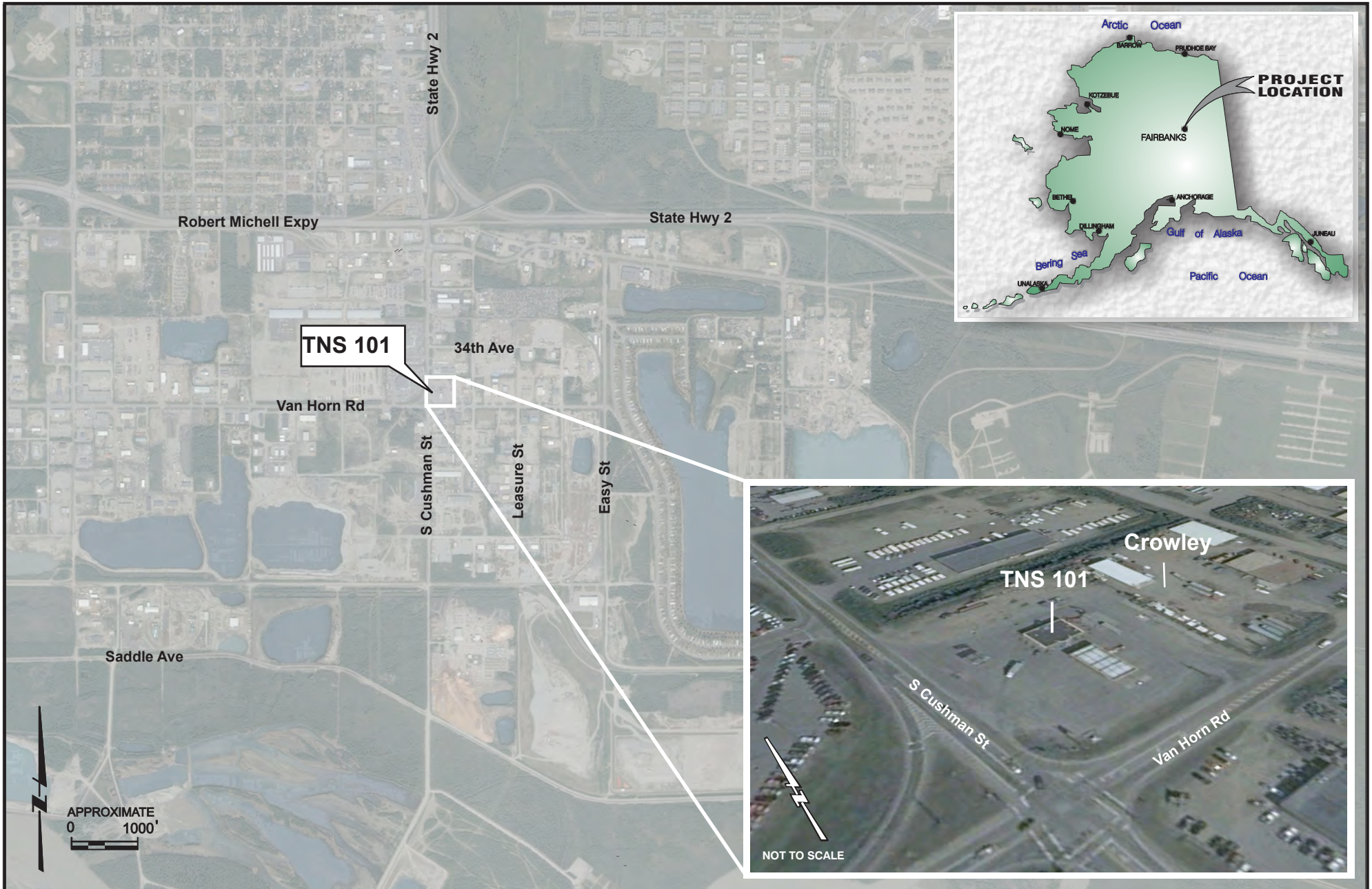
Respectfully,

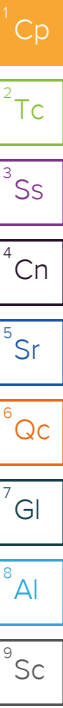
STANTEC CONSULTING SERVICES INC.



Bob Gilfilian, PE
Principal Engineer
Mobile: (907) 227-9883
Bob.gilfilian@stantec.com

Attachments: Attachment 1 – Laboratory Analytical Results
Figure 1 – Location and Vicinity Map

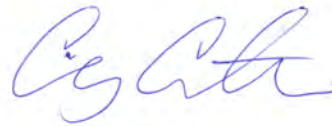




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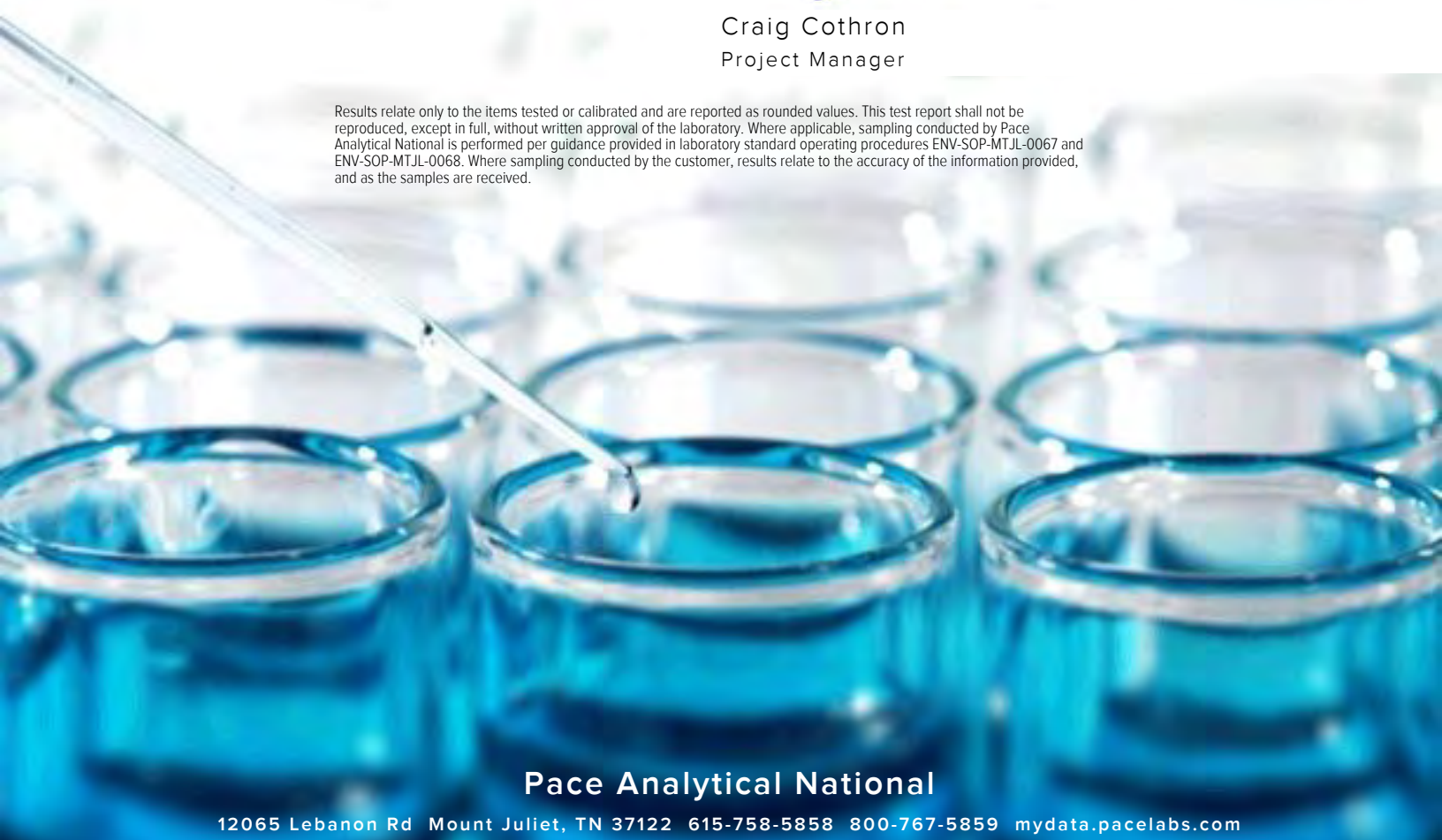
Sample Delivery Group: L1740326
Samples Received: 05/24/2024
Project Number: 203723629
Description: TNS 101/IFC (5313)
Site: TNS 101/SPEEDWAY 5313
Report To: Mr. Remi Malenfant
725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Entire Report Reviewed By:



Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

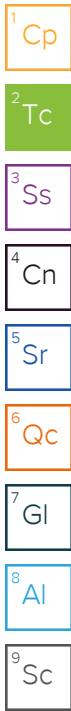


Pace Analytical National

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

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SAMPLE SUMMARY

CRW L1740326-01 GW

Collected by: Remi Malenfant
 Collected date/time: 05/22/24 17:37
 Received date/time: 05/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2296462	1	06/03/24 18:16	06/03/24 21:16	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method AK101	WG2296315	1	05/31/24 16:34	05/31/24 16:34	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2297196	1	06/03/24 03:46	06/03/24 03:46	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2296781	1.05	06/03/24 17:54	06/06/24 09:49	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2294533	1	05/29/24 08:12	05/29/24 21:41	JCH	Mt. Juliet, TN

TRIP BLANK L1740326-02 GW

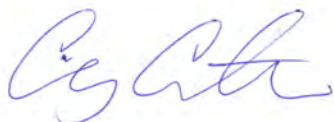
Collected by: Remi Malenfant
 Collected date/time: 05/22/24 00:00
 Received date/time: 05/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2296872	1	06/01/24 17:51	06/01/24 17:51	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2297196	1	06/03/24 00:24	06/03/24 00:24	DYW	Mt. Juliet, TN

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

CASE NARRATIVE

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



Craig Cothron
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Sodium	9.40		0.504	3.00	1	06/03/2024 21:16	WG2296462

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

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPHGAK C6 to C10	0.329		0.0287	0.100	1	05/31/2024 16:34	WG2296315
(S) a,a,a-Trifluorotoluene(FID)	75.6			50.0-150		05/31/2024 16:34	WG2296315
(S) a,a,a-Trifluorotoluene(PID)	0.000	<u>J2</u>		79.0-125		05/31/2024 16:34	WG2296315

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	0.00314		0.0000941	0.00100	1	06/03/2024 03:46	WG2297196
n-Butylbenzene	U		0.000157	0.00100	1	06/03/2024 03:46	WG2297196
sec-Butylbenzene	0.00307		0.000125	0.00100	1	06/03/2024 03:46	WG2297196
tert-Butylbenzene	U		0.000127	0.00100	1	06/03/2024 03:46	WG2297196
Ethylbenzene	0.0191		0.000137	0.00100	1	06/03/2024 03:46	WG2297196
Isopropylbenzene	0.0106		0.000105	0.00100	1	06/03/2024 03:46	WG2297196
Naphthalene	0.0294	<u>C3</u>	0.00100	0.00500	1	06/03/2024 03:46	WG2297196
Toluene	U		0.000278	0.00100	1	06/03/2024 03:46	WG2297196
1,2,4-Trimethylbenzene	0.0568		0.000322	0.00100	1	06/03/2024 03:46	WG2297196
1,3,5-Trimethylbenzene	0.0178		0.000104	0.00100	1	06/03/2024 03:46	WG2297196
Total Xylenes	0.108		0.000174	0.00300	1	06/03/2024 03:46	WG2297196
(S) Toluene-d8	102			80.0-120		06/03/2024 03:46	WG2297196
(S) 4-Bromofluorobenzene	99.2			77.0-126		06/03/2024 03:46	WG2297196
(S) 1,2-Dichloroethane-d4	103			70.0-130		06/03/2024 03:46	WG2297196

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
AK102 DRO C10-C25	0.450	<u>B J</u>	0.179	0.840	1.05	06/06/2024 09:49	WG2296781
(S) o-Terphenyl	108			50.0-150		06/06/2024 09:49	WG2296781

Sample Narrative:

L1740326-01 WG2296781: Dilution due to sample volume.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	1	05/29/2024 21:41	WG2294533
Acenaphthene	0.000126		0.0000190	0.0000500	1	05/29/2024 21:41	WG2294533
Acenaphthylene	U		0.0000171	0.0000500	1	05/29/2024 21:41	WG2294533
Benzo(a)anthracene	U		0.0000203	0.0000500	1	05/29/2024 21:41	WG2294533
Benzo(a)pyrene	U		0.0000184	0.0000500	1	05/29/2024 21:41	WG2294533
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	05/29/2024 21:41	WG2294533
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	05/29/2024 21:41	WG2294533
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	05/29/2024 21:41	WG2294533
Chrysene	U		0.0000179	0.0000500	1	05/29/2024 21:41	WG2294533
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	05/29/2024 21:41	WG2294533
Fluoranthene	U		0.0000270	0.000100	1	05/29/2024 21:41	WG2294533
Fluorene	0.000213		0.0000169	0.0000500	1	05/29/2024 21:41	WG2294533
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	05/29/2024 21:41	WG2294533
Naphthalene	0.0210		0.0000917	0.000250	1	05/29/2024 21:41	WG2294533

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Phenanthrene	0.0000190	U	0.0000180	0.0000500	1	05/29/2024 21:41	WG2294533
Pyrene	U		0.0000169	0.0000500	1	05/29/2024 21:41	WG2294533
1-Methylnaphthalene	0.0122		0.0000687	0.000250	1	05/29/2024 21:41	WG2294533
2-Methylnaphthalene	0.00813		0.0000674	0.000250	1	05/29/2024 21:41	WG2294533
2-Chloronaphthalene	U		0.0000682	0.000250	1	05/29/2024 21:41	WG2294533
(S) Nitrobenzene-d5	97.4			31.0-160		05/29/2024 21:41	WG2294533
(S) 2-Fluorobiphenyl	90.0			48.0-148		05/29/2024 21:41	WG2294533
(S) p-Terphenyl-d14	90.0			37.0-146		05/29/2024 21:41	WG2294533

- 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 8260B/8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	06/01/2024 17:51	WG2296872
Acrolein	U		0.00254	0.0500	1	06/01/2024 17:51	WG2296872
Acrylonitrile	U		0.000671	0.0100	1	06/01/2024 17:51	WG2296872
Benzene	U		0.0000941	0.00100	1	06/01/2024 17:51	WG2296872
Benzene	U		0.0000941	0.00100	1	06/03/2024 00:24	WG2297196
Bromobenzene	U		0.000118	0.00100	1	06/01/2024 17:51	WG2296872
Bromodichloromethane	U		0.000136	0.00100	1	06/01/2024 17:51	WG2296872
Bromoform	U		0.000129	0.00100	1	06/01/2024 17:51	WG2296872
Bromomethane	U		0.000605	0.00500	1	06/01/2024 17:51	WG2296872
n-Butylbenzene	U		0.000157	0.00100	1	06/01/2024 17:51	WG2296872
n-Butylbenzene	U		0.000157	0.00100	1	06/03/2024 00:24	WG2297196
sec-Butylbenzene	U		0.000125	0.00100	1	06/01/2024 17:51	WG2296872
sec-Butylbenzene	U		0.000125	0.00100	1	06/03/2024 00:24	WG2297196
tert-Butylbenzene	U		0.000127	0.00100	1	06/01/2024 17:51	WG2296872
tert-Butylbenzene	U		0.000127	0.00100	1	06/03/2024 00:24	WG2297196
Carbon tetrachloride	U		0.000128	0.00100	1	06/01/2024 17:51	WG2296872
Chlorobenzene	U		0.000116	0.00100	1	06/01/2024 17:51	WG2296872
Chlorodibromomethane	U		0.000140	0.00100	1	06/01/2024 17:51	WG2296872
Chloroethane	U		0.000192	0.00500	1	06/01/2024 17:51	WG2296872
Chloroform	U		0.000111	0.00500	1	06/01/2024 17:51	WG2296872
Chloromethane	U		0.000960	0.00250	1	06/01/2024 17:51	WG2296872
2-Chlorotoluene	U		0.000106	0.00100	1	06/01/2024 17:51	WG2296872
4-Chlorotoluene	U		0.000114	0.00100	1	06/01/2024 17:51	WG2296872
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500	1	06/01/2024 17:51	WG2296872
1,2-Dibromoethane	U		0.000126	0.00100	1	06/01/2024 17:51	WG2296872
Dibromomethane	U		0.000122	0.00100	1	06/01/2024 17:51	WG2296872
1,2-Dichlorobenzene	U		0.000107	0.00100	1	06/01/2024 17:51	WG2296872
1,3-Dichlorobenzene	U		0.000110	0.00100	1	06/01/2024 17:51	WG2296872
1,4-Dichlorobenzene	U		0.000120	0.00100	1	06/01/2024 17:51	WG2296872
Dichlorodifluoromethane	U		0.000374	0.00500	1	06/01/2024 17:51	WG2296872
1,1-Dichloroethane	U		0.000100	0.00100	1	06/01/2024 17:51	WG2296872
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/01/2024 17:51	WG2296872
1,1-Dichloroethene	U		0.000188	0.00100	1	06/01/2024 17:51	WG2296872
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/01/2024 17:51	WG2296872
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/01/2024 17:51	WG2296872
1,2-Dichloropropane	U		0.000149	0.00100	1	06/01/2024 17:51	WG2296872
1,1-Dichloropropene	U		0.000142	0.00100	1	06/01/2024 17:51	WG2296872
1,3-Dichloropropane	U		0.000110	0.00100	1	06/01/2024 17:51	WG2296872
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/01/2024 17:51	WG2296872
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/01/2024 17:51	WG2296872
2,2-Dichloropropane	U		0.000161	0.00100	1	06/01/2024 17:51	WG2296872
Di-isopropyl ether	U		0.000105	0.00100	1	06/01/2024 17:51	WG2296872
Ethylbenzene	U		0.000137	0.00100	1	06/01/2024 17:51	WG2296872
Ethylbenzene	U		0.000137	0.00100	1	06/03/2024 00:24	WG2297196
Hexachloro-1,3-butadiene	U		0.000337	0.00100	1	06/01/2024 17:51	WG2296872
Isopropylbenzene	U		0.000105	0.00100	1	06/01/2024 17:51	WG2296872
Isopropylbenzene	U		0.000105	0.00100	1	06/03/2024 00:24	WG2297196
p-Isopropyltoluene	U		0.000120	0.00100	1	06/01/2024 17:51	WG2296872
2-Butanone (MEK)	U		0.00119	0.0100	1	06/01/2024 17:51	WG2296872
Methylene Chloride	U		0.000430	0.00500	1	06/01/2024 17:51	WG2296872
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/01/2024 17:51	WG2296872
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/01/2024 17:51	WG2296872
Naphthalene	U		0.00100	0.00500	1	06/01/2024 17:51	WG2296872
Naphthalene	U	C3	0.00100	0.00500	1	06/03/2024 00:24	WG2297196
n-Propylbenzene	U		0.0000993	0.00100	1	06/01/2024 17:51	WG2296872
Styrene	U		0.000118	0.00100	1	06/01/2024 17:51	WG2296872

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

TRIP BLANK

SAMPLE RESULTS - 02

Collected date/time: 05/22/24 00:00

L1740326

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/01/2024 17:51	WG2296872
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/01/2024 17:51	WG2296872
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100	1	06/01/2024 17:51	WG2296872
Tetrachloroethene	U		0.000300	0.00100	1	06/01/2024 17:51	WG2296872
Toluene	U		0.000278	0.00100	1	06/01/2024 17:51	WG2296872
Toluene	U		0.000278	0.00100	1	06/03/2024 00:24	WG2297196
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	06/01/2024 17:51	WG2296872
1,2,4-Trichlorobenzene	U		0.000481	0.00100	1	06/01/2024 17:51	WG2296872
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/01/2024 17:51	WG2296872
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/01/2024 17:51	WG2296872
Trichloroethene	0.000787	U	0.000190	0.00100	1	06/01/2024 17:51	WG2296872
Trichlorofluoromethane	U		0.000160	0.00500	1	06/01/2024 17:51	WG2296872
1,2,3-Trichloropropane	U		0.000237	0.00250	1	06/01/2024 17:51	WG2296872
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/01/2024 17:51	WG2296872
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/03/2024 00:24	WG2297196
1,2,3-Trimethylbenzene	U		0.000104	0.00100	1	06/01/2024 17:51	WG2296872
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/01/2024 17:51	WG2296872
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/03/2024 00:24	WG2297196
Vinyl chloride	U		0.000234	0.00100	1	06/01/2024 17:51	WG2296872
Total Xylenes	U		0.000174	0.00300	1	06/03/2024 00:24	WG2297196
Xylenes, Total	U		0.000174	0.00300	1	06/01/2024 17:51	WG2296872
(S) Toluene-d8	99.8			80.0-120		06/01/2024 17:51	WG2296872
(S) Toluene-d8	109			80.0-120		06/03/2024 00:24	WG2297196
(S) 4-Bromofluorobenzene	102			77.0-126		06/01/2024 17:51	WG2296872
(S) 4-Bromofluorobenzene	99.9			77.0-126		06/03/2024 00:24	WG2297196
(S) 1,2-Dichloroethane-d4	106			70.0-130		06/03/2024 00:24	WG2297196
(S) 1,2-Dichloroethane-d4	98.1			70.0-130		06/01/2024 17:51	WG2296872

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

Method Blank (MB)

(MB) R4076745-1 06/03/24 20:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	U		0.504	3.00

Laboratory Control Sample (LCS)

(LCS) R4076745-2 06/03/24 20:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	10.0	9.99	99.9	80.0-120	

L1740280-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1740280-06 06/03/24 20:44 • (MS) R4076745-5 06/03/24 20:49 • (MSD) R4076745-6 06/03/24 20:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium	10.0	U	9.94	10.1	99.4	101	1	75.0-125			1.45	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4075959-3 05/31/24 13:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	U		0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	68.8			60.0-120
(S) a,a,a-Trifluorotoluene(PID)	0.000	<u>J2</u>		79.0-125

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

(LCS) R4075959-1 05/31/24 12:08 • (LCSD) R4075959-2 05/31/24 12:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	3.95	3.91	79.0	78.2	60.0-120			1.02	20
(S) a,a,a-Trifluorotoluene(FID)				72.3	70.5	60.0-120				
(S) a,a,a-Trifluorotoluene(PID)				0.000	0.000	79.0-125	<u>J2</u>	<u>J2</u>		

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

Method Blank (MB)

(MB) R4077702-3 06/01/24 13:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrolein	U		0.00254	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
2-Chlorotoluene	U		0.000106	0.00100
4-Chlorotoluene	U		0.000114	0.00100
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
Dibromomethane	U		0.000122	0.00100
1,2-Dichlorobenzene	U		0.000107	0.00100
1,3-Dichlorobenzene	U		0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
Dichlorodifluoromethane	U		0.000374	0.00500
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
1,1-Dichloropropene	U		0.000142	0.00100
1,3-Dichloropropane	U		0.000110	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
2,2-Dichloropropane	U		0.000161	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4077702-3 06/01/24 13:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000481	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
Trichlorofluoromethane	U		0.000160	0.00500
1,2,3-Trichloropropane	U		0.000237	0.00250
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,2,3-Trimethylbenzene	U		0.000104	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	102			80.0-120
(S) 4-Bromofluorobenzene	102			77.0-126
(S) 1,2-Dichloroethane-d4	90.1			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4077702-1 06/01/24 11:30 • (LCSD) R4077702-2 06/01/24 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0300	0.0321	120	128	19.0-160	↓	↓	6.76	27
Acrolein	0.0250	0.0219	0.0240	87.6	96.0	10.0-160	↓	↓	9.15	26
Acrylonitrile	0.0250	0.0300	0.0305	120	122	55.0-149			1.65	20
Benzene	0.00500	0.00505	0.00501	101	100	70.0-123			0.795	20

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

(LCS) R4077702-1 06/01/24 11:30 • (LCSD) R4077702-2 06/01/24 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	0.00500	0.00511	0.00508	102	102	73.0-121			0.589	20
Bromodichloromethane	0.00500	0.00498	0.00515	99.6	103	75.0-120			3.36	20
Bromoform	0.00500	0.00460	0.00460	92.0	92.0	68.0-132			0.000	20
Bromomethane	0.00500	0.00444	0.00445	88.8	89.0	10.0-160	U	U	0.225	25
n-Butylbenzene	0.00500	0.00543	0.00535	109	107	73.0-125			1.48	20
sec-Butylbenzene	0.00500	0.00525	0.00546	105	109	75.0-125			3.92	20
tert-Butylbenzene	0.00500	0.00569	0.00575	114	115	76.0-124			1.05	20
Carbon tetrachloride	0.00500	0.00531	0.00542	106	108	68.0-126			2.05	20
Chlorobenzene	0.00500	0.00509	0.00509	102	102	80.0-121			0.000	20
Chlorodibromomethane	0.00500	0.00498	0.00513	99.6	103	77.0-125			2.97	20
Chloroethane	0.00500	0.00476	0.00479	95.2	95.8	47.0-150	U	U	0.628	20
Chloroform	0.00500	0.00485	0.00500	97.0	100	73.0-120	U	U	3.05	20
Chloromethane	0.00500	0.00552	0.00560	110	112	41.0-142			1.44	20
2-Chlorotoluene	0.00500	0.00515	0.00510	103	102	76.0-123			0.976	20
4-Chlorotoluene	0.00500	0.00519	0.00499	104	99.8	75.0-122			3.93	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00494	0.00477	98.8	95.4	58.0-134	U	U	3.50	20
1,2-Dibromoethane	0.00500	0.00534	0.00512	107	102	80.0-122			4.21	20
Dibromomethane	0.00500	0.00502	0.00515	100	103	80.0-120			2.56	20
1,2-Dichlorobenzene	0.00500	0.00537	0.00536	107	107	79.0-121			0.186	20
1,3-Dichlorobenzene	0.00500	0.00539	0.00525	108	105	79.0-120			2.63	20
1,4-Dichlorobenzene	0.00500	0.00536	0.00524	107	105	79.0-120			2.26	20
Dichlorodifluoromethane	0.00500	0.00583	0.00584	117	117	51.0-149			0.171	20
1,1-Dichloroethane	0.00500	0.00528	0.00539	106	108	70.0-126			2.06	20
1,2-Dichloroethane	0.00500	0.00466	0.00468	93.2	93.6	70.0-128			0.428	20
1,1-Dichloroethene	0.00500	0.00533	0.00523	107	105	71.0-124			1.89	20
cis-1,2-Dichloroethene	0.00500	0.00485	0.00489	97.0	97.8	73.0-120			0.821	20
trans-1,2-Dichloroethene	0.00500	0.00496	0.00494	99.2	98.8	73.0-120			0.404	20
1,2-Dichloropropane	0.00500	0.00528	0.00524	106	105	77.0-125			0.760	20
1,1-Dichloropropene	0.00500	0.00532	0.00526	106	105	74.0-126			1.13	20
1,3-Dichloropropane	0.00500	0.00541	0.00536	108	107	80.0-120			0.929	20
cis-1,3-Dichloropropene	0.00500	0.00515	0.00510	103	102	80.0-123			0.976	20
trans-1,3-Dichloropropene	0.00500	0.00515	0.00522	103	104	78.0-124			1.35	20
2,2-Dichloropropane	0.00500	0.00425	0.00420	85.0	84.0	58.0-130			1.18	20
Di-isopropyl ether	0.00500	0.00495	0.00511	99.0	102	58.0-138			3.18	20
Ethylbenzene	0.00500	0.00522	0.00518	104	104	79.0-123			0.769	20
Hexachloro-1,3-butadiene	0.00500	0.00536	0.00538	107	108	54.0-138			0.372	20
Isopropylbenzene	0.00500	0.00515	0.00520	103	104	76.0-127			0.966	20
p-Isopropyltoluene	0.00500	0.00525	0.00527	105	105	76.0-125			0.380	20
2-Butanone (MEK)	0.0250	0.0312	0.0317	125	127	44.0-160			1.59	20
Methylene Chloride	0.00500	0.00539	0.00543	108	109	67.0-120			0.739	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R4077702-1 06/01/24 11:30 • (LCSD) R4077702-2 06/01/24 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	0.0250	0.0285	0.0286	114	114	68.0-142			0.350	20
Methyl tert-butyl ether	0.00500	0.00497	0.00494	99.4	98.8	68.0-125			0.605	20
Naphthalene	0.00500	0.00488	0.00511	97.6	102	54.0-135	J		4.60	20
n-Propylbenzene	0.00500	0.00494	0.00532	98.8	106	77.0-124			7.41	20
Styrene	0.00500	0.00506	0.00513	101	103	73.0-130			1.37	20
1,1,1,2-Tetrachloroethane	0.00500	0.00481	0.00484	96.2	96.8	75.0-125			0.622	20
1,1,2,2-Tetrachloroethane	0.00500	0.00506	0.00500	101	100	65.0-130			1.19	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00564	0.00566	113	113	69.0-132			0.354	20
Tetrachloroethene	0.00500	0.00526	0.00535	105	107	72.0-132			1.70	20
Toluene	0.00500	0.00492	0.00490	98.4	98.0	79.0-120			0.407	20
1,2,3-Trichlorobenzene	0.00500	0.00526	0.00519	105	104	50.0-138			1.34	20
1,2,4-Trichlorobenzene	0.00500	0.00534	0.00542	107	108	57.0-137			1.49	20
1,1,1-Trichloroethane	0.00500	0.00549	0.00543	110	109	73.0-124			1.10	20
1,1,2-Trichloroethane	0.00500	0.00532	0.00530	106	106	80.0-120			0.377	20
Trichloroethene	0.00500	0.00574	0.00573	115	115	78.0-124			0.174	20
Trichlorofluoromethane	0.00500	0.00555	0.00550	111	110	59.0-147			0.905	20
1,2,3-Trichloropropane	0.00500	0.00522	0.00521	104	104	73.0-130			0.192	20
1,2,4-Trimethylbenzene	0.00500	0.00512	0.00507	102	101	76.0-121			0.981	20
1,2,3-Trimethylbenzene	0.00500	0.00497	0.00496	99.4	99.2	77.0-120			0.201	20
1,3,5-Trimethylbenzene	0.00500	0.00524	0.00525	105	105	76.0-122			0.191	20
Vinyl chloride	0.00500	0.00473	0.00465	94.6	93.0	67.0-131			1.71	20
Xylenes, Total	0.0150	0.0155	0.0156	103	104	79.0-123			0.643	20
(S) Toluene-d8				100	101	80.0-120				
(S) 4-Bromofluorobenzene				102	104	77.0-126				
(S) 1,2-Dichloroethane-d4				101	101	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1740382-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1740382-02 06/01/24 21:58 • (MS) R4077702-4 06/01/24 23:33 • (MSD) R4077702-5 06/01/24 23:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0351	0.0500	0.0511	59.6	64.0	1	10.0-160			2.18	35
Acrolein	0.0250	U	0.0322	0.0312	129	125	1	10.0-160	J	J	3.15	39
Acrylonitrile	0.0250	U	0.0326	0.0307	130	123	1	21.0-160			6.00	32
Benzene	0.00500	U	0.00510	0.00489	102	97.8	1	17.0-158			4.20	27
Bromobenzene	0.00500	U	0.00533	0.00508	107	102	1	30.0-149			4.80	28
Bromodichloromethane	0.00500	U	0.00529	0.00523	106	105	1	31.0-150			1.14	27
Bromoform	0.00500	U	0.00495	0.00458	99.0	91.6	1	29.0-150			7.76	29
Bromomethane	0.00500	U	0.00411	0.00410	82.2	82.0	1	10.0-160			0.244	38

L1740382-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1740382-02 06/01/24 21:58 • (MS) R4077702-4 06/01/24 23:33 • (MSD) R4077702-5 06/01/24 23:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
n-Butylbenzene	0.00500	U	0.00627	0.00575	125	115	1	31.0-150			8.65	30
sec-Butylbenzene	0.00500	U	0.00593	0.00562	119	112	1	33.0-155			5.37	29
tert-Butylbenzene	0.00500	U	0.00625	0.00593	125	119	1	34.0-153			5.25	28
Carbon tetrachloride	0.00500	U	0.00579	0.00556	116	111	1	23.0-159			4.05	28
Chlorobenzene	0.00500	U	0.00537	0.00516	107	103	1	33.0-152			3.99	27
Chlorodibromomethane	0.00500	U	0.00537	0.00519	107	104	1	37.0-149			3.41	27
Chloroethane	0.00500	U	0.00451	0.00443	90.2	88.6	1	10.0-160			1.79	30
Chloroform	0.00500	U	0.00506	0.00502	101	100	1	29.0-154			0.794	28
Chloromethane	0.00500	U	0.00478	0.00438	95.6	87.6	1	10.0-160			8.73	29
2-Chlorotoluene	0.00500	U	0.00556	0.00530	111	106	1	32.0-153			4.79	28
4-Chlorotoluene	0.00500	U	0.00544	0.00521	109	104	1	32.0-150			4.32	28
1,2-Dibromo-3-Chloropropane	0.00500	U	0.00571	0.00500	114	100	1	22.0-151		U	13.3	34
1,2-Dibromoethane	0.00500	U	0.00544	0.00514	109	103	1	34.0-147			5.67	27
Dibromomethane	0.00500	U	0.00528	0.00506	106	101	1	30.0-151			4.26	27
1,2-Dichlorobenzene	0.00500	0.000203	0.00608	0.00581	118	112	1	34.0-149			4.54	28
1,3-Dichlorobenzene	0.00500	U	0.00580	0.00544	116	109	1	36.0-146			6.41	27
1,4-Dichlorobenzene	0.00500	U	0.00580	0.00552	116	110	1	35.0-142			4.95	27
Dichlorodifluoromethane	0.00500	U	0.00546	0.00528	109	106	1	10.0-160			3.35	29
1,1-Dichloroethane	0.00500	0.00309	0.00874	0.00846	113	107	1	25.0-158			3.26	27
1,2-Dichloroethane	0.00500	U	0.00482	0.00462	96.4	92.4	1	29.0-151			4.24	27
1,1-Dichloroethene	0.00500	U	0.00532	0.00512	106	102	1	11.0-160			3.83	29
cis-1,2-Dichloroethene	0.00500	0.00696	0.0123	0.0118	107	96.8	1	10.0-160			4.15	27
trans-1,2-Dichloroethene	0.00500	0.000394	0.00523	0.00503	96.7	92.7	1	17.0-153			3.90	27
1,2-Dichloropropane	0.00500	U	0.00552	0.00525	110	105	1	30.0-156			5.01	27
1,1-Dichloropropene	0.00500	U	0.00551	0.00513	110	103	1	25.0-158			7.14	27
1,3-Dichloropropane	0.00500	U	0.00553	0.00519	111	104	1	38.0-147			6.34	27
cis-1,3-Dichloropropene	0.00500	U	0.00527	0.00516	105	103	1	34.0-149			2.11	28
trans-1,3-Dichloropropene	0.00500	U	0.00571	0.00532	114	106	1	32.0-149			7.07	28
2,2-Dichloropropane	0.00500	U	0.00511	0.00516	102	103	1	24.0-152			0.974	29
Di-isopropyl ether	0.00500	U	0.00542	0.00509	108	102	1	21.0-160			6.28	28
Ethylbenzene	0.00500	U	0.00553	0.00520	111	104	1	30.0-155			6.15	27
Hexachloro-1,3-butadiene	0.00500	U	0.00636	0.00577	127	115	1	20.0-154			9.73	34
Isopropylbenzene	0.00500	U	0.00562	0.00544	112	109	1	28.0-157			3.25	27
p-Isopropyltoluene	0.00500	U	0.00579	0.00562	116	112	1	30.0-154			2.98	29
2-Butanone (MEK)	0.0250	U	0.0331	0.0300	132	120	1	10.0-160			9.83	32
Methylene Chloride	0.00500	U	0.00482	0.00465	96.4	93.0	1	23.0-144			3.59	28
4-Methyl-2-pentanone (MIBK)	0.0250	U	0.0319	0.0285	128	114	1	29.0-160			11.3	29
Methyl tert-butyl ether	0.00500	U	0.00518	0.00506	104	101	1	28.0-150			2.34	29
Naphthalene	0.00500	U	0.00556	0.00515	111	103	1	12.0-156			7.66	35
n-Propylbenzene	0.00500	U	0.00585	0.00556	117	111	1	31.0-154			5.08	28

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1740382-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1740382-02 06/01/24 21:58 • (MS) R4077702-4 06/01/24 23:33 • (MSD) R4077702-5 06/01/24 23:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Styrene	0.00500	U	0.00530	0.00519	106	104	1	33.0-155			2.10	28
1,1,1,2-Tetrachloroethane	0.00500	U	0.00505	0.00499	101	99.8	1	36.0-151			1.20	29
1,1,2,2-Tetrachloroethane	0.00500	U	0.00614	0.00546	123	109	1	33.0-150			11.7	28
1,1,2-Trichlorotrifluoroethane	0.00500	U	0.00612	0.00603	122	121	1	23.0-160			1.48	30
Tetrachloroethene	0.00500	U	0.00552	0.00532	110	106	1	10.0-160			3.69	27
Toluene	0.00500	U	0.00532	0.00490	106	98.0	1	26.0-154			8.22	28
1,2,3-Trichlorobenzene	0.00500	U	0.00583	0.00535	117	107	1	17.0-150			8.59	36
1,2,4-Trichlorobenzene	0.00500	U	0.00591	0.00571	118	114	1	24.0-150			3.44	33
1,1,1-Trichloroethane	0.00500	0.000449	0.00617	0.00618	114	115	1	23.0-160			0.162	28
1,1,2-Trichloroethane	0.00500	U	0.00550	0.00520	110	104	1	35.0-147			5.61	27
Trichloroethene	0.00500	0.00544	0.0111	0.0107	113	105	1	10.0-160			3.67	25
Trichlorofluoromethane	0.00500	U	0.00561	0.00556	112	111	1	17.0-160			0.895	31
1,2,3-Trichloropropane	0.00500	U	0.00585	0.00535	117	107	1	34.0-151			8.93	29
1,2,4-Trimethylbenzene	0.00500	U	0.00552	0.00518	110	104	1	26.0-154			6.36	27
1,2,3-Trimethylbenzene	0.00500	U	0.00529	0.00507	106	101	1	32.0-149			4.25	28
1,3,5-Trimethylbenzene	0.00500	U	0.00556	0.00546	111	109	1	28.0-153			1.81	27
Vinyl chloride	0.00500	0.000318	0.00460	0.00470	85.6	87.6	1	10.0-160			2.15	27
Xylenes, Total	0.0150	U	0.0168	0.0160	112	107	1	29.0-154			4.88	28
(S) Toluene-d8					98.9	99.6		80.0-120				
(S) 4-Bromofluorobenzene					102	103		77.0-126				
(S) 1,2-Dichloroethane-d4					99.4	102		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4076491-3 06/02/24 21:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000941	0.00100
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Ethylbenzene	U		0.000137	0.00100
Isopropylbenzene	U		0.000105	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	108			80.0-120
(S) 4-Bromofluorobenzene	99.9			77.0-126
(S) 1,2-Dichloroethane-d4	103			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R4076491-1 06/02/24 20:03 • (LCSD) R4076491-2 06/02/24 20:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00484	0.00494	96.8	98.8	70.0-123			2.04	20
n-Butylbenzene	0.00500	0.00445	0.00460	89.0	92.0	73.0-125			3.31	20
sec-Butylbenzene	0.00500	0.00539	0.00538	108	108	75.0-125			0.186	20
tert-Butylbenzene	0.00500	0.00503	0.00497	101	99.4	76.0-124			1.20	20
Ethylbenzene	0.00500	0.00469	0.00495	93.8	99.0	79.0-123			5.39	20
Isopropylbenzene	0.00500	0.00462	0.00481	92.4	96.2	76.0-127			4.03	20
Naphthalene	0.00500	0.00325	0.00365	65.0	73.0	54.0-135	↓	↓	11.6	20
Toluene	0.00500	0.00487	0.00498	97.4	99.6	79.0-120			2.23	20
1,2,4-Trimethylbenzene	0.00500	0.00504	0.00522	101	104	76.0-121			3.51	20
1,3,5-Trimethylbenzene	0.00500	0.00524	0.00534	105	107	76.0-122			1.89	20
Total Xylenes	0.0150	0.0141	0.0144	94.0	96.0	79.0-123			2.11	20
(S) Toluene-d8				108	108	80.0-120				
(S) 4-Bromofluorobenzene				99.7	101	77.0-126				
(S) 1,2-Dichloroethane-d4				103	103	70.0-130				

Method Blank (MB)

(MB) R4077846-5 06/05/24 14:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
AK102 DRO C10-C25	0.227	<u>J</u>	0.170	0.800
(S) o-Terphenyl	60.0			60.0-120

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

(LCS) R4077846-1 06/05/24 11:40 • (LCSD) R4077846-2 06/05/24 12:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
AK102 DRO C10-C25	6.00	4.89	5.34	81.5	89.0	75.0-125			8.80	20
(S) o-Terphenyl				23.3	32.5	60.0-120	<u>J2</u>	<u>J2</u>		

L1739666-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1739666-01 06/05/24 12:20 • (MS) R4077846-3 06/05/24 12:40 • (MSD) R4077846-4 06/05/24 13:00

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
AK102 DRO C10-C25	6.00	1.74	6.18	6.08	74.0	72.3	1	75.0-125	<u>J6</u>	<u>J6</u>	1.63	20
(S) o-Terphenyl					42.3	35.3		50.0-150	<u>J2</u>	<u>J2</u>		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4075257-4 05/29/24 16:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
2-Chloronaphthalene	U		0.0000682	0.000250
(S) Nitrobenzene-d5	99.0			31.0-160
(S) 2-Fluorobiphenyl	91.5			48.0-148
(S) p-Terphenyl-d14	89.5			37.0-146

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R4075257-2 05/29/24 15:57 • (LCSD) R4075257-3 05/29/24 16:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00167	0.00165	83.5	82.5	67.0-150			1.20	20
Acenaphthene	0.00200	0.00177	0.00174	88.5	87.0	65.0-138			1.71	20
Acenaphthylene	0.00200	0.00183	0.00180	91.5	90.0	66.0-140			1.65	20
Benzo(a)anthracene	0.00200	0.00157	0.00156	78.5	78.0	61.0-140			0.639	20
Benzo(a)pyrene	0.00200	0.00159	0.00157	79.5	78.5	60.0-143			1.27	20
Benzo(b)fluoranthene	0.00200	0.00159	0.00158	79.5	79.0	58.0-141			0.631	20
Benzo(g,h,i)perylene	0.00200	0.00164	0.00158	82.0	79.0	52.0-153			3.73	20
Benzo(k)fluoranthene	0.00200	0.00156	0.00151	78.0	75.5	58.0-148			3.26	20
Chrysene	0.00200	0.00168	0.00164	84.0	82.0	64.0-144			2.41	20
Dibenz(a,h)anthracene	0.00200	0.00150	0.00144	75.0	72.0	52.0-155			4.08	20
Fluoranthene	0.00200	0.00189	0.00184	94.5	92.0	69.0-153			2.68	20

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

(LCS) R4075257-2 05/29/24 15:57 • (LCSD) R4075257-3 05/29/24 16:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	0.00200	0.00182	0.00179	91.0	89.5	64.0-136			1.66	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00146	0.00139	73.0	69.5	54.0-153			4.91	20
Naphthalene	0.00200	0.00183	0.00178	91.5	89.0	61.0-137			2.77	20
Phenanthrene	0.00200	0.00169	0.00171	84.5	85.5	62.0-137			1.18	20
Pyrene	0.00200	0.00180	0.00178	90.0	89.0	60.0-142			1.12	20
1-Methylnaphthalene	0.00200	0.00188	0.00184	94.0	92.0	66.0-142			2.15	20
2-Methylnaphthalene	0.00200	0.00182	0.00179	91.0	89.5	62.0-136			1.66	20
2-Chloronaphthalene	0.00200	0.00185	0.00181	92.5	90.5	64.0-140			2.19	20
<i>(S) Nitrobenzene-d5</i>				100	97.5	31.0-160				
<i>(S) 2-Fluorobiphenyl</i>				93.5	90.5	48.0-148				
<i>(S) p-Terphenyl-d14</i>				86.0	85.0	37.0-146				

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

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
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.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



ACCREDITATIONS & LOCATIONS

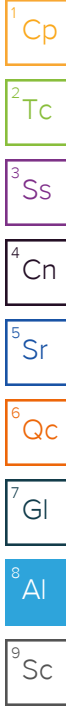
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



Stantec - Anchorage, AK
 725 E Fireweed Lane
 Suite 200
 Anchorage, AK 99503

Billing Information:
Accounts Payable
 725 E Fireweed Lane
 Suite 200
 Anchorage, AK 99503

Analysis / Container / Preservative									

Chain of Custody Page 1 of 1

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

Report to:
 Remi Malenfant

Email To:
 remiah.malenfant@stantec.com

Project Description: TNS 101 / IFC (5313)

City/State Collected: Fairbanks, AK

Phone: cell
 Fax: (907) 799-5191

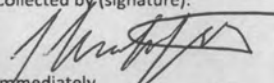
Client Project #
 203723629

Lab Project #

Collected by (print):
 Remi Malenfant

Site/Facility ID #
 TNS 101 / Speedway 5313

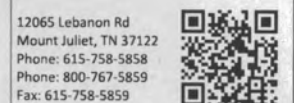
P.O. #
 203723629

Collected by (signature):

 Immediately Packed on Ice N Y

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

Quote #
 Date Results Needed
 Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative														
							(HCl)	(none)	(H ₂ NO ₃)	(HCl)	(HCl)										
CRW	G	GW	-	5/22/24	1737	11	X	X	X	X	X										
Trip Blank	-	-	-	-	-																
-																					
-																					
-																					
-																					
-																					
-																					
-																					
-																					



L# 1740326
 C006

Acctnum:
 Template:
 Prelogin:
 TSR:
 PB:

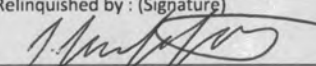
Shipped Via:
 Remarks Sample # (lab only)

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

Remarks:
 Samples returned via:
 UPS FedEx Courier

Tracking # 7315 3194 2302
 pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist
 COC Seal Present/Intact: NP Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)


Date: 5/23/24
 Time: 0853

Received by: (Signature)

Trip Blank Received: Yes / No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date:
 Time:
 Temp: 50°C
 3.00 ± 0.1 = 3.9 11

Received by: (Signature)

Bottles Received:
 If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:
 Time:
 Hold:

Received for lab by: (Signature)
 alexa mitchem

Date: 5/24/24
 Time: 0900

Condition:
 NCF / OK

7-11 Stantec - Anchorage, AK

Sample Delivery Group: L1747477
Samples Received: 06/15/2024
Project Number: 203723629
Description: Speedway 5313
Site: 0005313
Report To: Mr. Remi Malenfant
725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Entire Report Reviewed By:










[Preliminary Report]Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

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

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SAMPLE SUMMARY

CRW L1747477-01 GW

Collected by: RM
 Collected date/time: 06/13/24 15:52
 Received date/time: 06/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2306122	1	06/16/24 21:57	06/16/24 21:57	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2310264	1	06/22/24 14:27	06/22/24 14:27	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2309332	1.05	06/24/24 06:51	06/25/24 05:27	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2307751	1	06/20/24 16:00	06/22/24 06:10	DSH	Mt. Juliet, TN

TRIP BLANK L1747477-02 GW

Collected by: RM
 Collected date/time: 06/13/24 00:00
 Received date/time: 06/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2310264	1	06/22/24 12:16	06/22/24 12:16	DYW	Mt. Juliet, TN

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

CASE NARRATIVE

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

[Preliminary Report]

Craig Cothron
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPHGAK C6 to C10	0.245		0.0287	0.100	1	06/16/2024 21:57	WG2306122
(S)							
a,a,a-Trifluorotoluene(FID)	88.3			50.0-150		06/16/2024 21:57	WG2306122
(S)							
a,a,a-Trifluorotoluene(PID)	103			79.0-125		06/16/2024 21:57	WG2306122

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	0.00188		0.0000941	0.00100	1	06/22/2024 14:27	WG2310264
n-Butylbenzene	U	C3	0.000157	0.00100	1	06/22/2024 14:27	WG2310264
sec-Butylbenzene	0.00153	C3	0.000125	0.00100	1	06/22/2024 14:27	WG2310264
tert-Butylbenzene	0.000238	J	0.000127	0.00100	1	06/22/2024 14:27	WG2310264
Isopropylbenzene	0.00643		0.000105	0.00100	1	06/22/2024 14:27	WG2310264
Naphthalene	0.0130		0.00100	0.00500	1	06/22/2024 14:27	WG2310264
Toluene	U		0.000278	0.00100	1	06/22/2024 14:27	WG2310264
Ethylbenzene	0.0101		0.000137	0.00100	1	06/22/2024 14:27	WG2310264
1,2,4-Trimethylbenzene	0.0316		0.000322	0.00100	1	06/22/2024 14:27	WG2310264
1,3,5-Trimethylbenzene	0.00835		0.000322	0.00100	1	06/22/2024 14:27	WG2310264
Total Xylenes	0.0632		0.000174	0.00300	1	06/22/2024 14:27	WG2310264
(S) Toluene-d8	93.7			80.0-120		06/22/2024 14:27	WG2310264
(S) 4-Bromofluorobenzene	98.2			77.0-126		06/22/2024 14:27	WG2310264
(S) 1,2-Dichloroethane-d4	130			70.0-130		06/22/2024 14:27	WG2310264

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
AK102 DRO C10-C25	0.281	J	0.179	0.840	1.05	06/25/2024 05:27	WG2309332
(S) o-Terphenyl	93.2			50.0-150		06/25/2024 05:27	WG2309332

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	1	06/22/2024 06:10	WG2307751
Acenaphthene	0.0000758		0.0000190	0.0000500	1	06/22/2024 06:10	WG2307751
Acenaphthylene	U		0.0000171	0.0000500	1	06/22/2024 06:10	WG2307751
Benzo(a)anthracene	U		0.0000203	0.0000500	1	06/22/2024 06:10	WG2307751
Benzo(a)pyrene	U		0.0000184	0.0000500	1	06/22/2024 06:10	WG2307751
Benzo(b)fluoranthene	U		0.0000168	0.0000500	1	06/22/2024 06:10	WG2307751
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	1	06/22/2024 06:10	WG2307751
Benzo(k)fluoranthene	U		0.0000202	0.0000500	1	06/22/2024 06:10	WG2307751
Chrysene	U		0.0000179	0.0000500	1	06/22/2024 06:10	WG2307751
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	1	06/22/2024 06:10	WG2307751
Fluoranthene	U		0.0000270	0.000100	1	06/22/2024 06:10	WG2307751
Fluorene	0.000124		0.0000169	0.0000500	1	06/22/2024 06:10	WG2307751
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	1	06/22/2024 06:10	WG2307751
Naphthalene	0.0113		0.0000917	0.000250	1	06/22/2024 06:10	WG2307751
Phenanthrene	U		0.0000180	0.0000500	1	06/22/2024 06:10	WG2307751
Pyrene	U		0.0000169	0.0000500	1	06/22/2024 06:10	WG2307751
1-Methylnaphthalene	0.00709		0.0000687	0.000250	1	06/22/2024 06:10	WG2307751
2-Methylnaphthalene	0.00399		0.0000674	0.000250	1	06/22/2024 06:10	WG2307751
2-Chloronaphthalene	U		0.0000682	0.000250	1	06/22/2024 06:10	WG2307751
(S) Nitrobenzene-d5	100			31.0-160		06/22/2024 06:10	WG2307751
(S) 2-Fluorobiphenyl	83.7			48.0-148		06/22/2024 06:10	WG2307751
(S) p-Terphenyl-d14	90.5			37.0-146		06/22/2024 06:10	WG2307751

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	1	06/22/2024 12:16	WG2310264
n-Butylbenzene	U	C3	0.000157	0.00100	1	06/22/2024 12:16	WG2310264
sec-Butylbenzene	U	C3	0.000125	0.00100	1	06/22/2024 12:16	WG2310264
tert-Butylbenzene	U		0.000127	0.00100	1	06/22/2024 12:16	WG2310264
Isopropylbenzene	U		0.000105	0.00100	1	06/22/2024 12:16	WG2310264
Naphthalene	U		0.00100	0.00500	1	06/22/2024 12:16	WG2310264
Toluene	U		0.000278	0.00100	1	06/22/2024 12:16	WG2310264
Ethylbenzene	U		0.000137	0.00100	1	06/22/2024 12:16	WG2310264
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2024 12:16	WG2310264
1,3,5-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2024 12:16	WG2310264
Total Xylenes	U		0.000174	0.00300	1	06/22/2024 12:16	WG2310264
(S) Toluene-d8	95.4			80.0-120		06/22/2024 12:16	WG2310264
(S) 4-Bromofluorobenzene	111			77.0-126		06/22/2024 12:16	WG2310264
(S) 1,2-Dichloroethane-d4	136	J1		70.0-130		06/22/2024 12:16	WG2310264

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4082918-3 06/16/24 12:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	U		0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	89.4			60.0-120
(S) a,a,a-Trifluorotoluene(PID)	103			79.0-125

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

(LCS) R4082918-1 06/16/24 10:32 • (LCSD) R4082918-2 06/16/24 10:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	5.41	5.40	108	108	60.0-120			0.185	20
(S) a,a,a-Trifluorotoluene(FID)				95.2	93.6	60.0-120				
(S) a,a,a-Trifluorotoluene(PID)				116	116	79.0-125				

L1747327-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747327-01 06/16/24 15:19 • (MS) R4082918-4 06/16/24 22:23 • (MSD) R4082918-5 06/16/24 22:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	0.766	7.08	6.88	126	122	1	70.0-130			2.87	20
(S) a,a,a-Trifluorotoluene(FID)					97.8	92.2		50.0-150				
(S) a,a,a-Trifluorotoluene(PID)					110	111		79.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4085401-2 06/22/24 10:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Benzene	U		0.0000941	0.00100
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Isopropylbenzene	U		0.000105	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000322	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	91.6			80.0-120
(S) 4-Bromofluorobenzene	96.1			77.0-126
(S) 1,2-Dichloroethane-d4	129			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R4085401-1 06/22/24 09:51

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Benzene	0.00500	0.00435	87.0	70.0-123	
n-Butylbenzene	0.00500	0.00393	78.6	73.0-125	
sec-Butylbenzene	0.00500	0.00396	79.2	75.0-125	
tert-Butylbenzene	0.00500	0.00408	81.6	76.0-124	
Isopropylbenzene	0.00500	0.00449	89.8	76.0-127	
Naphthalene	0.00500	0.00404	80.8	54.0-135	↓
Toluene	0.00500	0.00410	82.0	79.0-120	
Ethylbenzene	0.00500	0.00444	88.8	79.0-123	
1,2,4-Trimethylbenzene	0.00500	0.00406	81.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00421	84.2	76.0-122	
Total Xylenes	0.0150	0.0133	88.7	79.0-123	
(S) Toluene-d8			92.5	80.0-120	
(S) 4-Bromofluorobenzene			95.3	77.0-126	
(S) 1,2-Dichloroethane-d4			130	70.0-130	

Method Blank (MB)

(MB) R4086231-1 06/25/24 00:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
AK102 DRO C10-C25	U		0.170	0.800
<i>(S) o-Terphenyl</i>	113			60.0-120

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

(LCS) R4086231-2 06/25/24 00:44 • (LCSD) R4086231-3 06/25/24 01:04

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
AK102 DRO C10-C25	6.00	4.81	4.87	80.2	81.2	75.0-125			1.24	20
<i>(S) o-Terphenyl</i>				101	97.4	60.0-120				

L1747940-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747940-02 06/25/24 07:02 • (MS) R4086231-4 06/25/24 07:22 • (MSD) R4086231-5 06/25/24 07:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
AK102 DRO C10-C25	5.72	11.3	17.3	15.2	105	68.2	1	75.0-125		J6	12.9	20
<i>(S) o-Terphenyl</i>					95.0	94.4		50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4085767-2 06/22/24 00:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
2-Chloronaphthalene	U		0.0000682	0.000250
(S) Nitrobenzene-d5	105			31.0-160
(S) 2-Fluorobiphenyl	97.0			48.0-148
(S) p-Terphenyl-d14	100			37.0-146

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4085767-1 06/21/24 23:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.00200	0.00189	94.5	67.0-150	
Acenaphthene	0.00200	0.00184	92.0	65.0-138	
Acenaphthylene	0.00200	0.00196	98.0	66.0-140	
Benzo(a)anthracene	0.00200	0.00195	97.5	61.0-140	
Benzo(a)pyrene	0.00200	0.00190	95.0	60.0-143	
Benzo(b)fluoranthene	0.00200	0.00205	103	58.0-141	
Benzo(g,h,i)perylene	0.00200	0.00176	88.0	52.0-153	
Benzo(k)fluoranthene	0.00200	0.00188	94.0	58.0-148	
Chrysene	0.00200	0.00198	99.0	64.0-144	
Dibenz(a,h)anthracene	0.00200	0.00175	87.5	52.0-155	
Fluoranthene	0.00200	0.00209	104	69.0-153	

Laboratory Control Sample (LCS)

(LCS) R4085767-1 06/21/24 23:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.00200	0.00198	99.0	64.0-136	
Indeno(1,2,3-cd)pyrene	0.00200	0.00177	88.5	54.0-153	
Naphthalene	0.00200	0.00183	91.5	61.0-137	
Phenanthrene	0.00200	0.00192	96.0	62.0-137	
Pyrene	0.00200	0.00190	95.0	60.0-142	
1-Methylnaphthalene	0.00200	0.00196	98.0	66.0-142	
2-Methylnaphthalene	0.00200	0.00192	96.0	62.0-136	
2-Chloronaphthalene	0.00200	0.00188	94.0	64.0-140	
(S) Nitrobenzene-d5			106	31.0-160	
(S) 2-Fluorobiphenyl			98.0	48.0-148	
(S) p-Terphenyl-d14			95.5	37.0-146	

L1747378-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747378-12 06/22/24 02:44 • (MS) R4085767-3 06/22/24 03:01 • (MSD) R4085767-4 06/22/24 03:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00190	U	0.00180	0.00185	94.7	97.4	1	56.0-156			2.74	20
Acenaphthene	0.00190	U	0.00167	0.00176	87.9	92.6	1	44.0-153			5.25	20
Acenaphthylene	0.00190	U	0.00171	0.00182	90.0	95.8	1	53.0-150			6.23	20
Benzo(a)anthracene	0.00190	U	0.00187	0.00195	98.4	103	1	47.0-151			4.19	20
Benzo(a)pyrene	0.00190	U	0.00167	0.00171	87.9	90.0	1	45.0-146			2.37	20
Benzo(b)fluoranthene	0.00190	U	0.00163	0.00167	85.8	87.9	1	43.0-142			2.42	20
Benzo(g,h,i)perylene	0.00190	U	0.00159	0.00159	83.7	83.7	1	40.0-147			0.000	20
Benzo(k)fluoranthene	0.00190	U	0.00162	0.00164	85.3	86.3	1	43.0-148			1.23	21
Chrysene	0.00190	U	0.00174	0.00178	91.6	93.7	1	50.0-148			2.27	20
Dibenz(a,h)anthracene	0.00190	U	0.00163	0.00163	85.8	85.8	1	37.0-151			0.000	20
Fluoranthene	0.00190	U	0.00194	0.00196	102	103	1	56.0-157			1.03	20
Fluorene	0.00190	U	0.00169	0.00181	88.9	95.3	1	48.0-148			6.86	20
Indeno(1,2,3-cd)pyrene	0.00190	U	0.00163	0.00165	85.8	86.8	1	41.0-148			1.22	20
Naphthalene	0.00190	0.000155	0.00186	0.00191	89.7	92.4	1	10.0-160			2.65	20
Phenanthrene	0.00190	U	0.00178	0.00185	93.7	97.4	1	47.0-147			3.86	20
Pyrene	0.00190	U	0.00166	0.00171	87.4	90.0	1	51.0-148			2.97	20
1-Methylnaphthalene	0.00190	U	0.00186	0.00193	97.9	102	1	21.0-160			3.69	20
2-Methylnaphthalene	0.00190	U	0.00178	0.00184	93.7	96.8	1	31.0-160			3.31	20
2-Chloronaphthalene	0.00190	U	0.00177	0.00190	93.2	100	1	52.0-148			7.08	20
(S) Nitrobenzene-d5					104	108		31.0-160				
(S) 2-Fluorobiphenyl					84.7	86.3		48.0-148				
(S) p-Terphenyl-d14					85.3	87.4		37.0-146				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

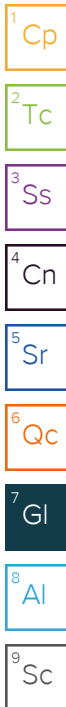
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

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

Qualifier Description

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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address:

Stantec - Anchorage, AK

725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Report to:
Ms. Leslie Petre

Billing Information:

Accounts Payable
725 E Fireweed Lane
Suite 200
Anchorage, AK 99503

Email To: craig.cothron@pacelabs.com

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



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>

SDG # **L1747477**
G148

Acctnum: **STAAAKSSA**

Template: **T208626**

Prelogin: **P922432**

PM: **034 - Craig Cothron**

PB: **5/21/24**

Shipped Via: **FedEX 2nd Day**

Remarks Sample # (lab only)

Project Description:
Speedway 5313

City/State
Collected: **Fairbanks, AK**

Please Circle:
PT MT CT ET

Phone: **907-266-1108**

Client Project #
203723629

Lab Project #
STAAAKSSA-5313

Collected by (print):
Rene Malenfant

Site/Facility ID #
0005313

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

standard

No.
of
Cntrs

Immediately
Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis	Container	Preservative
CRW-2	G	GW				4	X	X	
MW-8	—	GW				4	X	X	
DUPLICATE	—	GW				4	X	X	
CRW	G	GW		06/13/24	1552	10	X	X	X X
Trip Blank	G	Blank				1			X

PBG 250mlHDPE-HNO3
 V8260BTEXMN12C 40mlAmb-HCl
 AK101 GRO
 AK102 DRO
 8260C BTEX/Fuels
 8270-SIM PAHS

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

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

Samples returned via:
 UPS FedEx Courier

Tracking #

5163 7717 4934

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received: Yes No

HCL/MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **16.7 ± 0.3 = 1.9** °C
Bottles Received: **10**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: Time:

Hold:

Condition:
NCF / OK

Clasen
6/15/24 0900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

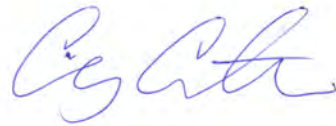
8 Al

9 Sc

Stantec - Anchorage, AK

Sample Delivery Group: L1763193
Samples Received: 08/02/2024
Project Number: 203723629
Description: TNS 101/IFC
Site: TNS 101/IFC
Report To: Ms. Sydney Souza
725 E Fireweed Lane
Anchorage, AK 99503

Entire Report Reviewed By:











Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

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

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SAMPLE SUMMARY

CRW L1763193-01 GW

Collected by: Remi Malenfant
 Collected date/time: 07/31/24 14:51
 Received date/time: 08/02/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2336021	1	08/04/24 17:48	08/04/24 17:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2336390	1	08/05/24 14:53	08/05/24 14:53	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2340032	1	08/09/24 22:22	08/09/24 22:22	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2335729	1.01	08/06/24 15:34	08/08/24 11:01	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2337570	1	08/06/24 23:21	08/07/24 18:42	JCH	Mt. Juliet, TN

TRIP BLANK L1763193-02 GW

Collected by: Remi Malenfant
 Collected date/time: 07/31/24 00:00
 Received date/time: 08/02/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2336390	1	08/05/24 10:09	08/05/24 10:09	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2340032	1	08/09/24 19:38	08/09/24 19:38	ADM	Mt. Juliet, TN

¹ Cp

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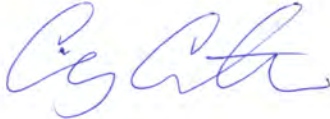
⁷ Gl

⁸ Al

⁹ Sc

CASE NARRATIVE

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



Craig Cothron
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

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⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPHGAK C6 to C10	0.218	<u>B</u>	0.100	1	08/04/2024 17:48	WG2336021
(S) a,a,a-Trifluorotoluene(FID)	90.0		50.0-150		08/04/2024 17:48	WG2336021
(S) a,a,a-Trifluorotoluene(PID)	99.9		79.0-125		08/04/2024 17:48	WG2336021

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	08/05/2024 14:53	WG2336390
Acrolein	ND	<u>J4</u>	0.0500	1	08/05/2024 14:53	WG2336390
Acrylonitrile	ND		0.0100	1	08/05/2024 14:53	WG2336390
Benzene	0.00163		0.00100	1	08/05/2024 14:53	WG2336390
Bromobenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
Bromodichloromethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
Bromoform	ND		0.00100	1	08/05/2024 14:53	WG2336390
Bromomethane	ND	<u>C3 J3</u>	0.00500	1	08/05/2024 14:53	WG2336390
n-Butylbenzene	0.00154		0.00100	1	08/05/2024 14:53	WG2336390
sec-Butylbenzene	0.00159		0.00100	1	08/05/2024 14:53	WG2336390
tert-Butylbenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
Carbon tetrachloride	ND		0.00100	1	08/05/2024 14:53	WG2336390
Chlorobenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
Chlorodibromomethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
Chloroethane	ND	<u>C3 J3</u>	0.00500	1	08/05/2024 14:53	WG2336390
Chloroform	ND		0.00500	1	08/05/2024 14:53	WG2336390
Chloromethane	ND	<u>C3</u>	0.00250	1	08/05/2024 14:53	WG2336390
2-Chlorotoluene	ND		0.00100	1	08/05/2024 14:53	WG2336390
4-Chlorotoluene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	08/05/2024 14:53	WG2336390
1,2-Dibromoethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
Dibromomethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,2-Dichlorobenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,3-Dichlorobenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,4-Dichlorobenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
Dichlorodifluoromethane	ND		0.00500	1	08/05/2024 14:53	WG2336390
1,1-Dichloroethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,2-Dichloroethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,1-Dichloroethene	ND		0.00100	1	08/09/2024 22:22	WG2340032
cis-1,2-Dichloroethene	ND		0.00100	1	08/05/2024 14:53	WG2336390
trans-1,2-Dichloroethene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,2-Dichloropropane	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,1-Dichloropropene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,3-Dichloropropane	ND		0.00100	1	08/05/2024 14:53	WG2336390
cis-1,3-Dichloropropene	ND		0.00100	1	08/05/2024 14:53	WG2336390
trans-1,3-Dichloropropene	ND		0.00100	1	08/05/2024 14:53	WG2336390
2,2-Dichloropropane	ND		0.00100	1	08/05/2024 14:53	WG2336390
Di-isopropyl ether	ND		0.00100	1	08/05/2024 14:53	WG2336390
Ethylbenzene	0.0106		0.00100	1	08/05/2024 14:53	WG2336390
Hexachloro-1,3-butadiene	ND		0.00100	1	08/05/2024 14:53	WG2336390
Isopropylbenzene	0.00609		0.00100	1	08/05/2024 14:53	WG2336390
p-Isopropyltoluene	0.00106		0.00100	1	08/05/2024 14:53	WG2336390
2-Butanone (MEK)	ND		0.0100	1	08/05/2024 14:53	WG2336390
Methylene Chloride	ND		0.00500	1	08/05/2024 14:53	WG2336390
4-Methyl-2-pentanone (MIBK)	ND	<u>J4</u>	0.0100	1	08/05/2024 14:53	WG2336390
Methyl tert-butyl ether	ND		0.00100	1	08/05/2024 14:53	WG2336390
Naphthalene	0.0128		0.00500	1	08/05/2024 14:53	WG2336390
n-Propylbenzene	0.00685		0.00100	1	08/05/2024 14:53	WG2336390

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Styrene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/09/2024 22:22	WG2340032
Tetrachloroethene	ND		0.00100	1	08/05/2024 14:53	WG2336390
Toluene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,2,3-Trichlorobenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,2,4-Trichlorobenzene	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,1,1-Trichloroethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
1,1,2-Trichloroethane	ND		0.00100	1	08/05/2024 14:53	WG2336390
Trichloroethene	ND		0.00100	1	08/05/2024 14:53	WG2336390
Trichlorofluoromethane	ND		0.00500	1	08/05/2024 14:53	WG2336390
1,2,3-Trichloropropane	ND		0.00250	1	08/05/2024 14:53	WG2336390
1,2,4-Trimethylbenzene	0.0287		0.00100	1	08/05/2024 14:53	WG2336390
1,2,3-Trimethylbenzene	0.0107		0.00100	1	08/05/2024 14:53	WG2336390
1,3,5-Trimethylbenzene	0.00786		0.00100	1	08/05/2024 14:53	WG2336390
Vinyl chloride	ND		0.00100	1	08/09/2024 22:22	WG2340032
Xylenes, Total	0.0512		0.00300	1	08/05/2024 14:53	WG2336390
(S) Toluene-d8	109		80.0-120		08/05/2024 14:53	WG2336390
(S) Toluene-d8	89.4		80.0-120		08/09/2024 22:22	WG2340032
(S) 4-Bromofluorobenzene	110		77.0-126		08/05/2024 14:53	WG2336390
(S) 4-Bromofluorobenzene	96.8		77.0-126		08/09/2024 22:22	WG2340032
(S) 1,2-Dichloroethane-d4	124		70.0-130		08/05/2024 14:53	WG2336390
(S) 1,2-Dichloroethane-d4	111		70.0-130		08/09/2024 22:22	WG2340032

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

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1.94		0.808	1.01	08/08/2024 11:01	WG2335729
(S) o-Terphenyl	106		50.0-150		08/08/2024 11:01	WG2335729

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Acenaphthene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Acenaphthylene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Benzo(a)anthracene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Benzo(a)pyrene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Benzo(b)fluoranthene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Benzo(g,h,i)perylene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Benzo(k)fluoranthene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Chrysene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Dibenz(a,h)anthracene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Fluoranthene	ND		0.000100	1	08/07/2024 18:42	WG2337570
Fluorene	0.000103		0.0000500	1	08/07/2024 18:42	WG2337570
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Naphthalene	0.00798		0.000250	1	08/07/2024 18:42	WG2337570
Phenanthrene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
Pyrene	ND		0.0000500	1	08/07/2024 18:42	WG2337570
1-Methylnaphthalene	0.00552		0.000250	1	08/07/2024 18:42	WG2337570
2-Methylnaphthalene	0.00212		0.000250	1	08/07/2024 18:42	WG2337570
2-Chloronaphthalene	ND		0.000250	1	08/07/2024 18:42	WG2337570
(S) Nitrobenzene-d5	90.5		31.0-160		08/07/2024 18:42	WG2337570
(S) 2-Fluorobiphenyl	72.0		48.0-148		08/07/2024 18:42	WG2337570

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	81.5		37.0-146		08/07/2024 18:42	WG2337570

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

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	08/05/2024 10:09	WG2336390
Acrolein	ND	J4	0.0500	1	08/05/2024 10:09	WG2336390
Acrylonitrile	ND		0.0100	1	08/05/2024 10:09	WG2336390
Benzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Bromobenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Bromodichloromethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
Bromoform	ND		0.00100	1	08/05/2024 10:09	WG2336390
Bromomethane	ND	C3 J3	0.00500	1	08/05/2024 10:09	WG2336390
n-Butylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
sec-Butylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
tert-Butylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Carbon tetrachloride	ND		0.00100	1	08/05/2024 10:09	WG2336390
Chlorobenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Chlorodibromomethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
Chloroethane	ND	C3 J3	0.00500	1	08/05/2024 10:09	WG2336390
Chloroform	ND		0.00500	1	08/05/2024 10:09	WG2336390
Chloromethane	ND	C3	0.00250	1	08/05/2024 10:09	WG2336390
2-Chlorotoluene	ND		0.00100	1	08/05/2024 10:09	WG2336390
4-Chlorotoluene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	08/05/2024 10:09	WG2336390
1,2-Dibromoethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
Dibromomethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,2-Dichlorobenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,3-Dichlorobenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,4-Dichlorobenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Dichlorodifluoromethane	ND		0.00500	1	08/05/2024 10:09	WG2336390
1,1-Dichloroethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,2-Dichloroethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,1-Dichloroethene	ND		0.00100	1	08/09/2024 19:38	WG2340032
cis-1,2-Dichloroethene	ND		0.00100	1	08/05/2024 10:09	WG2336390
trans-1,2-Dichloroethene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,2-Dichloropropane	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,1-Dichloropropene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,3-Dichloropropane	ND		0.00100	1	08/05/2024 10:09	WG2336390
cis-1,3-Dichloropropene	ND		0.00100	1	08/05/2024 10:09	WG2336390
trans-1,3-Dichloropropene	ND		0.00100	1	08/05/2024 10:09	WG2336390
2,2-Dichloropropane	ND		0.00100	1	08/05/2024 10:09	WG2336390
Di-isopropyl ether	ND		0.00100	1	08/05/2024 10:09	WG2336390
Ethylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Hexachloro-1,3-butadiene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Isopropylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
p-Isopropyltoluene	ND		0.00100	1	08/05/2024 10:09	WG2336390
2-Butanone (MEK)	ND		0.0100	1	08/05/2024 10:09	WG2336390
Methylene Chloride	ND		0.00500	1	08/05/2024 10:09	WG2336390
4-Methyl-2-pentanone (MIBK)	ND	J4	0.0100	1	08/05/2024 10:09	WG2336390
Methyl tert-butyl ether	ND		0.00100	1	08/05/2024 10:09	WG2336390
Naphthalene	ND		0.00500	1	08/05/2024 10:09	WG2336390
n-Propylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Styrene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/09/2024 19:38	WG2340032
Tetrachloroethene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Toluene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,2,3-Trichlorobenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,2,4-Trichlorobenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,1,2-Trichloroethane	ND		0.00100	1	08/05/2024 10:09	WG2336390
Trichloroethene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Trichlorofluoromethane	ND		0.00500	1	08/05/2024 10:09	WG2336390
1,2,3-Trichloropropane	ND		0.00250	1	08/05/2024 10:09	WG2336390
1,2,4-Trimethylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,2,3-Trimethylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
1,3,5-Trimethylbenzene	ND		0.00100	1	08/05/2024 10:09	WG2336390
Vinyl chloride	ND		0.00100	1	08/09/2024 19:38	WG2340032
Xylenes, Total	ND		0.00300	1	08/05/2024 10:09	WG2336390
(S) Toluene-d8	114		80.0-120		08/05/2024 10:09	WG2336390
(S) Toluene-d8	95.1		80.0-120		08/09/2024 19:38	WG2340032
(S) 4-Bromofluorobenzene	111		77.0-126		08/05/2024 10:09	WG2336390
(S) 4-Bromofluorobenzene	90.5		77.0-126		08/09/2024 19:38	WG2340032
(S) 1,2-Dichloroethane-d4	123		70.0-130		08/05/2024 10:09	WG2336390
(S) 1,2-Dichloroethane-d4	104		70.0-130		08/09/2024 19:38	WG2340032

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4102823-3 08/04/24 13:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	0.0907	↓	0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	90.4			60.0-120
(S) a,a,a-Trifluorotoluene(PID)	98.8			79.0-125

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

(LCS) R4102823-1 08/04/24 12:38 • (LCSD) R4102823-2 08/04/24 13:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	5.22	5.20	104	104	60.0-120			0.384	20
(S) a,a,a-Trifluorotoluene(FID)				105	105	60.0-120				
(S) a,a,a-Trifluorotoluene(PID)				112	112	79.0-125				

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

Method Blank (MB)

(MB) R4105012-3 08/05/24 09:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrolein	U		0.00254	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
2-Chlorotoluene	U		0.000106	0.00100
4-Chlorotoluene	U		0.000114	0.00100
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
Dibromomethane	U		0.000122	0.00100
1,2-Dichlorobenzene	U		0.000107	0.00100
1,3-Dichlorobenzene	U		0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
Dichlorodifluoromethane	U		0.000374	0.00500
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
1,1-Dichloropropene	U		0.000142	0.00100
1,3-Dichloropropane	U		0.000110	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
2,2-Dichloropropane	U		0.000161	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
Isopropylbenzene	U		0.000105	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R4105012-3 08/05/24 09:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000481	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
Trichlorofluoromethane	U		0.000160	0.00500
1,2,3-Trichloropropane	U		0.000237	0.00250
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,2,3-Trimethylbenzene	U		0.000104	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	117			80.0-120
(S) 4-Bromofluorobenzene	113			77.0-126
(S) 1,2-Dichloroethane-d4	123			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4105012-1 08/05/24 08:03 • (LCSD) R4105012-2 08/05/24 08:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0269	0.0252	108	101	19.0-160			6.53	27
Acrolein	0.0250	0.0447	0.0432	179	173	10.0-160	J4	J4	3.41	26
Acrylonitrile	0.0250	0.0342	0.0333	137	133	55.0-149			2.67	20
Benzene	0.00500	0.00485	0.00454	97.0	90.8	70.0-123			6.60	20
Bromobenzene	0.00500	0.00445	0.00418	89.0	83.6	73.0-121			6.26	20
Bromodichloromethane	0.00500	0.00493	0.00476	98.6	95.2	75.0-120			3.51	20
Bromoform	0.00500	0.00463	0.00460	92.6	92.0	68.0-132			0.650	20

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

(LCS) R4105012-1 08/05/24 08:03 • (LCSD) R4105012-2 08/05/24 08:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromomethane	0.00500	0.00245	0.00373	49.0	74.6	10.0-160		J3	41.4	25
n-Butylbenzene	0.00500	0.00448	0.00425	89.6	85.0	73.0-125			5.27	20
sec-Butylbenzene	0.00500	0.00481	0.00436	96.2	87.2	75.0-125			9.81	20
tert-Butylbenzene	0.00500	0.00451	0.00423	90.2	84.6	76.0-124			6.41	20
Carbon tetrachloride	0.00500	0.00494	0.00471	98.8	94.2	68.0-126			4.77	20
Chlorobenzene	0.00500	0.00506	0.00486	101	97.2	80.0-121			4.03	20
Chlorodibromomethane	0.00500	0.00456	0.00454	91.2	90.8	77.0-125			0.440	20
Chloroethane	0.00500	0.00252	0.00312	50.4	62.4	47.0-150		J3	21.3	20
Chloroform	0.00500	0.00516	0.00487	103	97.4	73.0-120			5.78	20
Chloromethane	0.00500	0.00397	0.00333	79.4	66.6	41.0-142			17.5	20
2-Chlorotoluene	0.00500	0.00498	0.00460	99.6	92.0	76.0-123			7.93	20
4-Chlorotoluene	0.00500	0.00463	0.00437	92.6	87.4	75.0-122			5.78	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00503	0.00482	101	96.4	58.0-134			4.26	20
1,2-Dibromoethane	0.00500	0.00505	0.00468	101	93.6	80.0-122			7.61	20
Dibromomethane	0.00500	0.00492	0.00465	98.4	93.0	80.0-120			5.64	20
1,2-Dichlorobenzene	0.00500	0.00489	0.00485	97.8	97.0	79.0-121			0.821	20
1,3-Dichlorobenzene	0.00500	0.00481	0.00457	96.2	91.4	79.0-120			5.12	20
1,4-Dichlorobenzene	0.00500	0.00471	0.00461	94.2	92.2	79.0-120			2.15	20
Dichlorodifluoromethane	0.00500	0.00401	0.00394	80.2	78.8	51.0-149			1.76	20
1,1-Dichloroethane	0.00500	0.00539	0.00503	108	101	70.0-126			6.91	20
1,2-Dichloroethane	0.00500	0.00577	0.00565	115	113	70.0-128			2.10	20
cis-1,2-Dichloroethene	0.00500	0.00485	0.00423	97.0	84.6	73.0-120			13.7	20
trans-1,2-Dichloroethene	0.00500	0.00449	0.00406	89.8	81.2	73.0-120			10.1	20
1,2-Dichloropropane	0.00500	0.00545	0.00523	109	105	77.0-125			4.12	20
1,1-Dichloropropene	0.00500	0.00491	0.00447	98.2	89.4	74.0-126			9.38	20
1,3-Dichloropropane	0.00500	0.00475	0.00480	95.0	96.0	80.0-120			1.05	20
cis-1,3-Dichloropropene	0.00500	0.00453	0.00435	90.6	87.0	80.0-123			4.05	20
trans-1,3-Dichloropropene	0.00500	0.00457	0.00443	91.4	88.6	78.0-124			3.11	20
2,2-Dichloropropane	0.00500	0.00476	0.00453	95.2	90.6	58.0-130			4.95	20
Di-isopropyl ether	0.00500	0.00593	0.00563	119	113	58.0-138			5.19	20
Ethylbenzene	0.00500	0.00478	0.00462	95.6	92.4	79.0-123			3.40	20
Hexachloro-1,3-butadiene	0.00500	0.00566	0.00531	113	106	54.0-138			6.38	20
Isopropylbenzene	0.00500	0.00490	0.00471	98.0	94.2	76.0-127			3.95	20
p-Isopropyltoluene	0.00500	0.00480	0.00441	96.0	88.2	76.0-125			8.47	20
2-Butanone (MEK)	0.0250	0.0333	0.0317	133	127	44.0-160			4.92	20
Methylene Chloride	0.00500	0.00468	0.00437	93.6	87.4	67.0-120			6.85	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0359	0.0353	144	141	68.0-142		J4	1.69	20
Methyl tert-butyl ether	0.00500	0.00501	0.00502	100	100	68.0-125			0.199	20
Naphthalene	0.00500	0.00433	0.00435	86.6	87.0	54.0-135			0.461	20
n-Propylbenzene	0.00500	0.00464	0.00427	92.8	85.4	77.0-124			8.31	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R4105012-1 08/05/24 08:03 • (LCSD) R4105012-2 08/05/24 08:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Styrene	0.00500	0.00440	0.00434	88.0	86.8	73.0-130			1.37	20
1,1,1,2-Tetrachloroethane	0.00500	0.00495	0.00502	99.0	100	75.0-125			1.40	20
1,1,2,2-Tetrachloroethane	0.00500	0.00465	0.00423	93.0	84.6	65.0-130			9.46	20
Tetrachloroethene	0.00500	0.00505	0.00497	101	99.4	72.0-132			1.60	20
Toluene	0.00500	0.00475	0.00460	95.0	92.0	79.0-120			3.21	20
1,2,3-Trichlorobenzene	0.00500	0.00521	0.00497	104	99.4	50.0-138			4.72	20
1,2,4-Trichlorobenzene	0.00500	0.00471	0.00462	94.2	92.4	57.0-137			1.93	20
1,1,1-Trichloroethane	0.00500	0.00523	0.00492	105	98.4	73.0-124			6.11	20
1,1,2-Trichloroethane	0.00500	0.00489	0.00479	97.8	95.8	80.0-120			2.07	20
Trichloroethene	0.00500	0.00520	0.00477	104	95.4	78.0-124			8.63	20
Trichlorofluoromethane	0.00500	0.00407	0.00418	81.4	83.6	59.0-147			2.67	20
1,2,3-Trichloropropane	0.00500	0.00557	0.00509	111	102	73.0-130			9.01	20
1,2,4-Trimethylbenzene	0.00500	0.00478	0.00417	95.6	83.4	76.0-121			13.6	20
1,2,3-Trimethylbenzene	0.00500	0.00466	0.00467	93.2	93.4	77.0-120			0.214	20
1,3,5-Trimethylbenzene	0.00500	0.00482	0.00440	96.4	88.0	76.0-122			9.11	20
Xylenes, Total	0.0150	0.0147	0.0138	98.0	92.0	79.0-123			6.32	20
(S) Toluene-d8				107	107	80.0-120				
(S) 4-Bromofluorobenzene				108	106	77.0-126				
(S) 1,2-Dichloroethane-d4				121	120	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4105134-2 08/09/24 16:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1-Dichloroethene	U		0.000188	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Vinyl chloride	U		0.000234	0.00100
(S) Toluene-d8	94.6			80.0-120
(S) 4-Bromofluorobenzene	86.4			77.0-126
(S) 1,2-Dichloroethane-d4	110			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4105134-1 08/09/24 15:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1-Dichloroethene	0.00500	0.00515	103	71.0-124	
1,1,2-Trichlorotrifluoroethane	0.00500	0.00514	103	69.0-132	
Vinyl chloride	0.00500	0.00446	89.2	67.0-131	
(S) Toluene-d8			94.9	80.0-120	
(S) 4-Bromofluorobenzene			94.4	77.0-126	
(S) 1,2-Dichloroethane-d4			103	70.0-130	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R4103895-1 08/07/24 07:15

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
AK102 DRO C10-C25	U		0.170	0.800
<i>(S) o-Terphenyl</i>	149	J1		60.0-120

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

(LCS) R4103895-2 08/07/24 07:36 • (LCSD) R4103895-3 08/07/24 07:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
AK102 DRO C10-C25	6.00	6.80	7.08	113	118	75.0-125			4.03	20
<i>(S) o-Terphenyl</i>				132	130	60.0-120	J1	J1		

L1761607-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1761607-03 08/07/24 10:17 • (MS) R4103895-6 08/07/24 10:37 • (MSD) R4103895-7 08/07/24 10:57

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
AK102 DRO C10-C25	5.76	ND	5.53	5.43	96.0	94.9	1	75.0-125			1.82	20
<i>(S) o-Terphenyl</i>					116	114		50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4104174-3 08/07/24 10:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
2-Chloronaphthalene	U		0.0000682	0.000250
(S) Nitrobenzene-d5	111			31.0-160
(S) 2-Fluorobiphenyl	85.0			48.0-148
(S) p-Terphenyl-d14	90.0			37.0-146

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R4104174-1 08/07/24 09:45 • (LCSD) R4104174-2 08/07/24 10:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00167	0.00160	83.5	80.0	67.0-150			4.28	20
Acenaphthene	0.00200	0.00164	0.00158	82.0	79.0	65.0-138			3.73	20
Acenaphthylene	0.00200	0.00173	0.00165	86.5	82.5	66.0-140			4.73	20
Benzo(a)anthracene	0.00200	0.00155	0.00149	77.5	74.5	61.0-140			3.95	20
Benzo(a)pyrene	0.00200	0.00149	0.00145	74.5	72.5	60.0-143			2.72	20
Benzo(b)fluoranthene	0.00200	0.00154	0.00154	77.0	77.0	58.0-141			0.000	20
Benzo(g,h,i)perylene	0.00200	0.00146	0.00145	73.0	72.5	52.0-153			0.687	20
Benzo(k)fluoranthene	0.00200	0.00146	0.00139	73.0	69.5	58.0-148			4.91	20
Chrysene	0.00200	0.00163	0.00160	81.5	80.0	64.0-144			1.86	20
Dibenz(a,h)anthracene	0.00200	0.00138	0.00141	69.0	70.5	52.0-155			2.15	20
Fluoranthene	0.00200	0.00177	0.00173	88.5	86.5	69.0-153			2.29	20

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

(LCS) R4104174-1 08/07/24 09:45 • (LCSD) R4104174-2 08/07/24 10:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	0.00200	0.00172	0.00163	86.0	81.5	64.0-136			5.37	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00134	0.00133	67.0	66.5	54.0-153			0.749	20
Naphthalene	0.00200	0.00174	0.00164	87.0	82.0	61.0-137			5.92	20
Phenanthrene	0.00200	0.00174	0.00167	87.0	83.5	62.0-137			4.11	20
Pyrene	0.00200	0.00175	0.00169	87.5	84.5	60.0-142			3.49	20
1-Methylnaphthalene	0.00200	0.00171	0.00163	85.5	81.5	66.0-142			4.79	20
2-Methylnaphthalene	0.00200	0.00167	0.00158	83.5	79.0	62.0-136			5.54	20
2-Chloronaphthalene	0.00200	0.00169	0.00158	84.5	79.0	64.0-140			6.73	20
<i>(S)</i> Nitrobenzene-d5				110	101	31.0-160				
<i>(S)</i> 2-Fluorobiphenyl				81.5	80.5	48.0-148				
<i>(S)</i> p-Terphenyl-d14				81.0	79.5	37.0-146				

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

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

MDL	Method Detection Limit.
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.
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.



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: **Stantec**
725 E. Fireweed Ln.
Ste. 200
Anchorage, AK 99503

Billing Information: **Accounts Payable**
stantec
(same as ←)

Report to: **Sydney Souza**
Email To: **sydney.souza@stantec.com**

Project Description: **TNS 101 / IFC**
City/State: **Fairbanks, AK**
Please Circle: **(AKT)**
PT MT CT ET

Analysis / Container / Preservative



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

SDG # **1763193**
A023

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

Client Project #: **203723629**
Lab Project #:
Site/Facility ID #: **TNS 101 / IFC**
P.O. #: **203723629**
Collected by (print): **Rem. Malenfant**
Collected by (signature): *[Signature]*
Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day
Date Results Needed: **Standard**
Immediately Packed on Ice N Y X

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	8260C BTEX / Fuels (HU)	8270 - SIM PAHs (HCL)	AK101 GRO (HCL)	AK102 DRO (HCL)
CRW	G	GW	-	7/31/24	1451	10	X	X	X	X
Trip Blank	G	-	-	-	-	1	X			

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

Remarks:

Samples returned via: UPS FedEx Courier

Tracking # **7315 7203 0700**

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

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

Relinquished by: (Signature) *[Signature]* Date: **8/1/24** Time: **0830**
Received by: (Signature) _____ Trip Blank Received: No Yes (HCL/MeOH/TBR)

Relinquished by: (Signature) _____ Date: _____ Time: _____
Received by: (Signature) _____ Temp: **60A9** °C Bottles Received: **47.3** **17**

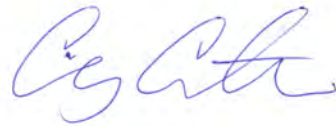
Relinquished by: (Signature) _____ Date: _____ Time: _____
Received for lab by: (Signature) *[Signature]* Date: **8-2-24** Time: **9:00**
Hold: _____ Condition: **NCF** OK

Stantec - Anchorage, AK

Sample Delivery Group: L1775196
Samples Received: 09/06/2024
Project Number: 203723629
Description: TNS101/SW5313

Report To: Ms. Sydney Souza
725 E Fireweed Lane
Anchorage, AK 99503

Entire Report Reviewed By:



Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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

SAMPLE SUMMARY

MW-8 L1775196-01 GW

Collected by
Collected date/time
Received date/time
09/03/24 10:57 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2363562	1	09/17/24 01:36	09/17/24 01:36	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359367	1	09/10/24 17:06	09/10/24 17:06	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2361727	1	09/13/24 21:01	09/15/24 01:25	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 13:46	ALM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

WRW2020 L1775196-02 GW

Collected by
Collected date/time
Received date/time
09/03/24 11:32 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2358732	1	09/10/24 06:19	09/10/24 06:19	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359367	1	09/10/24 17:28	09/10/24 17:28	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2361727	1	09/13/24 21:01	09/15/24 01:45	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 14:03	ALM	Mt. Juliet, TN

5 Sr

6 Qc

7 Gl

8 Al

CRW-2 L1775196-03 GW

Collected by
Collected date/time
Received date/time
09/03/24 11:47 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2358732	1	09/10/24 06:41	09/10/24 06:41	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359367	1	09/10/24 17:50	09/10/24 17:50	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2361727	1	09/13/24 21:01	09/15/24 02:06	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 14:21	ALM	Mt. Juliet, TN

9 Sc

IFC AERATION TANK L1775196-04 GW

Collected by
Collected date/time
Received date/time
09/03/24 11:51 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 14:40	09/11/24 14:40	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359367	1	09/10/24 18:12	09/10/24 18:12	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2361727	1	09/13/24 21:01	09/15/24 02:26	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 14:39	ALM	Mt. Juliet, TN

CRW L1775196-05 GW

Collected by
Collected date/time
Received date/time
09/03/24 12:41 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 15:03	09/11/24 15:03	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 17:10	09/10/24 17:10	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2361727	1	09/13/24 21:01	09/15/24 02:47	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 14:56	ALM	Mt. Juliet, TN

OMW-3 L1775196-06 GW

Collected by
Collected date/time
Received date/time
09/03/24 13:15 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 15:25	09/11/24 15:25	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 17:33	09/10/24 17:33	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2361727	1	09/13/24 21:01	09/15/24 03:07	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 15:14	ALM	Mt. Juliet, TN

SAMPLE SUMMARY

ERW L1775196-07 GW

Collected by
Collected date/time
Received date/time

09/03/24 13:21 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 15:48	09/11/24 15:48	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 17:55	09/10/24 17:55	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2361727	1	09/13/24 21:01	09/15/24 03:27	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 16:07	ALM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-4 L1775196-08 GW

Collected by
Collected date/time
Received date/time

09/03/24 13:54 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 16:11	09/11/24 16:11	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 18:17	09/10/24 18:17	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2362474	1	09/17/24 15:45	09/18/24 19:25	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	2	09/10/24 15:48	09/11/24 16:24	ALM	Mt. Juliet, TN

DUP 1 L1775196-09 GW

Collected by
Collected date/time
Received date/time

09/03/24 00:00 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 16:33	09/11/24 16:33	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 18:39	09/10/24 18:39	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2362474	1	09/17/24 15:45	09/18/24 19:46	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 15:31	ALM	Mt. Juliet, TN

DUP 2 L1775196-10 GW

Collected by
Collected date/time
Received date/time

09/03/24 00:00 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	10	09/11/24 21:50	09/11/24 21:50	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 19:02	09/10/24 19:02	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2362474	1	09/17/24 15:45	09/18/24 20:06	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	2	09/10/24 15:48	09/11/24 16:42	ALM	Mt. Juliet, TN

MW-17 L1775196-11 GW

Collected by
Collected date/time
Received date/time

09/03/24 14:12 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 16:56	09/11/24 16:56	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 19:24	09/10/24 19:24	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2362474	1.11	09/17/24 15:45	09/18/24 20:47	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	2	09/10/24 15:48	09/11/24 17:00	ALM	Mt. Juliet, TN

MW-14 L1775196-12 GW

Collected by
Collected date/time
Received date/time

09/03/24 14:47 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2360466	1	09/11/24 17:18	09/11/24 17:18	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2359505	1	09/10/24 19:46	09/10/24 19:46	DYW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2361644	20	09/13/24 02:05	09/13/24 02:05	JTO	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2362474	1	09/17/24 15:45	09/18/24 20:26	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	1	09/10/24 15:48	09/11/24 15:49	ALM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2359170	10	09/10/24 15:48	09/13/24 07:56	JRM	Mt. Juliet, TN

SAMPLE SUMMARY

TRIP BLANK (W/ COC) L1775196-13 GW

Collected by: [Redacted] Collected date/time: 09/03/24 00:00 Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2360903	1	09/12/24 00:50	09/12/24 00:50	DYW	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

TRIP BLANK (W/O COC) L1775196-14 GW

Collected by: [Redacted] Collected date/time: 09/03/24 00:00 Received date/time: 09/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2360903	1	09/12/24 01:10	09/12/24 01:10	DYW	Mt. Juliet, TN

⁴ Cn

⁵ Sr

⁶ Qc

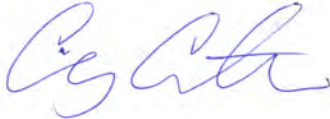
⁷ Gl

⁸ Al

⁹ Sc

CASE NARRATIVE

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



Craig Cothron
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPHGAK C6 to C10	0.511		0.100	1	09/17/2024 01:36	WG2363562
(S) a,a,a-Trifluorotoluene(FID)	102		50.0-150		09/17/2024 01:36	WG2363562
(S) a,a,a-Trifluorotoluene(PID)	0.000	<u>J2</u>	79.0-125		09/17/2024 01:36	WG2363562

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	09/10/2024 17:06	WG2359367
n-Butylbenzene	0.00381		0.00100	1	09/10/2024 17:06	WG2359367
sec-Butylbenzene	0.00497		0.00100	1	09/10/2024 17:06	WG2359367
tert-Butylbenzene	ND		0.00100	1	09/10/2024 17:06	WG2359367
Ethylbenzene	0.00297		0.00100	1	09/10/2024 17:06	WG2359367
Isopropylbenzene	0.00332		0.00100	1	09/10/2024 17:06	WG2359367
Naphthalene	0.0299		0.00500	1	09/10/2024 17:06	WG2359367
Toluene	ND		0.00100	1	09/10/2024 17:06	WG2359367
1,2,4-Trimethylbenzene	0.0769		0.00100	1	09/10/2024 17:06	WG2359367
1,3,5-Trimethylbenzene	0.0220		0.00100	1	09/10/2024 17:06	WG2359367
Total Xylenes	0.0472		0.00300	1	09/10/2024 17:06	WG2359367
(S) Toluene-d8	91.9		80.0-120		09/10/2024 17:06	WG2359367
(S) 4-Bromofluorobenzene	91.9		77.0-126		09/10/2024 17:06	WG2359367
(S) 1,2-Dichloroethane-d4	96.5		70.0-130		09/10/2024 17:06	WG2359367

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
AK102 DRO C10-C25	2.75	<u>B</u>	0.800	1	09/15/2024 01:25	WG2361727
(S) o-Terphenyl	75.0		50.0-150		09/15/2024 01:25	WG2361727

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Acenaphthene	0.000534		0.0000500	1	09/11/2024 13:46	WG2359170
Acenaphthylene	0.000209		0.0000500	1	09/11/2024 13:46	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 13:46	WG2359170
Fluorene	0.00145		0.0000500	1	09/11/2024 13:46	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
Naphthalene	0.0139		0.000250	1	09/11/2024 13:46	WG2359170
Phenanthrene	0.000772		0.0000500	1	09/11/2024 13:46	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 13:46	WG2359170
1-Methylnaphthalene	0.0392		0.000250	1	09/11/2024 13:46	WG2359170
2-Methylnaphthalene	0.0308		0.000250	1	09/11/2024 13:46	WG2359170
(S) Nitrobenzene-d5	59.5		31.0-160		09/11/2024 13:46	WG2359170
(S) 2-Fluorobiphenyl	77.9		48.0-148		09/11/2024 13:46	WG2359170
(S) p-Terphenyl-d14	72.1		37.0-146		09/11/2024 13:46	WG2359170

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

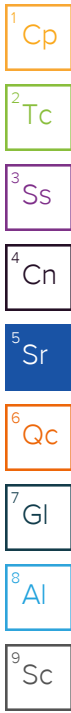
7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPHGAK C6 to C10	0.853		0.100	1	09/10/2024 06:19	WG2358732
(S) a,a,a-Trifluorotoluene(FID)	95.6		50.0-150		09/10/2024 06:19	WG2358732
(S) a,a,a-Trifluorotoluene(PID)	107		79.0-125		09/10/2024 06:19	WG2358732



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00128		0.00100	1	09/10/2024 17:28	WG2359367
n-Butylbenzene	0.00601		0.00100	1	09/10/2024 17:28	WG2359367
sec-Butylbenzene	0.00897		0.00100	1	09/10/2024 17:28	WG2359367
tert-Butylbenzene	ND		0.00100	1	09/10/2024 17:28	WG2359367
Ethylbenzene	0.0219		0.00100	1	09/10/2024 17:28	WG2359367
Isopropylbenzene	0.00850		0.00100	1	09/10/2024 17:28	WG2359367
Naphthalene	0.0289		0.00500	1	09/10/2024 17:28	WG2359367
Toluene	ND		0.00100	1	09/10/2024 17:28	WG2359367
1,2,4-Trimethylbenzene	0.0633		0.00100	1	09/10/2024 17:28	WG2359367
1,3,5-Trimethylbenzene	0.0209		0.00100	1	09/10/2024 17:28	WG2359367
Total Xylenes	0.130		0.00300	1	09/10/2024 17:28	WG2359367
(S) Toluene-d8	88.4		80.0-120		09/10/2024 17:28	WG2359367
(S) 4-Bromofluorobenzene	80.4		77.0-126		09/10/2024 17:28	WG2359367
(S) 1,2-Dichloroethane-d4	93.9		70.0-130		09/10/2024 17:28	WG2359367

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
AK102 DRO C10-C25	1.48	<u>B</u>	0.800	1	09/15/2024 01:45	WG2361727
(S) o-Terphenyl	72.8		50.0-150		09/15/2024 01:45	WG2361727

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Acenaphthene	0.000442		0.0000500	1	09/11/2024 14:03	WG2359170
Acenaphthylene	0.000153		0.0000500	1	09/11/2024 14:03	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 14:03	WG2359170
Fluorene	0.00111		0.0000500	1	09/11/2024 14:03	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
Naphthalene	0.0139		0.000250	1	09/11/2024 14:03	WG2359170
Phenanthrene	0.000169		0.0000500	1	09/11/2024 14:03	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 14:03	WG2359170
1-Methylnaphthalene	0.0234		0.000250	1	09/11/2024 14:03	WG2359170
2-Methylnaphthalene	0.00776		0.000250	1	09/11/2024 14:03	WG2359170
(S) Nitrobenzene-d5	81.1		31.0-160		09/11/2024 14:03	WG2359170
(S) 2-Fluorobiphenyl	80.5		48.0-148		09/11/2024 14:03	WG2359170
(S) p-Terphenyl-d14	84.2		37.0-146		09/11/2024 14:03	WG2359170

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.857		0.100	1	09/10/2024 06:41	WG2358732
(S) a,a,a-Trifluorotoluene(FID)	93.5		50.0-150		09/10/2024 06:41	WG2358732
(S) a,a,a-Trifluorotoluene(PID)	109		79.0-125		09/10/2024 06:41	WG2358732

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	0.00202		0.00100	1	09/10/2024 17:50	WG2359367
n-Butylbenzene	0.00177		0.00100	1	09/10/2024 17:50	WG2359367
sec-Butylbenzene	0.00237		0.00100	1	09/10/2024 17:50	WG2359367
tert-Butylbenzene	ND		0.00100	1	09/10/2024 17:50	WG2359367
Ethylbenzene	0.0267		0.00100	1	09/10/2024 17:50	WG2359367
Isopropylbenzene	0.00497		0.00100	1	09/10/2024 17:50	WG2359367
Naphthalene	0.0402		0.00500	1	09/10/2024 17:50	WG2359367
Toluene	0.00448		0.00100	1	09/10/2024 17:50	WG2359367
1,2,4-Trimethylbenzene	0.0670		0.00100	1	09/10/2024 17:50	WG2359367
1,3,5-Trimethylbenzene	0.0262		0.00100	1	09/10/2024 17:50	WG2359367
Total Xylenes	0.256		0.00300	1	09/10/2024 17:50	WG2359367
(S) Toluene-d8	96.3		80.0-120		09/10/2024 17:50	WG2359367
(S) 4-Bromofluorobenzene	94.9		77.0-126		09/10/2024 17:50	WG2359367
(S) 1,2-Dichloroethane-d4	95.4		70.0-130		09/10/2024 17:50	WG2359367

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1.23	B	0.800	1	09/15/2024 02:06	WG2361727
(S) o-Terphenyl	87.5		50.0-150		09/15/2024 02:06	WG2361727

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Acenaphthene	0.000226		0.0000500	1	09/11/2024 14:21	WG2359170
Acenaphthylene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 14:21	WG2359170
Fluorene	0.000625		0.0000500	1	09/11/2024 14:21	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
Naphthalene	0.0233		0.000250	1	09/11/2024 14:21	WG2359170
Phenanthrene	0.000303		0.0000500	1	09/11/2024 14:21	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 14:21	WG2359170
1-Methylnaphthalene	0.0183		0.000250	1	09/11/2024 14:21	WG2359170
2-Methylnaphthalene	0.0155		0.000250	1	09/11/2024 14:21	WG2359170
(S) Nitrobenzene-d5	83.7		31.0-160		09/11/2024 14:21	WG2359170
(S) 2-Fluorobiphenyl	72.6		48.0-148		09/11/2024 14:21	WG2359170
(S) p-Terphenyl-d14	68.9		37.0-146		09/11/2024 14:21	WG2359170

IFC AERATION TANK

Collected date/time: 09/03/24 11:51

SAMPLE RESULTS - 04

L1775196

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.104	B	0.100	1	09/11/2024 14:40	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	93.3		50.0-150		09/11/2024 14:40	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	104		79.0-125		09/11/2024 14:40	WG2360466

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

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/10/2024 18:12	WG2359367
n-Butylbenzene	ND		0.00100	1	09/10/2024 18:12	WG2359367
sec-Butylbenzene	ND		0.00100	1	09/10/2024 18:12	WG2359367
tert-Butylbenzene	ND		0.00100	1	09/10/2024 18:12	WG2359367
Ethylbenzene	0.00183		0.00100	1	09/10/2024 18:12	WG2359367
Isopropylbenzene	ND		0.00100	1	09/10/2024 18:12	WG2359367
Naphthalene	0.00615		0.00500	1	09/10/2024 18:12	WG2359367
Toluene	ND		0.00100	1	09/10/2024 18:12	WG2359367
1,2,4-Trimethylbenzene	0.00527		0.00100	1	09/10/2024 18:12	WG2359367
1,3,5-Trimethylbenzene	0.00182		0.00100	1	09/10/2024 18:12	WG2359367
Total Xylenes	0.0141		0.00300	1	09/10/2024 18:12	WG2359367
(S) Toluene-d8	103		80.0-120		09/10/2024 18:12	WG2359367
(S) 4-Bromofluorobenzene	101		77.0-126		09/10/2024 18:12	WG2359367
(S) 1,2-Dichloroethane-d4	91.6		70.0-130		09/10/2024 18:12	WG2359367

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	0.995	B	0.800	1	09/15/2024 02:26	WG2361727
(S) o-Terphenyl	86.9		50.0-150		09/15/2024 02:26	WG2361727

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Acenaphthene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Acenaphthylene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 14:39	WG2359170
Fluorene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Naphthalene	ND		0.000250	1	09/11/2024 14:39	WG2359170
Phenanthrene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 14:39	WG2359170
1-Methylnaphthalene	ND		0.000250	1	09/11/2024 14:39	WG2359170
2-Methylnaphthalene	ND		0.000250	1	09/11/2024 14:39	WG2359170
(S) Nitrobenzene-d5	99.5		31.0-160		09/11/2024 14:39	WG2359170
(S) 2-Fluorobiphenyl	78.9		48.0-148		09/11/2024 14:39	WG2359170
(S) p-Terphenyl-d14	75.3		37.0-146		09/11/2024 14:39	WG2359170

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.208	<u>B</u>	0.100	1	09/11/2024 15:03	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	90.3		50.0-150		09/11/2024 15:03	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	104		79.0-125		09/11/2024 15:03	WG2360466

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

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	0.00125		0.00100	1	09/10/2024 17:10	WG2359505
n-Butylbenzene	ND	<u>J3</u>	0.00100	1	09/10/2024 17:10	WG2359505
sec-Butylbenzene	0.00116		0.00100	1	09/10/2024 17:10	WG2359505
tert-Butylbenzene	ND		0.00100	1	09/10/2024 17:10	WG2359505
Ethylbenzene	0.00798		0.00100	1	09/10/2024 17:10	WG2359505
Isopropylbenzene	0.00458		0.00100	1	09/10/2024 17:10	WG2359505
Naphthalene	0.00991	<u>C3</u>	0.00500	1	09/10/2024 17:10	WG2359505
Toluene	ND		0.00100	1	09/10/2024 17:10	WG2359505
1,2,4-Trimethylbenzene	0.0203		0.00100	1	09/10/2024 17:10	WG2359505
1,3,5-Trimethylbenzene	0.00634		0.00100	1	09/10/2024 17:10	WG2359505
Total Xylenes	0.0330		0.00300	1	09/10/2024 17:10	WG2359505
(S) Toluene-d8	102		80.0-120		09/10/2024 17:10	WG2359505
(S) 4-Bromofluorobenzene	94.9		77.0-126		09/10/2024 17:10	WG2359505
(S) 1,2-Dichloroethane-d4	111		70.0-130		09/10/2024 17:10	WG2359505

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	2.01	<u>B</u>	0.800	1	09/15/2024 02:47	WG2361727
(S) o-Terphenyl	82.6		50.0-150		09/15/2024 02:47	WG2361727

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Acenaphthene	0.0000926		0.0000500	1	09/11/2024 14:56	WG2359170
Acenaphthylene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 14:56	WG2359170
Fluorene	0.000105		0.0000500	1	09/11/2024 14:56	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Naphthalene	0.00368		0.000250	1	09/11/2024 14:56	WG2359170
Phenanthrene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 14:56	WG2359170
1-Methylnaphthalene	0.00296		0.000250	1	09/11/2024 14:56	WG2359170
2-Methylnaphthalene	0.000533		0.000250	1	09/11/2024 14:56	WG2359170
(S) Nitrobenzene-d5	100		31.0-160		09/11/2024 14:56	WG2359170
(S) 2-Fluorobiphenyl	96.8		48.0-148		09/11/2024 14:56	WG2359170
(S) p-Terphenyl-d14	77.9		37.0-146		09/11/2024 14:56	WG2359170

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	ND		0.100	1	09/11/2024 15:25	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	91.3		50.0-150		09/11/2024 15:25	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	105		79.0-125		09/11/2024 15:25	WG2360466

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

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/10/2024 17:33	WG2359505
n-Butylbenzene	ND	J3	0.00100	1	09/10/2024 17:33	WG2359505
sec-Butylbenzene	ND		0.00100	1	09/10/2024 17:33	WG2359505
tert-Butylbenzene	ND		0.00100	1	09/10/2024 17:33	WG2359505
Ethylbenzene	ND		0.00100	1	09/10/2024 17:33	WG2359505
Isopropylbenzene	ND		0.00100	1	09/10/2024 17:33	WG2359505
Naphthalene	ND	C3	0.00500	1	09/10/2024 17:33	WG2359505
Toluene	ND		0.00100	1	09/10/2024 17:33	WG2359505
1,2,4-Trimethylbenzene	ND		0.00100	1	09/10/2024 17:33	WG2359505
1,3,5-Trimethylbenzene	ND		0.00100	1	09/10/2024 17:33	WG2359505
Total Xylenes	ND		0.00300	1	09/10/2024 17:33	WG2359505
(S) Toluene-d8	105		80.0-120		09/10/2024 17:33	WG2359505
(S) 4-Bromofluorobenzene	98.7		77.0-126		09/10/2024 17:33	WG2359505
(S) 1,2-Dichloroethane-d4	108		70.0-130		09/10/2024 17:33	WG2359505

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	ND		0.800	1	09/15/2024 03:07	WG2361727
(S) o-Terphenyl	83.0		50.0-150		09/15/2024 03:07	WG2361727

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Acenaphthene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Acenaphthylene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 15:14	WG2359170
Fluorene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Naphthalene	ND		0.000250	1	09/11/2024 15:14	WG2359170
Phenanthrene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 15:14	WG2359170
1-Methylnaphthalene	ND		0.000250	1	09/11/2024 15:14	WG2359170
2-Methylnaphthalene	ND		0.000250	1	09/11/2024 15:14	WG2359170
(S) Nitrobenzene-d5	98.9		31.0-160		09/11/2024 15:14	WG2359170
(S) 2-Fluorobiphenyl	81.1		48.0-148		09/11/2024 15:14	WG2359170
(S) p-Terphenyl-d14	81.1		37.0-146		09/11/2024 15:14	WG2359170

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPHGAK C6 to C10	ND		0.100	1	09/11/2024 15:48	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	93.3		50.0-150		09/11/2024 15:48	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	104		79.0-125		09/11/2024 15:48	WG2360466

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	09/10/2024 17:55	WG2359505
n-Butylbenzene	ND	J3	0.00100	1	09/10/2024 17:55	WG2359505
sec-Butylbenzene	ND		0.00100	1	09/10/2024 17:55	WG2359505
tert-Butylbenzene	ND		0.00100	1	09/10/2024 17:55	WG2359505
Ethylbenzene	ND		0.00100	1	09/10/2024 17:55	WG2359505
Isopropylbenzene	ND		0.00100	1	09/10/2024 17:55	WG2359505
Naphthalene	ND	C3	0.00500	1	09/10/2024 17:55	WG2359505
Toluene	ND		0.00100	1	09/10/2024 17:55	WG2359505
1,2,4-Trimethylbenzene	0.00231		0.00100	1	09/10/2024 17:55	WG2359505
1,3,5-Trimethylbenzene	ND		0.00100	1	09/10/2024 17:55	WG2359505
Total Xylenes	ND		0.00300	1	09/10/2024 17:55	WG2359505
(S) Toluene-d8	109		80.0-120		09/10/2024 17:55	WG2359505
(S) 4-Bromofluorobenzene	99.6		77.0-126		09/10/2024 17:55	WG2359505
(S) 1,2-Dichloroethane-d4	106		70.0-130		09/10/2024 17:55	WG2359505

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
AK102 DRO C10-C25	ND		0.800	1	09/15/2024 03:27	WG2361727
(S) o-Terphenyl	78.0		50.0-150		09/15/2024 03:27	WG2361727

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Acenaphthene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Acenaphthylene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 16:07	WG2359170
Fluorene	0.000109		0.0000500	1	09/11/2024 16:07	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
Naphthalene	0.000798		0.000250	1	09/11/2024 16:07	WG2359170
Phenanthrene	0.0000681		0.0000500	1	09/11/2024 16:07	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 16:07	WG2359170
1-Methylnaphthalene	0.00209		0.000250	1	09/11/2024 16:07	WG2359170
2-Methylnaphthalene	0.00178		0.000250	1	09/11/2024 16:07	WG2359170
(S) Nitrobenzene-d5	95.8		31.0-160		09/11/2024 16:07	WG2359170
(S) 2-Fluorobiphenyl	82.1		48.0-148		09/11/2024 16:07	WG2359170
(S) p-Terphenyl-d14	78.9		37.0-146		09/11/2024 16:07	WG2359170

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	ND		0.100	1	09/11/2024 16:11	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	90.8		50.0-150		09/11/2024 16:11	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	103		79.0-125		09/11/2024 16:11	WG2360466

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/10/2024 18:17	WG2359505
n-Butylbenzene	ND	J3	0.00100	1	09/10/2024 18:17	WG2359505
sec-Butylbenzene	ND		0.00100	1	09/10/2024 18:17	WG2359505
tert-Butylbenzene	ND		0.00100	1	09/10/2024 18:17	WG2359505
Ethylbenzene	ND		0.00100	1	09/10/2024 18:17	WG2359505
Isopropylbenzene	ND		0.00100	1	09/10/2024 18:17	WG2359505
Naphthalene	ND	C3	0.00500	1	09/10/2024 18:17	WG2359505
Toluene	ND		0.00100	1	09/10/2024 18:17	WG2359505
1,2,4-Trimethylbenzene	ND		0.00100	1	09/10/2024 18:17	WG2359505
1,3,5-Trimethylbenzene	ND		0.00100	1	09/10/2024 18:17	WG2359505
Total Xylenes	ND		0.00300	1	09/10/2024 18:17	WG2359505
(S) Toluene-d8	111		80.0-120		09/10/2024 18:17	WG2359505
(S) 4-Bromofluorobenzene	99.5		77.0-126		09/10/2024 18:17	WG2359505
(S) 1,2-Dichloroethane-d4	103		70.0-130		09/10/2024 18:17	WG2359505

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	ND		0.800	1	09/18/2024 19:25	WG2362474
(S) o-Terphenyl	61.3		50.0-150		09/18/2024 19:25	WG2362474

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Acenaphthene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Acenaphthylene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Benzo(a)anthracene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Benzo(a)pyrene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Benzo(b)fluoranthene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Benzo(g,h,i)perylene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Benzo(k)fluoranthene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Chrysene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Dibenz(a,h)anthracene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Fluoranthene	ND		0.000200	2	09/11/2024 16:24	WG2359170
Fluorene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Naphthalene	ND		0.000500	2	09/11/2024 16:24	WG2359170
Phenanthrene	ND		0.000100	2	09/11/2024 16:24	WG2359170
Pyrene	ND		0.000100	2	09/11/2024 16:24	WG2359170
1-Methylnaphthalene	ND		0.000500	2	09/11/2024 16:24	WG2359170
2-Methylnaphthalene	ND		0.000500	2	09/11/2024 16:24	WG2359170
(S) Nitrobenzene-d5	81.1		31.0-160		09/11/2024 16:24	WG2359170
(S) 2-Fluorobiphenyl	53.7		48.0-148		09/11/2024 16:24	WG2359170
(S) p-Terphenyl-d14	35.7	J2	37.0-146		09/11/2024 16:24	WG2359170

Sample Narrative:

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
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L1775196-08 WG2359170: Dilution due to matrix impact during extraction procedure. Surrogate failure due to matrix.

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

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.703	B	0.100	1	09/11/2024 16:33	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	92.3		50.0-150		09/11/2024 16:33	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	105		79.0-125		09/11/2024 16:33	WG2360466

Sample Narrative:

L1775196-09 WG2360466: Lowest possible dilution due to sample foaming.

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	0.00124		0.00100	1	09/10/2024 18:39	WG2359505
n-Butylbenzene	0.00588	J3	0.00100	1	09/10/2024 18:39	WG2359505
sec-Butylbenzene	0.00841		0.00100	1	09/10/2024 18:39	WG2359505
tert-Butylbenzene	ND		0.00100	1	09/10/2024 18:39	WG2359505
Ethylbenzene	0.0267		0.00100	1	09/10/2024 18:39	WG2359505
Isopropylbenzene	0.0106		0.00100	1	09/10/2024 18:39	WG2359505
Naphthalene	0.0317	C3	0.00500	1	09/10/2024 18:39	WG2359505
Toluene	ND		0.00100	1	09/10/2024 18:39	WG2359505
1,2,4-Trimethylbenzene	0.0663		0.00100	1	09/10/2024 18:39	WG2359505
1,3,5-Trimethylbenzene	0.0216		0.00100	1	09/10/2024 18:39	WG2359505
Total Xylenes	0.161		0.00300	1	09/10/2024 18:39	WG2359505
(S) Toluene-d8	109		80.0-120		09/10/2024 18:39	WG2359505
(S) 4-Bromofluorobenzene	107		77.0-126		09/10/2024 18:39	WG2359505
(S) 1,2-Dichloroethane-d4	105		70.0-130		09/10/2024 18:39	WG2359505

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1.58	B	0.800	1	09/18/2024 19:46	WG2362474
(S) o-Terphenyl	74.5		50.0-150		09/18/2024 19:46	WG2362474

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Acenaphthene	0.000458		0.0000500	1	09/11/2024 15:31	WG2359170
Acenaphthylene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 15:31	WG2359170
Fluorene	0.00107		0.0000500	1	09/11/2024 15:31	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
Naphthalene	0.0161		0.000250	1	09/11/2024 15:31	WG2359170
Phenanthrene	0.000206		0.0000500	1	09/11/2024 15:31	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 15:31	WG2359170
1-Methylnaphthalene	0.0246		0.000250	1	09/11/2024 15:31	WG2359170
2-Methylnaphthalene	0.00997		0.000250	1	09/11/2024 15:31	WG2359170
(S) Nitrobenzene-d5	85.8		31.0-160		09/11/2024 15:31	WG2359170
(S) 2-Fluorobiphenyl	82.1		48.0-148		09/11/2024 15:31	WG2359170



DUP 1

SAMPLE RESULTS - 09

Collected date/time: 09/03/24 00:00

L1775196

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	81.6		37.0-146		09/11/2024 15:31	WG2359170

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

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	ND		1.00	10	09/11/2024 21:50	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	77.4		50.0-150		09/11/2024 21:50	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	105		79.0-125		09/11/2024 21:50	WG2360466



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/10/2024 19:02	WG2359505
n-Butylbenzene	ND	J3	0.00100	1	09/10/2024 19:02	WG2359505
sec-Butylbenzene	ND		0.00100	1	09/10/2024 19:02	WG2359505
tert-Butylbenzene	ND		0.00100	1	09/10/2024 19:02	WG2359505
Ethylbenzene	ND		0.00100	1	09/10/2024 19:02	WG2359505
Isopropylbenzene	ND		0.00100	1	09/10/2024 19:02	WG2359505
Naphthalene	ND	C3	0.00500	1	09/10/2024 19:02	WG2359505
Toluene	ND		0.00100	1	09/10/2024 19:02	WG2359505
1,2,4-Trimethylbenzene	ND		0.00100	1	09/10/2024 19:02	WG2359505
1,3,5-Trimethylbenzene	ND		0.00100	1	09/10/2024 19:02	WG2359505
Total Xylenes	ND		0.00300	1	09/10/2024 19:02	WG2359505
(S) Toluene-d8	114		80.0-120		09/10/2024 19:02	WG2359505
(S) 4-Bromofluorobenzene	104		77.0-126		09/10/2024 19:02	WG2359505
(S) 1,2-Dichloroethane-d4	106		70.0-130		09/10/2024 19:02	WG2359505

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	ND		0.800	1	09/18/2024 20:06	WG2362474
(S) o-Terphenyl	61.2		50.0-150		09/18/2024 20:06	WG2362474

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Acenaphthene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Acenaphthylene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Benzo(a)anthracene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Benzo(a)pyrene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Benzo(b)fluoranthene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Benzo(g,h,i)perylene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Benzo(k)fluoranthene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Chrysene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Dibenz(a,h)anthracene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Fluoranthene	ND		0.000200	2	09/11/2024 16:42	WG2359170
Fluorene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Naphthalene	ND		0.000500	2	09/11/2024 16:42	WG2359170
Phenanthrene	ND		0.000100	2	09/11/2024 16:42	WG2359170
Pyrene	ND		0.000100	2	09/11/2024 16:42	WG2359170
1-Methylnaphthalene	ND		0.000500	2	09/11/2024 16:42	WG2359170
2-Methylnaphthalene	ND		0.000500	2	09/11/2024 16:42	WG2359170
(S) Nitrobenzene-d5	85.3		31.0-160		09/11/2024 16:42	WG2359170
(S) 2-Fluorobiphenyl	60.0		48.0-148		09/11/2024 16:42	WG2359170
(S) p-Terphenyl-d14	41.6		37.0-146		09/11/2024 16:42	WG2359170

Sample Narrative:

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

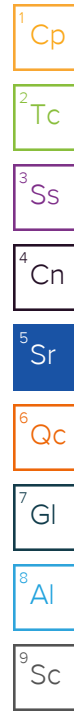
Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
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L1775196-10 WG2359170: Dilution due to matrix impact during extraction procedure. Surrogate failure due to matrix.

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

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.159	<u>B</u>	0.100	1	09/11/2024 16:56	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	89.9		50.0-150		09/11/2024 16:56	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	107		79.0-125		09/11/2024 16:56	WG2360466



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/10/2024 19:24	WG2359505
n-Butylbenzene	ND	<u>J3</u>	0.00100	1	09/10/2024 19:24	WG2359505
sec-Butylbenzene	ND		0.00100	1	09/10/2024 19:24	WG2359505
tert-Butylbenzene	ND		0.00100	1	09/10/2024 19:24	WG2359505
Ethylbenzene	ND		0.00100	1	09/10/2024 19:24	WG2359505
Isopropylbenzene	ND		0.00100	1	09/10/2024 19:24	WG2359505
Naphthalene	ND	<u>C3</u>	0.00500	1	09/10/2024 19:24	WG2359505
Toluene	ND		0.00100	1	09/10/2024 19:24	WG2359505
1,2,4-Trimethylbenzene	ND		0.00100	1	09/10/2024 19:24	WG2359505
1,3,5-Trimethylbenzene	ND		0.00100	1	09/10/2024 19:24	WG2359505
Total Xylenes	ND		0.00300	1	09/10/2024 19:24	WG2359505
(S) Toluene-d8	111		80.0-120		09/10/2024 19:24	WG2359505
(S) 4-Bromofluorobenzene	102		77.0-126		09/10/2024 19:24	WG2359505
(S) 1,2-Dichloroethane-d4	105		70.0-130		09/10/2024 19:24	WG2359505

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	4.81		0.888	1.11	09/18/2024 20:47	WG2362474
(S) o-Terphenyl	54.4		50.0-150		09/18/2024 20:47	WG2362474

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Acenaphthene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Acenaphthylene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Benzo(a)anthracene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Benzo(a)pyrene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Benzo(b)fluoranthene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Benzo(g,h,i)perylene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Benzo(k)fluoranthene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Chrysene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Dibenz(a,h)anthracene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Fluoranthene	ND		0.000200	2	09/11/2024 17:00	WG2359170
Fluorene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Naphthalene	ND		0.000500	2	09/11/2024 17:00	WG2359170
Phenanthrene	ND		0.000100	2	09/11/2024 17:00	WG2359170
Pyrene	ND		0.000100	2	09/11/2024 17:00	WG2359170
1-Methylnaphthalene	ND		0.000500	2	09/11/2024 17:00	WG2359170
2-Methylnaphthalene	ND		0.000500	2	09/11/2024 17:00	WG2359170
(S) Nitrobenzene-d5	78.4		31.0-160		09/11/2024 17:00	WG2359170
(S) 2-Fluorobiphenyl	72.1		48.0-148		09/11/2024 17:00	WG2359170
(S) p-Terphenyl-d14	61.6		37.0-146		09/11/2024 17:00	WG2359170

Sample Narrative:

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
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L1775196-11 WG2359170: Dilution due to matrix impact during extraction procedure. Surrogate failure due to matrix.

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

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	6.36		0.100	1	09/11/2024 17:18	WG2360466
(S) a,a,a-Trifluorotoluene(FID)	100		50.0-150		09/11/2024 17:18	WG2360466
(S) a,a,a-Trifluorotoluene(PID)	104		79.0-125		09/11/2024 17:18	WG2360466



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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	0.0300		0.00100	1	09/10/2024 19:46	WG2359505
n-Butylbenzene	0.0108	J3	0.00100	1	09/10/2024 19:46	WG2359505
sec-Butylbenzene	0.0153		0.00100	1	09/10/2024 19:46	WG2359505
tert-Butylbenzene	0.00175		0.00100	1	09/10/2024 19:46	WG2359505
Ethylbenzene	0.299		0.0200	20	09/13/2024 02:05	WG2361644
Isopropylbenzene	0.0819		0.00100	1	09/10/2024 19:46	WG2359505
Naphthalene	0.258		0.100	20	09/13/2024 02:05	WG2361644
Toluene	0.0105		0.00100	1	09/10/2024 19:46	WG2359505
1,2,4-Trimethylbenzene	0.323		0.0200	20	09/13/2024 02:05	WG2361644
1,3,5-Trimethylbenzene	0.145		0.00100	1	09/10/2024 19:46	WG2359505
Total Xylenes	2.00		0.0600	20	09/13/2024 02:05	WG2361644
(S) Toluene-d8	98.8		80.0-120		09/10/2024 19:46	WG2359505
(S) Toluene-d8	104		80.0-120		09/13/2024 02:05	WG2361644
(S) 4-Bromofluorobenzene	106		77.0-126		09/10/2024 19:46	WG2359505
(S) 4-Bromofluorobenzene	98.6		77.0-126		09/13/2024 02:05	WG2361644
(S) 1,2-Dichloroethane-d4	101		70.0-130		09/10/2024 19:46	WG2359505
(S) 1,2-Dichloroethane-d4	102		70.0-130		09/13/2024 02:05	WG2361644

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	5.91		0.800	1	09/18/2024 20:26	WG2362474
(S) o-Terphenyl	36.5	J2	50.0-150		09/18/2024 20:26	WG2362474

Sample Narrative:

L1775196-12 WG2362474: Sample produced total emulsion during Extraction process, low surr/spike recoveries due to matrix.

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Acenaphthene	0.000460		0.0000500	1	09/11/2024 15:49	WG2359170
Acenaphthylene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Benzo(a)anthracene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Benzo(a)pyrene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Benzo(b)fluoranthene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Benzo(g,h,i)perylene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Benzo(k)fluoranthene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Chrysene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Dibenz(a,h)anthracene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Fluoranthene	ND		0.000100	1	09/11/2024 15:49	WG2359170
Fluorene	0.000624		0.0000500	1	09/11/2024 15:49	WG2359170
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
Naphthalene	0.223		0.00250	10	09/13/2024 07:56	WG2359170
Phenanthrene	0.000191		0.0000500	1	09/11/2024 15:49	WG2359170
Pyrene	ND		0.0000500	1	09/11/2024 15:49	WG2359170
1-Methylnaphthalene	0.0957		0.00250	10	09/13/2024 07:56	WG2359170

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	0.106		0.00250	10	09/13/2024 07:56	WG2359170
(S) Nitrobenzene-d5	94.2		31.0-160		09/13/2024 07:56	WG2359170
(S) Nitrobenzene-d5	129		31.0-160		09/11/2024 15:49	WG2359170
(S) 2-Fluorobiphenyl	81.6		48.0-148		09/13/2024 07:56	WG2359170
(S) 2-Fluorobiphenyl	81.1		48.0-148		09/11/2024 15:49	WG2359170
(S) p-Terphenyl-d14	74.7		37.0-146		09/13/2024 07:56	WG2359170
(S) p-Terphenyl-d14	78.4		37.0-146		09/11/2024 15:49	WG2359170

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
n-Butylbenzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
sec-Butylbenzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
tert-Butylbenzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
Ethylbenzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
Isopropylbenzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
Naphthalene	ND		0.00500	1	09/12/2024 00:50	WG2360903
Toluene	ND		0.00100	1	09/12/2024 00:50	WG2360903
1,2,4-Trimethylbenzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
1,3,5-Trimethylbenzene	ND		0.00100	1	09/12/2024 00:50	WG2360903
Total Xylenes	ND		0.00300	1	09/12/2024 00:50	WG2360903
(S) Toluene-d8	93.1		80.0-120		09/12/2024 00:50	WG2360903
(S) 4-Bromofluorobenzene	90.4		77.0-126		09/12/2024 00:50	WG2360903
(S) 1,2-Dichloroethane-d4	118		70.0-130		09/12/2024 00:50	WG2360903

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
n-Butylbenzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
sec-Butylbenzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
tert-Butylbenzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
Ethylbenzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
Isopropylbenzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
Naphthalene	ND		0.00500	1	09/12/2024 01:10	WG2360903
Toluene	ND		0.00100	1	09/12/2024 01:10	WG2360903
1,2,4-Trimethylbenzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
1,3,5-Trimethylbenzene	ND		0.00100	1	09/12/2024 01:10	WG2360903
Total Xylenes	ND		0.00300	1	09/12/2024 01:10	WG2360903
(S) Toluene-d8	92.1		80.0-120		09/12/2024 01:10	WG2360903
(S) 4-Bromofluorobenzene	90.2		77.0-126		09/12/2024 01:10	WG2360903
(S) 1,2-Dichloroethane-d4	115		70.0-130		09/12/2024 01:10	WG2360903

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

Method Blank (MB)

(MB) R4120358-2 09/09/24 21:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	0.0571	↓	0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	90.1			60.0-120
(S) a,a,a-Trifluorotoluene(PID)	105			79.0-125

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

(LCS) R4120358-1 09/09/24 19:35 • (LCSD) R4120358-3 09/10/24 02:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	5.18	5.11	104	102	60.0-120			1.36	20
(S) a,a,a-Trifluorotoluene(FID)				107	110	60.0-120				
(S) a,a,a-Trifluorotoluene(PID)				119	119	79.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4120386-3 09/11/24 13:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	0.0859	↓	0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	92.6			60.0-120
(S) a,a,a-Trifluorotoluene(PID)	103			79.0-125

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

(LCS) R4120386-1 09/11/24 12:47 • (LCSD) R4120386-2 09/11/24 13:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	4.69	4.71	93.8	94.2	60.0-120			0.426	20
(S) a,a,a-Trifluorotoluene(FID)				109	98.0	60.0-120				
(S) a,a,a-Trifluorotoluene(PID)				116	118	79.0-125				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4120814-3 09/16/24 14:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	0.0428	<u>J</u>	0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	89.1			60.0-120
(S) a,a,a-Trifluorotoluene(PID)	0.000	<u>J2</u>		79.0-125

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

(LCS) R4120814-1 09/16/24 12:52 • (LCSD) R4120814-2 09/16/24 13:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	4.63	4.49	92.6	89.8	60.0-120			3.07	20
(S) a,a,a-Trifluorotoluene(FID)				100	96.1	60.0-120				
(S) a,a,a-Trifluorotoluene(PID)				0.000	0.000	79.0-125	<u>J2</u>	<u>J2</u>		

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

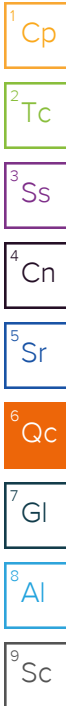
⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R4119143-3 09/10/24 10:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Ethylbenzene	U		0.000137	0.00100
Isopropylbenzene	U		0.000105	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	94.3			77.0-126
(S) 1,2-Dichloroethane-d4	97.5			70.0-130



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

(LCS) R4119143-1 09/10/24 09:14 • (LCSD) R4119143-2 09/10/24 09:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00458	0.00397	91.6	79.4	70.0-123			14.3	20
n-Butylbenzene	0.00500	0.00472	0.00415	94.4	83.0	73.0-125			12.9	20
sec-Butylbenzene	0.00500	0.00478	0.00425	95.6	85.0	75.0-125			11.7	20
tert-Butylbenzene	0.00500	0.00500	0.00434	100	86.8	76.0-124			14.1	20
Ethylbenzene	0.00500	0.00461	0.00408	92.2	81.6	79.0-123			12.2	20
Isopropylbenzene	0.00500	0.00464	0.00403	92.8	80.6	76.0-127			14.1	20
Naphthalene	0.00500	0.00515	0.00427	103	85.4	54.0-135			18.7	20
Toluene	0.00500	0.00491	0.00410	98.2	82.0	79.0-120			18.0	20
1,2,4-Trimethylbenzene	0.00500	0.00467	0.00408	93.4	81.6	76.0-121			13.5	20
1,3,5-Trimethylbenzene	0.00500	0.00477	0.00425	95.4	85.0	76.0-122			11.5	20
Total Xylenes	0.0150	0.0141	0.0123	94.0	82.0	79.0-123			13.6	20
(S) Toluene-d8				102	102	80.0-120				
(S) 4-Bromofluorobenzene				94.3	92.6	77.0-126				
(S) 1,2-Dichloroethane-d4				97.8	97.6	70.0-130				

Method Blank (MB)

(MB) R4119252-3 09/10/24 12:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000941	0.00100
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Ethylbenzene	U		0.000137	0.00100
Isopropylbenzene	U		0.000105	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	112			80.0-120
(S) 4-Bromofluorobenzene	99.6			77.0-126
(S) 1,2-Dichloroethane-d4	102			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R4119252-1 09/10/24 11:37 • (LCSD) R4119252-2 09/10/24 11:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00500	0.00517	100	103	70.0-123			3.34	20
n-Butylbenzene	0.00500	0.00427	0.00529	85.4	106	73.0-125		J3	21.3	20
sec-Butylbenzene	0.00500	0.00459	0.00529	91.8	106	75.0-125			14.2	20
tert-Butylbenzene	0.00500	0.00457	0.00532	91.4	106	76.0-124			15.2	20
Ethylbenzene	0.00500	0.00480	0.00506	96.0	101	79.0-123			5.27	20
Isopropylbenzene	0.00500	0.00472	0.00506	94.4	101	76.0-127			6.95	20
Naphthalene	0.00500	0.00340	0.00353	68.0	70.6	54.0-135			3.75	20
Toluene	0.00500	0.00507	0.00505	101	101	79.0-120			0.395	20
1,2,4-Trimethylbenzene	0.00500	0.00447	0.00502	89.4	100	76.0-121			11.6	20
1,3,5-Trimethylbenzene	0.00500	0.00478	0.00522	95.6	104	76.0-122			8.80	20
Total Xylenes	0.0150	0.0141	0.0152	94.0	101	79.0-123			7.51	20
(S) Toluene-d8				108	105	80.0-120				
(S) 4-Bromofluorobenzene				97.9	97.6	77.0-126				
(S) 1,2-Dichloroethane-d4				104	101	70.0-130				

Method Blank (MB)

(MB) R4119275-2 09/11/24 22:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Ethylbenzene	U		0.000137	0.00100
Isopropylbenzene	U		0.000105	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	91.9			80.0-120
(S) 4-Bromofluorobenzene	93.4			77.0-126
(S) 1,2-Dichloroethane-d4	116			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4119275-1 09/11/24 21:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00502	100	70.0-123	
n-Butylbenzene	0.00500	0.00432	86.4	73.0-125	
sec-Butylbenzene	0.00500	0.00445	89.0	75.0-125	
tert-Butylbenzene	0.00500	0.00428	85.6	76.0-124	
Ethylbenzene	0.00500	0.00495	99.0	79.0-123	
Isopropylbenzene	0.00500	0.00509	102	76.0-127	
Naphthalene	0.00500	0.00402	80.4	54.0-135	
Toluene	0.00500	0.00445	89.0	79.0-120	
1,2,4-Trimethylbenzene	0.00500	0.00435	87.0	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00453	90.6	76.0-122	
Total Xylenes	0.0150	0.0148	98.7	79.0-123	
(S) Toluene-d8			92.9	80.0-120	
(S) 4-Bromofluorobenzene			94.9	77.0-126	
(S) 1,2-Dichloroethane-d4			113	70.0-130	

Method Blank (MB)

(MB) R4119405-2 09/12/24 20:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Ethylbenzene	U		0.000137	0.00100
Naphthalene	U		0.00100	0.00500
1,2,4-Trimethylbenzene	U		0.000322	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	106			80.0-120
(S) 4-Bromofluorobenzene	97.9			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

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

(LCS) R4119405-1 09/12/24 19:38 • (LCSD) R4119405-3 09/12/24 20:41

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Ethylbenzene	0.00500	0.00519	0.00524	104	105	79.0-123			0.959	20
Naphthalene	0.00500	0.00473	0.00436	94.6	87.2	54.0-135			8.14	20
1,2,4-Trimethylbenzene	0.00500	0.00457	0.00462	91.4	92.4	76.0-121			1.09	20
Total Xylenes	0.0150	0.0159	0.0158	106	105	79.0-123			0.631	20
(S) Toluene-d8				106	105	80.0-120				
(S) 4-Bromofluorobenzene				97.6	98.3	77.0-126				
(S) 1,2-Dichloroethane-d4				104	105	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4120114-1 09/14/24 17:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
AK102 DRO C10-C25	0.538	↓	0.170	0.800
(S) o-Terphenyl	70.3			60.0-120

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

(LCS) R4120114-2 09/14/24 17:33 • (LCSD) R4120114-3 09/14/24 17:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
AK102 DRO C10-C25	6.00	6.63	6.29	111	105	75.0-125			5.26	20
(S) o-Terphenyl				109	102	60.0-120				

L1773221-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1773221-08 09/14/24 18:55 • (MS) R4120114-6 09/14/24 19:15

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
	mg/l	mg/l	mg/l	%		%	
AK102 DRO C10-C25	6.00	ND	6.25	96.5	1	75.0-125	
(S) o-Terphenyl				95.6		50.0-150	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4121358-1 09/18/24 12:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
AK102 DRO C10-C25	0.385	<u>J</u>	0.170	0.800
(S) o-Terphenyl	81.6			60.0-120

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

(LCS) R4121358-2 09/18/24 12:40 • (LCSD) R4121358-3 09/18/24 16:43

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
AK102 DRO C10-C25	6.00	5.00	5.76	83.3	96.0	75.0-125			14.1	20
(S) o-Terphenyl				83.1	92.3	60.0-120				

L1774969-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1774969-05 09/18/24 17:44 • (MS) R4121358-6 09/18/24 18:04 • (MSD) R4121358-7 09/18/24 18:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
AK102 DRO C10-C25	6.66	ND	4.58	4.31	62.8	58.7	1.11	75.0-125	<u>J6</u>	<u>J6</u>	6.07	20
(S) o-Terphenyl					49.6	59.4		50.0-150	<u>J2</u>			

Sample Narrative:

OS: Dilution due to sample volume.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4118875-3 09/11/24 11:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
<i>(S) Nitrobenzene-d5</i>	83.0			31.0-160
<i>(S) 2-Fluorobiphenyl</i>	67.5			48.0-148
<i>(S) p-Terphenyl-d14</i>	66.0			37.0-146

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4118875-1 09/11/24 10:32 • (LCSD) R4118875-2 09/11/24 10:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00146	0.00149	73.0	74.5	67.0-150			2.03	20
Acenaphthene	0.00200	0.00137	0.00142	68.5	71.0	65.0-138			3.58	20
Acenaphthylene	0.00200	0.00154	0.00160	77.0	80.0	66.0-140			3.82	20
Benzo(a)anthracene	0.00200	0.00142	0.00146	71.0	73.0	61.0-140			2.78	20
Benzo(a)pyrene	0.00200	0.00137	0.00135	68.5	67.5	60.0-143			1.47	20
Benzo(b)fluoranthene	0.00200	0.00130	0.00127	65.0	63.5	58.0-141			2.33	20
Benzo(g,h,i)perylene	0.00200	0.00126	0.00124	63.0	62.0	52.0-153			1.60	20
Benzo(k)fluoranthene	0.00200	0.00121	0.00123	60.5	61.5	58.0-148			1.64	20
Chrysene	0.00200	0.00149	0.00150	74.5	75.0	64.0-144			0.669	20
Dibenz(a,h)anthracene	0.00200	0.00134	0.00134	67.0	67.0	52.0-155			0.000	20
Fluoranthene	0.00200	0.00164	0.00173	82.0	86.5	69.0-153			5.34	20
Fluorene	0.00200	0.00157	0.00162	78.5	81.0	64.0-136			3.13	20

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

(LCS) R4118875-1 09/11/24 10:32 • (LCSD) R4118875-2 09/11/24 10:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Indeno(1,2,3-cd)pyrene	0.00200	0.00136	0.00135	68.0	67.5	54.0-153			0.738	20
Naphthalene	0.00200	0.00154	0.00160	77.0	80.0	61.0-137			3.82	20
Phenanthrene	0.00200	0.00144	0.00154	72.0	77.0	62.0-137			6.71	20
Pyrene	0.00200	0.00144	0.00152	72.0	76.0	60.0-142			5.41	20
1-Methylnaphthalene	0.00200	0.00173	0.00183	86.5	91.5	66.0-142			5.62	20
2-Methylnaphthalene	0.00200	0.00157	0.00159	78.5	79.5	62.0-136			1.27	20
<i>(S) Nitrobenzene-d5</i>				86.5	88.0	31.0-160				
<i>(S) 2-Fluorobiphenyl</i>				70.0	70.5	48.0-148				
<i>(S) p-Terphenyl-d14</i>				64.5	63.0	37.0-146				

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

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

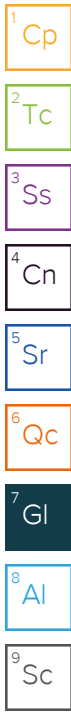
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

MDL	Method Detection Limit.
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.
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.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



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:
Stantec - Anchorage, AK
 725 E Fireweed Lane
 Anchorage, AK 99503

Billing Information:
 Ms. Sydney Souza
 725 E Fireweed Lane
 Anchorage, AK 99503

Analysis / Container / Preservative



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>

Report to:
Ms. Sydney Souza

Email To: **craig.cothron@pacelabs.com**

Project Description:
TNS101/SW5313 (MPC)

City/State Collected:
Fairbanks, AK

Please Circle:
 PT MT CT ET
AKT

Phone: **907-229-1514**

Client Project #
203723629

Lab Project #
STANTECAAK-5313

Collected by (print):
Rene Malenfant

Site/Facility ID #
TNS 101

P.O. #

Collected by (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
standard

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	AK101 40mlAmb HCl	AK102 100ml Amb HCl	PAHSIMLVID 40mlAmb-NoPres-WT	V8260C 40mlAmb-HCl	V8260C 40mlAmb-HCl-Blk										
MW-8	G	GW	-	9/3/24	1057	10	X	X	X	X										-01	
WRW 2020	G	GW	-		1132	10	X	X	X	X										-02	
CRW-2	G	GW	-		1147	10	X	X	X	X											-03
IFC Aeration Tank	G	GW	-		1151	10	X	X	X	X											-04
CRW	G	GW	-		1241	10	X	X	X	X											-05
OMW-3	G	GW	-		1315	10	X	X	X	X											-06
ERW	G	GW	-		1321	10	X	X	X	X											-07
MW-4	G	GW	-		1354	10	X	X	X	X											-08
DUP 1	G	GW	-		-	10	X	X	X	X											-09
DUP 2	G	GW	-		-	10	X	X	X	X											-10

SDG #
G183

Tab

Acctnum: **STANTECAAK**

Template: **T259327**

Prelogin: **P1097802**

PM: **034 - Craig Cothron**

PB: **8824-24**

Shipped Via: **FedEX Priority**

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

Remarks:
 pH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact: 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

Relinquished by: (Signature)

Date:
9/5/24

Time:
0935

Received by: (Signature)

Trip Blank Received: **2** Yes / No
 HCl/MeOH
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: **120** °C Bottles Received:

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)


Date: **09/06/2024** Time: **0900**

Hold: Condition: **NCF / OK**

Company Name/Address:
Stantec - Anchorage, AK
 725 E Fireweed Lane
 Anchorage, AK 99503

Billing Information:
 Ms. Sydney Souza
 725 E Fireweed Lane
 Anchorage, AK 99503

Pres Chk

Chain of Custody Page 2 of 2

 PEOPLE ADVANCING SCIENCE
 MT JULIET, TN

Report to:
Ms. Sydney Souza

Email To: craig.cothron@pacelabs.com

Project Description:
 TNS101/SW5313 (MPC)

City/State Collected:
 Fairbanks, AK

Please Circle:
 PT MT CT ET

Phone: 907-229-1514

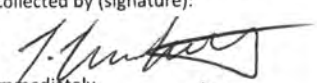
Client Project #
 203723629

Lab Project #
 STANTECAAK-5313

Collected by (print):
 Zemi Malenfant

Site/Facility ID #
 TNS 101

P.O. #

Collected by (signature):

 Immediately Packed on Ice N Y

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

Quote #
 Standard

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	AK101 40ml Amb HCl	AK102 100ml Amb HCl	PAHSIMLVID 40ml Amb-NoPres-WT	V8260C 40ml Amb HCl	V8260C 40ml Amb HCl-Bik
MW-17	G	GW	-	9/3/24	1412	10	X	X	X	X	
MW-14	G	GW	-	9/3/24	1447	10	X	X	X	X	
Trip Blank (cooler w/ coc)	-	GW	-	-	-	10	X	X	X	X	X
TRIP BLANK (cooler w/o coc)	-	GW	-	-	-	1					X
		GW				10	X	X	X	X	
		GW				10	X	X	X	X	
		GW				10	X	X	X	X	

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>

SDG # **6775146**

Table #

Acctnum: STANTECAAK
 Template: T259327
 Prelogin: P1097802
 PM: 034 - Craig Cothron
 PB: **8-29-24**

Shipped Via: FedEX Priority

Remarks Sample # (lab only)

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

Remarks:
 3 samples Anticipated not sampled due to FP

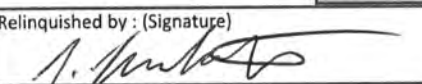
pH _____ Temp _____
 Flow _____ Other _____

Samples returned via:
 UPS FedEx Courier

Tracking #

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

Relinquished by: (Signature)


Date: 9/5/24
 Time: 0930

Received by: (Signature)

Trip Blank Received: Yes / No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date:

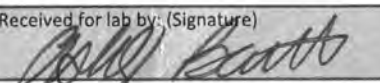
Received by: (Signature)

Temp: °C
 Bottles Received: 120

If preservation required by Log: Date/Time

Relinquished by: (Signature)

Date:

Received for lab by: (Signature)


Date: 09/06/2024
 Time: 0900

Hold: Condition: NCF / OK

Fed Ex tracking #	Gun ID	Temperature
4041 0478 9498	7A9	3.4to.3=3.7
4041 0478 9487	7A9	5.1to.3=5.4

Ashley Barks
Name

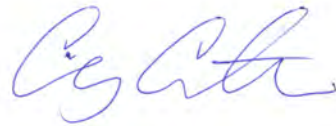
09/06/2024
Date

L1775916

Stantec - Anchorage, AK

Sample Delivery Group: L1795923
Samples Received: 11/05/2024
Project Number: 203723629
Description: TNS 101/SW5013 (MPC)
Site: TNS 101/IFC
Report To: Ms. Sydney Souza
725 E Fireweed Lane
Anchorage, AK 99503

Entire Report Reviewed By:












Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

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

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SAMPLE SUMMARY

CRW L1795923-01 GW

Collected by: Geoff Moorhead
 Collected date/time: 11/01/24 12:45
 Received date/time: 11/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2398542	1	11/09/24 00:19	11/09/24 00:19	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2400632	1	11/15/24 07:19	11/15/24 07:19	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2399849	1	11/12/24 19:36	11/13/24 10:19	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2396650	1	11/07/24 19:37	11/09/24 03:57	JRM	Mt. Juliet, TN

DUP 1 L1795923-02 GW

Collected by: Geoff Moorhead
 Collected date/time: 11/01/24 00:00
 Received date/time: 11/05/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2398542	1	11/09/24 00:41	11/09/24 00:41	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260C	WG2400632	1	11/15/24 07:39	11/15/24 07:39	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2399849	1	11/12/24 19:36	11/13/24 10:39	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG2396650	1	11/07/24 19:37	11/09/24 04:15	JRM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

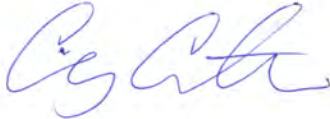
7 Gl

8 Al

9 Sc

CASE NARRATIVE

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



Craig Cothron
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPHGAK C6 to C10	0.544	<u>B</u>	0.100	1	11/09/2024 00:19	WG2398542
(S) a,a,a-Trifluorotoluene(FID)	77.8		50.0-150		11/09/2024 00:19	WG2398542
(S) a,a,a-Trifluorotoluene(PID)	0.000	<u>J2</u>	79.0-125		11/09/2024 00:19	WG2398542

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00258		0.00100	1	11/15/2024 07:19	WG2400632
n-Butylbenzene	ND		0.00100	1	11/15/2024 07:19	WG2400632
sec-Butylbenzene	0.00222		0.00100	1	11/15/2024 07:19	WG2400632
tert-Butylbenzene	ND		0.00100	1	11/15/2024 07:19	WG2400632
Ethylbenzene	0.0243		0.00100	1	11/15/2024 07:19	WG2400632
Isopropylbenzene	0.0123		0.00100	1	11/15/2024 07:19	WG2400632
Naphthalene	0.0314		0.00500	1	11/15/2024 07:19	WG2400632
Toluene	ND		0.00100	1	11/15/2024 07:19	WG2400632
1,2,4-Trimethylbenzene	0.0666		0.00100	1	11/15/2024 07:19	WG2400632
1,3,5-Trimethylbenzene	0.0175		0.00100	1	11/15/2024 07:19	WG2400632
Total Xylenes	0.125		0.00300	1	11/15/2024 07:19	WG2400632
(S) Toluene-d8	100		80.0-120		11/15/2024 07:19	WG2400632
(S) 4-Bromofluorobenzene	98.6		77.0-126		11/15/2024 07:19	WG2400632
(S) 1,2-Dichloroethane-d4	108		70.0-130		11/15/2024 07:19	WG2400632

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
AK102 DRO C10-C25	ND		0.800	1	11/13/2024 10:19	WG2399849
(S) o-Terphenyl	115		50.0-150		11/13/2024 10:19	WG2399849

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Anthracene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Acenaphthene	0.000144		0.0000500	1	11/09/2024 03:57	WG2396650
Acenaphthylene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Benzo(a)anthracene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Benzo(a)pyrene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Benzo(b)fluoranthene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Benzo(g,h,i)perylene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Benzo(k)fluoranthene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Chrysene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Dibenz(a,h)anthracene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Fluoranthene	ND		0.000100	1	11/09/2024 03:57	WG2396650
Fluorene	0.000215		0.0000500	1	11/09/2024 03:57	WG2396650
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
Naphthalene	0.0220		0.000250	1	11/09/2024 03:57	WG2396650
Phenanthrene	0.0000504		0.0000500	1	11/09/2024 03:57	WG2396650
Pyrene	ND		0.0000500	1	11/09/2024 03:57	WG2396650
1-Methylnaphthalene	0.0153		0.000250	1	11/09/2024 03:57	WG2396650
2-Methylnaphthalene	0.00820		0.000250	1	11/09/2024 03:57	WG2396650
(S) Nitrobenzene-d5	102		31.0-160		11/09/2024 03:57	WG2396650
(S) 2-Fluorobiphenyl	109		48.0-148		11/09/2024 03:57	WG2396650
(S) p-Terphenyl-d14	111		37.0-146		11/09/2024 03:57	WG2396650

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPHGAK C6 to C10	0.467	<u>B</u>	0.100	1	11/09/2024 00:41	WG2398542
(S) a,a,a-Trifluorotoluene(FID)	83.3		50.0-150		11/09/2024 00:41	WG2398542
(S) a,a,a-Trifluorotoluene(PID)	0.000	<u>J2</u>	79.0-125		11/09/2024 00:41	WG2398542

1 Cp

2 Tc

3 Ss

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	0.00256		0.00100	1	11/15/2024 07:39	WG2400632
n-Butylbenzene	ND		0.00100	1	11/15/2024 07:39	WG2400632
sec-Butylbenzene	0.00295		0.00100	1	11/15/2024 07:39	WG2400632
tert-Butylbenzene	ND		0.00100	1	11/15/2024 07:39	WG2400632
Ethylbenzene	0.0233		0.00100	1	11/15/2024 07:39	WG2400632
Isopropylbenzene	0.0119		0.00100	1	11/15/2024 07:39	WG2400632
Naphthalene	0.0258		0.00500	1	11/15/2024 07:39	WG2400632
Toluene	ND		0.00100	1	11/15/2024 07:39	WG2400632
1,2,4-Trimethylbenzene	0.0646		0.00100	1	11/15/2024 07:39	WG2400632
1,3,5-Trimethylbenzene	0.0169		0.00100	1	11/15/2024 07:39	WG2400632
Total Xylenes	0.120		0.00300	1	11/15/2024 07:39	WG2400632
(S) Toluene-d8	100		80.0-120		11/15/2024 07:39	WG2400632
(S) 4-Bromofluorobenzene	93.0		77.0-126		11/15/2024 07:39	WG2400632
(S) 1,2-Dichloroethane-d4	107		70.0-130		11/15/2024 07:39	WG2400632

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	ND		0.800	1	11/13/2024 10:39	WG2399849
(S) o-Terphenyl	123		50.0-150		11/13/2024 10:39	WG2399849

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Acenaphthene	0.000134		0.0000500	1	11/09/2024 04:15	WG2396650
Acenaphthylene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Benzo(a)anthracene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Benzo(a)pyrene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Benzo(b)fluoranthene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Benzo(g,h,i)perylene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Benzo(k)fluoranthene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Chrysene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Dibenz(a,h)anthracene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Fluoranthene	ND		0.000100	1	11/09/2024 04:15	WG2396650
Fluorene	0.000229		0.0000500	1	11/09/2024 04:15	WG2396650
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Naphthalene	0.0206		0.000250	1	11/09/2024 04:15	WG2396650
Phenanthrene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
Pyrene	ND		0.0000500	1	11/09/2024 04:15	WG2396650
1-Methylnaphthalene	0.0150		0.000250	1	11/09/2024 04:15	WG2396650
2-Methylnaphthalene	0.00798		0.000250	1	11/09/2024 04:15	WG2396650
(S) Nitrobenzene-d5	102		31.0-160		11/09/2024 04:15	WG2396650
(S) 2-Fluorobiphenyl	111		48.0-148		11/09/2024 04:15	WG2396650
(S) p-Terphenyl-d14	113		37.0-146		11/09/2024 04:15	WG2396650

Method Blank (MB)

(MB) R4145003-3 11/08/24 23:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHGAK C6 to C10	0.0918	<u>J</u>	0.0287	0.100
(S) a,a,a-Trifluorotoluene(FID)	87.7			60.0-120
(S) a,a,a-Trifluorotoluene(PID)	0.000	<u>J2</u>		79.0-125

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

(LCS) R4145003-1 11/08/24 19:04 • (LCSD) R4145003-2 11/08/24 19:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHGAK C6 to C10	5.00	5.27	5.37	105	107	60.0-120			1.88	20
(S) a,a,a-Trifluorotoluene(FID)				99.9	103	60.0-120				
(S) a,a,a-Trifluorotoluene(PID)				0.000	0.000	79.0-125	<u>J2</u>	<u>J2</u>		

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

Method Blank (MB)

(MB) R4147689-3 11/15/24 06:58

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Benzene	U		0.0000941	0.00100
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Ethylbenzene	U		0.000137	0.00100
Isopropylbenzene	U		0.000105	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	100			80.0-120
(S) 4-Bromofluorobenzene	95.2			77.0-126
(S) 1,2-Dichloroethane-d4	111			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R4147689-1 11/15/24 05:55 • (LCSD) R4147689-2 11/15/24 06:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Benzene	0.00500	0.00474	0.00448	94.8	89.6	70.0-123			5.64	20
n-Butylbenzene	0.00500	0.00575	0.00552	115	110	73.0-125			4.08	20
sec-Butylbenzene	0.00500	0.00518	0.00516	104	103	75.0-125			0.387	20
tert-Butylbenzene	0.00500	0.00521	0.00541	104	108	76.0-124			3.77	20
Ethylbenzene	0.00500	0.00468	0.00458	93.6	91.6	79.0-123			2.16	20
Isopropylbenzene	0.00500	0.00464	0.00457	92.8	91.4	76.0-127			1.52	20
Naphthalene	0.00500	0.00423	0.00376	84.6	75.2	54.0-135			11.8	20
Toluene	0.00500	0.00497	0.00487	99.4	97.4	79.0-120			2.03	20
1,2,4-Trimethylbenzene	0.00500	0.00508	0.00540	102	108	76.0-121			6.11	20
1,3,5-Trimethylbenzene	0.00500	0.00537	0.00540	107	108	76.0-122			0.557	20
Total Xylenes	0.0150	0.0135	0.0133	90.0	88.7	79.0-123			1.49	20
(S) Toluene-d8				99.9	100	80.0-120				
(S) 4-Bromofluorobenzene				92.8	92.1	77.0-126				
(S) 1,2-Dichloroethane-d4				115	106	70.0-130				

Method Blank (MB)

(MB) R4145455-1 11/13/24 08:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
AK102 DRO C10-C25	U		0.170	0.800
<i>(S) o-Terphenyl</i>	109			60.0-120

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

(LCS) R4145455-2 11/13/24 08:58 • (LCSD) R4145455-3 11/13/24 09:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
AK102 DRO C10-C25	6.00	5.20	5.19	86.7	86.5	75.0-125			0.192	20
<i>(S) o-Terphenyl</i>				113	112	60.0-120				

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

Method Blank (MB)

(MB) R4146288-2 11/08/24 23:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
<i>(S) Nitrobenzene-d5</i>	100			31.0-160
<i>(S) 2-Fluorobiphenyl</i>	109			48.0-148
<i>(S) p-Terphenyl-d14</i>	108			37.0-146

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4146288-1 11/08/24 23:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.00200	0.00196	98.0	67.0-150	
Acenaphthene	0.00200	0.00183	91.5	65.0-138	
Acenaphthylene	0.00200	0.00191	95.5	66.0-140	
Benzo(a)anthracene	0.00200	0.00192	96.0	61.0-140	
Benzo(a)pyrene	0.00200	0.00183	91.5	60.0-143	
Benzo(b)fluoranthene	0.00200	0.00192	96.0	58.0-141	
Benzo(g,h,i)perylene	0.00200	0.00192	96.0	52.0-153	
Benzo(k)fluoranthene	0.00200	0.00179	89.5	58.0-148	
Chrysene	0.00200	0.00208	104	64.0-144	
Dibenz(a,h)anthracene	0.00200	0.00188	94.0	52.0-155	
Fluoranthene	0.00200	0.00230	115	69.0-153	
Fluorene	0.00200	0.00202	101	64.0-136	

Laboratory Control Sample (LCS)

(LCS) R4146288-1 11/08/24 23:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Indeno(1,2,3-cd)pyrene	0.00200	0.00174	87.0	54.0-153	
Naphthalene	0.00200	0.00189	94.5	61.0-137	
Phenanthrene	0.00200	0.00206	103	62.0-137	
Pyrene	0.00200	0.00213	106	60.0-142	
1-Methylnaphthalene	0.00200	0.00208	104	66.0-142	
2-Methylnaphthalene	0.00200	0.00192	96.0	62.0-136	
(S) Nitrobenzene-d5			98.0	31.0-160	
(S) 2-Fluorobiphenyl			108	48.0-148	
(S) p-Terphenyl-d14			99.5	37.0-146	

L1795954-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1795954-01 11/09/24 04:32 • (MS) R4146288-3 11/09/24 04:50 • (MSD) R4146288-4 11/09/24 05:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	ND	0.00205	0.00205	103	103	1	56.0-156			0.000	20
Acenaphthene	0.00200	ND	0.00200	0.00199	100	99.5	1	44.0-153			0.501	20
Acenaphthylene	0.00200	ND	0.00202	0.00199	101	99.5	1	53.0-150			1.50	20
Benzo(a)anthracene	0.00200	0.0000778	0.00198	0.00202	95.1	97.1	1	47.0-151			2.00	20
Benzo(a)pyrene	0.00200	ND	0.00195	0.00199	97.5	99.5	1	45.0-146			2.03	20
Benzo(b)fluoranthene	0.00200	ND	0.00215	0.00213	107	106	1	43.0-142			0.935	20
Benzo(g,h,i)perylene	0.00200	ND	0.00202	0.00206	101	103	1	40.0-147			1.96	20
Benzo(k)fluoranthene	0.00200	ND	0.00192	0.00196	96.0	98.0	1	43.0-148			2.06	21
Chrysene	0.00200	0.000159	0.00220	0.00226	102	105	1	50.0-148			2.69	20
Dibenz(a,h)anthracene	0.00200	ND	0.00194	0.00194	97.0	97.0	1	37.0-151			0.000	20
Fluoranthene	0.00200	0.000371	0.00241	0.00244	102	103	1	56.0-157			1.24	20
Fluorene	0.00200	ND	0.00216	0.00215	108	107	1	48.0-148			0.464	20
Indeno(1,2,3-cd)pyrene	0.00200	ND	0.00185	0.00183	92.5	91.5	1	41.0-148			1.09	20
Naphthalene	0.00200	ND	0.00208	0.00196	104	98.0	1	10.0-160			5.94	20
Phenanthrene	0.00200	0.000108	0.00220	0.00222	105	106	1	47.0-147			0.905	20
Pyrene	0.00200	0.000331	0.00226	0.00228	96.4	97.4	1	51.0-148			0.881	20
1-Methylnaphthalene	0.00200	ND	0.00231	0.00220	115	110	1	21.0-160			4.88	20
2-Methylnaphthalene	0.00200	ND	0.00209	0.00198	104	99.0	1	31.0-160			5.41	20
(S) Nitrobenzene-d5					106	104		31.0-160				
(S) 2-Fluorobiphenyl					114	118		48.0-148				
(S) p-Terphenyl-d14					106	108		37.0-146				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

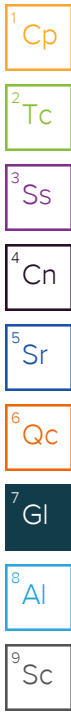
Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

MDL	Method Detection Limit.
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.
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.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address: **Stantec - Anchorage, AK**
725 E Fireweed Ln
Anchorage, AK 99503

Billing Information: **Ms. Sydney Souza**
sydney.souza@stantec.com

Report to: **Ms. Sydney Souza**

Project Description: **TNS 101 / SW 5013 (MPC)**

City/State Collected: **Fairbanks, AK**

Please Circle: **AKT**

Chain of Custody Page **1** of **1**



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

Email To: **Craig Cochran @ pacelabs.com**

Client Project #: **203723629**

Lab Project #: **STANTECLAAK-5313**

Phone: **907 229 1514**

Collected by (print): **GEOFF WOODHEADS**

Collected by (signature): *[Signature]*

Immediately Packed on Ice **N** Y **X**

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

Date Results Needed: **Standard**

Analysis / Container / Preservative			
AK 101	GRO	3x VOA HCl	
AK 102	DRD	2x Amber 250ml HCl	
	PAHSIMULID	2x VOA none	
	V8260C	3x VOA HCl	

SDG # **1795723**

Table **F169**

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via: **FedEx**

Remarks

Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
CRW	G			11/1/24	1245	10
DWP 1	G			11/1/24		8
						11/5/24

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

Remarks:

Samples returned via: UPS FedEx Courier _____

Tracking # **404104789921**

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

Relinquished by: (Signature) <i>[Signature]</i>	Date: 11/4/24	Time: 10:35	Received by: (Signature)	Trip Blank Received: 2	Temp: 20 °C	Bottles Received: MSA93-3113-3.6 19	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 11/5/24	Time: 0900	Hold:	Condition: OK

11/05-NCF-11795923-STANTECAAK PM

R5

Time estimate: 0h

Time spent: 0h

Members



Paul Minnich (responsible)

- Parameter(s) past holding time
- Temperature not in range
- Improper container type
- pH not in range
- Insufficient sample volume
- Sample is biphasic
- Vials received with headspace
- Broken container
- Sufficient sample remains
- If broken container: Insufficient packing material around container
- If broken container: Insufficient packing material inside cooler
- If broken container: Improper handling by carrier: _____
- If broken container: Sample was frozen
- If broken container: Container lid not intact
- Client informed by Call
- Client informed by Email
- Client informed by Voicemail
- Date/Time: _____
- PM initials: _____
- Client Contact: _____

Comments

Paul Minnich

5 November 2024 11:19 PM

One vial from DUP 1 lost due to freezing.