

Tena Seeds, PE  
Senior Engineer, Uplands Unit  
Northwest Region Toxics Cleanup Program  
Washington State Department of Ecology  
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Shoreline, WA 98133-9716

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Washington 98101  
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Date: April 16, 2024  
Subject: Progress Report – First Quarter 2024  
Agreed Order No. DE 18042  
Facility Site Identification No. 75486194  
Cleanup Site Identification No. 14604  
Time Oil Bulk Terminal – BNSF Property  
Seattle, WA

Dear Ms. Seeds,

On behalf of BNSF Railway Company (BNSF), Arcadis U.S., Inc. (Arcadis) is providing this quarterly progress report for the Time Oil Bulk Terminal – BNSF Property (Site) in accordance with Section VII Subsection D of Agreed Order No. DE 18042 between the Washington Department of Ecology (Ecology) and BNSF. This progress report documents activities completed between January 1 and March 31, 2023 (First Quarter 2024 [Reporting Period]).

#### **Activities and Deliverables from Prior Reporting Period**

- Collected remedial investigation data in accordance with the Remedial Investigation Work Plan (RIWP; Arcadis 2023) on February 20 through February 22, 2024. Investigatory work included gauging of groundwater levels and collection of groundwater chemical/geochemical samples on the BNSF Property.
- Removed remedial investigation-derived waste removed the Site on February 23, 2024.

#### **Deviations from Required Tasks**

- None during the Reporting Period.

#### **Deviations from Scope of Work and Schedule**

- None during the Reporting Period.

#### **Laboratory and Field Data Received**

- Groundwater gauging and elevation data collected in accordance with the RIWP are included as Attachment 1.
- Laboratory analytical data collected in accordance with the RIWP are included as Attachment 2. Analytical data will be uploaded to Ecology's Environmental Information Management System post-data validation.

Ms. Tena Seeds  
Washington State Department of Ecology  
April 16, 2024

**Planned Activities and Deliverables for the Upcoming Reporting Period**

- Arcadis will conduct the third groundwater monitoring event included as part of the remedial investigation starting on May 15, 2024. This work will be coordinated with the adjacent property’s environmental consultant to provide synoptic groundwater elevation data for the broader Time Oil Bulk Terminal Site.

Please contact me with any questions or comments regarding this quarterly progress report.

Sincerely,  
Arcadis U.S., Inc.



Kyle Haslam  
Project Manager

Email: [kyle.haslam@arcadis.com](mailto:kyle.haslam@arcadis.com)  
Direct Line: 206-719-6991  
Mobile: 206-726-4753

CC. Scott MacDonald, BNSF  
Shane DeGross, BNSF  
Matt Annis, Arcadis  
Emily Zikmund, Arcadis

References:

Arcadis 2023. Remedial Investigation Work Plan, Time Oil Bulk Terminal – BNSF Property, Seattle, WA.  
Prepared for BNSF Railway Company. June 26.

Attachments: Attachment 1 – Groundwater Elevation and LNAPL Measurements  
Attachment 2 – Laboratory Analytical Reports

Attachment 1  
 Groundwater Elevation and LNAPL Measurements  
 Progress Report - First Quarter 2024  
 Time Oil Bulk Terminal – BNSF Property  
 Seattle, Washington



Well Designation	Water Bearing Zone	TOC Elevation (feet NAVD88)	Total Depth (feet btoc)	First Quarter Groundwater Sampling - February 2024				
				Date	Depth to Water (feet btoc)	Depth to LNAPL (feet btoc)	Apparent LNAPL Thickness (feet)	Groundwater Elevation (feet NAVD88)
01MW92	Perched	58.51	16.5	2/20/2024	9.41	--	--	49.10
01MW93	Shallow	58.99	38.7	2/20/2024	27.77	--	--	31.22
01MW94	Shallow	58.57	39.5	2/20/2024	29.74	--	--	28.83
01MW95	Shallow	59.32	36.3	2/20/2024	27.70	--	--	31.62
01MW96	Perched	59.59	15.0	2/20/2024	11.75	--	--	47.84
01MW97	Perched	58.83	14.6	2/20/2024	5.39	--	--	53.44
01MW98	Perched	57.78	14.4	2/20/2024	7.58	--	--	50.20
MW-BN-01	Perched	58.01	14.9	2/20/2024	8.09	--	--	49.92
MW-BN-02	Perched	58.60	14.9	2/20/2024	7.51	--	--	51.09
MW-BN-03	Shallow	59.45	37.7	2/20/2024	28.29	--	--	31.16
MW-BN-04	Perched	59.55	14.9	2/20/2024	13.13	--	--	46.42
MW-BN-05	Perched	59.56	14.9	2/20/2024	12.86	--	--	46.70

**Notes:**

(a) Survey elevation not available.

**Acronyms and Abbreviations:**

-- = Not Applicable

btoc = below top of casing

LNAPL = light nonaqueous phase liquid

NAVD88 = North American Vertical Datum of 1988



# ANALYTICAL REPORT

April 04, 2024

Revised Report

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

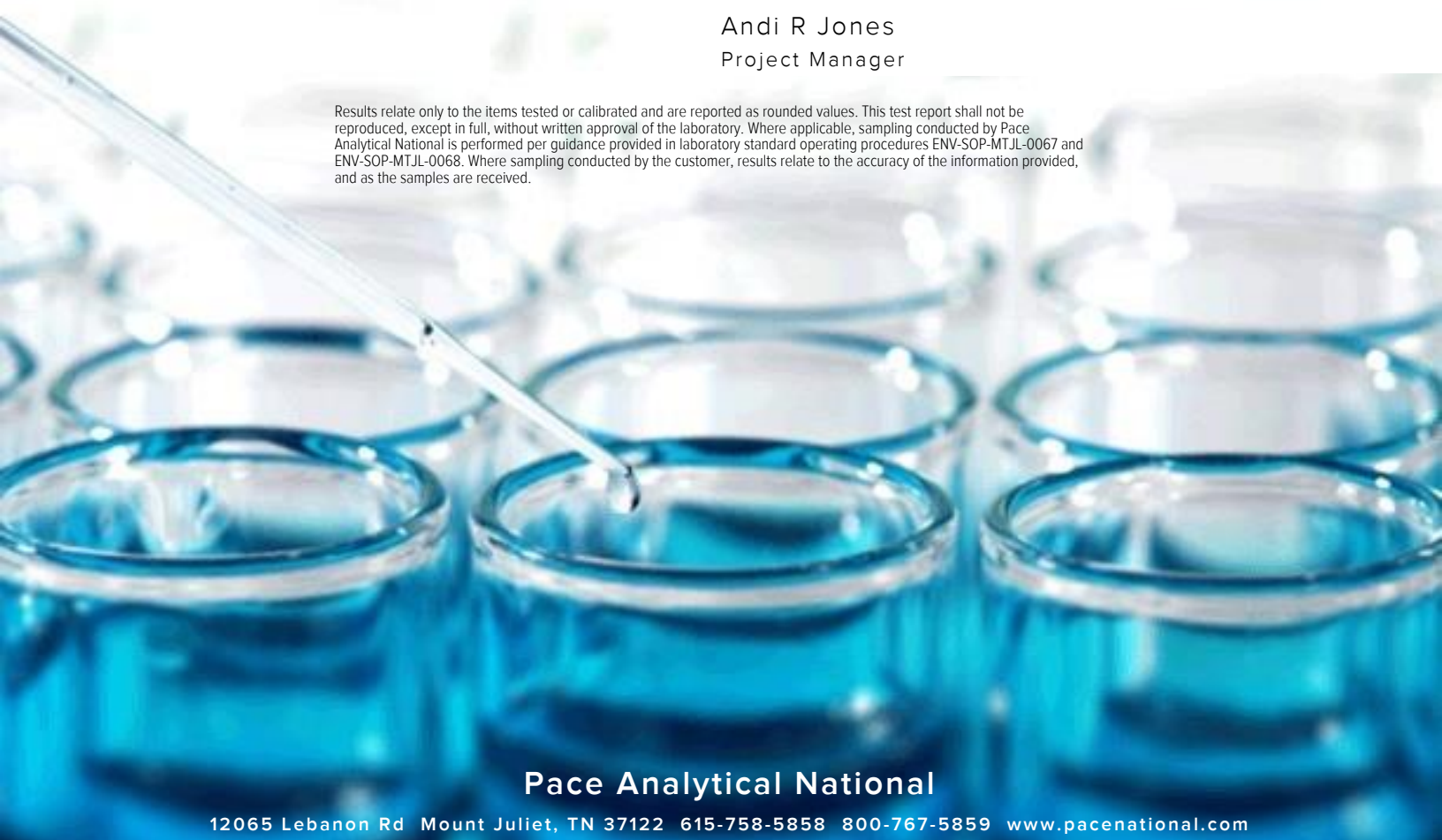
## ARCADIS - BNSF Region 2

Sample Delivery Group: L1708666  
 Samples Received: 02/23/2024  
 Project Number: 30195976  
 Description: BNSF Time Oil Bulk Terminal - Seattle, WA  
 Site: BNSF TIME OIL  
 Report To: Kyle Haslam  
 1420 5th Avenue, Suite 2400  
 Seattle, WA 98101

Entire Report Reviewed By:

Andi R Jones  
Project Manager

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



Pace Analytical National

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

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# SAMPLE SUMMARY

## 01MW92\_022224 L1708666-01 GW

Collected by Elizabeth Scheller  
 Collected date/time 02/22/24 11:24  
 Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:14	02/28/24 01:14	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233036	1	02/26/24 21:50	02/26/24 21:50	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2235591	1	02/28/24 15:17	02/28/24 15:17	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234266	1	02/27/24 03:23	02/27/24 08:18	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234301	1	02/27/24 07:58	02/27/24 11:11	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	5	02/27/24 23:18	02/27/24 23:18	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2233830	50	02/26/24 14:56	02/26/24 14:56	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	1	02/27/24 09:07	02/28/24 01:53	MAA	Mt. Juliet, TN



## 01MW93\_022124 L1708666-02 GW

Collected by Elizabeth Scheller  
 Collected date/time 02/21/24 16:00  
 Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:17	02/28/24 01:17	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233036	1	02/26/24 22:06	02/26/24 22:06	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2235591	1	02/28/24 15:41	02/28/24 15:41	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234266	1	02/27/24 03:23	02/27/24 08:20	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234301	1	02/27/24 07:58	02/27/24 11:13	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 15:06	02/27/24 15:06	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2233830	10	02/26/24 15:18	02/26/24 15:18	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	1	02/27/24 09:07	02/28/24 02:13	MAA	Mt. Juliet, TN

## 01MW94\_022124 L1708666-03 GW

Collected by Elizabeth Scheller  
 Collected date/time 02/21/24 13:57  
 Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:19	02/28/24 01:19	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233036	1	02/26/24 22:22	02/26/24 22:22	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2236507	1	02/29/24 17:41	02/29/24 17:41	SJF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234276	1	02/27/24 09:46	02/28/24 08:02	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234675	1	02/28/24 01:41	02/28/24 07:20	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2236416	1	02/29/24 13:29	02/29/24 13:29	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	1	02/29/24 06:41	02/29/24 06:41	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	2	02/27/24 09:07	02/28/24 00:53	MAA	Mt. Juliet, TN

## 01MW95\_022224 L1708666-04 GW

Collected by Elizabeth Scheller  
 Collected date/time 02/22/24 10:17  
 Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:26	02/28/24 01:26	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233036	1	02/26/24 23:25	02/26/24 23:25	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2235901	1	02/29/24 03:57	02/29/24 03:57	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234276	1	02/27/24 09:46	02/28/24 08:04	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234675	1	02/28/24 01:41	02/28/24 07:36	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	1	02/29/24 07:00	02/29/24 07:00	JAH	Mt. Juliet, TN

# SAMPLE SUMMARY

## 01MW96\_022024 L1708666-05 GW

Collected by Elizabeth Scheller    Collected date/time 02/20/24 13:57    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:28	02/28/24 01:28	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233036	1	02/26/24 23:41	02/26/24 23:41	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2235591	1	02/28/24 16:05	02/28/24 16:05	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234266	1	02/27/24 03:23	02/27/24 08:21	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234301	1	02/27/24 07:58	02/27/24 11:15	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 20:39	02/27/24 20:39	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2233830	1	02/26/24 13:08	02/26/24 13:08	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	1	02/27/24 09:07	02/28/24 02:34	MAA	Mt. Juliet, TN



## 01MW97\_022024 L1708666-06 GW

Collected by Elizabeth Scheller    Collected date/time 02/20/24 10:15    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:30	02/28/24 01:30	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233036	1	02/26/24 23:57	02/26/24 23:57	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2236505	1	02/29/24 11:19	02/29/24 11:19	SJF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234276	1	02/27/24 09:46	02/28/24 08:06	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234675	1	02/28/24 01:41	02/28/24 07:38	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 21:02	02/27/24 21:02	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	1	02/29/24 07:19	02/29/24 07:19	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	1	02/27/24 09:07	02/28/24 02:54	MAA	Mt. Juliet, TN

## 01MW98\_022124 L1708666-07 GW

Collected by Elizabeth Scheller    Collected date/time 02/21/24 09:45    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:46	02/28/24 01:46	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233036	1	02/27/24 00:13	02/27/24 00:13	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2236505	1	02/29/24 12:01	02/29/24 12:01	SJF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234276	1	02/27/24 09:46	02/28/24 08:07	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234675	1	02/28/24 01:41	02/28/24 07:40	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 21:24	02/27/24 21:24	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	20	02/29/24 11:50	02/29/24 11:50	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	1	02/27/24 09:07	02/28/24 03:14	MAA	Mt. Juliet, TN

## MW-BN-01\_022024 L1708666-08 GW

Collected by Elizabeth Scheller    Collected date/time 02/20/24 12:37    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:48	02/28/24 01:48	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233042	1	02/28/24 22:05	02/28/24 22:05	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2236506	1	02/29/24 11:27	02/29/24 11:27	SJF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234276	1	02/27/24 09:46	02/28/24 08:09	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234675	1	02/28/24 01:41	02/28/24 07:41	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 21:47	02/27/24 21:47	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	1	02/29/24 07:39	02/29/24 07:39	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234592	1	02/28/24 10:08	02/29/24 01:52	KAP	Mt. Juliet, TN

# SAMPLE SUMMARY

## MW-BN-02\_022124 L1708666-09 GW

Collected by Elizabeth Scheller    Collected date/time 02/21/24 08:50    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:50	02/28/24 01:50	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233042	1	02/28/24 22:19	02/28/24 22:19	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2236506	1	02/29/24 12:12	02/29/24 12:12	SJF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234276	1	02/27/24 09:46	02/28/24 08:10	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234675	1	02/28/24 01:41	02/28/24 07:43	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 22:10	02/27/24 22:10	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	1	02/29/24 07:58	02/29/24 07:58	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234592	1	02/28/24 10:08	03/04/24 11:22	DMG	Mt. Juliet, TN



## MW-BN-03\_022224 L1708666-10 GW

Collected by Elizabeth Scheller    Collected date/time 02/22/24 09:06    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:52	02/28/24 01:52	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233042	1	02/28/24 22:33	02/28/24 22:33	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2235594	1	02/28/24 14:01	02/28/24 14:01	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234266	1	02/27/24 03:23	02/27/24 08:23	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234301	1	02/27/24 07:58	02/27/24 11:16	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2233830	50	02/26/24 15:40	02/26/24 15:40	JCP	Mt. Juliet, TN

## MW-BN-04\_022124 L1708666-11 GW

Collected by Elizabeth Scheller    Collected date/time 02/21/24 13:49    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2234496	1	02/28/24 01:57	02/28/24 01:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2233042	1	02/28/24 22:47	02/28/24 22:47	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2235594	1	02/28/24 14:24	02/28/24 14:24	ASH	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234266	1	02/27/24 03:23	02/27/24 08:25	JTM	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2234301	1	02/27/24 07:58	02/27/24 11:18	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2236416	1	02/29/24 13:54	02/29/24 13:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238339	1	03/02/24 14:50	03/02/24 14:50	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	1	02/27/24 09:07	02/28/24 06:37	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2233255	1.05	02/26/24 06:27	02/28/24 12:30	DSH	Mt. Juliet, TN

## MW-BN-05\_022124 L1708666-12 GW

Collected by Elizabeth Scheller    Collected date/time 02/21/24 11:40    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 22:33	02/27/24 22:33	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2238339	1	03/02/24 15:09	03/02/24 15:09	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234567	1	02/27/24 09:07	02/28/24 06:57	MAA	Mt. Juliet, TN

## DUP-1\_022124 L1708666-13 GW

Collected by Elizabeth Scheller    Collected date/time 02/21/24 00:00    Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 22:55	02/27/24 22:55	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2234892	1	02/27/24 13:26	02/27/24 13:26	DYW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236318	20	02/29/24 04:26	02/29/24 04:26	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234592	1	02/28/24 10:08	02/29/24 02:32	KAP	Mt. Juliet, TN



# SAMPLE SUMMARY

## EB\_022124 L1708666-14 GW

Collected by Elizabeth Scheller      Collected date/time 02/21/24 13:30      Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2234785	1	02/27/24 13:12	02/27/24 13:12	DSS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	1	02/29/24 06:22	02/29/24 06:22	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2234592	1	02/28/24 10:08	02/29/24 02:52	KAP	Mt. Juliet, TN

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

## TRIP BLANK L1708666-15 GW

Collected by Elizabeth Scheller      Collected date/time 02/22/24 00:00      Received date/time 02/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2236191	1	02/29/24 06:03	02/29/24 06:03	JAH	Mt. Juliet, TN

# CASE NARRATIVE

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



Andi R Jones  
Project Manager

## Report Revision History

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Level II Report - Version 1: 03/08/24 14:21

## Project Narrative

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Removed B qualifier from GRO on Sample -01.



## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:14	<a href="#">WG2234496</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	6320		379	1000	1	02/26/2024 21:50	<a href="#">WG2233036</a>
Sulfate	7660		594	5000	1	02/26/2024 21:50	<a href="#">WG2233036</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	8250		102	1000	1	02/28/2024 15:17	<a href="#">WG2235591</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	293		18.0	100	1	02/27/2024 11:11	<a href="#">WG2234301</a>
Iron,Dissolved	U		18.0	100	1	02/27/2024 08:18	<a href="#">WG2234266</a>
Manganese	836		0.934	10.0	1	02/27/2024 11:11	<a href="#">WG2234301</a>
Manganese,Dissolved	815		0.934	10.0	1	02/27/2024 08:18	<a href="#">WG2234266</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	1070		158	500	5	02/27/2024 23:18	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120		02/27/2024 23:18	<a href="#">WG2234785</a>

## Sample Narrative:

L1708666-01 WG2234785: Lowest possible dilution due to sample foaming.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Benzene	U		4.71	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
1,2-Dichloroethane	U		4.09	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
1,1-Dichloroethene	U		9.40	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
cis-1,2-Dichloroethene	190		6.30	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
trans-1,2-Dichloroethene	78.1		7.45	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
Ethylbenzene	U		6.85	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
Tetrachloroethene	U		15.0	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
Toluene	U		13.9	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
Trichloroethene	2050		9.50	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
Vinyl chloride	U	C3	11.7	50.0	50	02/26/2024 14:56	<a href="#">WG2233830</a>
Xylenes, Total	U		8.70	150	50	02/26/2024 14:56	<a href="#">WG2233830</a>
(S) Toluene-d8	105			80.0-120		02/26/2024 14:56	<a href="#">WG2233830</a>
(S) 4-Bromofluorobenzene	92.7			77.0-126		02/26/2024 14:56	<a href="#">WG2233830</a>
(S) 1,2-Dichloroethane-d4	88.0			70.0-130		02/26/2024 14:56	<a href="#">WG2233830</a>

## Sample Narrative:

L1708666-01 WG2233830: Target compounds too high to run at a lower dilution.



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	1860		66.7	200	1	02/28/2024 01:53	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	1230		83.3	250	1	02/28/2024 01:53	<a href="#">WG2234567</a>
<i>(S) o-Terphenyl</i>	102			52.0-156		02/28/2024 01:53	<a href="#">WG2234567</a>

Sample Narrative:

L1708666-01 WG2234567: Sample resembles laboratory standard for Hydraulic Fluid.

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

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:17	<a href="#">WG2234496</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	9480		379	1000	1	02/26/2024 22:06	<a href="#">WG2233036</a>
Sulfate	19300		594	5000	1	02/26/2024 22:06	<a href="#">WG2233036</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	8060		102	1000	1	02/28/2024 15:41	<a href="#">WG2235591</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	641		18.0	100	1	02/27/2024 11:13	<a href="#">WG2234301</a>
Iron,Dissolved	U		18.0	100	1	02/27/2024 08:20	<a href="#">WG2234266</a>
Manganese	1220		0.934	10.0	1	02/27/2024 11:13	<a href="#">WG2234301</a>
Manganese,Dissolved	1050		0.934	10.0	1	02/27/2024 08:20	<a href="#">WG2234266</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	893		31.6	100	1	02/27/2024 15:06	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	108			78.0-120		02/27/2024 15:06	<a href="#">WG2234785</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
1,2-Dichloroethane	U		0.819	10.0	10	02/26/2024 15:18	<a href="#">WG2233830</a>
1,1-Dichloroethene	3.08	J	1.88	10.0	10	02/26/2024 15:18	<a href="#">WG2233830</a>
cis-1,2-Dichloroethene	80.9		1.26	10.0	10	02/26/2024 15:18	<a href="#">WG2233830</a>
trans-1,2-Dichloroethene	16.2		1.49	10.0	10	02/26/2024 15:18	<a href="#">WG2233830</a>
Tetrachloroethene	U		3.00	10.0	10	02/26/2024 15:18	<a href="#">WG2233830</a>
Trichloroethene	1490		1.90	10.0	10	02/26/2024 15:18	<a href="#">WG2233830</a>
Vinyl chloride	U	C3	2.34	10.0	10	02/26/2024 15:18	<a href="#">WG2233830</a>
(S) Toluene-d8	106			80.0-120		02/26/2024 15:18	<a href="#">WG2233830</a>
(S) 4-Bromofluorobenzene	97.3			77.0-126		02/26/2024 15:18	<a href="#">WG2233830</a>
(S) 1,2-Dichloroethane-d4	86.7			70.0-130		02/26/2024 15:18	<a href="#">WG2233830</a>

## Sample Narrative:

L1708666-02 WG2233830: Target compounds too high to run at a lower dilution.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	2170		66.7	200	1	02/28/2024 02:13	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	1240		83.3	250	1	02/28/2024 02:13	<a href="#">WG2234567</a>
(S) o-Terphenyl	108			52.0-156		02/28/2024 02:13	<a href="#">WG2234567</a>

## Sample Narrative:



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
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L1708666-02 WG2234567: Sample resembles laboratory standard for Hydraulic Fluid.

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

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:19	<a href="#">WG2234496</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	12700		379	1000	1	02/26/2024 22:22	<a href="#">WG2233036</a>
Sulfate	5490		594	5000	1	02/26/2024 22:22	<a href="#">WG2233036</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	6240		102	1000	1	02/29/2024 17:41	<a href="#">WG2236507</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	22000		18.0	100	1	02/28/2024 07:20	<a href="#">WG2234675</a>
Iron,Dissolved	U		18.0	100	1	02/28/2024 08:02	<a href="#">WG2234276</a>
Manganese	1510		0.934	10.0	1	02/28/2024 07:20	<a href="#">WG2234675</a>
Manganese,Dissolved	629		0.934	10.0	1	02/28/2024 08:02	<a href="#">WG2234276</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	85.1	<a href="#">B J J3</a>	31.6	100	1	02/29/2024 13:29	<a href="#">WG2236416</a>
(S) a,a,a-Trifluorotoluene(FID)	90.1			78.0-120		02/29/2024 13:29	<a href="#">WG2236416</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	02/29/2024 06:41	<a href="#">WG2236191</a>
1,1-Dichloroethene	U	<a href="#">J3</a>	0.0200	0.100	1	02/29/2024 06:41	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	U		0.0276	0.100	1	02/29/2024 06:41	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	02/29/2024 06:41	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.0280	0.100	1	02/29/2024 06:41	<a href="#">WG2236191</a>
Trichloroethene	U		0.0160	0.0400	1	02/29/2024 06:41	<a href="#">WG2236191</a>
Vinyl chloride	U		0.0273	0.100	1	02/29/2024 06:41	<a href="#">WG2236191</a>
(S) Toluene-d8	97.4			75.0-131		02/29/2024 06:41	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	105			67.0-138		02/29/2024 06:41	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	116			70.0-130		02/29/2024 06:41	<a href="#">WG2236191</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	877		133	400	2	02/28/2024 00:53	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	497	<a href="#">J</a>	167	500	2	02/28/2024 00:53	<a href="#">WG2234567</a>
(S) o-Terphenyl	89.5			52.0-156		02/28/2024 00:53	<a href="#">WG2234567</a>

## Sample Narrative:

L1708666-03 WG2234567: Sample resembles laboratory standard for Hydraulic Fluid.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:26	<a href="#">WG2234496</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10200		379	1000	1	02/26/2024 23:25	<a href="#">WG2233036</a>
Sulfate	108000		594	5000	1	02/26/2024 23:25	<a href="#">WG2233036</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TOC (Total Organic Carbon)	4480	<u>B</u>	102	1000	1	02/29/2024 03:57	<a href="#">WG2235901</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	2940		18.0	100	1	02/28/2024 07:36	<a href="#">WG2234675</a>
Iron,Dissolved	U		18.0	100	1	02/28/2024 08:04	<a href="#">WG2234276</a>
Manganese	1090		0.934	10.0	1	02/28/2024 07:36	<a href="#">WG2234675</a>
Manganese,Dissolved	1070		0.934	10.0	1	02/28/2024 08:04	<a href="#">WG2234276</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dichloroethane	U		0.0190	0.100	1	02/29/2024 07:00	<a href="#">WG2236191</a>
1,1-Dichloroethene	U		0.0200	0.100	1	02/29/2024 07:00	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	U		0.0276	0.100	1	02/29/2024 07:00	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	02/29/2024 07:00	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.0280	0.100	1	02/29/2024 07:00	<a href="#">WG2236191</a>
Trichloroethene	U		0.0160	0.0400	1	02/29/2024 07:00	<a href="#">WG2236191</a>
Vinyl chloride	U		0.0273	0.100	1	02/29/2024 07:00	<a href="#">WG2236191</a>
(S) Toluene-d8	92.6			75.0-131		02/29/2024 07:00	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	105			67.0-138		02/29/2024 07:00	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	117			70.0-130		02/29/2024 07:00	<a href="#">WG2236191</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:28	<a href="#">WG2234496</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	13700		379	1000	1	02/26/2024 23:41	<a href="#">WG2233036</a>
Sulfate	7580		594	5000	1	02/26/2024 23:41	<a href="#">WG2233036</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	9920		102	1000	1	02/28/2024 16:05	<a href="#">WG2235591</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	659		18.0	100	1	02/27/2024 11:15	<a href="#">WG2234301</a>
Iron,Dissolved	U		18.0	100	1	02/27/2024 08:21	<a href="#">WG2234266</a>
Manganese	1560		0.934	10.0	1	02/27/2024 11:15	<a href="#">WG2234301</a>
Manganese,Dissolved	1480		0.934	10.0	1	02/27/2024 08:21	<a href="#">WG2234266</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	107	<u>B</u>	31.6	100	1	02/27/2024 20:39	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	103			78.0-120		02/27/2024 20:39	<a href="#">WG2234785</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Benzene	0.396	<u>J</u>	0.0941	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
1,2-Dichloroethane	U		0.0819	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
1,1-Dichloroethene	0.275	<u>J</u>	0.188	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
cis-1,2-Dichloroethene	2.18		0.126	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
trans-1,2-Dichloroethene	U		0.149	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
Ethylbenzene	U		0.137	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
Tetrachloroethene	U		0.300	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
Toluene	U		0.278	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
Trichloroethene	0.387	<u>J</u>	0.190	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
Vinyl chloride	0.831	<u>C3 J</u>	0.234	1.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
Xylenes, Total	U		0.174	3.00	1	02/26/2024 13:08	<a href="#">WG2233830</a>
(S) Toluene-d8	102			80.0-120		02/26/2024 13:08	<a href="#">WG2233830</a>
(S) 4-Bromofluorobenzene	94.7			77.0-126		02/26/2024 13:08	<a href="#">WG2233830</a>
(S) 1,2-Dichloroethane-d4	87.6			70.0-130		02/26/2024 13:08	<a href="#">WG2233830</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	2980		66.7	200	1	02/28/2024 02:34	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	1210		83.3	250	1	02/28/2024 02:34	<a href="#">WG2234567</a>
(S) o-Terphenyl	105			52.0-156		02/28/2024 02:34	<a href="#">WG2234567</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	

Sample Narrative:

L1708666-05 WG2234567: Sample resembles laboratory standard for Hydraulic Fluid.

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

## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:30	<a href="#">WG2234496</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	3420		379	1000	1	02/26/2024 23:57	<a href="#">WG2233036</a>
Sulfate	1580	J	594	5000	1	02/26/2024 23:57	<a href="#">WG2233036</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	4560		102	1000	1	02/29/2024 11:19	<a href="#">WG2236505</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	188		18.0	100	1	02/28/2024 07:38	<a href="#">WG2234675</a>
Iron,Dissolved	U		18.0	100	1	02/28/2024 08:06	<a href="#">WG2234276</a>
Manganese	435		0.934	10.0	1	02/28/2024 07:38	<a href="#">WG2234675</a>
Manganese,Dissolved	15.6		0.934	10.0	1	02/28/2024 08:06	<a href="#">WG2234276</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	46.4	B_J	31.6	100	1	02/27/2024 21:02	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120		02/27/2024 21:02	<a href="#">WG2234785</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	02/29/2024 07:19	<a href="#">WG2236191</a>
1,1-Dichloroethene	U		0.0200	0.100	1	02/29/2024 07:19	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	5.95		0.0276	0.100	1	02/29/2024 07:19	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	02/29/2024 07:19	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.0280	0.100	1	02/29/2024 07:19	<a href="#">WG2236191</a>
Trichloroethene	3.22	C5	0.0160	0.0400	1	02/29/2024 07:19	<a href="#">WG2236191</a>
Vinyl chloride	U		0.0273	0.100	1	02/29/2024 07:19	<a href="#">WG2236191</a>
(S) Toluene-d8	93.2			75.0-131		02/29/2024 07:19	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	108			67.0-138		02/29/2024 07:19	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	120			70.0-130		02/29/2024 07:19	<a href="#">WG2236191</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	148	J	66.7	200	1	02/28/2024 02:54	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	466		83.3	250	1	02/28/2024 02:54	<a href="#">WG2234567</a>
(S) o-Terphenyl	87.4			52.0-156		02/28/2024 02:54	<a href="#">WG2234567</a>

## Sample Narrative:

L1708666-06 WG2234567: Sample does not resemble laboratory standards.



## Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:46	<a href="#">WG2234496</a>

## Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	2180		379	1000	1	02/27/2024 00:13	<a href="#">WG2233036</a>
Sulfate	4490	J	594	5000	1	02/27/2024 00:13	<a href="#">WG2233036</a>

## Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	8570		102	1000	1	02/29/2024 12:01	<a href="#">WG2236505</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	126		18.0	100	1	02/28/2024 07:40	<a href="#">WG2234675</a>
Iron,Dissolved	U		18.0	100	1	02/28/2024 08:07	<a href="#">WG2234276</a>
Manganese	321		0.934	10.0	1	02/28/2024 07:40	<a href="#">WG2234675</a>
Manganese,Dissolved	307		0.934	10.0	1	02/28/2024 08:07	<a href="#">WG2234276</a>

## Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	352	B	31.6	100	1	02/27/2024 21:24	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	106			78.0-120		02/27/2024 21:24	<a href="#">WG2234785</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
1,2-Dichloroethane	U		0.380	2.00	20	02/29/2024 11:50	<a href="#">WG2236191</a>
1,1-Dichloroethene	U		0.400	2.00	20	02/29/2024 11:50	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	264		0.552	2.00	20	02/29/2024 11:50	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	4.90		1.14	4.00	20	02/29/2024 11:50	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.560	2.00	20	02/29/2024 11:50	<a href="#">WG2236191</a>
Trichloroethene	540	C5	0.320	0.800	20	02/29/2024 11:50	<a href="#">WG2236191</a>
Vinyl chloride	U		0.546	2.00	20	02/29/2024 11:50	<a href="#">WG2236191</a>
(S) Toluene-d8	95.4			75.0-131		02/29/2024 11:50	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	105			67.0-138		02/29/2024 11:50	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	113			70.0-130		02/29/2024 11:50	<a href="#">WG2236191</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	3010		66.7	200	1	02/28/2024 03:14	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	1820		83.3	250	1	02/28/2024 03:14	<a href="#">WG2234567</a>
(S) o-Terphenyl	93.7			52.0-156		02/28/2024 03:14	<a href="#">WG2234567</a>

## Sample Narrative:

L1708666-07 WG2234567: Sample resembles laboratory standard for Hydraulic Fluid.



Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:48	<a href="#">WG2234496</a>



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	2070		379	1000	1	02/28/2024 22:05	<a href="#">WG2233042</a>
Sulfate	10200		594	5000	1	02/28/2024 22:05	<a href="#">WG2233042</a>

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	13200		102	1000	1	02/29/2024 11:27	<a href="#">WG2236506</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	211		18.0	100	1	02/28/2024 07:41	<a href="#">WG2234675</a>
Iron,Dissolved	129		18.0	100	1	02/28/2024 08:09	<a href="#">WG2234276</a>
Manganese	1010		0.934	10.0	1	02/28/2024 07:41	<a href="#">WG2234675</a>
Manganese,Dissolved	984		0.934	10.0	1	02/28/2024 08:09	<a href="#">WG2234276</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	54.1	<a href="#">B J</a>	31.6	100	1	02/27/2024 21:47	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120		02/27/2024 21:47	<a href="#">WG2234785</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	02/29/2024 07:39	<a href="#">WG2236191</a>
1,1-Dichloroethene	0.103	<a href="#">C5</a>	0.0200	0.100	1	02/29/2024 07:39	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	1.80		0.0276	0.100	1	02/29/2024 07:39	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	02/29/2024 07:39	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.0280	0.100	1	02/29/2024 07:39	<a href="#">WG2236191</a>
Trichloroethene	44.7	<a href="#">C5</a>	0.0160	0.0400	1	02/29/2024 07:39	<a href="#">WG2236191</a>
Vinyl chloride	U		0.0273	0.100	1	02/29/2024 07:39	<a href="#">WG2236191</a>
(S) Toluene-d8	96.1			75.0-131		02/29/2024 07:39	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	104			67.0-138		02/29/2024 07:39	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	117			70.0-130		02/29/2024 07:39	<a href="#">WG2236191</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	1880		66.7	200	1	02/29/2024 01:52	<a href="#">WG2234592</a>
Residual Range Organics (RRO)	1820		83.3	250	1	02/29/2024 01:52	<a href="#">WG2234592</a>
(S) o-Terphenyl	101			52.0-156		02/29/2024 01:52	<a href="#">WG2234592</a>

Sample Narrative:

L1708666-08 WG2234592: Sample resembles laboratory standard for Hydraulic Fluid.

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	82.0	J	50.0	100	1	02/28/2024 01:50	<a href="#">WG2234496</a>

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

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	3910		379	1000	1	02/28/2024 22:19	<a href="#">WG2233042</a>
Sulfate	6140		594	5000	1	02/28/2024 22:19	<a href="#">WG2233042</a>

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	2380		102	1000	1	02/29/2024 12:12	<a href="#">WG2236506</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	56.0	J	18.0	100	1	02/28/2024 07:43	<a href="#">WG2234675</a>
Iron,Dissolved	U		18.0	100	1	02/28/2024 08:10	<a href="#">WG2234276</a>
Manganese	25.5		0.934	10.0	1	02/28/2024 07:43	<a href="#">WG2234675</a>
Manganese,Dissolved	29.6		0.934	10.0	1	02/28/2024 08:10	<a href="#">WG2234276</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	02/27/2024 22:10	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120		02/27/2024 22:10	<a href="#">WG2234785</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	02/29/2024 07:58	<a href="#">WG2236191</a>
1,1-Dichloroethene	U		0.0200	0.100	1	02/29/2024 07:58	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	U		0.0276	0.100	1	02/29/2024 07:58	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	02/29/2024 07:58	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.0280	0.100	1	02/29/2024 07:58	<a href="#">WG2236191</a>
Trichloroethene	U		0.0160	0.0400	1	02/29/2024 07:58	<a href="#">WG2236191</a>
Vinyl chloride	U		0.0273	0.100	1	02/29/2024 07:58	<a href="#">WG2236191</a>
(S) Toluene-d8	96.5			75.0-131		02/29/2024 07:58	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	107			67.0-138		02/29/2024 07:58	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	118			70.0-130		02/29/2024 07:58	<a href="#">WG2236191</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	113	J	66.7	200	1	03/04/2024 11:22	<a href="#">WG2234592</a>
Residual Range Organics (RRO)	149	J	83.3	250	1	03/04/2024 11:22	<a href="#">WG2234592</a>
(S) o-Terphenyl	98.4			52.0-156		03/04/2024 11:22	<a href="#">WG2234592</a>

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:52	<a href="#">WG2234496</a>

1 Cp

2 Tc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	8270		379	1000	1	02/28/2024 22:33	<a href="#">WG2233042</a>
Sulfate	18000		594	5000	1	02/28/2024 22:33	<a href="#">WG2233042</a>

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	8520		102	1000	1	02/28/2024 14:01	<a href="#">WG2235594</a>

6 Qc

7 Is

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	215		18.0	100	1	02/27/2024 11:16	<a href="#">WG2234301</a>
Iron,Dissolved	21.8	J	18.0	100	1	02/27/2024 08:23	<a href="#">WG2234266</a>
Manganese	362		0.934	10.0	1	02/27/2024 11:16	<a href="#">WG2234301</a>
Manganese,Dissolved	368		0.934	10.0	1	02/27/2024 08:23	<a href="#">WG2234266</a>

8 Gl

9 Al

10 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Benzene	7.28	J	4.71	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
1,2-Dichloroethane	U		4.09	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
1,1-Dichloroethene	U		9.40	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
cis-1,2-Dichloroethene	385		6.30	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
trans-1,2-Dichloroethene	49.1	J	7.45	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
Ethylbenzene	U		6.85	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
Tetrachloroethene	U		15.0	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
Toluene	U		13.9	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
Trichloroethene	6040		9.50	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
Vinyl chloride	U	C3	11.7	50.0	50	02/26/2024 15:40	<a href="#">WG2233830</a>
Xylenes, Total	U		8.70	150	50	02/26/2024 15:40	<a href="#">WG2233830</a>
(S) Toluene-d8	108			80.0-120		02/26/2024 15:40	<a href="#">WG2233830</a>
(S) 4-Bromofluorobenzene	95.6			77.0-126		02/26/2024 15:40	<a href="#">WG2233830</a>
(S) 1,2-Dichloroethane-d4	86.5			70.0-130		02/26/2024 15:40	<a href="#">WG2233830</a>

Sample Narrative:

L1708666-10 WG2233830: Target compounds too high to run at a lower dilution.

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Nitrate-Nitrite	U		50.0	100	1	02/28/2024 01:57	<a href="#">WG2234496</a>

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Chloride	6050		379	1000	1	02/28/2024 22:47	<a href="#">WG2233042</a>
Sulfate	4730	J	594	5000	1	02/28/2024 22:47	<a href="#">WG2233042</a>

Wet Chemistry by Method 9060A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	17400		102	1000	1	02/28/2024 14:24	<a href="#">WG2235594</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Iron	409		18.0	100	1	02/27/2024 11:18	<a href="#">WG2234301</a>
Iron,Dissolved	U		18.0	100	1	02/27/2024 08:25	<a href="#">WG2234266</a>
Manganese	4580		0.934	10.0	1	02/27/2024 11:18	<a href="#">WG2234301</a>
Manganese,Dissolved	3890		0.934	10.0	1	02/27/2024 08:25	<a href="#">WG2234266</a>

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Gasoline Range Organics-NWTPH	413	B J3	31.6	100	1	02/29/2024 13:54	<a href="#">WG2236416</a>
(S) a,a,a-Trifluorotoluene(FID)	92.6			78.0-120		02/29/2024 13:54	<a href="#">WG2236416</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Benzene	0.448		0.0160	0.0400	1	03/02/2024 14:50	<a href="#">WG2238339</a>
1,2-Dichloroethane	0.183		0.0190	0.100	1	03/02/2024 14:50	<a href="#">WG2238339</a>
1,1-Dichloroethene	U		0.0200	0.100	1	03/02/2024 14:50	<a href="#">WG2238339</a>
cis-1,2-Dichloroethene	0.264		0.0276	0.100	1	03/02/2024 14:50	<a href="#">WG2238339</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/02/2024 14:50	<a href="#">WG2238339</a>
Ethylbenzene	U		0.0212	0.100	1	03/02/2024 14:50	<a href="#">WG2238339</a>
Tetrachloroethene	U		0.0280	0.100	1	03/02/2024 14:50	<a href="#">WG2238339</a>
Toluene	U		0.0500	0.200	1	03/02/2024 14:50	<a href="#">WG2238339</a>
Trichloroethene	2.34		0.0160	0.0400	1	03/02/2024 14:50	<a href="#">WG2238339</a>
Vinyl chloride	U		0.0273	0.100	1	03/02/2024 14:50	<a href="#">WG2238339</a>
Xylenes, Total	U		0.191	0.260	1	03/02/2024 14:50	<a href="#">WG2238339</a>
(S) Toluene-d8	96.8			75.0-131		03/02/2024 14:50	<a href="#">WG2238339</a>
(S) 4-Bromofluorobenzene	91.9			67.0-138		03/02/2024 14:50	<a href="#">WG2238339</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		03/02/2024 14:50	<a href="#">WG2238339</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Diesel Range Organics (DRO)	1790		66.7	200	1	02/28/2024 06:37	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	1130		83.3	250	1	02/28/2024 06:37	<a href="#">WG2234567</a>
(S) o-Terphenyl	97.4			52.0-156		02/28/2024 06:37	<a href="#">WG2234567</a>





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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	

Sample Narrative:

L1708666-11 WG2234567: Sample resembles laboratory standard for Hydraulic Fluid.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Pentachlorophenol	U		0.329	1.05	1.05	02/28/2024 12:30	<a href="#">WG2233255</a>
(S) 2-Fluorophenol	16.2			10.0-120		02/28/2024 12:30	<a href="#">WG2233255</a>
(S) Phenol-d5	11.2			10.0-120		02/28/2024 12:30	<a href="#">WG2233255</a>
(S) Nitrobenzene-d5	39.2			10.0-127		02/28/2024 12:30	<a href="#">WG2233255</a>
(S) 2-Fluorobiphenyl	55.2			10.0-130		02/28/2024 12:30	<a href="#">WG2233255</a>
(S) 2,4,6-Tribromophenol	66.2			10.0-155		02/28/2024 12:30	<a href="#">WG2233255</a>
(S) p-Terphenyl-d14	80.4			10.0-128		02/28/2024 12:30	<a href="#">WG2233255</a>

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

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1530		31.6	100	1	02/27/2024 22:33	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	101			78.0-120		02/27/2024 22:33	<a href="#">WG2234785</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	28.0		0.0160	0.0400	1	03/02/2024 15:09	<a href="#">WG2238339</a>
1,2-Dichloroethane	U		0.0190	0.100	1	03/02/2024 15:09	<a href="#">WG2238339</a>
1,1-Dichloroethene	U		0.0200	0.100	1	03/02/2024 15:09	<a href="#">WG2238339</a>
cis-1,2-Dichloroethene	U		0.0276	0.100	1	03/02/2024 15:09	<a href="#">WG2238339</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	03/02/2024 15:09	<a href="#">WG2238339</a>
Ethylbenzene	31.1		0.0212	0.100	1	03/02/2024 15:09	<a href="#">WG2238339</a>
Tetrachloroethene	U		0.0280	0.100	1	03/02/2024 15:09	<a href="#">WG2238339</a>
Toluene	0.215		0.0500	0.200	1	03/02/2024 15:09	<a href="#">WG2238339</a>
Trichloroethene	U		0.0160	0.0400	1	03/02/2024 15:09	<a href="#">WG2238339</a>
Vinyl chloride	U		0.0273	0.100	1	03/02/2024 15:09	<a href="#">WG2238339</a>
Xylenes, Total	0.320		0.191	0.260	1	03/02/2024 15:09	<a href="#">WG2238339</a>
(S) Toluene-d8	91.3			75.0-131		03/02/2024 15:09	<a href="#">WG2238339</a>
(S) 4-Bromofluorobenzene	88.0			67.0-138		03/02/2024 15:09	<a href="#">WG2238339</a>
(S) 1,2-Dichloroethane-d4	98.9			70.0-130		03/02/2024 15:09	<a href="#">WG2238339</a>

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	2130		66.7	200	1	02/28/2024 06:57	<a href="#">WG2234567</a>
Residual Range Organics (RRO)	1180		83.3	250	1	02/28/2024 06:57	<a href="#">WG2234567</a>
(S) o-Terphenyl	108			52.0-156		02/28/2024 06:57	<a href="#">WG2234567</a>

Sample Narrative:

L1708666-12 WG2234567: Sample resembles laboratory standard for Hydraulic Fluid.

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	448	<u>B</u>	31.6	100	1	02/27/2024 22:55	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	104			78.0-120		02/27/2024 22:55	<a href="#">WG2234785</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0819	1.00	1	02/27/2024 13:26	<a href="#">WG2234892</a>
1,1-Dichloroethene	1.12		0.188	1.00	1	02/27/2024 13:26	<a href="#">WG2234892</a>
cis-1,2-Dichloroethene	160		2.52	20.0	20	02/29/2024 04:26	<a href="#">WG2236318</a>
trans-1,2-Dichloroethene	4.43		0.149	1.00	1	02/27/2024 13:26	<a href="#">WG2234892</a>
Tetrachloroethene	U		0.300	1.00	1	02/27/2024 13:26	<a href="#">WG2234892</a>
Trichloroethene	340		3.80	20.0	20	02/29/2024 04:26	<a href="#">WG2236318</a>
Vinyl chloride	U		0.234	1.00	1	02/27/2024 13:26	<a href="#">WG2234892</a>
(S) Toluene-d8	114			80.0-120		02/27/2024 13:26	<a href="#">WG2234892</a>
(S) Toluene-d8	97.0			80.0-120		02/29/2024 04:26	<a href="#">WG2236318</a>
(S) 4-Bromofluorobenzene	81.2			77.0-126		02/27/2024 13:26	<a href="#">WG2234892</a>
(S) 4-Bromofluorobenzene	95.4			77.0-126		02/29/2024 04:26	<a href="#">WG2236318</a>
(S) 1,2-Dichloroethane-d4	56.0	<u>J2</u>		70.0-130		02/27/2024 13:26	<a href="#">WG2234892</a>
(S) 1,2-Dichloroethane-d4	123			70.0-130		02/29/2024 04:26	<a href="#">WG2236318</a>

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	2380		66.7	200	1	02/29/2024 02:32	<a href="#">WG2234592</a>
Residual Range Organics (RRO)	1420		83.3	250	1	02/29/2024 02:32	<a href="#">WG2234592</a>
(S) o-Terphenyl	103			52.0-156		02/29/2024 02:32	<a href="#">WG2234592</a>

Sample Narrative:

L1708666-13 WG2234592: Sample resembles laboratory standard for Hydraulic Fluid.

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	34.3	<u>B</u> <u>J</u>	31.6	100	1	02/27/2024 13:12	<a href="#">WG2234785</a>
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120		02/27/2024 13:12	<a href="#">WG2234785</a>

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0160	0.0400	1	02/29/2024 06:22	<a href="#">WG2236191</a>
1,2-Dichloroethane	U		0.0190	0.100	1	02/29/2024 06:22	<a href="#">WG2236191</a>
1,1-Dichloroethene	U		0.0200	0.100	1	02/29/2024 06:22	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	U		0.0276	0.100	1	02/29/2024 06:22	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	02/29/2024 06:22	<a href="#">WG2236191</a>
Ethylbenzene	U		0.0212	0.100	1	02/29/2024 06:22	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.0280	0.100	1	02/29/2024 06:22	<a href="#">WG2236191</a>
Toluene	U		0.0500	0.200	1	02/29/2024 06:22	<a href="#">WG2236191</a>
Trichloroethene	U		0.0160	0.0400	1	02/29/2024 06:22	<a href="#">WG2236191</a>
Vinyl chloride	U		0.0273	0.100	1	02/29/2024 06:22	<a href="#">WG2236191</a>
Xylenes, Total	U		0.191	0.260	1	02/29/2024 06:22	<a href="#">WG2236191</a>
(S) Toluene-d8	94.6			75.0-131		02/29/2024 06:22	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	104			67.0-138		02/29/2024 06:22	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	120			70.0-130		02/29/2024 06:22	<a href="#">WG2236191</a>

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.7	200	1	02/29/2024 02:52	<a href="#">WG2234592</a>
Residual Range Organics (RRO)	216	<u>J</u>	83.3	250	1	02/29/2024 02:52	<a href="#">WG2234592</a>
(S) o-Terphenyl	89.5			52.0-156		02/29/2024 02:52	<a href="#">WG2234592</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2-Dichloroethane	U		0.0190	0.100	1	02/29/2024 06:03	<a href="#">WG2236191</a>
1,1-Dichloroethene	U		0.0200	0.100	1	02/29/2024 06:03	<a href="#">WG2236191</a>
cis-1,2-Dichloroethene	U		0.0276	0.100	1	02/29/2024 06:03	<a href="#">WG2236191</a>
trans-1,2-Dichloroethene	U		0.0572	0.200	1	02/29/2024 06:03	<a href="#">WG2236191</a>
Tetrachloroethene	U		0.0280	0.100	1	02/29/2024 06:03	<a href="#">WG2236191</a>
Trichloroethene	U		0.0160	0.0400	1	02/29/2024 06:03	<a href="#">WG2236191</a>
Vinyl chloride	U		0.0273	0.100	1	02/29/2024 06:03	<a href="#">WG2236191</a>
(S) Toluene-d8	96.4			75.0-131		02/29/2024 06:03	<a href="#">WG2236191</a>
(S) 4-Bromofluorobenzene	105			67.0-138		02/29/2024 06:03	<a href="#">WG2236191</a>
(S) 1,2-Dichloroethane-d4	112			70.0-130		02/29/2024 06:03	<a href="#">WG2236191</a>

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

Method Blank (MB)

(MB) R4039391-1 02/28/24 01:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Nitrate-Nitrite	U		50.0	100

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1708666-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1708666-06 02/28/24 01:30 • (DUP) R4039391-5 02/28/24 01:44

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate-Nitrite	U	U	1	0.000		20

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

L1708708-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1708708-10 02/28/24 02:03 • (DUP) R4039391-7 02/28/24 02:18

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate-Nitrite	U	U	1	0.000		20

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4039391-2 02/28/24 01:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Nitrate-Nitrite	2500	2620	105	90.0-110	

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/28/24 01:19 • (MS) R4039391-3 02/28/24 01:21 • (MSD) R4039391-4 02/28/24 01:23

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate-Nitrite	2500	U	2680	2630	107	105	1	90.0-110			2.22	20

L1708666-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1708666-10 02/28/24 01:52 • (MS) R4039391-6 02/28/24 01:55

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Nitrate-Nitrite	2500	U	2410	96.3	1	90.0-110	

Method Blank (MB)

(MB) R4038742-1 02/26/24 15:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Sulfate	U		594	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1707017-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1707017-11 02/26/24 17:19 • (DUP) R4038742-3 02/26/24 17:35

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	194000	194000	1	0.0375		15
Sulfate	68800	68800	1	0.0134		15

L1708666-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1708666-03 02/26/24 22:22 • (DUP) R4038742-5 02/26/24 22:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	12700	12600	1	0.528		15
Sulfate	5490	5400	1	1.64		15

Laboratory Control Sample (LCS)

(LCS) R4038742-2 02/26/24 16:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	40300	101	80.0-120	
Sulfate	40000	42000	105	80.0-120	

L1707017-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1707017-11 02/26/24 17:19 • (MS) R4038742-4 02/26/24 17:51

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Chloride	40000	194000	195000	2.12	1	80.0-120	<u>V</u>
Sulfate	40000	68800	98100	73.2	1	80.0-120	<u>J6</u>

Sample Narrative:

MS: spike failed due to sample matrix

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/26/24 22:22 • (MS) R4038742-6 02/26/24 22:53 • (MSD) R4038742-7 02/26/24 23:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	12700	50400	49800	94.2	92.7	1	80.0-120			1.18	15
Sulfate	40000	5490	45100	44400	99.1	97.2	1	80.0-120			1.70	15

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R4040282-1 02/28/24 09:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chloride	U		379	1000
Sulfate	U		594	5000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1709456-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1709456-01 02/28/24 17:11 • (DUP) R4040282-3 02/28/24 17:25

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	36400	36400	1	0.00632		15
Sulfate	17400	17500	1	0.300		15

L1709721-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1709721-03 02/28/24 20:43 • (DUP) R4040282-6 02/28/24 23:28

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chloride	13100	12700	1	3.22		15
Sulfate	8230	7950	1	3.45		15

Laboratory Control Sample (LCS)

(LCS) R4040282-2 02/28/24 09:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Chloride	40000	39300	98.1	80.0-120	
Sulfate	40000	38800	97.1	80.0-120	

L1709456-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1709456-01 02/28/24 17:11 • (MS) R4040282-4 02/28/24 17:39 • (MSD) R4040282-5 02/28/24 17:52

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chloride	40000	36400	69200	69800	82.2	83.7	1	80.0-120			0.865	15
Sulfate	40000	17400	53700	54400	90.7	92.3	1	80.0-120			1.21	15

L1709721-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1709721-03 02/28/24 20:43 • (MS) R4040282-7 02/28/24 23:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	40000	13100	50900	94.5	1	80.0-120	
Sulfate	40000	8230	46600	96.0	1	80.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R4039434-2 02/28/24 10:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	267	↓	102	1000

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1708626-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1708626-15 02/28/24 11:35 • (DUP) R4039434-3 02/28/24 11:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1420	1420	1	0.493		20

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R4039434-1 02/28/24 10:11

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	25600	102	85.0-115	

<sup>6</sup>Qc

<sup>7</sup>Is

L1708626-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708626-16 02/28/24 12:09 • (MS) R4039434-4 02/28/24 12:29 • (MSD) R4039434-5 02/28/24 12:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	1500	28300	28100	107	107	1	85.0-115			0.708	20

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R4039401-2 02/28/24 10:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	285	↓	102	1000

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

L1708626-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1708626-17 02/28/24 10:43 • (DUP) R4039401-3 02/28/24 11:01

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1250	1510	1	18.3		20

<sup>4</sup>Cn

<sup>5</sup>Sr

Laboratory Control Sample (LCS)

(LCS) R4039401-1 02/28/24 09:59

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	24100	96.3	85.0-115	

<sup>6</sup>Qc

<sup>7</sup>Is

L1708626-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708626-18 02/28/24 11:18 • (MS) R4039401-4 02/28/24 12:19 • (MSD) R4039401-5 02/28/24 12:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	831	25200	24700	97.4	95.6	1	85.0-115			1.80	20

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R4039592-2 02/28/24 18:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	644	↓	102	1000

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

L1708626-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1708626-19 02/28/24 21:50 • (DUP) R4039592-3 02/28/24 22:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1370	1180	1	14.6		20

L1708626-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1708626-27 02/29/24 02:24 • (DUP) R4039592-6 02/29/24 02:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1130	1120	1	0.0889		20

Laboratory Control Sample (LCS)

(LCS) R4039592-1 02/28/24 18:03

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	24300	97.3	85.0-115	

L1708626-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708626-20 02/28/24 23:03 • (MS) R4039592-4 02/28/24 23:23 • (MSD) R4039592-5 02/28/24 23:43

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	1220	26400	26800	101	102	1	85.0-115			1.58	20

L1708666-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-04 02/29/24 03:57 • (MS) R4039592-7 02/29/24 04:20 • (MSD) R4039592-8 02/29/24 04:43

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	4480	29400	29500	99.5	100	1	85.0-115			0.577	20

Method Blank (MB)

(MB) R4039900-2 02/29/24 10:46

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

1 Cp

2 Tc

3 Ss

L1708666-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1708666-06 02/29/24 11:19 • (DUP) R4039900-3 02/29/24 11:39

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	4560	4570	1	0.263		20

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R4039900-1 02/29/24 10:29

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	24100	96.4	85.0-115	

6 Qc

7 Is

8 Gl

L1708666-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-07 02/29/24 12:01 • (MS) R4039900-4 02/29/24 12:24 • (MSD) R4039900-5 02/29/24 12:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	8570	32800	32900	96.7	97.3	1	85.0-115			0.457	20

9 Al

10 Sc

Method Blank (MB)

(MB) R4039886-2 02/29/24 10:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TOC (Total Organic Carbon)	145	↓	102	1000

1 Cp

2 Tc

3 Ss

L1708666-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1708666-08 02/29/24 11:27 • (DUP) R4039886-3 02/29/24 11:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	13200	13600	1	2.39		20

4 Cn

5 Sr

Laboratory Control Sample (LCS)

(LCS) R4039886-1 02/29/24 10:37

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	26100	104	85.0-115	

6 Qc

7 Is

8 Gl

L1708666-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-09 02/29/24 12:12 • (MS) R4039886-4 02/29/24 12:37 • (MSD) R4039886-5 02/29/24 13:02

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	2380	28800	29400	106	108	1	85.0-115			2.03	20

9 Al

10 Sc

Method Blank (MB)

(MB) R4040167-2 02/29/24 16:59

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

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1708775-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1708775-03 02/29/24 20:32 • (DUP) R4040167-5 02/29/24 21:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1450000	1450000	1	0.345	E	20

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

L1708776-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1708776-01 02/29/24 23:13 • (DUP) R4040167-6 02/29/24 23:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
TOC (Total Organic Carbon)	1230	824	1	39.6	J P1	20

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4040167-1 02/29/24 16:42

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TOC (Total Organic Carbon)	25000	24200	96.6	85.0-115	

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/29/24 17:41 • (MS) R4040167-3 02/29/24 18:05 • (MSD) R4040167-4 02/29/24 18:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	6240	31000	32100	99.1	103	1	85.0-115			3.46	20

L1708776-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708776-04 03/01/24 00:24 • (MS) R4040167-7 03/01/24 00:45 • (MSD) R4040167-8 03/01/24 01:07

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TOC (Total Organic Carbon)	25000	906	25700	26100	99.2	101	1	85.0-115			1.39	20



Method Blank (MB)

(MB) R4038844-1 02/27/24 07:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron,Dissolved	U		18.0	100
Manganese,Dissolved	U		0.934	10.0

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4038844-2 02/27/24 07:52

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Iron,Dissolved	10000	10200	102	80.0-120	
Manganese,Dissolved	1000	1020	102	80.0-120	

L1708565-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708565-04 02/27/24 07:54 • (MS) R4038844-4 02/27/24 07:57 • (MSD) R4038844-5 02/27/24 07:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron,Dissolved	10000	U	9990	9930	99.9	99.3	1	75.0-125			0.609	20
Manganese,Dissolved	1000	607	1580	1570	97.6	96.0	1	75.0-125			1.02	20

Method Blank (MB)

(MB) R4039002-1 02/27/24 18:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron,Dissolved	U		18.0	100
Manganese,Dissolved	U		0.934	10.0

Laboratory Control Sample (LCS)

(LCS) R4039002-2 02/27/24 18:56

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Iron,Dissolved	10000	10200	102	80.0-120	
Manganese,Dissolved	1000	1020	102	80.0-120	

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/27/24 18:57 • (MS) R4039002-4 02/27/24 19:01 • (MSD) R4039002-5 02/27/24 19:03

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron,Dissolved	10000	U	10000	10000	100	100	1	75.0-125			0.0878	20
Manganese,Dissolved	1000	656	1630	1610	97.8	95.1	1	75.0-125			1.67	20

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

Method Blank (MB)

(MB) R4038848-1 02/27/24 10:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		18.0	100
Manganese	U		0.934	10.0

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4038848-2 02/27/24 10:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Iron	10000	9780	97.8	80.0-120	
Manganese	1000	977	97.7	80.0-120	

L1708839-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708839-04 02/27/24 10:51 • (MS) R4038848-4 02/27/24 10:55 • (MSD) R4038848-5 02/27/24 10:56

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	10000	20000	30300	30400	104	104	1	75.0-125			0.0752	20
Manganese	1000	1090	2020	2030	93.7	93.8	1	75.0-125			0.0627	20

Method Blank (MB)

(MB) R4039329-1 02/28/24 07:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Iron	U		18.0	100
Manganese	U		0.934	10.0

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R4039329-2 02/28/24 07:18

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Iron	10000	9710	97.1	80.0-120	
Manganese	1000	987	98.7	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/28/24 07:20 • (MS) R4039329-4 02/28/24 07:23 • (MSD) R4039329-5 02/28/24 07:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Iron	10000	22000	33000	33900	110	119	1	75.0-125			2.66	20
Manganese	1000	1510	2450	2470	93.7	95.8	1	75.0-125			0.841	20

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R4039573-3 02/27/24 11:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	78.3	↓	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	106			78.0-120

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

(LCS) R4039573-1 02/27/24 10:11 • (LCSD) R4039573-2 02/27/24 10:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	5000	5380	100	108	70.0-124			7.32	20
(S) a,a,a-Trifluorotoluene(FID)				109	112	78.0-120				

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

Method Blank (MB)

(MB) R4040299-3 02/29/24 12:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	75.5	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	91.5			78.0-120

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R4040299-1 02/29/24 10:17 • (LCSD) R4040299-2 02/29/24 11:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	5330	4350	107	87.0	70.0-124		J3	20.2	20
(S) a,a,a-Trifluorotoluene(FID)				101	99.6	78.0-120				

5 Sr

6 Qc

7 Is

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/29/24 13:29 • (MS) R4040299-4 02/29/24 21:37 • (MSD) R4040299-5 02/29/24 22:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	85.1	3720	4790	72.7	94.1	1	10.0-155		J3	25.1	21
(S) a,a,a-Trifluorotoluene(FID)					98.8	96.8		78.0-120				

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R4038702-3 02/26/24 08:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Ethylbenzene	U		0.137	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
Trichloroethene	U		0.190	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	105			80.0-120
(S) 4-Bromofluorobenzene	93.8			77.0-126
(S) 1,2-Dichloroethane-d4	84.3			70.0-130

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

(LCS) R4038702-1 02/26/24 06:56 • (LCSD) R4038702-2 02/26/24 07:18

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	4.43	4.57	88.6	91.4	70.0-123			3.11	20
1,2-Dichloroethane	5.00	4.16	4.27	83.2	85.4	70.0-128			2.61	20
1,1-Dichloroethene	5.00	4.55	4.74	91.0	94.8	71.0-124			4.09	20
cis-1,2-Dichloroethene	5.00	4.43	4.45	88.6	89.0	73.0-120			0.450	20
trans-1,2-Dichloroethene	5.00	4.40	4.49	88.0	89.8	73.0-120			2.02	20
Ethylbenzene	5.00	5.25	4.81	105	96.2	79.0-123			8.75	20
Tetrachloroethene	5.00	5.78	5.61	116	112	72.0-132			2.99	20
Toluene	5.00	4.91	4.96	98.2	99.2	79.0-120			1.01	20
Trichloroethene	5.00	4.69	4.92	93.8	98.4	78.0-124			4.79	20
Vinyl chloride	5.00	3.35	3.39	67.0	67.8	67.0-131			1.19	20
Xylenes, Total	15.0	14.9	14.8	99.3	98.7	79.0-123			0.673	20
(S) Toluene-d8				109	106	80.0-120				
(S) 4-Bromofluorobenzene				98.6	95.4	77.0-126				
(S) 1,2-Dichloroethane-d4				85.0	86.4	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R4039476-2 02/27/24 10:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	92.7			77.0-126
(S) 1,2-Dichloroethane-d4	94.5			70.0-130

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Laboratory Control Sample (LCS)

(LCS) R4039476-1 02/27/24 09:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,2-Dichloroethane	5.00	5.19	104	70.0-128	
1,1-Dichloroethene	5.00	5.31	106	71.0-124	
trans-1,2-Dichloroethene	5.00	5.62	112	73.0-120	
Tetrachloroethene	5.00	5.87	117	72.0-132	
Vinyl chloride	5.00	5.04	101	67.0-131	
(S) Toluene-d8			98.9	80.0-120	
(S) 4-Bromofluorobenzene			92.6	77.0-126	
(S) 1,2-Dichloroethane-d4			90.6	70.0-130	

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc



Method Blank (MB)

(MB) R4040813-2 02/29/24 05:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0160	0.0400
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
Ethylbenzene	U		0.0212	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
Trichloroethene	U		0.0160	0.0400
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	94.2			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	119			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4040813-1 02/29/24 04:26

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	5.00	5.34	107	70.0-123	
1,2-Dichloroethane	5.00	6.18	124	65.0-131	
1,1-Dichloroethene	5.00	6.07	121	65.0-131	
cis-1,2-Dichloroethene	5.00	5.92	118	73.0-125	
trans-1,2-Dichloroethene	5.00	5.49	110	71.0-125	
Ethylbenzene	5.00	5.32	106	74.0-126	
Tetrachloroethene	5.00	5.70	114	70.0-136	
Toluene	5.00	4.93	98.6	75.0-121	
Trichloroethene	5.00	6.20	124	76.0-126	
Vinyl chloride	5.00	5.59	112	63.0-134	
Xylenes, Total	15.0	15.7	105	72.0-127	
(S) Toluene-d8			93.8	75.0-131	
(S) 4-Bromofluorobenzene			111	67.0-138	
(S) 1,2-Dichloroethane-d4			114	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/29/24 06:41 • (MS) R4040813-3 02/29/24 12:28 • (MSD) R4040813-4 02/29/24 12:48

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	U	4.50	3.51	90.0	70.2	1	10.0-149			24.7	37
1,2-Dichloroethane	5.00	U	5.55	5.42	111	108	1	10.0-148			2.37	35
1,1-Dichloroethene	5.00	U	5.71	3.90	114	78.0	1	10.0-155		J3	37.7	37
cis-1,2-Dichloroethene	5.00	U	4.89	4.11	97.8	82.2	1	10.0-149			17.3	37
trans-1,2-Dichloroethene	5.00	U	4.95	3.66	99.0	73.2	1	10.0-150			30.0	37
Ethylbenzene	5.00	U	4.46	3.54	89.2	70.8	1	10.0-160			23.0	38
Tetrachloroethene	5.00	U	5.05	3.71	101	74.2	1	10.0-156			30.6	39
Toluene	5.00	U	4.31	3.40	86.2	68.0	1	10.0-156			23.6	38
Trichloroethene	5.00	U	5.10	3.80	102	76.0	1	10.0-156			29.2	38
Vinyl chloride	5.00	U	5.01	3.65	100	73.0	1	10.0-160			31.4	37
Xylenes, Total	15.0	U	13.3	11.0	88.7	73.3	1	10.0-160			18.9	38
(S) Toluene-d8					96.6	97.1		75.0-131				
(S) 4-Bromofluorobenzene					113	110		67.0-138				
(S) 1,2-Dichloroethane-d4					112	111		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R4040019-3 02/28/24 19:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
cis-1,2-Dichloroethene	U		0.126	1.00
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	97.1			80.0-120
(S) 4-Bromofluorobenzene	95.1			77.0-126
(S) 1,2-Dichloroethane-d4	128			70.0-130

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

(LCS) R4040019-1 02/28/24 18:32 • (LCSD) R4040019-2 02/28/24 18:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
cis-1,2-Dichloroethene	5.00	5.25	5.32	105	106	73.0-120			1.32	20
Trichloroethene	5.00	5.40	5.42	108	108	78.0-124			0.370	20
(S) Toluene-d8				95.5	94.6	80.0-120				
(S) 4-Bromofluorobenzene				95.9	94.9	77.0-126				
(S) 1,2-Dichloroethane-d4				130	128	70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R4041507-3 03/02/24 12:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0160	0.0400
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
Ethylbenzene	U		0.0212	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
Trichloroethene	U		0.0160	0.0400
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	102			75.0-131
(S) 4-Bromofluorobenzene	96.0			67.0-138
(S) 1,2-Dichloroethane-d4	98.5			70.0-130

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

(LCS) R4041507-1 03/02/24 10:52 • (LCSD) R4041507-2 03/02/24 11:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	4.87	5.12	97.4	102	70.0-123			5.01	20
1,2-Dichloroethane	5.00	5.20	5.38	104	108	65.0-131			3.40	20
1,1-Dichloroethene	5.00	5.36	5.54	107	111	65.0-131			3.30	20
cis-1,2-Dichloroethene	5.00	4.80	5.02	96.0	100	73.0-125			4.48	20
trans-1,2-Dichloroethene	5.00	5.15	5.22	103	104	71.0-125			1.35	20
Ethylbenzene	5.00	5.31	5.50	106	110	74.0-126			3.52	20
Tetrachloroethene	5.00	5.41	5.69	108	114	70.0-136			5.05	20
Toluene	5.00	5.37	5.54	107	111	75.0-121			3.12	20
Trichloroethene	5.00	5.05	5.49	101	110	76.0-126			8.35	20
Vinyl chloride	5.00	5.12	5.38	102	108	63.0-134			4.95	20
Xylenes, Total	15.0	16.0	16.6	107	111	72.0-127			3.68	20
(S) Toluene-d8				101	100	75.0-131				
(S) 4-Bromofluorobenzene				98.2	98.2	67.0-138				
(S) 1,2-Dichloroethane-d4				101	102	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

L1708943-30 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708943-30 03/02/24 16:06 • (MS) R4041507-4 03/02/24 20:43 • (MSD) R4041507-5 03/02/24 21:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	U	3.97	5.35	79.4	107	1	10.0-149			29.6	37
1,2-Dichloroethane	5.00	U	4.67	5.43	93.4	109	1	10.0-148			15.0	35
1,1-Dichloroethene	5.00	U	4.11	5.88	82.2	118	1	10.0-155			35.4	37
cis-1,2-Dichloroethene	5.00	U	3.92	5.32	78.4	106	1	10.0-149			30.3	37
trans-1,2-Dichloroethene	5.00	U	3.76	5.37	75.2	107	1	10.0-150			35.3	37
Ethylbenzene	5.00	U	4.28	5.79	85.6	116	1	10.0-160			30.0	38
Tetrachloroethene	5.00	2.12	6.31	7.91	83.8	116	1	10.0-156			22.5	39
Toluene	5.00	0.179	4.46	5.89	85.6	114	1	10.0-156			27.6	38
Trichloroethene	5.00	0.150	4.19	5.69	80.8	111	1	10.0-156			30.4	38
Vinyl chloride	5.00	U	3.94	5.73	78.8	115	1	10.0-160			37.0	37
Xylenes, Total	15.0	0.338	13.1	17.3	85.1	113	1	10.0-160			27.6	38
<i>(S) Toluene-d8</i>					102	98.7		75.0-131				
<i>(S) 4-Bromofluorobenzene</i>					96.2	93.3		67.0-138				
<i>(S) 1,2-Dichloroethane-d4</i>					105	102		70.0-130				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Is

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R4039321-1 02/28/24 00:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	97.5			52.0-156

Laboratory Control Sample (LCS)

(LCS) R4039321-2 02/28/24 00:33

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Diesel Range Organics (DRO)	1500	1680	112	50.0-150	
(S) o-Terphenyl			79.5	52.0-156	

L1708666-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1708666-03 02/28/24 00:53 • (MS) R4039321-3 02/28/24 01:13 • (MSD) R4039321-4 02/28/24 01:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Diesel Range Organics (DRO)	1430	877	2600	2580	120	119	1	50.0-150			0.772	20
(S) o-Terphenyl					93.2	98.9		52.0-156				

Sample Narrative:

OS: Sample resembles laboratory standard for Hydraulic Fluid.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R4039620-1 02/29/24 00:52

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
<i>(S) o-Terphenyl</i>	91.5			52.0-156

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

(LCS) R4039620-2 02/29/24 01:12 • (LCSD) R4039620-3 02/29/24 01:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1620	1620	108	108	50.0-150			0.000	20
<i>(S) o-Terphenyl</i>				103	98.5	52.0-156				

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

Method Blank (MB)

(MB) R4040401-1 02/28/24 11:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Pentachlorophenol	U		0.313	1.00
(S) 2-Fluorophenol	18.4			10.0-120
(S) Phenol-d5	12.9			10.0-120
(S) Nitrobenzene-d5	45.1			10.0-127
(S) 2-Fluorobiphenyl	59.9			10.0-130
(S) 2,4,6-Tribromophenol	58.0			10.0-155
(S) p-Terphenyl-d14	80.4			10.0-128

Method Blank (MB)

(MB) R4039716-5 02/28/24 12:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Pentachlorophenol	U		0.313	1.00
(S) 2-Fluorophenol	23.4			10.0-120
(S) Phenol-d5	14.6			10.0-120
(S) Nitrobenzene-d5	43.4			10.0-127
(S) 2-Fluorobiphenyl	44.1			10.0-130
(S) 2,4,6-Tribromophenol	45.2			10.0-155
(S) p-Terphenyl-d14	70.6			10.0-128

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

(LCS) R4039716-1 02/28/24 11:52 • (LCSD) R4039716-2 02/28/24 12:13

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Pentachlorophenol	50.0	21.2	22.3	42.4	44.6	23.0-120			5.06	25
(S) 2-Fluorophenol				21.4	21.9	10.0-120				
(S) Phenol-d5				14.8	14.1	10.0-120				
(S) Nitrobenzene-d5				38.3	33.6	10.0-127				
(S) 2-Fluorobiphenyl				56.2	49.5	10.0-130				
(S) 2,4,6-Tribromophenol				61.5	62.5	10.0-155				
(S) p-Terphenyl-d14				64.4	63.5	10.0-128				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc



# INTERNAL STANDARD SUMMARY

## Instrument: VOCGC1 • File ID: 0229\_03

02/29/24 09:53

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0229_03	1574824	1393153
Upper Limit		3149648	2786306
Lower Limit		787412	696577
LCS R4040299-1 WG2236416 1x	0229_04A	1409403	1264566
LCSD R4040299-2 WG2236416 1x	0229_05A	1612705	1448465
BLANK R4040299-3 WG2236416 1x	0229_07A	1847472	1602749
L1708666-03 WG2236416 1x	0229_10	1923341	1649698
L1708666-11 WG2236416 1x	0229_11	1907771	1647078
MS R4040299-4 WG2236416 1x	0229_30	1728471	1603774
MSD R4040299-5 WG2236416 1x	0229_31	1730522	1530456

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## Instrument: VOCGC10 • File ID: 0227\_03

02/27/24 10:11

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0227_03	167352500	2377074000
Upper Limit		334705000	4754148000
Lower Limit		83676250	1188537000
LCS R4039573-1 WG2234785 1x	0227_03u	167352500	2377074000
LCSD R4039573-2 WG2234785 1x	0227_04	159023300	2266197000
BLANK R4039573-3 WG2234785 1x	0227_06	166578500	2429518000
L1708666-14 WG2234785 1x	0227_08	168896400	2474202000
L1708666-02 WG2234785 1x	0227_13	164574200	2390191000

## Instrument: VOCGC10 • File ID: 0227\_22

02/27/24 19:54

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	0227_22	202937400	2907200000
Upper Limit		334705000	4754148000
Lower Limit		83676250	1188537000
L1708666-05 WG2234785 1x	0227_24	173860800	2535958000

# INTERNAL STANDARD SUMMARY

Instrument: VO CGC10 • File ID: 0227\_22

02/27/24 19:54

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
L1708666-06 WG2234785 1x	0227_25	166810600	2439630000
L1708666-07 WG2234785 1x	0227_26	189057600	2710036000
L1708666-08 WG2234785 1x	0227_27	160929800	2358159000
L1708666-09 WG2234785 1x	0227_28	179521100	2599816000
L1708666-12 WG2234785 1x	0227_29	169919700	2403919000
L1708666-13 WG2234785 1x	0227_30	170681800	2452454000
L1708666-01 WG2234785 5x	0227_31	169067000	2473120000

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

# INTERNAL STANDARD SUMMARY

## Instrument: VOCMS16 • File ID: 0226\_02

02/26/24 06:56

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0226_02	247650	95643	82823
Upper Limit		495300	191286	165646
Lower Limit		123825	47822	41412
LCS R4038702-1 WG2233830 1x	0226_02LCSA	247650	95643	82823
LCSD R4038702-2 WG2233830 1x	0226_03A	247304	97478	81631
BLANK R4038702-3 WG2233830 1x	0226_06	239857	94004	77912
L1708666-05 WG2233830 1x	0226_19	227084	92338	74264
L1708666-01 WG2233830 50x	0226_24	231073	90880	72771
L1708666-02 WG2233830 10x	0226_25	223158	87647	71169
L1708666-10 WG2233830 50x	0226_26	233383	90225	72619

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## Instrument: VOCMS20 • File ID: 0227a\_03

02/27/24 09:53

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0227a_03	208043	89638	85298
Upper Limit		416086	179276	170596
Lower Limit		104022	44819	42649
LCS R4039476-1 WG2234892 1x	0227a_03LCS	208043	89638	85298
BLANK R4039476-2 WG2234892 1x	0227a_05	193453	82733	75262
L1708666-13 WG2234892 1x	0227A_11	203246	77462	53088

## Instrument: VOCMS35 • File ID: 0228\_29-2

02/28/24 18:32

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0228_29-2	293909	131134	117923
Upper Limit		587818	262268	235846
Lower Limit		146955	65567	58962
LCS R4040019-1 WG2236318 1x	0228_29LCSA	293909	131134	117923
LCSD R4040019-2 WG2236318 1x	0228_30A	289102	130576	114053
BLANK R4040019-3 WG2236318 1x	0228_32A	287405	125287	114235

## INTERNAL STANDARD SUMMARY

## Instrument: VOCMS35 • File ID: 0228\_29-2

02/28/24 18:32

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1708666-13 WG2236318 20x	0228_56	305527	132213	120279

## Instrument: VOCMS42 • File ID: 0229\_03

02/29/24 04:26

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0229_03	293581.80	157953.70	164249
Upper Limit		587164	315907	328498
Lower Limit		146791	78977	82125
LCS R4040813-1 WG2236191 1x	0229_03LCS	293581.80	157953.70	164249
BLANK R4040813-2 WG2236191 1x	0229_06	284013.60	154845.30	151557.70
L1708666-15 WG2236191 1x	0229_08	292128.50	154003.10	149478.10
L1708666-14 WG2236191 1x	0229_09	284703.40	154295.40	154878
L1708666-03 WG2236191 1x	0229_10	288212.60	155190	157161.10
L1708666-04 WG2236191 1x	0229_11	293447.40	160989.90	160276.50
L1708666-06 WG2236191 1x	0229_12	262420.30	140102	145901.40
L1708666-08 WG2236191 1x	0229_13	281237	151460.90	150371.10
L1708666-09 WG2236191 1x	0229_14	273079.60	145831.20	149928.90
L1708666-07 WG2236191 20x	0229_26	304616.90	165521	162850.10
MS R4040813-3 WG2236191 1x	0229_28	306584.50	160162.10	170140.60
MSD R4040813-4 WG2236191 1x	0229_29	312846.20	167435.20	172734.30

## Instrument: VOCMS57 • File ID: 0302\_29-2

03/02/24 10:52

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0302_29-2	1158086	496806.60	418592.90
Upper Limit		2316172	993613	837186
Lower Limit		579043	248403	209296
LCS R4041507-1 WG2238339 1x	0302_29LCS	1158086	496806.60	418592.90
LCSD R4041507-2 WG2238339 1x	0302_30	1123950	489254.20	418019.60
BLANK R4041507-3 WG2238339 1x	0302_33	1104226	463161.20	382090.50

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 Sc

# INTERNAL STANDARD SUMMARY

Instrument: VOCMS57 • File ID: 0302\_29-2

03/02/24 10:52

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
L1708666-11 WG2238339 1x	0302_37	1135759	504028	392687.50
L1708666-12 WG2238339 1x	0302_38	1086341	514460.10	378732.80
MS R4041507-4 WG2238339 1x	0302_55	1052690	449964.70	381341.90
MSD R4041507-5 WG2238339 1x	0302_56	1114228	490470.30	393945.90

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Is

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## INTERNAL STANDARD SUMMARY

Instrument: BNAMS26 • File ID: 0228\_03-1

02/28/24 08:48

Sample ID	File ID	1,4-DICHLOROBENZENE-D4 Response	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	0228_03-1	69023	228467	157968	343661	302693	254605
Upper Limit		138046	456934	315936	687322	605386	509210
Lower Limit		34512	114234	78984	171831	151347	127303
BLANK R4040401-1 WG2233255 1x	0228_06	68143	221966	174642	408782	360909	324523
L1708666-11 WG2233255 1.05x	0228_08	84486	285843	209120	471773	399565	342948

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Is

8 Gl

9 Al

10 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.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.



# ACCREDITATIONS & LOCATIONS

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

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

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

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

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





# ARCADIS - BNSF Region 2

1420 5th Avenue, Suite 2400  
Seattle, WA 98101

Accounts Payable  
1420 5th Avenue, Suite 2400  
Seattle, WA 98101

Report to:  
**Kyle Haslam**

Email To:  
kyle.haslam@arcadis.com; emily.zikmund@arca

Project Description:  
BNSF Time Oil Bulk Terminal - Seattle, WA

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: 206-726-4753

Client Project #  
30195976

Lab Project #  
BNSF2ARCA-TIMEOIL

Collected by (print):  
*ELIZABETH SCHNEIDER*

Site/Facility ID #  
BNSF TIME OIL

P.O. #  
30195976

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

Immediately Packed on Ice N  Y

Analysis / Container / Preservative	Pres Chk
8270PCP 100ml Amb NoPres	
CHLORIDE, SULFATE 125mlHDPE-NoPres	
Diss Metals - FE, MN 250mlHDPE-NoPres	
NO2NO3 250mlHDPE-H2SO4	✓
NWTPHDXLVINOSGT 40mlAmb-HCl-BT	
NWTPHGX 40mlAmb HCl	
TOC 250mlAmb-HCl	
Total Metals - FE, MN 250mlHDPE-HNO3	✓
V8260 40mlAmb-HCl	



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>

SAC # *L 1766000*  
**G183**

Acctnum: BNSF2ARCA  
Template: T242285  
Prelogin: P1054696  
PM: 4089 - Andi R Jones  
PB: *2-12-2024*

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs
01MW92-022224	G	GW		2-22-24	1124	13
01MW93-022224	G	GW		2-21-24	1600	14
01MW94-02-02224	G	GW		2-21-24	1357	14
01MW95-022224		GW		2-22-24	1017	15
01MW96-022024	G	GW		2-20-24	1357	18
01MW97-022024	G	GW		2-20-24	1615	18
01MW98-022124	G	GW		2-21-24	0945	16
MW-BN-01-022024	G	GW		2-20-24	1237	18
MW-BN-02-022124	G	GW		2-21-24	0850	16
MW-BN-03-022224	G	GW		2-22-24	0906	13

Remarks	Sample # (lab only)
	01
	02
M5/M5D	03
	04
PCP 17660	05
	06
	07
	08
	09
	10

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

Remarks: V8260: Special list \*Samples may be analyzed for V8260ULL pending results\*  
8270: PCP only

*5 DAY TAT 8260 ONLY*

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

Samples returned via: \_\_\_\_\_ Tracking # *7155 0315 4762*

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

Relinquished by: (Signature) *[Signature]*

Date: 2-22-24 Time: 1530

Received by: (Signature) *[Signature]* Trip Blank Received: Yes/No  HCl/MeOH TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature) Temp: *DPA7C* Bottles Received: *0.1 + 0 = 0.1* *735 253*

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature) *Ei [Signature]* 17 Date: 2-23-24 Time: 900

If preservation required by Login: Date/Time  
PH-10BDH6021 TRC-2362362  
CR6-20221V Condition: VCF / OK

**ARCADIS - BNSF Region 2**

1420 5th Avenue, Suite 2400  
Seattle, WA 98101

Accounts Payable  
1420 5th Avenue, Suite 2400  
Seattle, WA 98101

Report to:  
**Kyle Haslam**

Email To:  
kyle.haslam@arcadis.com; emily.zikmund@arcadis.com

Project Description:  
**BNSF Time Oil Bulk Terminal - Seattle, WA**

City/State  
Collected:

Please Circle:  
PT MT CT ET

Phone: **206-726-4753**

Client Project #  
**30195976**

Lab Project #  
**BNSF2ARCA-TIMEOIL**

Collected by (print):  
**ELIZABETH SCHUELER**

Site/Facility ID #  
**BNSF TIME OIL**

P.O. #  
**30195976**

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

Immediately Packed on Ice N  Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-BN-04-022124	G	GW		2-21-24	1349	18
MW-BN-05-022124	G	GW		2-21-24	1140	11
DUP-1-022124	G	GW		2-21-24		16
EB-022124	G	GW		2-21-24	1330	18
TREP BLANK		GW				8
		GW				
		GW				
		GW				
		GW				
		GW				

Analysis / Container / Preservative	Pres Chk
8270PCP 100ml Amb NoPres	
CHLORIDE,SULFATE 125mlHDPE-NoPres	
Diss Metals - FE,MN 250mlHDPE-NoPres	
NO2NO3 250mlHDPE-H2SO4	
NWTPHDXLVINOSGT 40mlAmb-HCl-BT	
NWTPHGX 40mlAmb HCl	
TOC 250mlAmb-HCl	
Total Metals - FE,MN 250mlHDPE-HNO3	
V8260 40mlAmb-HCl	

Chain of Custody Page 2 of 2



**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 # **L1705660**

Table #

Acctnum: **BNSF2ARCA**  
 Template: **T242285**  
 Prelogin: **P1054696**  
 PM: **4089 - Andi R Jones**  
 PB: **2-12-2024 6m**

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

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

Remarks: **V8260: Special list \*Samples may be analyzed for V8260ULL pending results\***  
**8270: PCP only**

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

Sample Receipt Checklist

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

Samples returned via: UPS FedEx Courier Tracking # **7155 0315 4762**

Relinquished by: (Signature)	Date: <b>2-22-24</b>	Time: <b>1530</b>	Received by: (Signature)	Trip Blank Received: <b>Yes</b> / No	Temp: <b>PPA 7°C</b> / MeOH	Bottles Received: <b>2-23-24</b>
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>0.1+0=0.1</b>	Bottles Received: <b>135 253</b>	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: <b>2-23-24</b>	Time: <b>900</b>	Hold: Condition: <b>NCF / OK</b>

L1708066

<u>Tracking Numbers</u>	<u>Temperature</u>
7155 0315 4762	1.1
7155 0315 4773	3.4
7155 0315 4784	0.1
7165 0315 4795	1.8

EI: Dosssett

Name

2-23-24

Date