Tena Seeds, PE
Senior Engineer, Uplands Unit
Northwest Region Toxics Cleanup Program
Washington State Department of Ecology
PO Box 330316
Shoreline, WA 98133-9716

Arcadis U.S., Inc.
1420 5th Avenue
Suite 2400
Seattle
Washington 98101
Phone: 206 325 5254
Fax: 206 325 8218
www.arcadis.com

Date: January 12, 2023
Subject: Progress Report – Fourth Quarter 2023
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 October 1 and December 31, 2023 (Fourth Quarter 2023 [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 November 1 through November 9 and November 27 through 30. Investigatory work included soil chemical and geotechnical sample collection, groundwater chemical/geochemical sample collection, hydraulic conductivity testing, and monitoring well survey of new and existing wells on the BNSF Property. Soil borings and monitoring wells installed are included on Figure 1.

Deviations from Required Tasks

- None during the Reporting Period.

Deviations from Scope of Work and Schedule

- During the remedial investigation, the following deviations occurred:
    - Groundwater samples were not collected from temporary wells SB-BN-09 and SB-BN-11 due to these wells being dry after installation (Attachment 1).
    - Pentachlorophenol was not analyzed from 01MW96 as the well did not yield sufficient water volume to fill the laboratory bottle set.
    - Disturbed soil geotechnical samples were collected from SB-BN-10 at 33 feet below ground surface (bgs) and from SB-BN-01 at 19 feet bgs, as undisturbed (Shelby tube) samples were unable to be collected due to recovery issues during drilling.

Laboratory and Field Data Received

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

Planned Activities and Deliverables for the Upcoming Reporting Period

- Arcadis will conduct the second quarterly groundwater monitoring starting on February 21, 2024.

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
Direct Line: 206-719-6991
Mobile: 206-726-4753

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

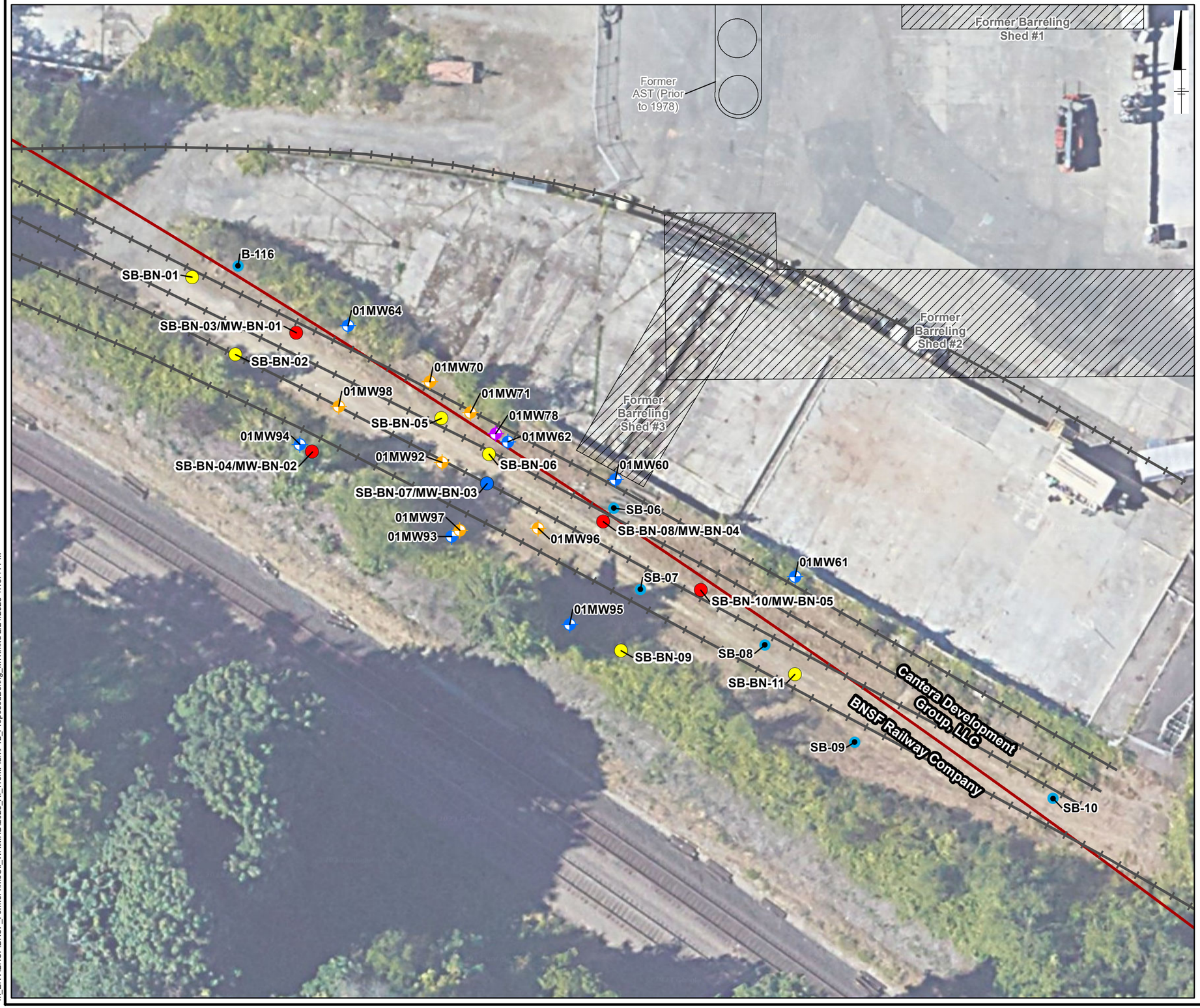
References:

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

Figures: Figure 1 – Soil Boring and Well Installation Locations Map

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

Figures



LEGEND:

- PROPOSED PERCHED MONITORING WELL LOCATION
- PROPOSED SHALLOW MONITORING WELL LOCATION
- PROPOSED SOIL BORING
- PERCHED MONITORING WELL
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- SOIL BORING
- PROPERTY BOUNDARY
- HISTORICAL RAIL SPUR (APPROXIMATE LOCATION)
- HISTORICAL BARRELING SHED (APPROXIMATE LOCATION)

0 30 60 Feet

NOTE:
1. AERIAL IMAGERY OBTAINED FROM GOOGLE EARTH PRO. IMAGERY DATE: 06/20/2021.
2. PROPERTY BOUNDARY SURVEY COMPLETED BY TRUE NORTH LAND SURVEYING, INC. ON JANUARY 08, 2021.

BNSF RAILWAY COMPANY
FORMER TIME OIL BULK TERMINAL
SEATTLE, WASHINGTON

SOIL BORING AND WELL INSTALLATION LOCATIONS MAP

ARCADIS

FIGURE 1

Div/Group: GEC Created By: Akshaya.D Last Saved By: dholmes
T:_ENV\BNSF\BNSF_FormerTimeOil_WA\MXD\2023_R_WorkPlan\F12_ProposedBoring_MW.mxd 2/21/2023 1:15:41 PM

Attachment 1

Groundwater Elevation and LNAPL Measurements

Attachment 1
Groundwater Elevation and LNAPL Measurements
Progress Report - Fourth Quarter 2023
Time Oil Bulk Terminal – BNSF Property
Seattle, Washington

Well Designation	Water Bearing Zone	TOC Elevation (feet NAVD88)	Total Depth (feet btoc)	Remedial Investigation - November 2023					Fourth Quarter Groundwater Sampling - November 2023				
				Date	Depth to Water (feet btoc)	Depth to LNAPL (feet btoc)	Apparent LNAPL Thickness (feet)	Groundwater Elevation (feet NAVD88)	Date	Depth to Water (feet btoc)	Depth to LNAPL (feet btoc)	Apparent LNAPL Thickness (feet)	Groundwater Elevation (feet NAVD88)
SB-BN-03	Shallow	(a)	38.0	11/3/2023	30.50	--	--	(a)	--	--	--	--	--
SB-BN-05	Shallow	(a)	38.5	11/7/2023	28.34	--	--	(a)	--	--	--	--	--
SB-BN-06	Shallow	(a)	38.0	11/2/2023	29.25	--	--	(a)	--	--	--	--	--
SB-BN-08	Shallow	(a)	38.0	11/1/2023	29.00	--	--	(a)	--	--	--	--	--
SB-BN-09	Perched	(a)	20.0	11/3/2023	DRY	--	--	(a) DRY	--	--	--	--	--
SB-BN-10	Shallow	(a)	37.0	11/8/2023	28.50	--	--	(a)	--	--	--	--	--
SB-BN-11	Perched	(a)	15.0	11/1/2023	DRY	--	--	(a) DRY	--	--	--	--	--
01MW92	Perched	58.51	16.5	11/9/2023	10.84	--	--	47.67	11/27/2023	12.79	--	--	45.72
01MW93	Shallow	58.99	38.7	11/9/2023	28.32	--	--	30.67	11/27/2023	28.69	--	--	30.30
01MW94	Shallow	58.57	39.5	11/9/2023	29.92	--	--	28.65	11/27/2023	29.97	--	--	28.60
01MW95	Shallow	59.32	36.3	11/9/2023	28.24	--	--	31.08	11/27/2023	28.27	--	--	31.05
01MW96	Perched	59.59	15.0	11/3/2023	DRY	--	--	DRY	11/27/2023	14.08	--	--	45.51
01MW97	Perched	58.83	14.6	11/3/2023	4.39	--	--	54.44	11/27/2023	4.23	--	--	54.60
01MW98	Perched	57.78	14.4	11/3/2023	9.76	--	--	48.02	11/27/2023	9.48	--	--	48.30
MW-BN-01	Perched	58.01	14.9	11/9/2023	8.60	--	--	49.41	11/27/2023	11.66	--	--	46.35
MW-BN-02	Perched	58.60	14.9	11/9/2023	DRY	--	--	DRY	11/27/2023	10.75	--	--	47.85
MW-BN-03	Shallow	59.45	37.7	11/9/2023	28.50	--	--	30.95	11/27/2023	28.99	--	--	30.46
MW-BN-04	Perched	59.55	14.9	11/9/2023	DRY	--	--	DRY	11/27/2023	DRY	--	--	DRY
MW-BN-05	Perched	59.56	14.9	11/9/2023	DRY	--	--	DRY	11/27/2023	DRY	--	--	DRY

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

Attachment 2

Laboratory Analytical Reports

ANALYTICAL REPORT

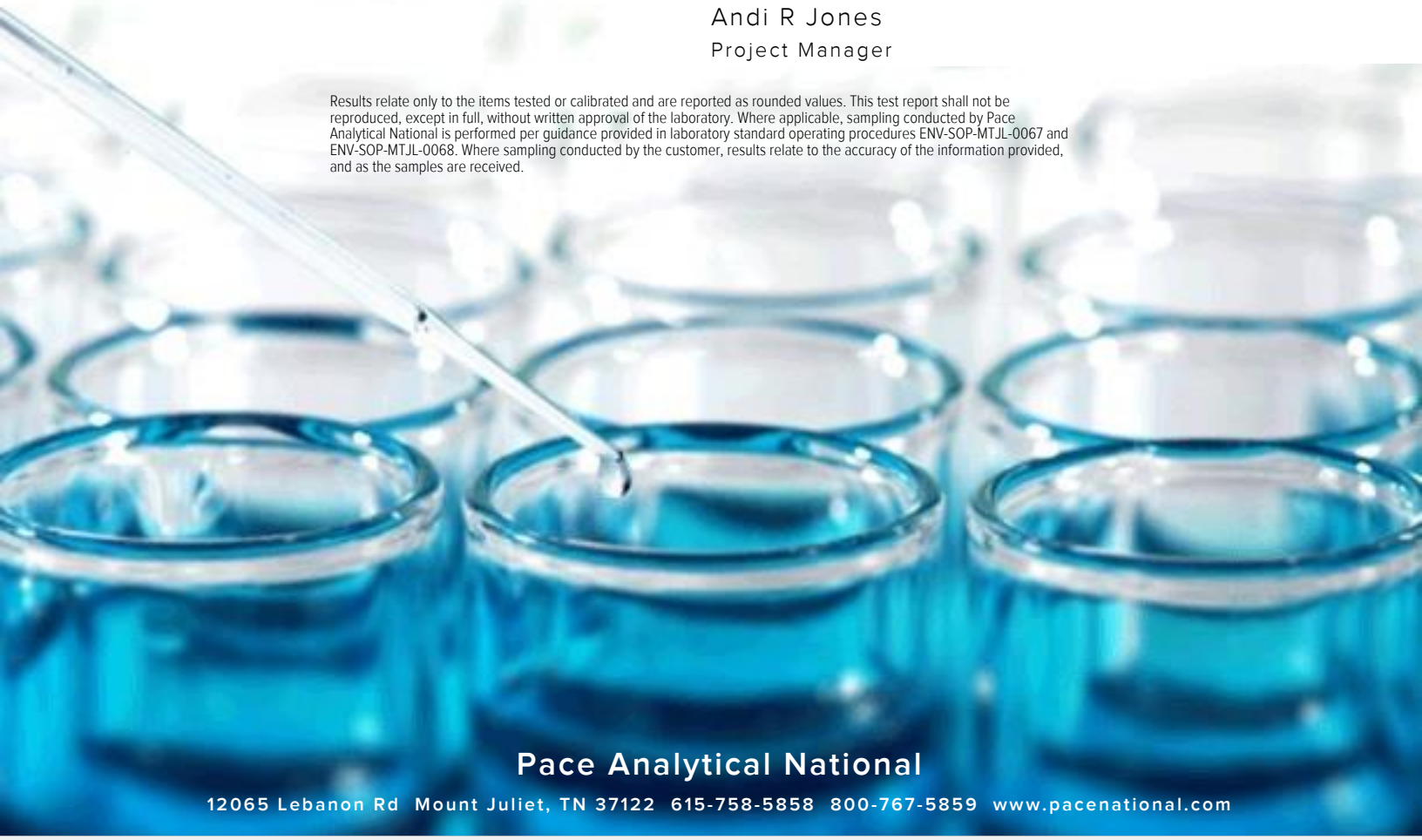
November 15, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1673561
Samples Received:	11/03/2023
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



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

TABLE OF CONTENTS

SB-BN-11-2.5(103023) L1673561-01 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/30/23 10:37 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2164847	25	10/30/23 10:37	11/05/23 12:42	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2165007	1	10/30/23 10:37	11/05/23 18:33	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/07/23 00:30	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165721	1	11/07/23 17:24	11/10/23 02:18	DSH	Mt. Juliet, TN

SB-BN-11-5(103023) L1673561-02 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/30/23 11:24 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2164847	26.8	10/30/23 11:24	11/05/23 13:05	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2165007	1.07	10/30/23 11:24	11/05/23 18:52	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/06/23 23:29	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	1	11/07/23 15:59	11/10/23 22:11	DSH	Mt. Juliet, TN

SB-BN-10-2.5(103023) L1673561-03 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/30/23 11:47 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2164847	28.2	10/30/23 11:47	11/05/23 13:28	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2165007	1.13	10/30/23 11:47	11/05/23 19:11	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	5	11/06/23 15:51	11/07/23 00:55	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	5	11/07/23 15:59	11/10/23 22:32	DSH	Mt. Juliet, TN

SB-BN-08-2.5(103023) L1673561-04 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/30/23 12:35 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2164847	25	10/30/23 12:35	11/05/23 13:51	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2165007	8	10/30/23 12:35	11/06/23 00:35	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	50	11/06/23 15:51	11/07/23 01:08	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	5	11/07/23 15:59	11/10/23 22:54	DSH	Mt. Juliet, TN

SB-BN-07-2.5(103023) L1673561-05 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/30/23 13:24 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2165007	1	10/30/23 13:24	11/05/23 19:30	DWR	Mt. Juliet, TN

SB-BN-06-2.5(103023) L1673561-06 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/30/23 13:30 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2165007	1	10/30/23 13:30	11/05/23 19:49	DWR	Mt. Juliet, TN

SB-BN-05-2.5(103023) L1673561-07 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/30/23 15:07 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2165007	1.01	10/30/23 15:07	11/05/23 20:08	DWR	Mt. Juliet, TN

SB-BN-03-2.5(103123) L1673561-08 Solid

Collected by: Roberto Piemontese | Collected date/time: 10/31/23 11:32 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2164847	25	10/31/23 11:32	11/05/23 14:14	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2166560	1	10/31/23 11:32	11/07/23 21:27	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/07/23 00:43	KAP	Mt. Juliet, TN

SB-BN-11-10(110123) L1673561-09 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 09:20 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2164847	25	11/01/23 09:20	11/05/23 15:03	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2166615	1	11/01/23 09:20	11/08/23 08:00	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/06/23 22:43	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	1	11/07/23 15:59	11/10/23 21:50	DSH	Mt. Juliet, TN

SB-BN-11-15(110123) L1673561-10 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 09:37 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2164847	25	11/01/23 09:37	11/05/23 15:25	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2166615	1	11/01/23 09:37	11/08/23 08:19	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/06/23 22:55	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	1	11/07/23 15:59	11/10/23 21:28	DSH	Mt. Juliet, TN

SB-BN-08-10(110123) L1673561-11 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 11:50 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2165672	29.8	11/01/23 11:50	11/07/23 01:57	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2166615	1.19	11/01/23 11:50	11/08/23 08:38	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/06/23 22:06	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	1	11/07/23 15:59	11/10/23 20:03	DSH	Mt. Juliet, TN

SB-BN-08-20(110123) L1673561-12 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 13:43 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164380	1	11/04/23 16:52	11/04/23 17:02	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2165672	25	11/01/23 13:43	11/07/23 02:20	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2166615	1	11/01/23 13:43	11/08/23 08:57	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/06/23 22:31	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	1	11/07/23 15:59	11/10/23 21:07	DSH	Mt. Juliet, TN

SB-BN-08-35(110123) L1673561-13 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 14:03 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164381	1	11/04/23 16:28	11/04/23 16:51	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2165672	25	11/01/23 14:03	11/07/23 02:43	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2166615	1	11/01/23 14:03	11/08/23 09:16	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165449	1	11/06/23 15:51	11/06/23 22:19	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	1	11/07/23 15:59	11/10/23 20:25	DSH	Mt. Juliet, TN

SB-DUP-01(110123) L1673561-14 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 00:00 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2164381	1	11/04/23 16:28	11/04/23 16:51	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2165672	25	11/01/23 00:00	11/07/23 03:05	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2166615	1	11/01/23 00:00	11/08/23 09:36	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165719	1	11/07/23 23:24	11/08/23 07:26	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165723	1	11/07/23 15:59	11/10/23 20:46	DSH	Mt. Juliet, TN

SB-BN-08-GW(110123) L1673561-15 GW

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 16:35 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169072	1	11/10/23 22:52	11/10/23 22:52	DWR	Mt. Juliet, TN

TRIP BLANKS L1673561-16 GW

Collected by: Roberto Piemontese | Collected date/time: 11/01/23 00:00 | Received date/time: 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2167871	1	11/09/23 13:55	11/09/23 13:55	KSD	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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.8		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	100	J3	1.37	4.03	25	11/05/2023 12:42	WG2164847
(S) a,a,a-Trifluorotoluene(FID)	*94.8*			*77.0-120*		*11/05/2023 12:42*	WG2164847

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000753	0.00161	1	11/05/2023 18:33	WG2165007
1,2-Dichloroethane	U		0.00105	0.00403	1	11/05/2023 18:33	WG2165007
1,1-Dichloroethene	U		0.000978	0.00403	1	11/05/2023 18:33	WG2165007
cis-1,2-Dichloroethene	U		0.00118	0.00403	1	11/05/2023 18:33	WG2165007
trans-1,2-Dichloroethene	U		0.00168	0.00807	1	11/05/2023 18:33	WG2165007
Ethylbenzene	U		0.00119	0.00403	1	11/05/2023 18:33	WG2165007
Tetrachloroethene	U		0.00145	0.00403	1	11/05/2023 18:33	WG2165007
Toluene	U		0.00210	0.00807	1	11/05/2023 18:33	WG2165007
Trichloroethene	U		0.000942	0.00161	1	11/05/2023 18:33	WG2165007
Vinyl chloride	U		0.00187	0.00403	1	11/05/2023 18:33	WG2165007
Xylenes, Total	U		0.00142	0.0105	1	11/05/2023 18:33	WG2165007
(S) Toluene-d8	*100*			*75.0-131*		*11/05/2023 18:33*	WG2165007
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*11/05/2023 18:33*	WG2165007
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/05/2023 18:33*	WG2165007

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	217		1.73	5.20	1	11/07/2023 00:30	WG2165449
Residual Range Organics (RRO)	57.1		4.33	13.0	1	11/07/2023 00:30	WG2165449
(S) o-Terphenyl	*52.7*			*18.0-148*		*11/07/2023 00:30*	WG2165449

Sample Narrative:

L1673561-01 WG2165449: Sample resembles laboratory standard for Diesel.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0117	0.433	1	11/10/2023 02:18	WG2165721
(S) 2-Fluorophenol	*65.6*			*12.0-120*		*11/10/2023 02:18*	WG2165721
(S) Phenol-d5	*62.8*			*10.0-120*		*11/10/2023 02:18*	WG2165721
(S) Nitrobenzene-d5	*135*	J1		*10.0-122*		*11/10/2023 02:18*	WG2165721
(S) 2-Fluorobiphenyl	*63.8*			*15.0-120*		*11/10/2023 02:18*	WG2165721
(S) 2,4,6-Tribromophenol	*100*			*10.0-127*		*11/10/2023 02:18*	WG2165721
(S) p-Terphenyl-d14	*75.5*			*10.0-120*		*11/10/2023 02:18*	WG2165721

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.6		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	20.8	J3	1.33	3.93	26.8	11/05/2023 13:05	WG2164847
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*77.0-120*		*11/05/2023 13:05*	WG2164847

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00679		0.000733	0.00157	1.07	11/05/2023 18:52	WG2165007
1,2-Dichloroethane	U		0.00102	0.00393	1.07	11/05/2023 18:52	WG2165007
1,1-Dichloroethene	U		0.000950	0.00393	1.07	11/05/2023 18:52	WG2165007
cis-1,2-Dichloroethene	U		0.00115	0.00393	1.07	11/05/2023 18:52	WG2165007
trans-1,2-Dichloroethene	U		0.00163	0.00784	1.07	11/05/2023 18:52	WG2165007
Ethylbenzene	0.00674		0.00116	0.00393	1.07	11/05/2023 18:52	WG2165007
Tetrachloroethene	U		0.00141	0.00393	1.07	11/05/2023 18:52	WG2165007
Toluene	0.00349	J	0.00204	0.00784	1.07	11/05/2023 18:52	WG2165007
Trichloroethene	U		0.000916	0.00157	1.07	11/05/2023 18:52	WG2165007
Vinyl chloride	U		0.00182	0.00393	1.07	11/05/2023 18:52	WG2165007
Xylenes, Total	0.00623	J	0.00138	0.0102	1.07	11/05/2023 18:52	WG2165007
(S) Toluene-d8	*107*			*75.0-131*		*11/05/2023 18:52*	WG2165007
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/05/2023 18:52*	WG2165007
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/05/2023 18:52*	WG2165007

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	21.3		1.65	4.96	1	11/06/2023 23:29	WG2165449
Residual Range Organics (RRO)	13.4		4.13	12.4	1	11/06/2023 23:29	WG2165449
(S) o-Terphenyl	*37.9*			*18.0-148*		*11/06/2023 23:29*	WG2165449

Sample Narrative:

L1673561-02 WG2165449: Sample resembles laboratory standard for Fuel Oil #6.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0111	0.413	1	11/10/2023 22:11	WG2165723
(S) 2-Fluorophenol	*58.0*			*12.0-120*		*11/10/2023 22:11*	WG2165723
(S) Phenol-d5	*54.3*			*10.0-120*		*11/10/2023 22:11*	WG2165723
(S) Nitrobenzene-d5	*58.0*			*10.0-122*		*11/10/2023 22:11*	WG2165723
(S) 2-Fluorobiphenyl	*57.0*			*15.0-120*		*11/10/2023 22:11*	WG2165723
(S) 2,4,6-Tribromophenol	*84.7*			*10.0-127*		*11/10/2023 22:11*	WG2165723
(S) p-Terphenyl-d14	*60.5*			*10.0-120*		*11/10/2023 22:11*	WG2165723

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.3		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	74.6	J3	1.37	4.04	28.2	11/05/2023 13:28	WG2164847
(S) a,a,a-Trifluorotoluene(FID)	*94.0*			*77.0-120*		*11/05/2023 13:28*	WG2164847

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00564		0.000757	0.00162	1.13	11/05/2023 19:11	WG2165007
1,2-Dichloroethane	U		0.00105	0.00406	1.13	11/05/2023 19:11	WG2165007
1,1-Dichloroethene	U		0.000982	0.00406	1.13	11/05/2023 19:11	WG2165007
cis-1,2-Dichloroethene	U		0.00119	0.00406	1.13	11/05/2023 19:11	WG2165007
trans-1,2-Dichloroethene	U		0.00169	0.00810	1.13	11/05/2023 19:11	WG2165007
Ethylbenzene	0.00992		0.00119	0.00406	1.13	11/05/2023 19:11	WG2165007
Tetrachloroethene	U		0.00145	0.00406	1.13	11/05/2023 19:11	WG2165007
Toluene	0.0247		0.00211	0.00810	1.13	11/05/2023 19:11	WG2165007
Trichloroethene	U		0.000946	0.00162	1.13	11/05/2023 19:11	WG2165007
Vinyl chloride	U		0.00188	0.00406	1.13	11/05/2023 19:11	WG2165007
Xylenes, Total	0.0548		0.00143	0.0105	1.13	11/05/2023 19:11	WG2165007
(S) Toluene-d8	*104*			*75.0-131*		*11/05/2023 19:11*	WG2165007
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*11/05/2023 19:11*	WG2165007
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/05/2023 19:11*	WG2165007

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	261		8.18	24.6	5	11/07/2023 00:55	WG2165449
Residual Range Organics (RRO)	390		20.4	61.5	5	11/07/2023 00:55	WG2165449
(S) o-Terphenyl	*54.4*			*18.0-148*		*11/07/2023 00:55*	WG2165449

Sample Narrative:

L1673561-03 WG2165449: Sample resembles laboratory standard for Fuel Oil #6.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0551	2.05	5	11/10/2023 22:32	WG2165723
(S) 2-Fluorophenol	*46.7*			*12.0-120*		*11/10/2023 22:32*	WG2165723
(S) Phenol-d5	*44.2*			*10.0-120*		*11/10/2023 22:32*	WG2165723
(S) Nitrobenzene-d5	*40.6*			*10.0-122*		*11/10/2023 22:32*	WG2165723
(S) 2-Fluorobiphenyl	*48.7*			*15.0-120*		*11/10/2023 22:32*	WG2165723
(S) 2,4,6-Tribromophenol	*72.2*			*10.0-127*		*11/10/2023 22:32*	WG2165723
(S) p-Terphenyl-d14	*57.2*			*10.0-120*		*11/10/2023 22:32*	WG2165723

Sample Narrative:

L1673561-03 WG2165723: Dilution due to matrix.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	164	J3	0.998	2.94	25	11/05/2023 13:51	WG2164847
(S) a,a,a-Trifluorotoluene(FID)	*93.8*			*77.0-120*		*11/05/2023 13:51*	WG2164847

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00440	0.00941	8	11/06/2023 00:35	WG2165007
1,2-Dichloroethane	U		0.00611	0.0235	8	11/06/2023 00:35	WG2165007
1,1-Dichloroethene	U		0.00571	0.0235	8	11/06/2023 00:35	WG2165007
cis-1,2-Dichloroethene	U		0.00691	0.0235	8	11/06/2023 00:35	WG2165007
trans-1,2-Dichloroethene	U		0.00979	0.0471	8	11/06/2023 00:35	WG2165007
Ethylbenzene	0.0209	J	0.00694	0.0235	8	11/06/2023 00:35	WG2165007
Tetrachloroethene	U		0.00844	0.0235	8	11/06/2023 00:35	WG2165007
Toluene	U		0.0122	0.0471	8	11/06/2023 00:35	WG2165007
Trichloroethene	U		0.00549	0.00941	8	11/06/2023 00:35	WG2165007
Vinyl chloride	U		0.0109	0.0235	8	11/06/2023 00:35	WG2165007
Xylenes, Total	0.0897		0.00828	0.0612	8	11/06/2023 00:35	WG2165007
(S) Toluene-d8	*105*			*75.0-131*		*11/06/2023 00:35*	WG2165007
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/06/2023 00:35*	WG2165007
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/06/2023 00:35*	WG2165007

Sample Narrative:

L1673561-04 WG2165007: Non-target compounds too high to run at a lower dilution.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	855	J3 V	72.4	218	50	11/07/2023 01:08	WG2165449
Residual Range Organics (RRO)	814		181	544	50	11/07/2023 01:08	WG2165449
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*11/07/2023 01:08*	WG2165449

Sample Narrative:

L1673561-04 WG2165449: Sample resembles laboratory standard for Fuel Oil #6.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0488	1.82	5	11/10/2023 22:54	WG2165723
(S) 2-Fluorophenol	*48.0*			*12.0-120*		*11/10/2023 22:54*	WG2165723
(S) Phenol-d5	*45.3*			*10.0-120*		*11/10/2023 22:54*	WG2165723
(S) Nitrobenzene-d5	*37.4*			*10.0-122*		*11/10/2023 22:54*	WG2165723
(S) 2-Fluorobiphenyl	*49.5*			*15.0-120*		*11/10/2023 22:54*	WG2165723
(S) 2,4,6-Tribromophenol	*72.8*			*10.0-127*		*11/10/2023 22:54*	WG2165723
(S) p-Terphenyl-d14	*54.7*			*10.0-120*		*11/10/2023 22:54*	WG2165723

Sample Narrative:

L1673561-04 WG2165723: Dilution due to matrix.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	11/04/2023 17:02	WG2164380

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00280		0.000515	0.00110	1	11/05/2023 19:30	WG2165007
1,2-Dichloroethane	U		0.000716	0.00276	1	11/05/2023 19:30	WG2165007
1,1-Dichloroethene	U		0.000669	0.00276	1	11/05/2023 19:30	WG2165007
cis-1,2-Dichloroethene	U		0.000810	0.00276	1	11/05/2023 19:30	WG2165007
trans-1,2-Dichloroethene	U		0.00115	0.00552	1	11/05/2023 19:30	WG2165007
Ethylbenzene	0.00140	J	0.000813	0.00276	1	11/05/2023 19:30	WG2165007
Tetrachloroethene	U		0.000989	0.00276	1	11/05/2023 19:30	WG2165007
Toluene	0.00388	J	0.00143	0.00552	1	11/05/2023 19:30	WG2165007
Trichloroethene	0.00645		0.000644	0.00110	1	11/05/2023 19:30	WG2165007
Vinyl chloride	U		0.00128	0.00276	1	11/05/2023 19:30	WG2165007
Xylenes, Total	0.00972		0.000971	0.00717	1	11/05/2023 19:30	WG2165007
(S) Toluene-d8	*108*			*75.0-131*		*11/05/2023 19:30*	WG2165007
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*11/05/2023 19:30*	WG2165007
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/05/2023 19:30*	WG2165007

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000649	0.00250	1	11/05/2023 19:49	WG2165007
1,1-Dichloroethene	U		0.000606	0.00250	1	11/05/2023 19:49	WG2165007
cis-1,2-Dichloroethene	0.00369		0.000734	0.00250	1	11/05/2023 19:49	WG2165007
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	11/05/2023 19:49	WG2165007
Tetrachloroethene	U		0.000896	0.00250	1	11/05/2023 19:49	WG2165007
Trichloroethene	0.0669		0.000584	0.00100	1	11/05/2023 19:49	WG2165007
Vinyl chloride	U		0.00116	0.00250	1	11/05/2023 19:49	WG2165007
(S) Toluene-d8	*107*			*75.0-131*		*11/05/2023 19:49*	WG2165007
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*11/05/2023 19:49*	WG2165007
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/05/2023 19:49*	WG2165007

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000655	0.00253	1.01	11/05/2023 20:08	WG2165007
1,1-Dichloroethene	U		0.000612	0.00253	1.01	11/05/2023 20:08	WG2165007
cis-1,2-Dichloroethene	0.00631		0.000741	0.00253	1.01	11/05/2023 20:08	WG2165007
trans-1,2-Dichloroethene	U		0.00105	0.00505	1.01	11/05/2023 20:08	WG2165007
Tetrachloroethene	U		0.000905	0.00253	1.01	11/05/2023 20:08	WG2165007
Trichloroethene	0.0215		0.000590	0.00101	1.01	11/05/2023 20:08	WG2165007
Vinyl chloride	U		0.00117	0.00253	1.01	11/05/2023 20:08	WG2165007
(S) Toluene-d8	*106*			*75.0-131*		*11/05/2023 20:08*	WG2165007
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/05/2023 20:08*	WG2165007
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*11/05/2023 20:08*	WG2165007

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	10.3	B J3	1.06	3.12	25	11/05/2023 14:14	WG2164847
(S) a,a,a-Trifluorotoluene(FID)	*96.0*			*77.0-120*		*11/05/2023 14:14*	WG2164847

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000809	0.00312	1	11/07/2023 21:27	WG2166560
1,1-Dichloroethene	U		0.000756	0.00312	1	11/07/2023 21:27	WG2166560
cis-1,2-Dichloroethene	0.00363		0.000915	0.00312	1	11/07/2023 21:27	WG2166560
trans-1,2-Dichloroethene	U		0.00130	0.00623	1	11/07/2023 21:27	WG2166560
Tetrachloroethene	U		0.00112	0.00312	1	11/07/2023 21:27	WG2166560
Trichloroethene	0.0394		0.000728	0.00125	1	11/07/2023 21:27	WG2166560
Vinyl chloride	U		0.00145	0.00312	1	11/07/2023 21:27	WG2166560
(S) Toluene-d8	*107*			*75.0-131*		*11/07/2023 21:27*	WG2166560
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*11/07/2023 21:27*	WG2166560
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*11/07/2023 21:27*	WG2166560

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	101		1.48	4.45	1	11/07/2023 00:43	WG2165449
Residual Range Organics (RRO)	149		3.70	11.1	1	11/07/2023 00:43	WG2165449
(S) o-Terphenyl	*60.2*			*18.0-148*		*11/07/2023 00:43*	WG2165449

Sample Narrative:

L1673561-08 WG2165449: Sample resembles laboratory standard for Motor Oil.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.9		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	3.56	B J J3	1.25	3.69	25	11/05/2023 15:03	WG2164847
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*77.0-120*		*11/05/2023 15:03*	WG2164847

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000866	J	0.000689	0.00148	1	11/08/2023 08:00	WG2166615
1,2-Dichloroethane	U		0.000958	0.00369	1	11/08/2023 08:00	WG2166615
1,1-Dichloroethene	U		0.000894	0.00369	1	11/08/2023 08:00	WG2166615
cis-1,2-Dichloroethene	U		0.00108	0.00369	1	11/08/2023 08:00	WG2166615
trans-1,2-Dichloroethene	U		0.00154	0.00738	1	11/08/2023 08:00	WG2166615
Ethylbenzene	0.0190		0.00109	0.00369	1	11/08/2023 08:00	WG2166615
Tetrachloroethene	U		0.00132	0.00369	1	11/08/2023 08:00	WG2166615
Toluene	0.00196	J	0.00192	0.00738	1	11/08/2023 08:00	WG2166615
Trichloroethene	U		0.000862	0.00148	1	11/08/2023 08:00	WG2166615
Vinyl chloride	U		0.00171	0.00369	1	11/08/2023 08:00	WG2166615
Xylenes, Total	0.0156		0.00130	0.00959	1	11/08/2023 08:00	WG2166615
(S) Toluene-d8	*98.2*			*75.0-131*		*11/08/2023 08:00*	WG2166615
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*		*11/08/2023 08:00*	WG2166615
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*11/08/2023 08:00*	WG2166615

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.83	J	1.62	4.88	1	11/06/2023 22:43	WG2165449
Residual Range Organics (RRO)	U		4.07	12.2	1	11/06/2023 22:43	WG2165449
(S) o-Terphenyl	*40.8*			*18.0-148*		*11/06/2023 22:43*	WG2165449

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0109	0.407	1	11/10/2023 21:50	WG2165723
(S) 2-Fluorophenol	*53.9*			*12.0-120*		*11/10/2023 21:50*	WG2165723
(S) Phenol-d5	*50.2*			*10.0-120*		*11/10/2023 21:50*	WG2165723
(S) Nitrobenzene-d5	*50.0*			*10.0-122*		*11/10/2023 21:50*	WG2165723
(S) 2-Fluorobiphenyl	*49.1*			*15.0-120*		*11/10/2023 21:50*	WG2165723
(S) 2,4,6-Tribromophenol	*68.1*			*10.0-127*		*11/10/2023 21:50*	WG2165723
(S) p-Terphenyl-d14	*48.8*			*10.0-120*		*11/10/2023 21:50*	WG2165723

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.8		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.41	B J J3	1.32	3.90	25	11/05/2023 15:25	WG2164847
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*77.0-120*		*11/05/2023 15:25*	WG2164847

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000729	0.00156	1	11/08/2023 08:19	WG2166615
1,2-Dichloroethane	U		0.00101	0.00390	1	11/08/2023 08:19	WG2166615
1,1-Dichloroethene	U		0.000946	0.00390	1	11/08/2023 08:19	WG2166615
cis-1,2-Dichloroethene	U		0.00115	0.00390	1	11/08/2023 08:19	WG2166615
trans-1,2-Dichloroethene	U		0.00162	0.00781	1	11/08/2023 08:19	WG2166615
Ethylbenzene	U		0.00115	0.00390	1	11/08/2023 08:19	WG2166615
Tetrachloroethene	U		0.00140	0.00390	1	11/08/2023 08:19	WG2166615
Toluene	U		0.00203	0.00781	1	11/08/2023 08:19	WG2166615
Trichloroethene	U		0.000912	0.00156	1	11/08/2023 08:19	WG2166615
Vinyl chloride	U		0.00181	0.00390	1	11/08/2023 08:19	WG2166615
Xylenes, Total	U		0.00137	0.0102	1	11/08/2023 08:19	WG2166615
(S) Toluene-d8	*97.3*			*75.0-131*		*11/08/2023 08:19*	WG2166615
(S) 4-Bromofluorobenzene	*90.5*			*67.0-138*		*11/08/2023 08:19*	WG2166615
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*11/08/2023 08:19*	WG2166615

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.72	J	1.65	4.95	1	11/06/2023 22:55	WG2165449
Residual Range Organics (RRO)	U		4.12	12.4	1	11/06/2023 22:55	WG2165449
(S) o-Terphenyl	*45.9*			*18.0-148*		*11/06/2023 22:55*	WG2165449

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0111	0.412	1	11/10/2023 21:28	WG2165723
(S) 2-Fluorophenol	*52.7*			*12.0-120*		*11/10/2023 21:28*	WG2165723
(S) Phenol-d5	*48.7*			*10.0-120*		*11/10/2023 21:28*	WG2165723
(S) Nitrobenzene-d5	*46.4*			*10.0-122*		*11/10/2023 21:28*	WG2165723
(S) 2-Fluorobiphenyl	*48.0*			*15.0-120*		*11/10/2023 21:28*	WG2165723
(S) 2,4,6-Tribromophenol	*68.7*			*10.0-127*		*11/10/2023 21:28*	WG2165723
(S) p-Terphenyl-d14	*51.1*			*10.0-120*		*11/10/2023 21:28*	WG2165723

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	2.50	B J	1.36	4.00	29.8	11/07/2023 01:57	WG2165672
(S) a,a,a-Trifluorotoluene(FID)	*96.3*			*77.0-120*		*11/07/2023 01:57*	WG2165672

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000747	0.00160	1.19	11/08/2023 08:38	WG2166615
1,2-Dichloroethane	U		0.00104	0.00399	1.19	11/08/2023 08:38	WG2166615
1,1-Dichloroethene	U		0.000969	0.00399	1.19	11/08/2023 08:38	WG2166615
cis-1,2-Dichloroethene	U		0.00117	0.00399	1.19	11/08/2023 08:38	WG2166615
trans-1,2-Dichloroethene	U		0.00167	0.00799	1.19	11/08/2023 08:38	WG2166615
Ethylbenzene	U		0.00118	0.00399	1.19	11/08/2023 08:38	WG2166615
Tetrachloroethene	U		0.00144	0.00399	1.19	11/08/2023 08:38	WG2166615
Toluene	0.00348	J	0.00208	0.00799	1.19	11/08/2023 08:38	WG2166615
Trichloroethene	U		0.000934	0.00160	1.19	11/08/2023 08:38	WG2166615
Vinyl chloride	U		0.00185	0.00399	1.19	11/08/2023 08:38	WG2166615
Xylenes, Total	0.00348	J	0.00141	0.0104	1.19	11/08/2023 08:38	WG2166615
(S) Toluene-d8	*98.3*			*75.0-131*		*11/08/2023 08:38*	WG2166615
(S) 4-Bromofluorobenzene	*92.3*			*67.0-138*		*11/08/2023 08:38*	WG2166615
(S) 1,2-Dichloroethane-d4	*94.1*			*70.0-130*		*11/08/2023 08:38*	WG2166615

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.58	4.75	1	11/06/2023 22:06	WG2165449
Residual Range Organics (RRO)	U		3.95	11.9	1	11/06/2023 22:06	WG2165449
(S) o-Terphenyl	*42.3*			*18.0-148*		*11/06/2023 22:06*	WG2165449

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0106	0.395	1	11/10/2023 20:03	WG2165723
(S) 2-Fluorophenol	*56.3*			*12.0-120*		*11/10/2023 20:03*	WG2165723
(S) Phenol-d5	*51.1*			*10.0-120*		*11/10/2023 20:03*	WG2165723
(S) Nitrobenzene-d5	*52.7*			*10.0-122*		*11/10/2023 20:03*	WG2165723
(S) 2-Fluorobiphenyl	*53.3*			*15.0-120*		*11/10/2023 20:03*	WG2165723
(S) 2,4,6-Tribromophenol	*78.2*			*10.0-127*		*11/10/2023 20:03*	WG2165723
(S) p-Terphenyl-d14	*59.9*			*10.0-120*		*11/10/2023 20:03*	WG2165723

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.6		1	11/04/2023 17:02	WG2164380

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	3.04	B J	1.32	3.88	25	11/07/2023 02:20	WG2165672
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*77.0-120*		*11/07/2023 02:20*	WG2165672

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00547		0.000725	0.00155	1	11/08/2023 08:57	WG2166615
1,2-Dichloroethane	U		0.00101	0.00388	1	11/08/2023 08:57	WG2166615
1,1-Dichloroethene	0.00102	J	0.000941	0.00388	1	11/08/2023 08:57	WG2166615
cis-1,2-Dichloroethene	0.00317	J	0.00114	0.00388	1	11/08/2023 08:57	WG2166615
trans-1,2-Dichloroethene	U		0.00162	0.00777	1	11/08/2023 08:57	WG2166615
Ethylbenzene	U		0.00114	0.00388	1	11/08/2023 08:57	WG2166615
Tetrachloroethene	U		0.00139	0.00388	1	11/08/2023 08:57	WG2166615
Toluene	0.00238	J	0.00202	0.00777	1	11/08/2023 08:57	WG2166615
Trichloroethene	0.189		0.000907	0.00155	1	11/08/2023 08:57	WG2166615
Vinyl chloride	U		0.00180	0.00388	1	11/08/2023 08:57	WG2166615
Xylenes, Total	U		0.00137	0.0101	1	11/08/2023 08:57	WG2166615
(S) Toluene-d8	*101*			*75.0-131*		*11/08/2023 08:57*	WG2166615
(S) 4-Bromofluorobenzene	*92.6*			*67.0-138*		*11/08/2023 08:57*	WG2166615
(S) 1,2-Dichloroethane-d4	*91.1*			*70.0-130*		*11/08/2023 08:57*	WG2166615

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.93	J	1.69	5.09	1	11/06/2023 22:31	WG2165449
Residual Range Organics (RRO)	U		4.24	12.7	1	11/06/2023 22:31	WG2165449
(S) o-Terphenyl	*61.0*			*18.0-148*		*11/06/2023 22:31*	WG2165449

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0114	0.424	1	11/10/2023 21:07	WG2165723
(S) 2-Fluorophenol	*55.3*			*12.0-120*		*11/10/2023 21:07*	WG2165723
(S) Phenol-d5	*51.4*			*10.0-120*		*11/10/2023 21:07*	WG2165723
(S) Nitrobenzene-d5	*52.9*			*10.0-122*		*11/10/2023 21:07*	WG2165723
(S) 2-Fluorobiphenyl	*53.5*			*15.0-120*		*11/10/2023 21:07*	WG2165723
(S) 2,4,6-Tribromophenol	*74.9*			*10.0-127*		*11/10/2023 21:07*	WG2165723
(S) p-Terphenyl-d14	*56.8*			*10.0-120*		*11/10/2023 21:07*	WG2165723

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.2		1	11/04/2023 16:51	WG2164381

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.33	B J	1.13	3.34	25	11/07/2023 02:43	WG2165672
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*77.0-120*		*11/07/2023 02:43*	WG2165672

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000624	0.00134	1	11/08/2023 09:16	WG2166615
1,2-Dichloroethane	U		0.000867	0.00334	1	11/08/2023 09:16	WG2166615
1,1-Dichloroethene	U		0.000810	0.00334	1	11/08/2023 09:16	WG2166615
cis-1,2-Dichloroethene	U		0.000981	0.00334	1	11/08/2023 09:16	WG2166615
trans-1,2-Dichloroethene	U		0.00139	0.00668	1	11/08/2023 09:16	WG2166615
Ethylbenzene	U		0.000985	0.00334	1	11/08/2023 09:16	WG2166615
Tetrachloroethene	U		0.00120	0.00334	1	11/08/2023 09:16	WG2166615
Toluene	U		0.00174	0.00668	1	11/08/2023 09:16	WG2166615
Trichloroethene	U		0.000781	0.00134	1	11/08/2023 09:16	WG2166615
Vinyl chloride	U		0.00155	0.00334	1	11/08/2023 09:16	WG2166615
Xylenes, Total	U		0.00118	0.00869	1	11/08/2023 09:16	WG2166615
(S) Toluene-d8	*102*			*75.0-131*		*11/08/2023 09:16*	WG2166615
(S) 4-Bromofluorobenzene	*90.4*			*67.0-138*		*11/08/2023 09:16*	WG2166615
(S) 1,2-Dichloroethane-d4	*93.8*			*70.0-130*		*11/08/2023 09:16*	WG2166615

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.54	4.64	1	11/06/2023 22:19	WG2165449
Residual Range Organics (RRO)	U		3.86	11.6	1	11/06/2023 22:19	WG2165449
(S) o-Terphenyl	*41.6*			*18.0-148*		*11/06/2023 22:19*	WG2165449

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0104	0.386	1	11/10/2023 20:25	WG2165723
(S) 2-Fluorophenol	*53.1*			*12.0-120*		*11/10/2023 20:25*	WG2165723
(S) Phenol-d5	*48.5*			*10.0-120*		*11/10/2023 20:25*	WG2165723
(S) Nitrobenzene-d5	*50.0*			*10.0-122*		*11/10/2023 20:25*	WG2165723
(S) 2-Fluorobiphenyl	*47.9*			*15.0-120*		*11/10/2023 20:25*	WG2165723
(S) 2,4,6-Tribromophenol	*71.8*			*10.0-127*		*11/10/2023 20:25*	WG2165723
(S) p-Terphenyl-d14	*54.9*			*10.0-120*		*11/10/2023 20:25*	WG2165723

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.7		1	11/04/2023 16:51	WG2164381

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.58	B J	1.14	3.35	25	11/07/2023 03:05	WG2165672
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*77.0-120*		*11/07/2023 03:05*	WG2165672

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000626	0.00134	1	11/08/2023 09:36	WG2166615
1,2-Dichloroethane	U		0.000870	0.00335	1	11/08/2023 09:36	WG2166615
1,1-Dichloroethene	U		0.000813	0.00335	1	11/08/2023 09:36	WG2166615
cis-1,2-Dichloroethene	U		0.000984	0.00335	1	11/08/2023 09:36	WG2166615
trans-1,2-Dichloroethene	U		0.00139	0.00671	1	11/08/2023 09:36	WG2166615
Ethylbenzene	U		0.000989	0.00335	1	11/08/2023 09:36	WG2166615
Tetrachloroethene	U		0.00120	0.00335	1	11/08/2023 09:36	WG2166615
Toluene	U		0.00174	0.00671	1	11/08/2023 09:36	WG2166615
Trichloroethene	U		0.000783	0.00134	1	11/08/2023 09:36	WG2166615
Vinyl chloride	U		0.00156	0.00335	1	11/08/2023 09:36	WG2166615
Xylenes, Total	0.00156	J	0.00118	0.00872	1	11/08/2023 09:36	WG2166615
(S) Toluene-d8	*99.1*			*75.0-131*		*11/08/2023 09:36*	WG2166615
(S) 4-Bromofluorobenzene	*93.8*			*67.0-138*		*11/08/2023 09:36*	WG2166615
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*11/08/2023 09:36*	WG2166615

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.55	4.67	1	11/08/2023 07:26	WG2165719
Residual Range Organics (RRO)	U		3.88	11.7	1	11/08/2023 07:26	WG2165719
(S) o-Terphenyl	*48.3*			*18.0-148*		*11/08/2023 07:26*	WG2165719

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0105	0.388	1	11/10/2023 20:46	WG2165723
(S) 2-Fluorophenol	*54.1*			*12.0-120*		*11/10/2023 20:46*	WG2165723
(S) Phenol-d5	*49.2*			*10.0-120*		*11/10/2023 20:46*	WG2165723
(S) Nitrobenzene-d5	*51.1*			*10.0-122*		*11/10/2023 20:46*	WG2165723
(S) 2-Fluorobiphenyl	*52.6*			*15.0-120*		*11/10/2023 20:46*	WG2165723
(S) 2,4,6-Tribromophenol	*75.1*			*10.0-127*		*11/10/2023 20:46*	WG2165723
(S) p-Terphenyl-d14	*57.8*			*10.0-120*		*11/10/2023 20:46*	WG2165723

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	11/10/2023 22:52	WG2169072
1,1-Dichloroethene	U		0.0200	0.100	1	11/10/2023 22:52	WG2169072
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/10/2023 22:52	WG2169072
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/10/2023 22:52	WG2169072
Tetrachloroethene	U		0.0280	0.100	1	11/10/2023 22:52	WG2169072
Trichloroethene	0.0870		0.0160	0.0400	1	11/10/2023 22:52	WG2169072
Vinyl chloride	U		0.0273	0.100	1	11/10/2023 22:52	WG2169072
(S) Toluene-d8	*93.1*			*75.0-131*		*11/10/2023 22:52*	WG2169072
(S) 4-Bromofluorobenzene	*95.1*			*67.0-138*		*11/10/2023 22:52*	WG2169072
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*11/10/2023 22:52*	WG2169072

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/09/2023 13:55	WG2167871
1,2-Dichloroethane	U		0.0190	0.100	1	11/09/2023 13:55	WG2167871
1,1-Dichloroethene	U		0.0200	0.100	1	11/09/2023 13:55	WG2167871
cis-1,2-Dichloroethene	2.11		0.0276	0.100	1	11/09/2023 13:55	WG2167871
trans-1,2-Dichloroethene	0.0980	J	0.0572	0.200	1	11/09/2023 13:55	WG2167871
Ethylbenzene	U		0.0212	0.100	1	11/09/2023 13:55	WG2167871
Tetrachloroethene	U		0.0280	0.100	1	11/09/2023 13:55	WG2167871
Toluene	0.0520	J	0.0500	0.200	1	11/09/2023 13:55	WG2167871
Trichloroethene	U		0.0160	0.0400	1	11/09/2023 13:55	WG2167871
Vinyl chloride	1.97		0.0273	0.100	1	11/09/2023 13:55	WG2167871
Xylenes, Total	U		0.191	0.260	1	11/09/2023 13:55	WG2167871
(S) Toluene-d8	*98.3*			*75.0-131*		*11/09/2023 13:55*	WG2167871
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*11/09/2023 13:55*	WG2167871
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*11/09/2023 13:55*	WG2167871

Method Blank (MB)

(MB) R3995903-1 11/04/23 17:02

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1673561-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1673561-11 11/04/23 17:02 • (DUP) R3995903-3 11/04/23 17:02

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.3	86.1	1	2.09		10

Laboratory Control Sample (LCS)

(LCS) R3995903-2 11/04/23 17:02

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

Method Blank (MB)

(MB) R3995902-1 11/04/23 16:51

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

L1673565-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1673565-04 11/04/23 16:51 • (DUP) R3995902-3 11/04/23 16:51

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.3	83.3	1	1.15		10

Laboratory Control Sample (LCS)

(LCS) R3995902-2 11/04/23 16:51

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

Method Blank (MB)

(MB) R3996973-3 11/05/23 12:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.09	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*77.0-120*

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

(LCS) R3996973-1 11/05/23 10:23 • (LCSD) R3996973-2 11/05/23 10:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.23	6.58	95.1	120	71.0-124		J3	22.9	20
(S) a,a,a-Trifluorotoluene(FID)				*100*	*105*	*77.0-120*				

Method Blank (MB)

(MB) R3996488-3 11/06/23 23:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.06	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*77.0-120*

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

(LCS) R3996488-1 11/06/23 21:23 • (LCSD) R3996488-2 11/06/23 22:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.34	5.24	97.1	95.3	71.0-124			1.89	20
(S) a,a,a-Trifluorotoluene(FID)				*97.4*	*97.2*	*77.0-120*				

L1673561-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673561-11 11/07/23 01:57 • (MS) R3996488-4 11/07/23 11:59 • (MSD) R3996488-5 11/07/23 12:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	220	2.50	254	239	114	107	29.8	50.0-150			5.99	27
(S) a,a,a-Trifluorotoluene(FID)					*101*	*99.4*		*77.0-120*				

Method Blank (MB)

(MB) R3997510-3 11/05/23 17:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Ethylbenzene	U		0.000737	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*108*			*75.0-131*
(S) 4-Bromofluorobenzene	*101*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

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

(LCS) R3997510-1 11/05/23 16:12 • (LCSD) R3997510-2 11/05/23 16:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.118	0.114	94.4	91.2	70.0-123			3.45	20
1,2-Dichloroethane	0.125	0.111	0.115	88.8	92.0	65.0-131			3.54	20
1,1-Dichloroethene	0.125	0.137	0.128	110	102	65.0-131			6.79	20
cis-1,2-Dichloroethene	0.125	0.114	0.109	91.2	87.2	73.0-125			4.48	20
trans-1,2-Dichloroethene	0.125	0.114	0.107	91.2	85.6	71.0-125			6.33	20
Ethylbenzene	0.125	0.127	0.126	102	101	74.0-126			0.791	20
Tetrachloroethene	0.125	0.132	0.129	106	103	70.0-136			2.30	20
Toluene	0.125	0.124	0.124	99.2	99.2	75.0-121			0.000	20
Trichloroethene	0.125	0.117	0.113	93.6	90.4	76.0-126			3.48	20
Vinyl chloride	0.125	0.106	0.0972	84.8	77.8	63.0-134			8.66	20
Xylenes, Total	0.375	0.388	0.388	103	103	72.0-127			0.000	20
(S) Toluene-d8				*105*	*106*	*75.0-131*				
(S) 4-Bromofluorobenzene				*102*	*101*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*107*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R3996868-3 11/07/23 17:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Tetrachloroethene	U		0.000896	0.00250
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*94.9*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

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

(LCS) R3996868-1 11/07/23 16:01 • (LCSD) R3996868-2 11/07/23 16:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.125	0.122	0.146	97.6	117	65.0-131			17.9	20
1,1-Dichloroethene	0.125	0.144	0.145	115	116	65.0-131			0.692	20
cis-1,2-Dichloroethene	0.125	0.140	0.132	112	106	73.0-125			5.88	20
trans-1,2-Dichloroethene	0.125	0.130	0.140	104	112	71.0-125			7.41	20
Tetrachloroethene	0.125	0.149	0.136	119	109	70.0-136			9.12	20
Trichloroethene	0.125	0.129	0.140	103	112	76.0-126			8.18	20
Vinyl chloride	0.125	0.111	0.104	88.8	83.2	63.0-134			6.51	20
(S) Toluene-d8				*101*	*96.6*	*75.0-131*				
(S) 4-Bromofluorobenzene				*103*	*96.8*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*101*	*103*	*70.0-130*				

Method Blank (MB)

(MB) R3998144-3 11/08/23 07:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Ethylbenzene	U		0.000737	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*101*			*75.0-131*
(S) 4-Bromofluorobenzene	*87.7*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*89.8*			*70.0-130*

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

(LCS) R3998144-1 11/08/23 06:06 • (LCSD) R3998144-2 11/08/23 06:25

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.131	0.138	105	110	70.0-123			5.20	20
1,2-Dichloroethane	0.125	0.138	0.144	110	115	65.0-131			4.26	20
1,1-Dichloroethene	0.125	0.122	0.136	97.6	109	65.0-131			10.9	20
cis-1,2-Dichloroethene	0.125	0.126	0.140	101	112	73.0-125			10.5	20
trans-1,2-Dichloroethene	0.125	0.133	0.143	106	114	71.0-125			7.25	20
Ethylbenzene	0.125	0.121	0.124	96.8	99.2	74.0-126			2.45	20
Tetrachloroethene	0.125	0.125	0.124	100	99.2	70.0-136			0.803	20
Toluene	0.125	0.124	0.123	99.2	98.4	75.0-121			0.810	20
Trichloroethene	0.125	0.149	0.157	119	126	76.0-126			5.23	20
Vinyl chloride	0.125	0.111	0.120	88.8	96.0	63.0-134			7.79	20
Xylenes, Total	0.375	0.330	0.358	88.0	95.5	72.0-127			8.14	20
(S) Toluene-d8				*93.8*	*93.9*	*75.0-131*				
(S) 4-Bromofluorobenzene				*93.7*	*94.3*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*106*	*114*	*70.0-130*				

Method Blank (MB)

(MB) R3998169-2 11/09/23 09:48

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	*100*			*75.0-131*
(S) 4-Bromofluorobenzene	*101*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*93.7*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3998169-1 11/09/23 08:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	5.83	117	70.0-123	
1,2-Dichloroethane	5.00	5.14	103	65.0-131	
1,1-Dichloroethene	5.00	6.29	126	65.0-131	
cis-1,2-Dichloroethene	5.00	5.65	113	73.0-125	
trans-1,2-Dichloroethene	5.00	5.73	115	71.0-125	
Ethylbenzene	5.00	5.78	116	74.0-126	
Tetrachloroethene	5.00	5.85	117	70.0-136	
Toluene	5.00	5.76	115	75.0-121	
Trichloroethene	5.00	5.68	114	76.0-126	
Vinyl chloride	5.00	5.74	115	63.0-134	
Xylenes, Total	15.0	16.8	112	72.0-127	
(S) Toluene-d8			*103*	*75.0-131*	
(S) 4-Bromofluorobenzene			*108*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*99.1*	*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) R3998908-3 11/10/23 20:54

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
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
Tetrachloroethene	U		0.0280	0.100
Trichloroethene	U		0.0160	0.0400
Vinyl chloride	U		0.0273	0.100
(S) Toluene-d8	*94.1*			*75.0-131*
(S) 4-Bromofluorobenzene	*96.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*

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

(LCS) R3998908-1 11/10/23 18:32 • (LCSD) R3998908-2 11/10/23 18:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	5.00	5.47	5.74	109	115	65.0-131			4.82	20
1,1-Dichloroethene	5.00	5.27	5.32	105	106	65.0-131			0.944	20
cis-1,2-Dichloroethene	5.00	5.32	5.33	106	107	73.0-125			0.188	20
trans-1,2-Dichloroethene	5.00	5.38	5.62	108	112	71.0-125			4.36	20
Tetrachloroethene	5.00	4.89	4.95	97.8	99.0	70.0-136			1.22	20
Trichloroethene	5.00	5.59	5.68	112	114	76.0-126			1.60	20
Vinyl chloride	5.00	4.47	4.46	89.4	89.2	63.0-134			0.224	20
(S) Toluene-d8				*94.8*	*95.3*	*75.0-131*				
(S) 4-Bromofluorobenzene				*90.0*	*92.6*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*103*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R3996254-1 11/06/23 21:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*65.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3996254-2 11/06/23 21:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	38.5	77.0	50.0-150	
(S) o-Terphenyl			*67.0*	*18.0-148*	

L1673561-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673561-04 11/07/23 01:08 • (MS) R3996254-3 11/07/23 01:20 • (MSD) R3996254-4 11/07/23 01:32

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	49.5	855	551	690	0.000	0.000	50	50.0-150	V	J3 V	22.5	20
(S) o-Terphenyl					*0.000*	*0.000*		*18.0-148*	J7	J7		

Sample Narrative:

OS: Sample resembles laboratory standard for Fuel Oil #6.

Method Blank (MB)

(MB) R3996971-1 11/08/23 06:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*69.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3996971-2 11/08/23 07:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	37.7	75.4	50.0-150	
(S) o-Terphenyl			*66.8*	*18.0-148*	

L1673559-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673559-04 11/08/23 11:22 • (MS) R3996971-3 11/08/23 11:35 • (MSD) R3996971-4 11/08/23 11:48

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	49.2	21.0	57.3	57.1	73.8	72.2	1	50.0-150			0.350	20
(S) o-Terphenyl					*53.4*	*54.8*		*18.0-148*				

Method Blank (MB)

(MB) R3999521-2 11/09/23 20:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pentachlorophenol	U		0.00896	0.333
(S) 2-Fluorophenol	*61.0*			*12.0-120*
(S) Phenol-d5	*56.8*			*10.0-120*
(S) Nitrobenzene-d5	*62.8*			*10.0-122*
(S) 2-Fluorobiphenyl	*59.5*			*15.0-120*
(S) 2,4,6-Tribromophenol	*75.5*			*10.0-127*
(S) p-Terphenyl-d14	*73.9*			*10.0-120*

Laboratory Control Sample (LCS)

(LCS) R3999521-1 11/09/23 19:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pentachlorophenol	0.666	0.412	61.9	29.0-120	
(S) 2-Fluorophenol			*67.1*	*12.0-120*	
(S) Phenol-d5			*64.3*	*10.0-120*	
(S) Nitrobenzene-d5			*59.2*	*10.0-122*	
(S) 2-Fluorobiphenyl			*66.4*	*15.0-120*	
(S) 2,4,6-Tribromophenol			*90.1*	*10.0-127*	
(S) p-Terphenyl-d14			*70.6*	*10.0-120*	

L1673541-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673541-14 11/10/23 00:35 • (MS) R3999521-3 11/10/23 00:56 • (MSD) R3999521-4 11/10/23 01:16

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	0.666	U	0.447	0.513	67.1	77.0	1	50.0-150			13.8	31
(S) 2-Fluorophenol					*61.7*	*64.0*		*12.0-120*				
(S) Phenol-d5					*59.3*	*61.3*		*10.0-120*				
(S) Nitrobenzene-d5					*55.0*	*58.0*		*10.0-122*				
(S) 2-Fluorobiphenyl					*59.8*	*65.5*		*15.0-120*				
(S) 2,4,6-Tribromophenol					*88.6*	*95.6*		*10.0-127*				
(S) p-Terphenyl-d14					*64.6*	*70.0*		*10.0-120*				

Method Blank (MB)

(MB) R3999153-2 11/10/23 15:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pentachlorophenol	U		0.00896	0.333
(S) 2-Fluorophenol	*60.7*			*12.0-120*
(S) Phenol-d5	*56.0*			*10.0-120*
(S) Nitrobenzene-d5	*56.8*			*10.0-122*
(S) 2-Fluorobiphenyl	*61.6*			*15.0-120*
(S) 2,4,6-Tribromophenol	*73.1*			*10.0-127*
(S) p-Terphenyl-d14	*69.1*			*10.0-120*

Laboratory Control Sample (LCS)

(LCS) R3999153-1 11/10/23 15:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pentachlorophenol	0.666	0.466	70.0	29.0-120	
(S) 2-Fluorophenol			*61.3*	*12.0-120*	
(S) Phenol-d5			*57.1*	*10.0-120*	
(S) Nitrobenzene-d5			*49.2*	*10.0-122*	
(S) 2-Fluorobiphenyl			*59.2*	*15.0-120*	
(S) 2,4,6-Tribromophenol			*85.6*	*10.0-127*	
(S) p-Terphenyl-d14			*65.2*	*10.0-120*	

L1673541-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673541-20 11/13/23 19:21 • (MS) R3999752-1 11/13/23 19:42 • (MSD) R3999752-2 11/13/23 20:03

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	0.666	U	0.347	0.366	52.1	55.0	1	50.0-150			5.33	31
(S) 2-Fluorophenol					*47.3*	*53.6*		*12.0-120*				
(S) Phenol-d5					*44.0*	*50.0*		*10.0-120*				
(S) Nitrobenzene-d5					*39.3*	*44.1*		*10.0-122*				
(S) 2-Fluorobiphenyl					*45.3*	*50.5*		*15.0-120*				
(S) 2,4,6-Tribromophenol					*67.7*	*78.8*		*10.0-127*				
(S) p-Terphenyl-d14					*49.8*	*56.8*		*10.0-120*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS42 • File ID: 1107_02-1

11/07/23 16:01

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1107_02-1	449848.60	199256.90	193670.90
Upper Limit		899697	398514	387342
Lower Limit		224924	99628	96835
LCS R3996868-1 WG2166560 1x	1107_02LCS	449848.60	199256.90	193670.90
LCSD R3996868-2 WG2166560 1x	1107_03	446335.20	205181.90	192796
BLANK R3996868-3 WG2166560 1x	1107_07	534185.10	235003.70	213176
L1673561-08 WG2166560 1x	1107_18	633583.70	270480.20	253356

Instrument: VOCMS42 • File ID: 1109_30-1

11/09/23 17:22

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1109_30-1	737539.70	314787.10	289269
Upper Limit		1475079	629574	578538
Lower Limit		368770	157394	144635
LCS R3998214-1 WG2167813 1x	1109_30LCS	737539.70	314787.10	289269
LCSD R3998214-2 WG2167813 1x	1109_31	709289.80	311194.30	308507.70
BLANK R3998214-3 WG2167813 1x	1109_37	905876.30	392966.80	368519.30

Instrument: VOCMS53 • File ID: 1108_02

11/08/23 06:06

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1108_02	494752	222403.90	184779.50
Upper Limit		989504	444808	369559
Lower Limit		247376	111202	92390
LCS R3998144-1 WG2166615 1x	1108_02LCS	494752	222403.90	184779.50
LCSD R3998144-2 WG2166615 1x	1108_03	464448	209328.70	182956.10
BLANK R3998144-3 WG2166615 1x	1108_07	544422.60	231173.60	169209.80
L1673561-09 WG2166615 1x	1108_08	522721.90	217479.80	186295.70
L1673561-10 WG2166615 1x	1108_09	511167.30	221246.90	166814.50
L1673561-11 WG2166615 1.19x	1108_10	500445.50	206608.80	165938.40

INTERNAL STANDARD SUMMARY

Instrument: VOCMS53 • File ID: 1108_02

11/08/23 06:06

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
L1673561-12 WG2166615 1x	1108_11	504279.90	212783.50	151644
L1673561-13 WG2166615 1x	1108_12	508185.70	211802.30	155621.10
L1673561-14 WG2166615 1x	1108_13	529532.10	214550.70	170075.50

Instrument: VOCMS58 • File ID: 1105_18-3

11/05/23 16:12

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1105_18-3	1438677	622652.90	522186.50
Upper Limit		2877354	1245306	1044373
Lower Limit		719339	311326	261093
LCS R3997510-1 WG2165007 1x	1105_18LCS	1438677	622652.90	522186.50
LCSD R3997510-2 WG2165007 1x	1105_19	1389249	593035.50	480352.60
BLANK R3997510-3 WG2165007 1x	1105_23	1352018	564735.50	470566.50
L1673561-01 WG2165007 1x	1105_24	1674283	760366.40	595356.50
L1673561-02 WG2165007 1.07x	1105_25	1489619	620121.60	499095.20
L1673561-03 WG2165007 1.13x	1105_26	1402821	604992.40	480235
L1673561-05 WG2165007 1x	1105_27	1453601	608048.30	483694.70
L1673561-06 WG2165007 1x	1105_28	1510147	635257.80	493307.60
L1673561-07 WG2165007 1.01x	1105_29	1419345	609073.80	465670.40
L1673561-04 WG2165007 8x	1105_43	1436233	622822.80	506510.90

INTERNAL STANDARD SUMMARY

Instrument: VOCGC4 • File ID: 1105_03

11/05/23 09:46

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1105_03	2416118	1272086
Upper Limit		4832236	2544172
Lower Limit		1208059	636043
LCS R3996973-1 WG2164847 1x	1105_04	2629989	1387906
LCSD R3996973-2 WG2164847 1x	1105_05	2868704	1540436
BLANK R3996973-3 WG2164847 25x	1105_08	2782695	1516240
L1673561-01 WG2164847 25x	1105_09	2256800	1208433
L1673561-02 WG2164847 26.8x	1105_10	2495542	1353814
L1673561-03 WG2164847 28.2x	1105_11	1603315	850991
L1673561-04 WG2164847 25x	1105_12	2354801	1196236
L1673561-08 WG2164847 25x	1105_13	2323308	1246747
L1673561-09 WG2164847 25x	1105_14	2473878	1348281
L1673561-10 WG2164847 25x	1105_15	2690407	1453183

Instrument: VOCGC4 • File ID: 1106_30

11/06/23 21:00

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1106_30	3031645	1609531
Upper Limit		6063290	3219062
Lower Limit		1515823	804766
LCS R3996488-1 WG2165672 1x	1106_31C	2797614	1482148
LCSD R3996488-2 WG2165672 1x	1106_33C	2637191	1424210
BLANK R3996488-3 WG2165672 25x	1106_36	2520373	1446841
L1673561-11 WG2165672 29.8x	1106_40	2828239	1611153
L1673561-12 WG2165672 25x	1106_41	2657007	1488800
L1673561-13 WG2165672 25x	1106_42	2372812	1364315
L1673561-14 WG2165672 25x	1106_43	2515998	1429673

INTERNAL STANDARD SUMMARY

Instrument: VOCGC4 • File ID: 1106_57

11/07/23 09:22

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1106_57	2496692	1350907
Upper Limit		4993384	2701814
Lower Limit		1248346	675454
MS R3996488-4 WG2165672 29.8x	1106_63	2591428	1388760
MSD R3996488-5 WG2165672 29.8x	1106_64	2799250	1491254

INTERNAL STANDARD SUMMARY

Instrument: VOCMS42 • File ID: 1107_02-1

11/07/23 16:01

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	1107_02-1	449848.60	199256.90	193670.90
Upper Limit		899697	398514	387342
Lower Limit		224924	99628	96835
LCS R3996868-1 WG2166560 1x	1107_02LCS	449848.60	199256.90	193670.90
LCSD R3996868-2 WG2166560 1x	1107_03	446335.20	205181.90	192796
BLANK R3996868-3 WG2166560 1x	1107_07	534185.10	235003.70	213176
L1673561-08 WG2166560 1x	1107_18	633583.70	270480.20	253356

Instrument: VOCMS42 • File ID: 1109_30-1

11/09/23 17:22

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	1109_30-1	737539.70	314787.10	289269
Upper Limit		1475079	629574	578538
Lower Limit		368770	157394	144635
LCS R3998214-1 WG2167813 1x	1109_30LCS	737539.70	314787.10	289269
LCSD R3998214-2 WG2167813 1x	1109_31	709289.80	311194.30	308507.70
BLANK R3998214-3 WG2167813 1x	1109_37	905876.30	392966.80	368519.30

Instrument: VOCMS53 • File ID: 1108_02

11/08/23 06:06

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	1108_02	494752	222403.90	184779.50
Upper Limit		989504	444808	369559
Lower Limit		247376	111202	92390
LCS R3998144-1 WG2166615 1x	1108_02LCS	494752	222403.90	184779.50
LCSD R3998144-2 WG2166615 1x	1108_03	464448	209328.70	182956.10
BLANK R3998144-3 WG2166615 1x	1108_07	544422.60	231173.60	169209.80
L1673561-09 WG2166615 1x	1108_08	522721.90	217479.80	186295.70
L1673561-10 WG2166615 1x	1108_09	511167.30	221246.90	166814.50
L1673561-11 WG2166615 1.19x	1108_10	500445.50	206608.80	165938.40

INTERNAL STANDARD SUMMARY

Instrument: VOCMS53 • File ID: 1108_02

11/08/23 06:06

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
L1673561-12 WG2166615 1x	1108_11	504279.90	212783.50	151644
L1673561-13 WG2166615 1x	1108_12	508185.70	211802.30	155621.10
L1673561-14 WG2166615 1x	1108_13	529532.10	214550.70	170075.50

Instrument: VOCMS58 • File ID: 1105_18-3

11/05/23 16:12

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1105_18-3	1438677	622652.90	522186.50
Upper Limit		2877354	1245306	1044373
Lower Limit		719339	311326	261093
LCS R3997510-1 WG2165007 1x	1105_18LCS	1438677	622652.90	522186.50
LCSD R3997510-2 WG2165007 1x	1105_19	1389249	593035.50	480352.60
BLANK R3997510-3 WG2165007 1x	1105_23	1352018	564735.50	470566.50
L1673561-01 WG2165007 1x	1105_24	1674283	760366.40	595356.50
L1673561-02 WG2165007 1.07x	1105_25	1489619	620121.60	499095.20
L1673561-03 WG2165007 1.13x	1105_26	1402821	604992.40	480235
L1673561-05 WG2165007 1x	1105_27	1453601	608048.30	483694.70
L1673561-06 WG2165007 1x	1105_28	1510147	635257.80	493307.60
L1673561-07 WG2165007 1.01x	1105_29	1419345	609073.80	465670.40
L1673561-04 WG2165007 8x	1105_43	1436233	622822.80	506510.90

INTERNAL STANDARD SUMMARY

Instrument: VOCMS32 • File ID: 1106_02-1

11/06/23 03:58

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1106_02-1	187258	86324	79013
Upper Limit		374516	172648	158026
Lower Limit		93629	43162	39507
LCS R3996997-1 WG2165262 1x	1106_02LCS	187258	86324	79013
LCSD R3996997-2 WG2165262 1x	1106_03	187483	90160	87320
BLANK R3996997-3 WG2165262 1x	1106_05	168534	78623	68833

Instrument: VOCMS36 • File ID: 1108_27-1

11/08/23 11:22

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1108_27-1	289722	140449	114510
Upper Limit		579444	280898	229020
Lower Limit		144861	70225	57255
LCS R3997535-1 WG2167021 1x	1108_27LCS	289722	140449	114510
LCSD R3997535-2 WG2167021 1x	1108_28	289750	139404	115745
BLANK R3997535-3 WG2167021 1x	1108_32A	280494	131358	103062

Instrument: VOCMS40 • File ID: 1109_03

11/09/23 08:53

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1109_03	459669.80	184150.30	145907.60
Upper Limit		919340	368301	291815
Lower Limit		229835	92075	72954
LCS R3998169-1 WG2167871 1x	1109_03LCS	459669.80	184150.30	145907.60
BLANK R3998169-2 WG2167871 1x	1109_06	420557.80	166679.80	113768.80
L1673561-16 WG2167871 1x	1109_16	369963.50	149109	103509.70

INTERNAL STANDARD SUMMARY

Instrument: VOCMS53 • File ID: 1110_29-1

11/10/23 18:32

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1110_29-1	452201.60	201375.90	155130.60
Upper Limit		904403	402752	310261
Lower Limit		226101	100688	77565
LCS R3998908-1 WG2169072 1x	1110_29LCS	452201.60	201375.90	155130.60
LCSD R3998908-2 WG2169072 1x	1110_30	441095.10	190601.20	158766.10
BLANK R3998908-3 WG2169072 1x	1110_35	438999.80	187479.20	167651.40
L1673561-15 WG2169072 1x	1110_40	396292.20	170514.80	139485.70

Instrument: VOCMS57 • File ID: 1113_28-2

11/13/23 16:42

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1113_28-2	371720.20	195677.10	217475.90
Upper Limit		743440	391354	434952
Lower Limit		185860	97839	108738
LCS R3999342-1 WG2170135 1x	1113_28LCS	371720.20	195677.10	217475.90
LCSD R3999342-2 WG2170135 1x	1113_29	390422.90	211541.20	239862.20
BLANK R3999342-3 WG2170135 1x	1113_34	386686.10	202919.80	236294.40

INTERNAL STANDARD SUMMARY

Instrument: BNAMS4 • File ID: 1109B_02

11/09/23 19:07

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1109B_02	56174	208511	118924	254123	258564	271032
Upper Limit		112348	417022	237848	508246	517128	542064
Lower Limit		28087	104256	59462	127062	129282	135516
LCS R3999521-1 WG2165721 1x	1109B_04	50052	229788	113099	230501	242067	256063
BLANK R3999521-2 WG2165721 1x	1109B_05	49841	189460	109717	226009	225907	249404
MS R3999521-3 WG2165721 1x	1109B_19	49341	224701	112154	233800	248194	263204
MSD R3999521-4 WG2165721 1x	1109B_20	51348	228313	111707	236359	248218	269362
L1673561-01 WG2165721 1x	1109B_23	51859	198375	117214	224058	230148	249561

Instrument: BNAMS24 • File ID: 1110_03

11/10/23 12:54

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1110_03	35687	141274	75248	136954	118275	111200
Upper Limit		71374	282548	150496	273908	236550	222400
Lower Limit		17844	70637	37624	68477	59138	55600
LCS R3999153-1 WG2165723 1x	1110_09	32306	148124	67357	118508	105913	99381
BLANK R3999153-2 WG2165723 1x	1110_10	31383	121849	65227	115361	97131	90711
L1673561-11 WG2165723 1x	1110_23	28854	113473	59986	111342	94432	93568
L1673561-13 WG2165723 1x	1110_24	29778	117689	63682	114407	97322	95433
L1673561-14 WG2165723 1x	1110_25	31342	121097	64780	116610	97552	95549
L1673561-12 WG2165723 1x	1110_26	32573	129159	67596	123272	104562	101470
L1673561-10 WG2165723 1x	1110_27	29686	119188	65237	117466	99170	100474
L1673561-09 WG2165723 1x	1110_28	30323	120787	65252	116537	98708	98161
L1673561-02 WG2165723 1x	1110_29	32064	126083	66764	118493	103490	102519
L1673561-03 WG2165723 5x	1110_30	32729	128686	68096	121203	103240	108072
L1673561-04 WG2165723 5x	1110_31	31374	120524	66076	116184	100331	101496

INTERNAL STANDARD SUMMARY

Instrument: BNAMS24 • File ID: 1113_03

11/13/23 12:28

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1113_03	30872	123285	65880	120028	102485	94859
Upper Limit		61744	246570	131760	240056	204970	189718
Lower Limit		15436	61643	32940	60014	51243	47430
MS R3999752-1 WG2165723 1x	1113_21	24982	114865	54992	99601	85936	83571
MSD R3999752-2 WG2165723 1x	1113_22	22998	105189	50511	90306	78641	78164

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
ARCADIS - BNSF Region 2
1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

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: SEATTLE, WA

Please Circle: (PT) MT CT ET

Phone: **206-726-4753**

Client Project # **30195976**

Lab Project # **BNSF2ARCA-TIMEOIL**

Collected by (print): ROBERTO PIEMONTESE

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # 167356I
I168

Acctnum: **BNSF2ARCA**
Template: **T240415**
Prelogin: **P1032344**
PM: **4089 - Andi R Jones**
PB: 10-25-23 GM
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270 8ozClr-NoPres	TOCWB, PERMEABILITY 4ozClr-NoPres	V8260 40mlAmb/MeOH10ml/Syr						Remarks	Sample # (lab only)
SB-BN-11-2.5(103023)	G	SS	2.5	10/30/23	10:37	3	X	X	X		X							-01
SB-BN-11-5 (103023)	G	SS	5.0	10/30/23	11:24	3	X	X	X		X							-02
SB-BN-10-2.5(103023)	G	SS	2.5	10/30/23	11:47	4	X	X	X	X	X							-03
SB-BN-08-2.5(103023)	G	SS	2.5	10/30/23	12:35	2 ~~3~~	X	X	X		X			FOC	ON	HOLD	FOR SB-BN-10-2.5 (103023)	-04
SB-BN-07-2.5(103023)	G	SS	2.5	10/30/23	13:24	2			X		X						PCP (8270) ON HOLD SB-BN-07-2.5 (103023)	-05
SB-BN-06-2.5(103023)	G	SS	2.5	10/30/23	13:30	1					X							-06
SB-BN-05-2.5(103023)	G	SS	2.5	10/30/23	15:07	1					X							-07
SB-BN-03-2.5(103023)	G	SS	2.5	10/30/23	11:32	3	X	X			X							-08
SB-BN-11-10 (110123)	G	SS	10	11/01/23	0920	3	X	X	X		X							-09
SB-BN-11-15 (110123)	G	SS	15	11/01/23	0937	3	X	X	X		X							-10

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

Remarks:V8260: Special List
V8270: PCP only

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6645 4313 0173

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	11-02-23	0930		2 (1)	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
				DPA8 3.9 3.9	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11-3-23 Time: 9:00	Hold: Condition: NCF / OK

Company Name/Address:
ARCADIS - BNSF Region 2
1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

Chain of Custody Page 2 of 2

Pace® PEOPLE ADVANCING SCIENCE

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

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: SEATTLE, WA

Please Circle: (PT) MT CT ET

Phone: 206-726-4753

Client Project # 30195976

Lab Project # BNSF2ARCA-TIMEOIL

Collected by (print): ELIZABETH SZITELLER

Site/Facility ID # BNSF TIME OIL

P.O. #

Collected by (signature): [signature]

Immediately Packed on Ice N___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ✓ 5 Day (Rad Only) → WATER ONLY
___ Two Day ___ 10 Day (Rad Only) → SOIL -> STD TAT
___ Three Day

Quote #

Date Results Needed

SDG # 1673561

Table #

Acctnum: BNSF2ARCA
Template: T240415
Prelogin: P1032344
PM: 4089 - Andi R Jones
PB: 10-25-23 Gm
Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270 8ozClr-NoPres	TOCWB, PERMEABILITY 4ozClr-NoPres	V8260 40mlAmb/MeOH10ml/Syr	V8260 40 ml Amb - HCl			Remarks	Sample # (lab only)
SB-BN-08-10 (110123)	G	SS	10	11-01-23	1150	3	X	X	X		X					-11
SB-BN-08-20 (110123)	G	SS	20	11-01-23	1343	3	X	X	X		X					-12
SB-BN-08-35 (110123)	G	SS	35	11-01-23	1403	3	X	X	X		X					-13
SB-DUP-01 (110123)	G	SS	—	11-01-23	—	3	X	X	X		X					-14
SB-BN-08-GW (110123)	G	GW ~~SS~~	—	11/01/23	16:35	3						X	RUN HL, THEN IF ND RUN LL			-15
TRIP BLANKS	—	SS	~	—	—	3		~~X~~				X				-16
		SS														
		SS														
		SS														
		SS														

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

Remarks: V8260: Special List
V8270: PCP only

pH _______ Temp _______
Flow _______ Other _______

Samples returned via:
__ UPS __ FedEx __ Courier __________

Tracking # 6643 4313 0173

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / (MeoH) TBR 2	
[signature]	11-02-23	0930			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C DPA8 3.9+0=3.9 Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 11-3-23 Time: 9:00	Hold: Condition: NCF / (OK)

ANALYTICAL REPORT

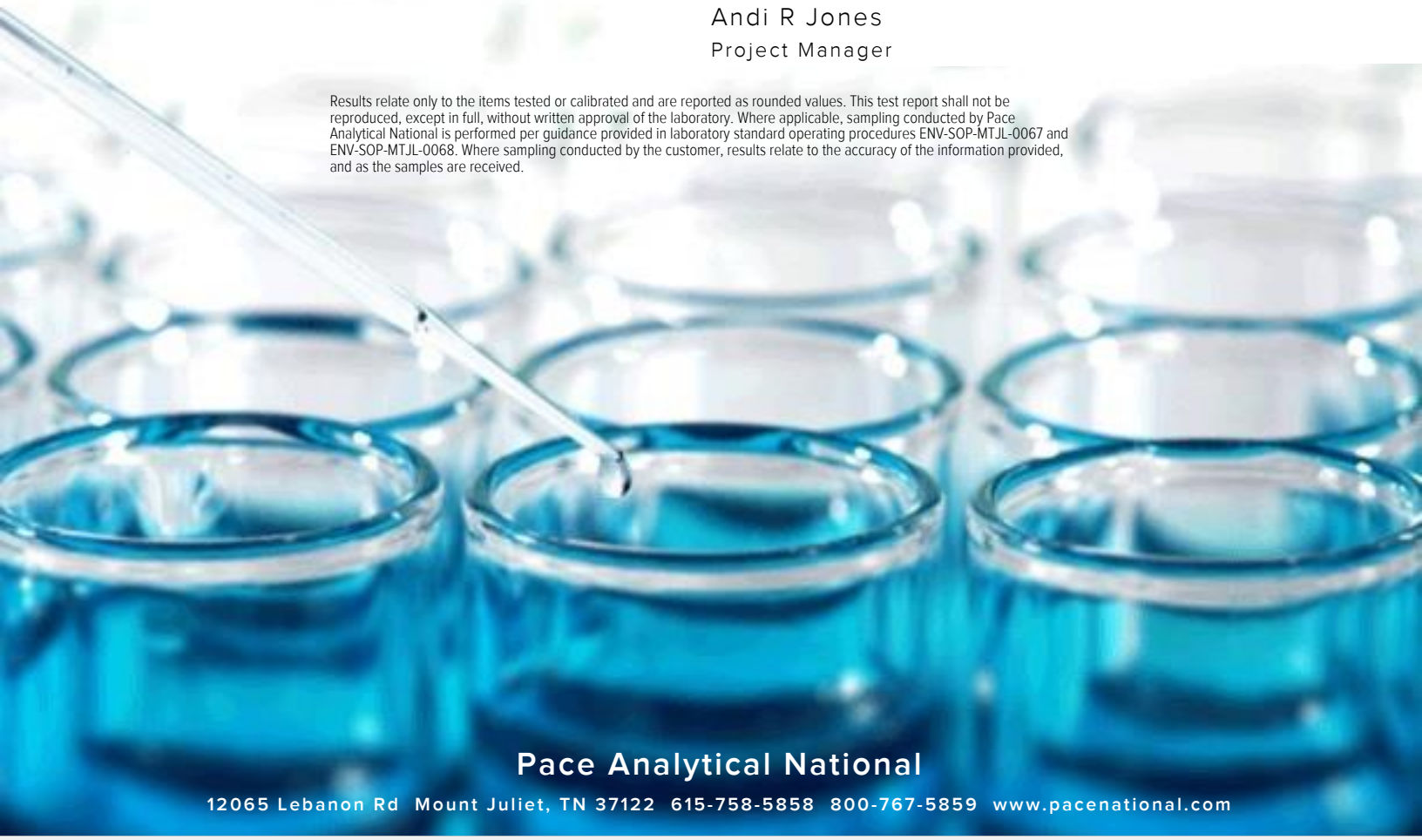
November 17, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1674030
Samples Received:	11/04/2023
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



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

TABLE OF CONTENTS

SB-BN-01-2.5(110223) L1674030-01 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 09:59 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166682	1	11/08/23 07:38	11/08/23 07:44	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2169779	200	11/02/23 09:59	11/13/23 18:20	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1	11/02/23 09:59	11/10/23 23:28	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	20	11/08/23 15:56	11/09/23 01:45	KAP	Mt. Juliet, TN

SB-BN-01-5(110223) L1674030-02 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 10:10 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166682	1	11/08/23 07:38	11/08/23 07:44	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/02/23 10:10	11/09/23 13:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1	11/02/23 10:10	11/10/23 23:47	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	5	11/08/23 15:56	11/09/23 01:32	KAP	Mt. Juliet, TN

SB-BN-02-5(110223) L1674030-03 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 10:28 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166682	1	11/08/23 07:38	11/08/23 07:44	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2170732	25	11/02/23 10:28	11/14/23 12:27	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169703	1	11/02/23 10:28	11/13/23 00:59	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	1	11/08/23 15:56	11/08/23 22:55	KAP	Mt. Juliet, TN

SB-BN-04-2.5(110223) L1674030-04 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 11:20 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166683	1	11/08/23 07:53	11/08/23 07:58	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/02/23 11:20	11/09/23 14:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169703	1	11/02/23 11:20	11/13/23 01:18	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	1	11/08/23 15:56	11/09/23 00:13	KAP	Mt. Juliet, TN

SB-BN-04-5(110223) L1674030-05 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 11:15 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166683	1	11/08/23 07:53	11/08/23 07:58	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/02/23 11:15	11/09/23 17:35	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1	11/02/23 11:15	11/11/23 00:44	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	1	11/08/23 15:56	11/08/23 23:21	KAP	Mt. Juliet, TN

SB-BN-06-10(110223) L1674030-06 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 11:29 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169703	1	11/02/23 11:29	11/13/23 01:56	JAH	Mt. Juliet, TN

SB-BN-06-20(110223) L1674030-07 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 13:40 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1	11/02/23 13:40	11/11/23 01:03	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169703	40	11/02/23 13:40	11/13/23 03:30	JAH	Mt. Juliet, TN

SB-BN-06-35(110223) L1674030-08 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 13:50 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1	11/02/23 13:50	11/11/23 01:22	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169703	1	11/02/23 13:50	11/13/23 02:14	JAH	Mt. Juliet, TN

SB-BN-09-2.5(110223) L1674030-09 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 12:36 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166683	1	11/08/23 07:53	11/08/23 07:58	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	28.2	11/02/23 12:36	11/09/23 18:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1.2	11/02/23 12:36	11/11/23 01:41	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169703	1.2	11/02/23 12:36	11/13/23 02:33	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	1	11/08/23 15:56	11/08/23 23:34	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2166608	1	11/08/23 07:25	11/08/23 20:19	DSH	Mt. Juliet, TN

SB-BN-09-5(110223) L1674030-10 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 13:07 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166683	1	11/08/23 07:53	11/08/23 07:58	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/02/23 13:07	11/09/23 18:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1	11/02/23 13:07	11/11/23 02:00	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169703	1	11/02/23 13:07	11/13/23 02:52	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	1	11/08/23 15:56	11/08/23 22:42	KAP	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2166608	1	11/08/23 07:25	11/08/23 18:56	DSH	Mt. Juliet, TN

SB-BN-03-10(110223) L1674030-11 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 16:16 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166683	1	11/08/23 07:53	11/08/23 07:58	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/02/23 16:16	11/09/23 18:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169188	1	11/02/23 16:16	11/11/23 02:19	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2166749	1	11/08/23 15:56	11/08/23 23:08	KAP	Mt. Juliet, TN

SB-BN-06-GW(110223) L1674030-12 GW

Collected by: Elizabeth Scheller | Collected date/time: 11/02/23 16:45 | Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2168179	1	11/09/23 18:01	11/09/23 18:01	JCP	Mt. Juliet, TN

EB-01(110223) L1674030-13 GW

Collected by: Elizabeth Scheller
Collected date/time: 11/02/23 18:20
Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167987	1	11/09/23 13:06	11/09/23 13:06	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169072	1	11/10/23 21:55	11/10/23 21:55	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2165841	1	11/10/23 06:57	11/15/23 11:50	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2165074	1.11	11/07/23 16:36	11/08/23 13:44	JNJ	Mt. Juliet, TN

TB-02(110223) L1674030-14 GW

Collected by: Elizabeth Scheller
Collected date/time: 11/02/23 00:00
Received date/time: 11/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169072	1	11/10/23 22:14	11/10/23 22:14	DWR	Mt. Juliet, TN

CASE NARRATIVE

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

Andi R Jones
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.6		1	11/08/2023 07:44	WG2166682

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	866		9.19	27.1	200	11/13/2023 18:20	WG2169779
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*77.0-120*		*11/13/2023 18:20*	WG2169779

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000879	0.00339	1	11/10/2023 23:28	WG2169188
1,1-Dichloroethene	U		0.000821	0.00339	1	11/10/2023 23:28	WG2169188
cis-1,2-Dichloroethene	U		0.000994	0.00339	1	11/10/2023 23:28	WG2169188
trans-1,2-Dichloroethene	U		0.00141	0.00677	1	11/10/2023 23:28	WG2169188
Tetrachloroethene	U		0.00121	0.00339	1	11/10/2023 23:28	WG2169188
Trichloroethene	U		0.000791	0.00135	1	11/10/2023 23:28	WG2169188
Vinyl chloride	U		0.00157	0.00339	1	11/10/2023 23:28	WG2169188
(S) Toluene-d8	*96.1*			*75.0-131*		*11/10/2023 23:28*	WG2169188
(S) 4-Bromofluorobenzene	*198*	J1		*67.0-138*		*11/10/2023 23:28*	WG2169188
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*11/10/2023 23:28*	WG2169188

Sample Narrative:

L1674030-01 WG2169188: Surrogate failure due to matrix interference.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	4940		30.7	92.4	20	11/09/2023 01:45	WG2166749
Residual Range Organics (RRO)	2880		76.9	231	20	11/09/2023 01:45	WG2166749
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*11/09/2023 01:45*	WG2166749

Sample Narrative:

L1674030-01 WG2166749: Sample resembles laboratory standard for Diesel and Motor Oil.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.4		1	11/08/2023 07:44	WG2166682

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	239		1.23	3.62	25	11/09/2023 13:13	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*77.0-120*		*11/09/2023 13:13*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000939	0.00362	1	11/10/2023 23:47	WG2169188
1,1-Dichloroethene	U		0.000877	0.00362	1	11/10/2023 23:47	WG2169188
cis-1,2-Dichloroethene	U		0.00106	0.00362	1	11/10/2023 23:47	WG2169188
trans-1,2-Dichloroethene	U		0.00150	0.00723	1	11/10/2023 23:47	WG2169188
Tetrachloroethene	U		0.00130	0.00362	1	11/10/2023 23:47	WG2169188
Trichloroethene	U		0.000845	0.00145	1	11/10/2023 23:47	WG2169188
Vinyl chloride	U		0.00168	0.00362	1	11/10/2023 23:47	WG2169188
(S) Toluene-d8	*99.4*			*75.0-131*		*11/10/2023 23:47*	WG2169188
(S) 4-Bromofluorobenzene	*185*	J1		*67.0-138*		*11/10/2023 23:47*	WG2169188
(S) 1,2-Dichloroethane-d4	*96.8*			*70.0-130*		*11/10/2023 23:47*	WG2169188

Sample Narrative:

L1674030-02 WG2169188: Surrogate failure due to matrix interference.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	606		7.88	23.7	5	11/09/2023 01:32	WG2166749
Residual Range Organics (RRO)	250		19.7	59.3	5	11/09/2023 01:32	WG2166749
(S) o-Terphenyl	*72.0*			*18.0-148*		*11/09/2023 01:32*	WG2166749

Sample Narrative:

L1674030-02 WG2166749: Sample resembles laboratory standard for Diesel and Motor Oil.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	72.8		1	11/08/2023 07:44	WG2166682

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	14.3		1.49	4.39	25	11/14/2023 12:27	WG2170732
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*77.0-120*		*11/14/2023 12:27*	WG2170732

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00222		0.000829	0.00177	1	11/13/2023 00:59	WG2169703
1,2-Dichloroethane	U		0.00115	0.00444	1	11/13/2023 00:59	WG2169703
1,1-Dichloroethene	U		0.00108	0.00444	1	11/13/2023 00:59	WG2169703
cis-1,2-Dichloroethene	U		0.00130	0.00444	1	11/13/2023 00:59	WG2169703
trans-1,2-Dichloroethene	U		0.00185	0.00887	1	11/13/2023 00:59	WG2169703
Ethylbenzene	U		0.00131	0.00444	1	11/13/2023 00:59	WG2169703
Tetrachloroethene	U		0.00159	0.00444	1	11/13/2023 00:59	WG2169703
Toluene	0.00330	J	0.00231	0.00887	1	11/13/2023 00:59	WG2169703
Trichloroethene	U		0.00104	0.00177	1	11/13/2023 00:59	WG2169703
Vinyl chloride	U		0.00206	0.00444	1	11/13/2023 00:59	WG2169703
Xylenes, Total	0.00507	J	0.00156	0.0115	1	11/13/2023 00:59	WG2169703
(S) Toluene-d8	*104*			*75.0-131*		*11/13/2023 00:59*	WG2169703
(S) 4-Bromofluorobenzene	*99.9*			*67.0-138*		*11/13/2023 00:59*	WG2169703
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*		*11/13/2023 00:59*	WG2169703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	8.00		1.83	5.50	1	11/08/2023 22:55	WG2166749
Residual Range Organics (RRO)	U		4.58	13.7	1	11/08/2023 22:55	WG2166749
(S) o-Terphenyl	*44.6*			*18.0-148*		*11/08/2023 22:55*	WG2166749

Sample Narrative:

L1674030-03 WG2166749: Sample resembles laboratory standard for Kerosene.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	11/08/2023 07:58	WG2166683

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.47	B J J3	1.08	3.19	25	11/09/2023 14:40	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*11/09/2023 14:40*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000832	0.00321	1	11/13/2023 01:18	WG2169703
1,1-Dichloroethene	U		0.000777	0.00321	1	11/13/2023 01:18	WG2169703
cis-1,2-Dichloroethene	U		0.000941	0.00321	1	11/13/2023 01:18	WG2169703
trans-1,2-Dichloroethene	U		0.00133	0.00641	1	11/13/2023 01:18	WG2169703
Tetrachloroethene	U		0.00115	0.00321	1	11/13/2023 01:18	WG2169703
Trichloroethene	U		0.000749	0.00128	1	11/13/2023 01:18	WG2169703
Vinyl chloride	U		0.00149	0.00321	1	11/13/2023 01:18	WG2169703
(S) Toluene-d8	*107*			*75.0-131*		*11/13/2023 01:18*	WG2169703
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*11/13/2023 01:18*	WG2169703
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*11/13/2023 01:18*	WG2169703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	2.53	J	1.50	4.52	1	11/09/2023 00:13	WG2166749
Residual Range Organics (RRO)	7.86	J	3.77	11.3	1	11/09/2023 00:13	WG2166749
(S) o-Terphenyl	*60.7*			*18.0-148*		*11/09/2023 00:13*	WG2166749

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	11/08/2023 07:58	WG2166683

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U	J3	1.10	3.25	25	11/09/2023 17:35	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*11/09/2023 17:35*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000607	0.00130	1	11/11/2023 00:44	WG2169188
1,2-Dichloroethane	U		0.000843	0.00325	1	11/11/2023 00:44	WG2169188
1,1-Dichloroethene	U		0.000787	0.00325	1	11/11/2023 00:44	WG2169188
cis-1,2-Dichloroethene	U		0.000954	0.00325	1	11/11/2023 00:44	WG2169188
trans-1,2-Dichloroethene	U		0.00135	0.00650	1	11/11/2023 00:44	WG2169188
Ethylbenzene	U		0.000958	0.00325	1	11/11/2023 00:44	WG2169188
Tetrachloroethene	U		0.00116	0.00325	1	11/11/2023 00:44	WG2169188
Toluene	U		0.00169	0.00650	1	11/11/2023 00:44	WG2169188
Trichloroethene	U		0.000759	0.00130	1	11/11/2023 00:44	WG2169188
Vinyl chloride	U		0.00151	0.00325	1	11/11/2023 00:44	WG2169188
Xylenes, Total	U		0.00114	0.00845	1	11/11/2023 00:44	WG2169188
(S) Toluene-d8	*104*			*75.0-131*		*11/11/2023 00:44*	WG2169188
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/11/2023 00:44*	WG2169188
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*		*11/11/2023 00:44*	WG2169188

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.51	4.54	1	11/08/2023 23:21	WG2166749
Residual Range Organics (RRO)	U		3.78	11.4	1	11/08/2023 23:21	WG2166749
(S) o-Terphenyl	*49.8*			*18.0-148*		*11/08/2023 23:21*	WG2166749

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000649	0.00250	1	11/13/2023 01:56	WG2169703
1,1-Dichloroethene	U		0.000606	0.00250	1	11/13/2023 01:56	WG2169703
cis-1,2-Dichloroethene	0.00114	J	0.000734	0.00250	1	11/13/2023 01:56	WG2169703
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	11/13/2023 01:56	WG2169703
Tetrachloroethene	U		0.000896	0.00250	1	11/13/2023 01:56	WG2169703
Trichloroethene	0.00243		0.000584	0.00100	1	11/13/2023 01:56	WG2169703
Vinyl chloride	U		0.00116	0.00250	1	11/13/2023 01:56	WG2169703
(S) Toluene-d8	*105*			*75.0-131*		*11/13/2023 01:56*	WG2169703
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*11/13/2023 01:56*	WG2169703
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*11/13/2023 01:56*	WG2169703

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000649	0.00250	1	11/11/2023 01:03	WG2169188
1,1-Dichloroethene	0.00163	J	0.000606	0.00250	1	11/11/2023 01:03	WG2169188
cis-1,2-Dichloroethene	0.228		0.000734	0.00250	1	11/11/2023 01:03	WG2169188
trans-1,2-Dichloroethene	0.0853		0.00104	0.00500	1	11/11/2023 01:03	WG2169188
Tetrachloroethene	U		0.000896	0.00250	1	11/11/2023 01:03	WG2169188
Trichloroethene	30.5		0.0234	0.0400	40	11/13/2023 03:30	WG2169703
Vinyl chloride	U		0.00116	0.00250	1	11/11/2023 01:03	WG2169188
(S) Toluene-d8	*107*			*75.0-131*		*11/11/2023 01:03*	WG2169188
(S) Toluene-d8	*102*			*75.0-131*		*11/13/2023 03:30*	WG2169703
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*11/11/2023 01:03*	WG2169188
(S) 4-Bromofluorobenzene	*98.0*			*67.0-138*		*11/13/2023 03:30*	WG2169703
(S) 1,2-Dichloroethane-d4	*98.2*			*70.0-130*		*11/11/2023 01:03*	WG2169188
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/13/2023 03:30*	WG2169703

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000649	0.00250	1	11/11/2023 01:22	WG2169188
1,1-Dichloroethene	U		0.000606	0.00250	1	11/11/2023 01:22	WG2169188
cis-1,2-Dichloroethene	U		0.000734	0.00250	1	11/11/2023 01:22	WG2169188
trans-1,2-Dichloroethene	U		0.00104	0.00500	1	11/11/2023 01:22	WG2169188
Tetrachloroethene	U		0.000896	0.00250	1	11/11/2023 01:22	WG2169188
Trichloroethene	0.000765	J	0.000584	0.00100	1	11/13/2023 02:14	WG2169703
Vinyl chloride	U		0.00116	0.00250	1	11/11/2023 01:22	WG2169188
(S) Toluene-d8	*105*			*75.0-131*		*11/11/2023 01:22*	WG2169188
(S) Toluene-d8	*106*			*75.0-131*		*11/13/2023 02:14*	WG2169703
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/11/2023 01:22*	WG2169188
(S) 4-Bromofluorobenzene	*98.9*			*67.0-138*		*11/13/2023 02:14*	WG2169703
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*11/11/2023 01:22*	WG2169188
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*11/13/2023 02:14*	WG2169703

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.9		1	11/08/2023 07:58	WG2166683

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	2.00	B J J3	1.59	4.70	28.2	11/09/2023 18:02	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*99.1*			*77.0-120*		*11/09/2023 18:02*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000923	0.00198	1.2	11/11/2023 01:41	WG2169188
1,2-Dichloroethane	U		0.00128	0.00495	1.2	11/11/2023 01:41	WG2169188
1,1-Dichloroethene	U		0.00120	0.00495	1.2	11/11/2023 01:41	WG2169188
cis-1,2-Dichloroethene	U		0.00145	0.00495	1.2	11/11/2023 01:41	WG2169188
trans-1,2-Dichloroethene	U		0.00206	0.00989	1.2	11/11/2023 01:41	WG2169188
Ethylbenzene	U		0.00146	0.00495	1.2	11/11/2023 01:41	WG2169188
Tetrachloroethene	U		0.00178	0.00495	1.2	11/11/2023 01:41	WG2169188
Toluene	U		0.00257	0.00989	1.2	11/11/2023 01:41	WG2169188
Trichloroethene	U		0.00116	0.00198	1.2	11/13/2023 02:33	WG2169703
Vinyl chloride	U		0.00229	0.00495	1.2	11/11/2023 01:41	WG2169188
Xylenes, Total	U		0.00175	0.0129	1.2	11/11/2023 01:41	WG2169188
(S) Toluene-d8	*105*			*75.0-131*		*11/11/2023 01:41*	WG2169188
(S) Toluene-d8	*106*			*75.0-131*		*11/13/2023 02:33*	WG2169703
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*11/11/2023 01:41*	WG2169188
(S) 4-Bromofluorobenzene	*98.4*			*67.0-138*		*11/13/2023 02:33*	WG2169703
(S) 1,2-Dichloroethane-d4	*99.5*			*70.0-130*		*11/11/2023 01:41*	WG2169188
(S) 1,2-Dichloroethane-d4	*97.2*			*70.0-130*		*11/13/2023 02:33*	WG2169703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	3.99	J	1.80	5.42	1	11/08/2023 23:34	WG2166749
Residual Range Organics (RRO)	5.59	J	4.51	13.5	1	11/08/2023 23:34	WG2166749
(S) o-Terphenyl	*48.8*			*18.0-148*		*11/08/2023 23:34*	WG2166749

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0121	0.451	1	11/08/2023 20:19	WG2166608
(S) 2-Fluorophenol	*50.3*			*12.0-120*		*11/08/2023 20:19*	WG2166608
(S) Phenol-d5	*44.9*			*10.0-120*		*11/08/2023 20:19*	WG2166608
(S) Nitrobenzene-d5	*47.7*			*10.0-122*		*11/08/2023 20:19*	WG2166608
(S) 2-Fluorobiphenyl	*52.6*			*15.0-120*		*11/08/2023 20:19*	WG2166608
(S) 2,4,6-Tribromophenol	*70.9*			*10.0-127*		*11/08/2023 20:19*	WG2166608
(S) p-Terphenyl-d14	*61.0*			*10.0-120*		*11/08/2023 20:19*	WG2166608

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.5		1	11/08/2023 07:58	WG2166683

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	9.37	B J3	1.36	4.00	25	11/09/2023 18:25	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*77.0-120*		*11/09/2023 18:25*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000733	0.00157	1	11/11/2023 02:00	WG2169188
1,2-Dichloroethane	U		0.00102	0.00392	1	11/11/2023 02:00	WG2169188
1,1-Dichloroethene	U		0.000951	0.00392	1	11/11/2023 02:00	WG2169188
cis-1,2-Dichloroethene	U		0.00115	0.00392	1	11/11/2023 02:00	WG2169188
trans-1,2-Dichloroethene	U		0.00163	0.00785	1	11/11/2023 02:00	WG2169188
Ethylbenzene	0.00750		0.00116	0.00392	1	11/11/2023 02:00	WG2169188
Tetrachloroethene	U		0.00141	0.00392	1	11/11/2023 02:00	WG2169188
Toluene	0.00231	J	0.00204	0.00785	1	11/11/2023 02:00	WG2169188
Trichloroethene	U		0.000916	0.00157	1	11/13/2023 02:52	WG2169703
Vinyl chloride	U		0.00182	0.00392	1	11/11/2023 02:00	WG2169188
Xylenes, Total	0.0131		0.00138	0.0102	1	11/11/2023 02:00	WG2169188
(S) Toluene-d8	*107*			*75.0-131*		*11/11/2023 02:00*	WG2169188
(S) Toluene-d8	*104*			*75.0-131*		*11/13/2023 02:52*	WG2169703
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/11/2023 02:00*	WG2169188
(S) 4-Bromofluorobenzene	*99.9*			*67.0-138*		*11/13/2023 02:52*	WG2169703
(S) 1,2-Dichloroethane-d4	*97.3*			*70.0-130*		*11/11/2023 02:00*	WG2169188
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*11/13/2023 02:52*	WG2169703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	5.48		1.69	5.09	1	11/08/2023 22:42	WG2166749
Residual Range Organics (RRO)	U		4.24	12.7	1	11/08/2023 22:42	WG2166749
(S) o-Terphenyl	*49.5*			*18.0-148*		*11/08/2023 22:42*	WG2166749

Sample Narrative:

L1674030-10 WG2166749: Sample resembles laboratory standard for Fuel Oil #6.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0114	0.424	1	11/08/2023 18:56	WG2166608
(S) 2-Fluorophenol	*51.5*			*12.0-120*		*11/08/2023 18:56*	WG2166608
(S) Phenol-d5	*46.2*			*10.0-120*		*11/08/2023 18:56*	WG2166608
(S) Nitrobenzene-d5	*46.9*			*10.0-122*		*11/08/2023 18:56*	WG2166608
(S) 2-Fluorobiphenyl	*51.2*			*15.0-120*		*11/08/2023 18:56*	WG2166608
(S) 2,4,6-Tribromophenol	*72.4*			*10.0-127*		*11/08/2023 18:56*	WG2166608
(S) p-Terphenyl-d14	*63.2*			*10.0-120*		*11/08/2023 18:56*	WG2166608

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.8		1	11/08/2023 07:58	WG2166683

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.40	B J J3	1.33	3.93	25	11/09/2023 18:49	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*77.0-120*		*11/09/2023 18:49*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.00101	0.00390	1	11/11/2023 02:19	WG2169188
1,1-Dichloroethene	U		0.000946	0.00390	1	11/11/2023 02:19	WG2169188
cis-1,2-Dichloroethene	0.00164	J	0.00115	0.00390	1	11/11/2023 02:19	WG2169188
trans-1,2-Dichloroethene	U		0.00162	0.00780	1	11/11/2023 02:19	WG2169188
Tetrachloroethene	U		0.00140	0.00390	1	11/11/2023 02:19	WG2169188
Trichloroethene	0.0386		0.000911	0.00156	1	11/11/2023 02:19	WG2169188
Vinyl chloride	U		0.00181	0.00390	1	11/11/2023 02:19	WG2169188
(S) Toluene-d8	*106*			*75.0-131*		*11/11/2023 02:19*	WG2169188
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*11/11/2023 02:19*	WG2169188
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*11/11/2023 02:19*	WG2169188

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.73	J	1.69	5.08	1	11/08/2023 23:08	WG2166749
Residual Range Organics (RRO)	U		4.23	12.7	1	11/08/2023 23:08	WG2166749
(S) o-Terphenyl	*38.8*			*18.0-148*		*11/08/2023 23:08*	WG2166749

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		0.0819	1.00	1	11/09/2023 18:01	WG2168179
1,1-Dichloroethene	U		0.188	1.00	1	11/09/2023 18:01	WG2168179
cis-1,2-Dichloroethene	2.79		0.126	1.00	1	11/09/2023 18:01	WG2168179
trans-1,2-Dichloroethene	U		0.149	1.00	1	11/09/2023 18:01	WG2168179
Tetrachloroethene	U		0.300	1.00	1	11/09/2023 18:01	WG2168179
Trichloroethene	60.6		0.190	1.00	1	11/09/2023 18:01	WG2168179
Vinyl chloride	0.308	J	0.234	1.00	1	11/09/2023 18:01	WG2168179
(S) Toluene-d8	*105*			*80.0-120*		*11/09/2023 18:01*	WG2168179
(S) 4-Bromofluorobenzene	*96.7*			*77.0-126*		*11/09/2023 18:01*	WG2168179
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*11/09/2023 18:01*	WG2168179

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	U		31.6	100	1	11/09/2023 13:06	WG2167987
(S) a,a,a-Trifluorotoluene(FID)	*105*			*78.0-120*		*11/09/2023 13:06*	WG2167987

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	11/10/2023 21:55	WG2169072
1,1-Dichloroethene	U		0.0200	0.100	1	11/10/2023 21:55	WG2169072
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/10/2023 21:55	WG2169072
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/10/2023 21:55	WG2169072
Tetrachloroethene	U		0.0280	0.100	1	11/10/2023 21:55	WG2169072
Trichloroethene	U		0.0160	0.0400	1	11/10/2023 21:55	WG2169072
Vinyl chloride	U		0.0273	0.100	1	11/10/2023 21:55	WG2169072
(S) Toluene-d8	*96.7*			*75.0-131*		*11/10/2023 21:55*	WG2169072
(S) 4-Bromofluorobenzene	*92.6*			*67.0-138*		*11/10/2023 21:55*	WG2169072
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*11/10/2023 21:55*	WG2169072

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	11/15/2023 11:50	WG2165841
Residual Range Organics (RRO)	103	J	83.3	250	1	11/15/2023 11:50	WG2165841
(S) o-Terphenyl	*89.5*			*52.0-156*		*11/15/2023 11:50*	WG2165841

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Pentachlorophenol	U		0.347	1.11	1.11	11/08/2023 13:44	WG2165074
(S) 2-Fluorophenol	*45.9*			*10.0-120*		*11/08/2023 13:44*	WG2165074
(S) Phenol-d5	*28.9*			*10.0-120*		*11/08/2023 13:44*	WG2165074
(S) Nitrobenzene-d5	*61.6*			*10.0-127*		*11/08/2023 13:44*	WG2165074
(S) 2-Fluorobiphenyl	*68.4*			*10.0-130*		*11/08/2023 13:44*	WG2165074
(S) 2,4,6-Tribromophenol	*73.4*			*10.0-155*		*11/08/2023 13:44*	WG2165074
(S) p-Terphenyl-d14	*83.5*			*10.0-128*		*11/08/2023 13:44*	WG2165074

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/10/2023 22:14	WG2169072
1,2-Dichloroethane	U		0.0190	0.100	1	11/10/2023 22:14	WG2169072
1,1-Dichloroethene	U		0.0200	0.100	1	11/10/2023 22:14	WG2169072
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/10/2023 22:14	WG2169072
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/10/2023 22:14	WG2169072
Ethylbenzene	U		0.0212	0.100	1	11/10/2023 22:14	WG2169072
Tetrachloroethene	U		0.0280	0.100	1	11/10/2023 22:14	WG2169072
Toluene	U		0.0500	0.200	1	11/10/2023 22:14	WG2169072
Trichloroethene	U		0.0160	0.0400	1	11/10/2023 22:14	WG2169072
Vinyl chloride	U		0.0273	0.100	1	11/10/2023 22:14	WG2169072
Xylenes, Total	U		0.191	0.260	1	11/10/2023 22:14	WG2169072
(S) Toluene-d8	*92.9*			*75.0-131*		*11/10/2023 22:14*	WG2169072
(S) 4-Bromofluorobenzene	*94.1*			*67.0-138*		*11/10/2023 22:14*	WG2169072
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*11/10/2023 22:14*	WG2169072

Method Blank (MB)

(MB) R3997397-1 11/08/23 07:44

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1673988-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1673988-18 11/08/23 07:44 • (DUP) R3997397-3 11/08/23 07:44

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.9	81.5	1	1.75		10

Laboratory Control Sample (LCS)

(LCS) R3997397-2 11/08/23 07:44

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

Method Blank (MB)

(MB) R3997403-1 11/08/23 07:58

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

L1674030-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1674030-09 11/08/23 07:58 • (DUP) R3997403-3 11/08/23 07:58

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	73.9	73.0	1	1.14		10

Laboratory Control Sample (LCS)

(LCS) R3997403-2 11/08/23 07:58

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

Method Blank (MB)

(MB) R3998788-3 11/09/23 11:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	0.948	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*99.1*			*77.0-120*

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

(LCS) R3998788-1 11/09/23 09:32 • (LCSD) R3998788-2 11/09/23 09:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	4.48	6.30	81.5	115	71.0-124		J3	33.8	20
(S) a,a,a-Trifluorotoluene(FID)				*99.9*	*106*	*77.0-120*				

L1674030-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674030-02 11/09/23 13:13 • (MS) R3998788-4 11/10/23 03:55 • (MSD) R3998788-5 11/10/23 06:48

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	140	239	357	352	84.1	81.0	25	50.0-150	E	E	1.23	27
(S) a,a,a-Trifluorotoluene(FID)					*97.4*	*100*		*77.0-120*				

Method Blank (MB)

(MB) R3999363-3 11/13/23 17:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	0.908	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*94.3*			*77.0-120*

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

(LCS) R3999363-1 11/13/23 15:31 • (LCSD) R3999363-2 11/13/23 15:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.19	5.15	94.4	93.6	71.0-124			0.774	20
(S) a,a,a-Trifluorotoluene(FID)				*104*	*101*	*77.0-120*				

Method Blank (MB)

(MB) R3999744-3 11/14/23 12:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*77.0-120*

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

(LCS) R3999744-1 11/14/23 10:50 • (LCSD) R3999744-2 11/14/23 11:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.37	5.14	97.6	93.5	71.0-124			4.38	20
(S) a,a,a-Trifluorotoluene(FID)				*100*	*101*	*77.0-120*				

Method Blank (MB)

(MB) R3998769-2 11/09/23 12:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*

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

(LCS) R3998769-1 11/09/23 11:16 • (LCSD) R3998769-3 11/09/23 11:43

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	5500	4790	4860	87.1	88.4	70.0-124			1.45	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*104*	*78.0-120*				

L1674130-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674130-06 11/09/23 14:12 • (MS) R3998769-4 11/09/23 22:18 • (MSD) R3998769-5 11/09/23 22:40

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	5500	U	4560	4730	82.9	86.0	1	10.0-155			3.66	21
(S) a,a,a-Trifluorotoluene(FID)					*106*	*106*		*78.0-120*				

Method Blank (MB)

(MB) R3998218-3 11/09/23 14:48

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
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Trichloroethene	U		0.190	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

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

(LCS) R3998218-1 11/09/23 13:38 • (LCSD) R3998218-2 11/09/23 14:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	5.00	5.82	5.60	116	112	70.0-128			3.85	20
1,1-Dichloroethene	5.00	5.00	4.62	100	92.4	71.0-124			7.90	20
cis-1,2-Dichloroethene	5.00	4.83	4.65	96.6	93.0	73.0-120			3.80	20
trans-1,2-Dichloroethene	5.00	4.99	4.79	99.8	95.8	73.0-120			4.09	20
Tetrachloroethene	5.00	5.09	5.14	102	103	72.0-132			0.978	20
Trichloroethene	5.00	4.76	4.84	95.2	96.8	78.0-124			1.67	20
Vinyl chloride	5.00	4.93	5.00	98.6	100	67.0-131			1.41	20
(S) Toluene-d8				*106*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.1*	*103*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*109*	*110*	*70.0-130*				

Method Blank (MB)

(MB) R3998908-3 11/10/23 20:54

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	*94.1*			*75.0-131*
(S) 4-Bromofluorobenzene	*96.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*

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

(LCS) R3998908-1 11/10/23 18:32 • (LCSD) R3998908-2 11/10/23 18:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.32	5.27	106	105	70.0-123			0.944	20
1,2-Dichloroethane	5.00	5.47	5.74	109	115	65.0-131			4.82	20
1,1-Dichloroethene	5.00	5.27	5.32	105	106	65.0-131			0.944	20
cis-1,2-Dichloroethene	5.00	5.32	5.33	106	107	73.0-125			0.188	20
trans-1,2-Dichloroethene	5.00	5.38	5.62	108	112	71.0-125			4.36	20
Ethylbenzene	5.00	4.86	4.92	97.2	98.4	74.0-126			1.23	20
Tetrachloroethene	5.00	4.89	4.95	97.8	99.0	70.0-136			1.22	20
Toluene	5.00	4.86	4.93	97.2	98.6	75.0-121			1.43	20
Trichloroethene	5.00	5.59	5.68	112	114	76.0-126			1.60	20
Vinyl chloride	5.00	4.47	4.46	89.4	89.2	63.0-134			0.224	20
Xylenes, Total	15.0	13.2	14.2	88.0	94.7	72.0-127			7.30	20
(S) Toluene-d8				*94.8*	*95.3*	*75.0-131*				
(S) 4-Bromofluorobenzene				*90.0*	*92.6*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*103*	*108*	*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) R3998726-3 11/10/23 19:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Ethylbenzene	U		0.000737	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*106*			*75.0-131*
(S) 4-Bromofluorobenzene	*106*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*

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

(LCS) R3998726-1 11/10/23 16:12 • (LCSD) R3998726-2 11/10/23 16:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.119	0.124	95.2	99.2	70.0-123			4.12	20
1,2-Dichloroethane	0.125	0.122	0.122	97.6	97.6	65.0-131			0.000	20
1,1-Dichloroethene	0.125	0.130	0.134	104	107	65.0-131			3.03	20
cis-1,2-Dichloroethene	0.125	0.119	0.117	95.2	93.6	73.0-125			1.69	20
trans-1,2-Dichloroethene	0.125	0.115	0.119	92.0	95.2	71.0-125			3.42	20
Ethylbenzene	0.125	0.136	0.135	109	108	74.0-126			0.738	20
Tetrachloroethene	0.125	0.142	0.147	114	118	70.0-136			3.46	20
Toluene	0.125	0.126	0.128	101	102	75.0-121			1.57	20
Trichloroethene	0.125	0.135	0.142	108	114	76.0-126			5.05	20
Vinyl chloride	0.125	0.100	0.109	80.0	87.2	63.0-134			8.61	20
Xylenes, Total	0.375	0.407	0.388	109	103	72.0-127			4.78	20
(S) Toluene-d8				*106*	*106*	*75.0-131*				
(S) 4-Bromofluorobenzene				*106*	*104*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*99.2*	*99.6*	*70.0-130*				

L1674030-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674030-09 11/11/23 01:41 • (MS) R3998726-4 11/11/23 02:58 • (MSD) R3998726-5 11/11/23 03:17

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.247	U	0.252	0.257	102	104	1.2	50.0-150			1.94	37
1,2-Dichloroethane	0.247	U	0.254	0.256	103	103	1.2	50.0-150			0.647	35
1,1-Dichloroethene	0.247	U	0.298	0.318	121	129	1.2	50.0-150			6.42	37
cis-1,2-Dichloroethene	0.247	U	0.249	0.246	101	99.3	1.2	50.0-150			1.33	37
trans-1,2-Dichloroethene	0.247	U	0.226	0.234	91.3	94.7	1.2	50.0-150			3.58	37
Ethylbenzene	0.247	U	0.277	0.284	112	115	1.2	50.0-150			2.35	38
Tetrachloroethene	0.247	U	0.295	0.290	119	117	1.2	50.0-150			1.69	39
Toluene	0.247	U	0.265	0.267	107	108	1.2	50.0-150			0.619	38
Trichloroethene	0.247	0.0161	0.285	0.280	109	107	1.2	50.0-150			1.75	38
Vinyl chloride	0.247	U	0.176	0.176	71.3	71.3	1.2	50.0-150			0.000	37
Xylenes, Total	0.742	U	0.856	0.872	115	118	1.2	50.0-150			1.91	38
(S) Toluene-d8					*103*	*104*		*75.0-131*				
(S) 4-Bromofluorobenzene					*107*	*105*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*98.9*	*102*		*70.0-130*				

Method Blank (MB)

(MB) R3998915-3 11/13/23 00:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Ethylbenzene	U		0.000737	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*104*			*75.0-131*
(S) 4-Bromofluorobenzene	*99.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*

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

(LCS) R3998915-1 11/12/23 22:55 • (LCSD) R3998915-2 11/12/23 23:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.108	0.103	86.4	82.4	70.0-123			4.74	20
1,2-Dichloroethane	0.125	0.111	0.106	88.8	84.8	65.0-131			4.61	20
1,1-Dichloroethene	0.125	0.106	0.106	84.8	84.8	65.0-131			0.000	20
cis-1,2-Dichloroethene	0.125	0.109	0.0974	87.2	77.9	73.0-125			11.2	20
trans-1,2-Dichloroethene	0.125	0.105	0.102	84.0	81.6	71.0-125			2.90	20
Ethylbenzene	0.125	0.117	0.114	93.6	91.2	74.0-126			2.60	20
Tetrachloroethene	0.125	0.130	0.125	104	100	70.0-136			3.92	20
Toluene	0.125	0.119	0.112	95.2	89.6	75.0-121			6.06	20
Trichloroethene	0.125	0.123	0.117	98.4	93.6	76.0-126			5.00	20
Vinyl chloride	0.125	0.118	0.113	94.4	90.4	63.0-134			4.33	20
Xylenes, Total	0.375	0.357	0.340	95.2	90.7	72.0-127			4.88	20
(S) Toluene-d8				*105*	*103*	*75.0-131*				
(S) 4-Bromofluorobenzene				*99.4*	*99.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*102*	*103*	*70.0-130*				

Method Blank (MB)

(MB) R3999150-1 11/11/23 00:30

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
(S) o-Terphenyl	*68.5*			*52.0-156*

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

(LCS) R3999150-2 11/11/23 00:49 • (LCSD) R3999150-3 11/11/23 01:09

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	1350	1330	90.0	88.7	50.0-150			1.49	20
(S) o-Terphenyl				*88.0*	*77.0*	*52.0-156*				

Method Blank (MB)

(MB) R3997440-1 11/08/23 22:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*65.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3997440-2 11/08/23 22:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	35.2	70.4	50.0-150	
(S) o-Terphenyl			*67.6*	*18.0-148*	

L1674030-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674030-09 11/08/23 23:34 • (MS) R3997440-3 11/08/23 23:47 • (MSD) R3997440-4 11/09/23 00:00

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	67.7	3.99	46.4	44.8	62.7	60.3	1	50.0-150			3.56	20
(S) o-Terphenyl					*56.6*	*55.1*		*18.0-148*				

Method Blank (MB)

(MB) R3998300-2 11/08/23 12:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Pentachlorophenol	U		0.313	1.00
(S) 2-Fluorophenol	*34.4*			*10.0-120*
(S) Phenol-d5	*21.6*			*10.0-120*
(S) Nitrobenzene-d5	*60.3*			*10.0-127*
(S) 2-Fluorobiphenyl	*67.1*			*10.0-130*
(S) 2,4,6-Tribromophenol	*67.0*			*10.0-155*
(S) p-Terphenyl-d14	*77.1*			*10.0-128*

Laboratory Control Sample (LCS)

(LCS) R3998300-1 11/08/23 11:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pentachlorophenol	50.0	41.4	82.8	23.0-120	
(S) 2-Fluorophenol			*40.3*	*10.0-120*	
(S) Phenol-d5			*28.5*	*10.0-120*	
(S) Nitrobenzene-d5			*62.7*	*10.0-127*	
(S) 2-Fluorobiphenyl			*77.0*	*10.0-130*	
(S) 2,4,6-Tribromophenol			*87.5*	*10.0-155*	
(S) p-Terphenyl-d14			*88.9*	*10.0-128*	

L1673989-37 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673989-37 11/08/23 15:11 • (MS) R3998300-3 11/08/23 15:33 • (MSD) R3998300-4 11/08/23 15:55

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 %
Pentachlorophenol	50.0	U	37.1	40.1	74.2	80.2	1	10.0-128			7.77	37
(S) 2-Fluorophenol					*34.4*	*38.5*		*10.0-120*				
(S) Phenol-d5					*24.7*	*26.6*		*10.0-120*				
(S) Nitrobenzene-d5					*58.1*	*61.5*		*10.0-127*				
(S) 2-Fluorobiphenyl					*67.5*	*72.0*		*10.0-130*				
(S) 2,4,6-Tribromophenol					*78.0*	*81.5*		*10.0-155*				
(S) p-Terphenyl-d14					*76.8*	*81.2*		*10.0-128*				

Method Blank (MB)

(MB) R3997261-2 11/08/23 15:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pentachlorophenol	U		0.00896	0.333
(S) 2-Fluorophenol	*55.4*			*12.0-120*
(S) Phenol-d5	*50.8*			*10.0-120*
(S) Nitrobenzene-d5	*52.0*			*10.0-122*
(S) 2-Fluorobiphenyl	*54.7*			*15.0-120*
(S) 2,4,6-Tribromophenol	*62.6*			*10.0-127*
(S) p-Terphenyl-d14	*62.8*			*10.0-120*

Laboratory Control Sample (LCS)

(LCS) R3997261-1 11/08/23 14:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pentachlorophenol	0.666	0.346	52.0	29.0-120	
(S) 2-Fluorophenol			*62.2*	*12.0-120*	
(S) Phenol-d5			*57.2*	*10.0-120*	
(S) Nitrobenzene-d5			*50.5*	*10.0-122*	
(S) 2-Fluorobiphenyl			*62.2*	*15.0-120*	
(S) 2,4,6-Tribromophenol			*77.8*	*10.0-127*	
(S) p-Terphenyl-d14			*67.9*	*10.0-120*	

L1674030-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674030-09 11/08/23 20:19 • (MS) R3997261-3 11/08/23 20:40 • (MSD) R3997261-4 11/08/23 21:01

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	0.891	U	0.546	0.486	61.2	53.9	1	50.0-150			11.5	31
(S) 2-Fluorophenol					*50.6*	*47.3*		*12.0-120*				
(S) Phenol-d5					*46.5*	*42.8*		*10.0-120*				
(S) Nitrobenzene-d5					*42.9*	*39.6*		*10.0-122*				
(S) 2-Fluorobiphenyl					*53.5*	*48.6*		*15.0-120*				
(S) 2,4,6-Tribromophenol					*69.6*	*64.0*		*10.0-127*				
(S) p-Terphenyl-d14					*59.3*	*52.6*		*10.0-120*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS56 • File ID: 1112A_02-1

11/12/23 22:55

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1112A_02-1	885588.90	391152.60	338448.60
Upper Limit		1771178	782305	676897
Lower Limit		442794	195576	169224
LCS R3998915-1 WG2169703 1x	1112A_02LCSA	885588.90	391152.60	338448.60
LCSD R3998915-2 WG2169703 1x	1112A_03A	941108.90	419643.20	355289.10
BLANK R3998915-3 WG2169703 1x	1112A_07A	911430.80	396855.40	342513.10
L1674030-03 WG2169703 1x	1112A_08	945541.20	414148.30	343438.80
L1674030-04 WG2169703 1x	1112A_09	958425.30	396849.30	330358.10
L1674030-06 WG2169703 1x	1112A_11	876497.30	376385.50	322368.50
L1674030-08 WG2169703 1x	1112A_12	983381.90	412904.90	344020.90
L1674030-09 WG2169703 1.2x	1112A_13	910456.30	390289.10	330465.30
L1674030-10 WG2169703 1x	1112A_14	918879.10	401889.50	346583.40
L1674030-07 WG2169703 40x	1112A_16	909377.80	407016.30	349560

Instrument: VOCMS56 • File ID: 1113_02

11/13/23 11:03

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1113_02	856312.10	379643.70	320424.90
Upper Limit		1712624	759287	640850
Lower Limit		428156	189822	160212
LCS R3999125-1 WG2170145 1x	1113_02LCSC	856312.10	379643.70	320424.90
LCSD R3999125-2 WG2170145 1x	1113_03C	909872.60	402936.10	343159.80
BLANK R3999125-3 WG2170145 1x	1113_07C	880042.90	382410.40	327310.10

Instrument: VOCMS57 • File ID: 1110_29-1

11/10/23 16:12

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1110_29-1	479551.70	237224	259864.80
Upper Limit		959103	474448	519730
Lower Limit		239776	118612	129932

INTERNAL STANDARD SUMMARY

Instrument: VOCMS57 • File ID: 1110_29-1

11/10/23 16:12

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
LCS R3998726-1 WG2169188 1x	1110_29LCS	479551.70	237224	259864.80
LCSD R3998726-2 WG2169188 1x	1110_30	457879.80	231221.90	246977.60
BLANK R3998726-3 WG2169188 1x	1110_37	430746.90	217263	237266.90
L1674030-01 WG2169188 1x	1110_47	454897.50	253491.10	272084.10
L1674030-02 WG2169188 1x	1110_48	474159.30	253509.80	282387.20
L1674030-05 WG2169188 1x	1110_51	498718.40	257692.70	270619.60
L1674030-07 WG2169188 1x	1110_52	484379.40	238023.50	253979.70
L1674030-08 WG2169188 1x	1110_53	501369.80	247680	251483
L1674030-09 WG2169188 1.2x	1110_54	512160.20	255754.30	285913.50
L1674030-10 WG2169188 1x	1110_55	498515.50	244467.70	269089.10
L1674030-11 WG2169188 1x	1110_56	527155.70	260393.40	289810.20
MS R3998726-4 WG2169188 1.2x	1110_58	484282	249652.90	276399.90
MSD R3998726-5 WG2169188 1.2x	1110_59	506975	257937.20	285292.20

INTERNAL STANDARD SUMMARY

Instrument: VOCGC15 • File ID: 1109_03

11/09/23 09:09

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1109_03	394279700	34016
Upper Limit		788559400	68032
Lower Limit		197139900	17008
LCS R3998788-1 WG2167723 1x	1109_04	420298600	63788
LCSD R3998788-2 WG2167723 1x	1109_05	368782900	61891
BLANK R3998788-3 WG2167723 25x	1109_08	348959600	83698
L1674030-02 WG2167723 25x	1109_13	354868900	38352
L1674030-04 WG2167723 25x	1109_15	363854600	99965

Instrument: VOCGC15 • File ID: 1109_19

11/09/23 16:25

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1109_19	397150100	70126
Upper Limit		794300200	140252
Lower Limit		198575100	35063
L1674030-05 WG2167723 25x	1109_21	362042000	175824
L1674030-09 WG2167723 28.2x	1109_22	341216700	120556
L1674030-10 WG2167723 25x	1109_23	362970000	120521
L1674030-11 WG2167723 25x	1109_24	343717200	85651

Instrument: VOCGC15 • File ID: 1109_32

11/09/23 23:32

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1109_32	385373200	120580
Upper Limit		770746400	241160
Lower Limit		192686600	60290
MS R3998788-4 WG2167723 25x	1109_40	361046200	51093
MSD R3998788-5 WG2167723 25x	1109_41	369294500	42520

INTERNAL STANDARD SUMMARY

Instrument: VOCGC17 • File ID: 1113_03

11/13/23 15:00

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1113_03	197284200	42858210
Upper Limit		394568400	85716420
Lower Limit		98642100	21429100
LCS R3999363-1 WG2169779 1x	1113_04A	200043600	47099590
LCSD R3999363-2 WG2169779 1x	1113_05A	196485600	36475370
BLANK R3999363-3 WG2169779 25x	1113_08	197964100	197964100
L1674030-01 WG2169779 200x	1113_10	186863700	186863700

Instrument: VOCGC17 • File ID: 1114_03

11/14/23 10:30

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1114_03	192356000	35131210
Upper Limit		384712000	70262420
Lower Limit		96178000	17565600
LCS R3999744-1 WG2170732 1x	1114_04	213076000	213076000
LCSD R3999744-2 WG2170732 1x	1114_05	204901500	37397710
BLANK R3999744-3 WG2170732 25x	1114_08A	200992600	200992600
L1674030-03 WG2170732 25x	1114_09	201661500	201661500

INTERNAL STANDARD SUMMARY

Instrument: VOCGC12 • File ID: 1109_03

11/09/23 11:16

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1109_03	805649300	772597500
Upper Limit		1611299000	1545195000
Lower Limit		402824600	386298800
LCS R3998769-1 WG2167987 1x	1109_03u	805649300	772597500
LCSD R3998769-3 WG2167987 1x	1109_04	795002600	761582000
BLANK R3998769-2 WG2167987 1x	1109_06	658126100	658171100
L1674030-13 WG2167987 1x	1109_07	672807300	672846400
MS R3998769-4 WG2167987 1x	1109_27	766958800	750029600
MSD R3998769-5 WG2167987 1x	1109_28	771130600	742195100

INTERNAL STANDARD SUMMARY

Instrument: VOCMS56 • File ID: 1112A_02-1

11/12/23 22:55

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1112A_02-1	885588.90	391152.60	338448.60
Upper Limit		1771178	782305	676897
Lower Limit		442794	195576	169224
LCS R3998915-1 WG2169703 1x	1112A_02LCSA	885588.90	391152.60	338448.60
LCSD R3998915-2 WG2169703 1x	1112A_03A	941108.90	419643.20	355289.10
BLANK R3998915-3 WG2169703 1x	1112A_07A	911430.80	396855.40	342513.10
L1674030-03 WG2169703 1x	1112A_08	945541.20	414148.30	343438.80
L1674030-04 WG2169703 1x	1112A_09	958425.30	396849.30	330358.10
L1674030-06 WG2169703 1x	1112A_11	876497.30	376385.50	322368.50
L1674030-08 WG2169703 1x	1112A_12	983381.90	412904.90	344020.90
L1674030-09 WG2169703 1.2x	1112A_13	910456.30	390289.10	330465.30
L1674030-10 WG2169703 1x	1112A_14	918879.10	401889.50	346583.40
L1674030-07 WG2169703 40x	1112A_16	909377.80	407016.30	349560

Instrument: VOCMS56 • File ID: 1113_02

11/13/23 11:03

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1113_02	856312.10	379643.70	320424.90
Upper Limit		1712624	759287	640850
Lower Limit		428156	189822	160212
LCS R3999125-1 WG2170145 1x	1113_02LCSC	856312.10	379643.70	320424.90
LCSD R3999125-2 WG2170145 1x	1113_03C	909872.60	402936.10	343159.80
BLANK R3999125-3 WG2170145 1x	1113_07C	880042.90	382410.40	327310.10

Instrument: VOCMS57 • File ID: 1110_29-1

11/10/23 16:12

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1110_29-1	479551.70	237224	259864.80
Upper Limit		959103	474448	519730
Lower Limit		239776	118612	129932

INTERNAL STANDARD SUMMARY

Instrument: VOCMS57 • File ID: 1110_29-1

11/10/23 16:12

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
LCS R3998726-1 WG2169188 1x	1110_29LCS	479551.70	237224	259864.80
LCSD R3998726-2 WG2169188 1x	1110_30	457879.80	231221.90	246977.60
BLANK R3998726-3 WG2169188 1x	1110_37	430746.90	217263	237266.90
L1674030-01 WG2169188 1x	1110_47	454897.50	253491.10	272084.10
L1674030-02 WG2169188 1x	1110_48	474159.30	253509.80	282387.20
L1674030-05 WG2169188 1x	1110_51	498718.40	257692.70	270619.60
L1674030-07 WG2169188 1x	1110_52	484379.40	238023.50	253979.70
L1674030-08 WG2169188 1x	1110_53	501369.80	247680	251483
L1674030-09 WG2169188 1.2x	1110_54	512160.20	255754.30	285913.50
L1674030-10 WG2169188 1x	1110_55	498515.50	244467.70	269089.10
L1674030-11 WG2169188 1x	1110_56	527155.70	260393.40	289810.20
MS R3998726-4 WG2169188 1.2x	1110_58	484282	249652.90	276399.90
MSD R3998726-5 WG2169188 1.2x	1110_59	506975	257937.20	285292.20

INTERNAL STANDARD SUMMARY

Instrument: VOCMS30 • File ID: 1109_02-1

11/09/23 13:38

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1109_02-1	198461	81727	67981
Upper Limit		396922	163454	135962
Lower Limit		99231	40864	33991
LCS R3998218-1 WG2168179 1x	1109_02LCS	198461	81727	67981
LCSD R3998218-2 WG2168179 1x	1109_03	199668	79720	68523
BLANK R3998218-3 WG2168179 1x	1109_05	192371	77893	59613
L1674030-12 WG2168179 1x	1109_11	180545	75472	59263

Instrument: VOCMS53 • File ID: 1110_29-1

11/10/23 18:32

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1110_29-1	452201.60	201375.90	155130.60
Upper Limit		904403	402752	310261
Lower Limit		226101	100688	77565
LCS R3998908-1 WG2169072 1x	1110_29LCS	452201.60	201375.90	155130.60
LCSD R3998908-2 WG2169072 1x	1110_30	441095.10	190601.20	158766.10
BLANK R3998908-3 WG2169072 1x	1110_35	438999.80	187479.20	167651.40
L1674030-13 WG2169072 1x	1110_37	412227.90	168718.30	132704.40
L1674030-14 WG2169072 1x	1110_38	410832.20	179576.90	146977.90

Instrument: VOCMS57 • File ID: 1113_28-2

11/13/23 16:42

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1113_28-2	371720.20	195677.10	217475.90
Upper Limit		743440	391354	434952
Lower Limit		185860	97839	108738
LCS R3999342-1 WG2170135 1x	1113_28LCS	371720.20	195677.10	217475.90
LCSD R3999342-2 WG2170135 1x	1113_29	390422.90	211541.20	239862.20
BLANK R3999342-3 WG2170135 1x	1113_34	386686.10	202919.80	236294.40

INTERNAL STANDARD SUMMARY

Instrument: BNAMS4 • File ID: 1108_03

11/08/23 14:04

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1108_03	27387	103054	61175	122883	125199	130400
Upper Limit		54774	206108	122350	245766	250398	260800
Lower Limit		13694	51527	30588	61442	62600	65200
LCS R3997261-1 WG2166608 1x	1108_05	20561	93287	47808	93008	100058	104460
BLANK R3997261-2 WG2166608 1x	1108_06	20611	78623	46190	92144	93795	98875
L1674030-10 WG2166608 1x	1108_17	18765	71442	42475	82603	88592	95307
L1674030-09 WG2166608 1x	1108_21	19114	71629	43206	82912	88081	95409
MS R3997261-3 WG2166608 1x	1108_22	18726	81922	43244	87845	91403	100964
MSD R3997261-4 WG2166608 1x	1108_23	19467	85605	45630	91124	96693	102822

INTERNAL STANDARD SUMMARY

Instrument: BNAMS29 • File ID: 1108A_02-1

11/08/23 10:41

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1108A_02-1	110680	436106	268898	537450	506770	474296
Upper Limit		221360	872212	537796	1074900	1013540	948592
Lower Limit		55340	218053	134449	268725	253385	237148
LCS R3998300-1 WG2165074 1x	1108A_05	98736	431428	243057	496022	467728	441022
BLANK R3998300-2 WG2165074 1x	1108A_06	105912	409915	248680	520608	506115	477414
L1674030-13 WG2165074 1.11x	1108A_10	107259	418110	255563	546951	523690	499517
MS R3998300-3 WG2165074 1x	1108A_15	99868	432888	245655	491574	452753	422388
MSD R3998300-4 WG2165074 1x	1108A_16	101414	435818	245275	484655	452797	426150

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
ARCADIS - BNSF Region 2

1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

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: SEATTLE IWA

Please Circle: PT MT CT ET

Phone: **206-726-4753**

Client Project # **30195976**

Lab Project # **BNSF2ARCA-TIMEOIL**

Collected by (print): ELIZABETH SCHELLER ROBERTO

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y✓

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8270PCP 100ml Amb NoPres	NWTPHDXLVINOSGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	V8260 40mlAmb-HCl	NWTPHDXNOSGT 8oz Clr-No Pres	NWTPHGX 40mL Amb/MeOH 10mL/Syr	SV8270 8oz Clr-No Pres	TOCWB, PERMEABILITY 4oz Clr-No Pres	V8260 40 mL Amb/MeOH 10mL/Syr		Remarks	Sample # (lab only)
SB-BN-01-2.5(110223)	G	~~SS GW~~	2.5	11-02-23	0959	4					X	X		X	X			-01
SB-BN-01-5 (110223)	G	~~SS GW~~	5.0	11-02-23	1010	4					X	X		X	X			-02
SB-BN-02-5 (110223)	G	~~SS GW~~	5.0	11-02-23	1028	4					X	X			X			-03
SB-BN-04-2.5(110223)	G	SS	2.5	11-02-23	1120	~~3~~ 3					X	X			X			-04
SB-BN-04-5 (110223) #	G	SS	5.0	11-02-23	1115	~~3~~ 3					X	X			X		#	-05
SB-BN-06-10 (110223)	G	SS	10.0	11-02-23	1129	1									X			-06
SB-BN-06-20 (110223)	G	SS	20.0	11-02-23	1340	1									X			-07
SB-BN-06-35 (110223)	G	SS	35.0	11-02-23	1350	1									X			-08
SB-BN-09-2.5(110223)	G	SS	2.5	11-02-23	1236	~~3~~ 3					X	X	X	3	X		MS/MSD	-09
SB-BN-09-5 (110223)	G	SS	5.0	11-02-23	1307	3					X	X	X		X			-10

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

Remarks:V8260: Special list, 8270: PCP only
***Samples may be analyzed for V8260ULL pending results**
~~ONLY ANALYZE~~ BTEX SHOULD ONLY BE ANALYZED FOR SB-BN-04-5 (110223)

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6014 4313 0221

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	11-03-23	1230		2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: DR 18°C Bottles Received: 1-3 TO=13 5	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) alexa Mitchell	Date: 11/4/23 Time: 0900	Hold: Condition: NCF / OK

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

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

SDG # 167030
J109

Acctnum: **BNSF2ARCA**
Template: **T240430**
Prelogin: **P1032348**
PM: **4089 - Andi R Jones**
PB: 10-25-23 6m
Shipped Via: **FedEX Ground**

Company Name/Address:
ARCADIS - BNSF Region 2

1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

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: SEATTLE, WA

Please Circle: (PT) MT CT ET

Phone: **206-726-4753**

Client Project # **30195976**

Lab Project # **BNSF2ARCA-TIMEOIL**

Collected by (print): ELIZABETH SLITELUER ROBERTO PIEMONTESE

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270 8ozClr-NoPres	TOCWB, PERMEABILITY 4ozClr-NoPres	V8260 40mlAmb/MeOH10ml/Syr	V8260 40ml Amb HCL	NWTPHGX 40ml Amb HCL	NWTPHDx LVIN035GT 40ml Amb HCL BT			Remarks	Sample # (lab only)
SB-BN-03-10(110223)	G	SS	~~10~~ -	11-02-23	1616	3	X	X			X							-11
SB-BN-06-GW(110223	G	~~GW~~ SS	~~5~~ 1 -	11-02-23	1645	10						X					*	-12
EB-01(110223)	G	~~GW~~ SS	-	110223	1820	10						X	X	X				-13
TB-02 (110223)	-	~~GW~~ SS	-	-	-	3 2					X							-14
		SS																
		SS																
		SS																
		SS																
		SS																
		SS																

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace PEOPLE ADVANCING SCIENCE

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

SDG # 1674030

Table #

Acctnum: **BNSF2ARCA**
Template: **T240415'**
Prelogin: **P1032344**
PM: **4089 - Andi R Jones**
PB: 10-25-23 GM

Shipped Via: **FedEx Ground**

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

Remarks:V8260: Special List
V8270: PCP only
* 5 DAY TURN AROUND FOR GW SAMPLES

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6643 4313 0221

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	11-03-23	1230		2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: DBIS °C Bottles Received:	
				1.3 to 1.3 50	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
			Alda Mitchell	11/4/23 0900	

ANALYTICAL REPORT

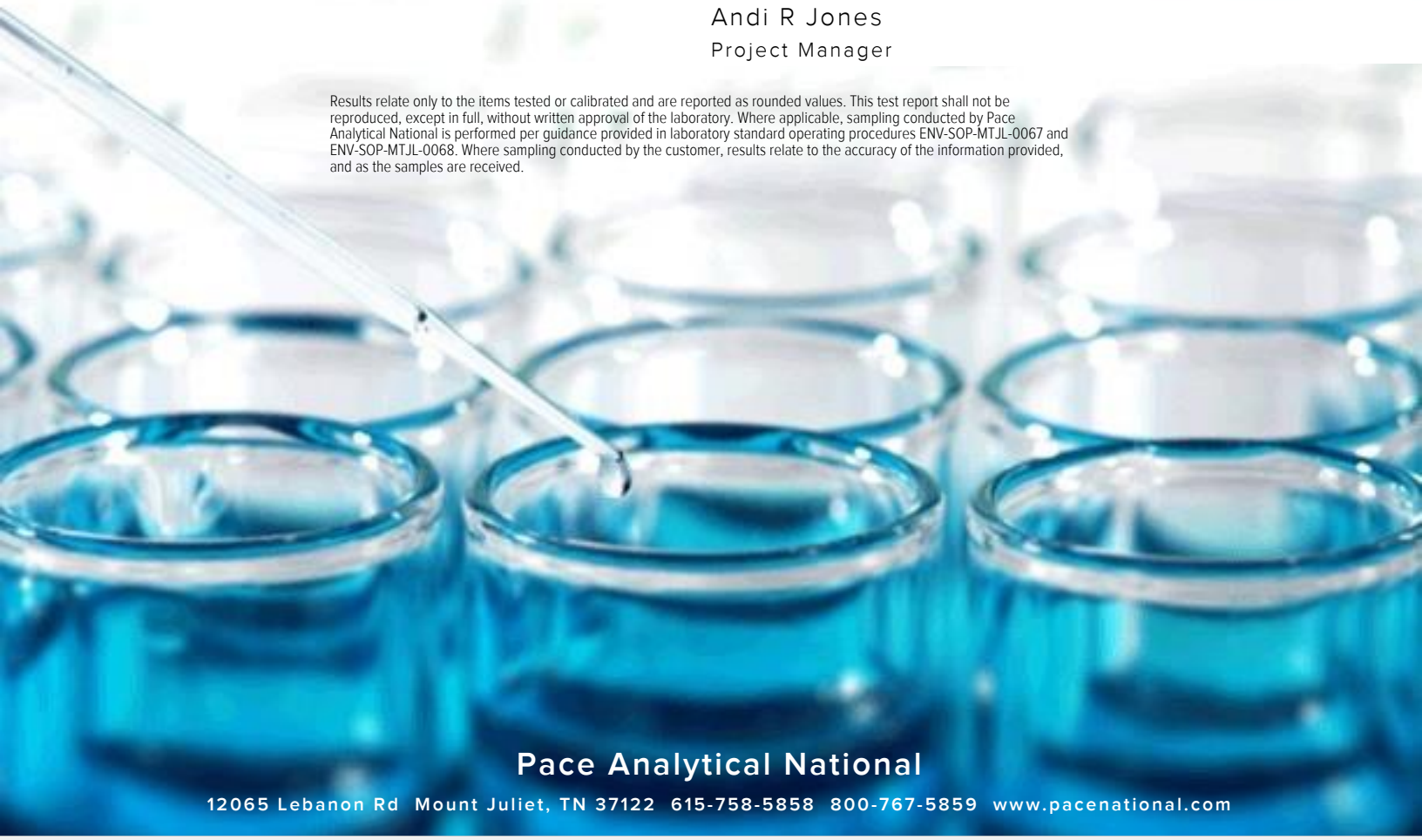
November 21, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1674786
Samples Received:	11/07/2023
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



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

TABLE OF CONTENTS

SB-BN-02-10(110323) L1674786-01 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 13:10 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166991	1	11/08/23 15:32	11/08/23 15:57	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/03/23 13:10	11/09/23 19:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/03/23 13:10	11/12/23 06:48	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2167614	1	11/09/23 18:56	11/10/23 03:01	ICD	Mt. Juliet, TN

SB-BN-02-15(110323) L1674786-02 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 12:55 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/03/23 12:55	11/09/23 21:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/03/23 12:55	11/12/23 07:08	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2167614	1	11/09/23 18:56	11/10/23 03:14	ICD	Mt. Juliet, TN

SB-BN-02-19(110323) L1674786-03 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 12:38 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/03/23 12:38	11/09/23 21:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/03/23 12:38	11/12/23 07:27	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2167614	1	11/09/23 18:56	11/10/23 03:27	ICD	Mt. Juliet, TN

SB-BN-03-20(110323) L1674786-04 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 08:31 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/03/23 08:31	11/09/23 21:59	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/03/23 08:31	11/12/23 07:47	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2167614	1	11/09/23 18:56	11/10/23 03:40	ICD	Mt. Juliet, TN

SB-BN-03-35(110323) L1674786-05 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 08:49 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/03/23 08:49	11/09/23 22:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/03/23 08:49	11/12/23 08:07	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2167614	1	11/09/23 18:56	11/10/23 03:53	ICD	Mt. Juliet, TN

SB-BN-09-10(110323) L1674786-06 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 13:55 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/03/23 13:55	11/09/23 22:46	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/03/23 13:55	11/12/23 08:27	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2167614	1	11/09/23 18:56	11/10/23 04:06	ICD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2167639	1	11/09/23 19:02	11/12/23 11:00	AGW	Mt. Juliet, TN

SB-BN-09-15(110323) L1674786-07 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 13:39 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2167723	25	11/03/23 13:39	11/10/23 01:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/03/23 13:39	11/12/23 08:46	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2167614	1	11/09/23 18:56	11/10/23 04:19	ICD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2167639	1	11/09/23 19:02	11/12/23 11:21	AGW	Mt. Juliet, TN

SB-BN-03-GW(110323) L1674786-08 GW

Collected by: Elizabeth Scheller | Collected date/time: 11/03/23 14:40 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172866	1	11/16/23 23:03	11/16/23 23:03	JAH	Mt. Juliet, TN

SB-BN-07-10(110623) L1674786-09 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/06/23 10:35 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/06/23 10:35	11/12/23 09:06	DWR	Mt. Juliet, TN

SB-BN-07-20(110623) L1674786-10 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/06/23 11:03 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/06/23 11:03	11/12/23 09:26	DWR	Mt. Juliet, TN

SB-BN-07-35(110623) L1674786-11 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/06/23 11:20 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/06/23 11:20	11/12/23 09:46	DWR	Mt. Juliet, TN

TB-03(110623) L1674786-12 GW

Collected by: Elizabeth Scheller | Collected date/time: 11/06/23 00:00 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169072	1	11/10/23 23:12	11/10/23 23:12	DWR	Mt. Juliet, TN

SB-DUP-2(110623) L1674786-13 Solid

Collected by: Elizabeth Scheller | Collected date/time: 11/06/23 00:00 | Received date/time: 11/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2166993	1	11/08/23 17:35	11/08/23 17:44	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2169490	1	11/06/23 00:00	11/12/23 10:06	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2167639	1	11/09/23 19:02	11/12/23 11:42	AGW	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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	11/08/2023 15:57	WG2166991

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	5.63	B J3	1.03	3.03	25	11/09/2023 19:34	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*77.0-120*		*11/09/2023 19:34*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000566	0.00121	1	11/12/2023 06:48	WG2169490
1,2-Dichloroethane	U		0.000786	0.00303	1	11/12/2023 06:48	WG2169490
1,1-Dichloroethene	U		0.000734	0.00303	1	11/12/2023 06:48	WG2169490
cis-1,2-Dichloroethene	U		0.000889	0.00303	1	11/12/2023 06:48	WG2169490
trans-1,2-Dichloroethene	U		0.00126	0.00605	1	11/12/2023 06:48	WG2169490
Ethylbenzene	U		0.000892	0.00303	1	11/12/2023 06:48	WG2169490
Tetrachloroethene	U		0.00109	0.00303	1	11/12/2023 06:48	WG2169490
Toluene	0.00407	J	0.00157	0.00605	1	11/12/2023 06:48	WG2169490
Trichloroethene	U		0.000707	0.00121	1	11/12/2023 06:48	WG2169490
Vinyl chloride	U		0.00140	0.00303	1	11/12/2023 06:48	WG2169490
Xylenes, Total	U		0.00107	0.00787	1	11/12/2023 06:48	WG2169490
(S) Toluene-d8	*99.4*			*75.0-131*		*11/12/2023 06:48*	WG2169490
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*11/12/2023 06:48*	WG2169490
(S) 1,2-Dichloroethane-d4	*95.6*			*70.0-130*		*11/12/2023 06:48*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	2.23	J	1.47	4.42	1	11/10/2023 03:01	WG2167614
Residual Range Organics (RRO)	U		3.68	11.0	1	11/10/2023 03:01	WG2167614
(S) o-Terphenyl	*35.6*			*18.0-148*		*11/10/2023 03:01*	WG2167614

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.0		1	11/08/2023 17:44	WG2166993

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U	J3	1.24	3.66	25	11/09/2023 21:13	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*11/09/2023 21:13*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000692	J	0.000684	0.00146	1	11/12/2023 07:08	WG2169490
1,2-Dichloroethane	U		0.000950	0.00366	1	11/12/2023 07:08	WG2169490
1,1-Dichloroethene	U		0.000887	0.00366	1	11/12/2023 07:08	WG2169490
cis-1,2-Dichloroethene	U		0.00107	0.00366	1	11/12/2023 07:08	WG2169490
trans-1,2-Dichloroethene	U		0.00152	0.00732	1	11/12/2023 07:08	WG2169490
Ethylbenzene	U		0.00108	0.00366	1	11/12/2023 07:08	WG2169490
Tetrachloroethene	U		0.00131	0.00366	1	11/12/2023 07:08	WG2169490
Toluene	U		0.00190	0.00732	1	11/12/2023 07:08	WG2169490
Trichloroethene	U		0.000855	0.00146	1	11/12/2023 07:08	WG2169490
Vinyl chloride	U		0.00170	0.00366	1	11/12/2023 07:08	WG2169490
Xylenes, Total	U		0.00129	0.00952	1	11/12/2023 07:08	WG2169490
(S) Toluene-d8	*99.9*			*75.0-131*		*11/12/2023 07:08*	WG2169490
(S) 4-Bromofluorobenzene	*98.3*			*67.0-138*		*11/12/2023 07:08*	WG2169490
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*11/12/2023 07:08*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.89	J	1.62	4.88	1	11/10/2023 03:14	WG2167614
Residual Range Organics (RRO)	U		4.06	12.2	1	11/10/2023 03:14	WG2167614
(S) o-Terphenyl	*24.1*			*18.0-148*		*11/10/2023 03:14*	WG2167614

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.7		1	11/08/2023 17:44	WG2166993

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.71	B J J3	1.37	4.03	25	11/09/2023 21:36	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*77.0-120*		*11/09/2023 21:36*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000753	0.00161	1	11/12/2023 07:27	WG2169490
1,2-Dichloroethane	U		0.00105	0.00403	1	11/12/2023 07:27	WG2169490
1,1-Dichloroethene	U		0.000977	0.00403	1	11/12/2023 07:27	WG2169490
cis-1,2-Dichloroethene	U		0.00118	0.00403	1	11/12/2023 07:27	WG2169490
trans-1,2-Dichloroethene	U		0.00168	0.00806	1	11/12/2023 07:27	WG2169490
Ethylbenzene	U		0.00119	0.00403	1	11/12/2023 07:27	WG2169490
Tetrachloroethene	U		0.00144	0.00403	1	11/12/2023 07:27	WG2169490
Toluene	0.00211	J	0.00210	0.00806	1	11/12/2023 07:27	WG2169490
Trichloroethene	U		0.000941	0.00161	1	11/12/2023 07:27	WG2169490
Vinyl chloride	U		0.00187	0.00403	1	11/12/2023 07:27	WG2169490
Xylenes, Total	U		0.00142	0.0105	1	11/12/2023 07:27	WG2169490
(S) Toluene-d8	*101*			*75.0-131*		*11/12/2023 07:27*	WG2169490
(S) 4-Bromofluorobenzene	*98.5*			*67.0-138*		*11/12/2023 07:27*	WG2169490
(S) 1,2-Dichloroethane-d4	*93.6*			*70.0-130*		*11/12/2023 07:27*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	2.22	J	1.74	5.22	1	11/10/2023 03:27	WG2167614
Residual Range Organics (RRO)	U		4.34	13.0	1	11/10/2023 03:27	WG2167614
(S) o-Terphenyl	*28.8*			*18.0-148*		*11/10/2023 03:27*	WG2167614

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.7		1	11/08/2023 17:44	WG2166993

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U	J3	1.28	3.79	25	11/09/2023 21:59	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*99.1*			*77.0-120*		*11/09/2023 21:59*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000983	0.00379	1	11/12/2023 07:47	WG2169490
1,1-Dichloroethene	U		0.000918	0.00379	1	11/12/2023 07:47	WG2169490
cis-1,2-Dichloroethene	0.0183		0.00111	0.00379	1	11/12/2023 07:47	WG2169490
trans-1,2-Dichloroethene	0.00485	J	0.00158	0.00757	1	11/12/2023 07:47	WG2169490
Tetrachloroethene	U		0.00136	0.00379	1	11/12/2023 07:47	WG2169490
Trichloroethene	0.0415		0.000885	0.00151	1	11/12/2023 07:47	WG2169490
Vinyl chloride	U		0.00176	0.00379	1	11/12/2023 07:47	WG2169490
(S) Toluene-d8	*99.2*			*75.0-131*		*11/12/2023 07:47*	WG2169490
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*11/12/2023 07:47*	WG2169490
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/12/2023 07:47*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.72	J	1.65	4.96	1	11/10/2023 03:40	WG2167614
Residual Range Organics (RRO)	U		4.13	12.4	1	11/10/2023 03:40	WG2167614
(S) o-Terphenyl	*35.2*			*18.0-148*		*11/10/2023 03:40*	WG2167614

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	11/08/2023 17:44	WG2166993

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U	J3	1.30	3.82	25	11/09/2023 22:23	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*99.8*			*77.0-120*		*11/09/2023 22:23*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000992	0.00382	1	11/12/2023 08:07	WG2169490
1,1-Dichloroethene	U		0.000926	0.00382	1	11/12/2023 08:07	WG2169490
cis-1,2-Dichloroethene	U		0.00112	0.00382	1	11/12/2023 08:07	WG2169490
trans-1,2-Dichloroethene	U		0.00159	0.00764	1	11/12/2023 08:07	WG2169490
Tetrachloroethene	U		0.00137	0.00382	1	11/12/2023 08:07	WG2169490
Trichloroethene	0.0141		0.000892	0.00153	1	11/12/2023 08:07	WG2169490
Vinyl chloride	U		0.00177	0.00382	1	11/12/2023 08:07	WG2169490
(S) Toluene-d8	*96.9*			*75.0-131*		*11/12/2023 08:07*	WG2169490
(S) 4-Bromofluorobenzene	*96.7*			*67.0-138*		*11/12/2023 08:07*	WG2169490
(S) 1,2-Dichloroethane-d4	*95.4*			*70.0-130*		*11/12/2023 08:07*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.64	4.93	1	11/10/2023 03:53	WG2167614
Residual Range Organics (RRO)	U		4.11	12.3	1	11/10/2023 03:53	WG2167614
(S) o-Terphenyl	*54.6*			*18.0-148*		*11/10/2023 03:53*	WG2167614

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.6		1	11/08/2023 17:44	WG2166993

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U	J3	1.29	3.79	25	11/09/2023 22:46	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*77.0-120*		*11/09/2023 22:46*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000734	J	0.000709	0.00152	1	11/12/2023 08:27	WG2169490
1,2-Dichloroethane	U		0.000985	0.00379	1	11/12/2023 08:27	WG2169490
1,1-Dichloroethene	U		0.000919	0.00379	1	11/12/2023 08:27	WG2169490
cis-1,2-Dichloroethene	U		0.00111	0.00379	1	11/12/2023 08:27	WG2169490
trans-1,2-Dichloroethene	U		0.00158	0.00759	1	11/12/2023 08:27	WG2169490
Ethylbenzene	U		0.00112	0.00379	1	11/12/2023 08:27	WG2169490
Tetrachloroethene	U		0.00136	0.00379	1	11/12/2023 08:27	WG2169490
Toluene	0.00261	J	0.00197	0.00759	1	11/12/2023 08:27	WG2169490
Trichloroethene	U		0.000886	0.00152	1	11/12/2023 08:27	WG2169490
Vinyl chloride	U		0.00176	0.00379	1	11/12/2023 08:27	WG2169490
Xylenes, Total	U		0.00134	0.00986	1	11/12/2023 08:27	WG2169490
(S) Toluene-d8	*97.6*			*75.0-131*		*11/12/2023 08:27*	WG2169490
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*11/12/2023 08:27*	WG2169490
(S) 1,2-Dichloroethane-d4	*96.7*			*70.0-130*		*11/12/2023 08:27*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.65	4.97	1	11/10/2023 04:06	WG2167614
Residual Range Organics (RRO)	U		4.13	12.4	1	11/10/2023 04:06	WG2167614
(S) o-Terphenyl	*26.9*			*18.0-148*		*11/10/2023 04:06*	WG2167614

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0111	0.413	1	11/12/2023 11:00	WG2167639
(S) 2-Fluorophenol	*54.3*			*12.0-120*		*11/12/2023 11:00*	WG2167639
(S) Phenol-d5	*48.3*			*10.0-120*		*11/12/2023 11:00*	WG2167639
(S) Nitrobenzene-d5	*47.1*			*10.0-122*		*11/12/2023 11:00*	WG2167639
(S) 2-Fluorobiphenyl	*50.5*			*15.0-120*		*11/12/2023 11:00*	WG2167639
(S) 2,4,6-Tribromophenol	*65.3*			*10.0-127*		*11/12/2023 11:00*	WG2167639
(S) p-Terphenyl-d14	*55.1*			*10.0-120*		*11/12/2023 11:00*	WG2167639

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	11/08/2023 17:44	WG2166993

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U	J3	1.37	4.05	25	11/10/2023 01:08	WG2167723
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*11/10/2023 01:08*	WG2167723

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000757	0.00162	1	11/12/2023 08:46	WG2169490
1,2-Dichloroethane	U		0.00105	0.00405	1	11/12/2023 08:46	WG2169490
1,1-Dichloroethene	U		0.000982	0.00405	1	11/12/2023 08:46	WG2169490
cis-1,2-Dichloroethene	U		0.00119	0.00405	1	11/12/2023 08:46	WG2169490
trans-1,2-Dichloroethene	U		0.00169	0.00811	1	11/12/2023 08:46	WG2169490
Ethylbenzene	U		0.00119	0.00405	1	11/12/2023 08:46	WG2169490
Tetrachloroethene	U		0.00145	0.00405	1	11/12/2023 08:46	WG2169490
Toluene	U		0.00211	0.00811	1	11/12/2023 08:46	WG2169490
Trichloroethene	U		0.000947	0.00162	1	11/12/2023 08:46	WG2169490
Vinyl chloride	U		0.00188	0.00405	1	11/12/2023 08:46	WG2169490
Xylenes, Total	U		0.00143	0.0105	1	11/12/2023 08:46	WG2169490
(S) Toluene-d8	*98.4*			*75.0-131*		*11/12/2023 08:46*	WG2169490
(S) 4-Bromofluorobenzene	*98.0*			*67.0-138*		*11/12/2023 08:46*	WG2169490
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*		*11/12/2023 08:46*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.95	J	1.71	5.14	1	11/10/2023 04:19	WG2167614
Residual Range Organics (RRO)	U		4.28	12.9	1	11/10/2023 04:19	WG2167614
(S) o-Terphenyl	*27.5*			*18.0-148*		*11/10/2023 04:19*	WG2167614

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0115	0.428	1	11/12/2023 11:21	WG2167639
(S) 2-Fluorophenol	*52.8*			*12.0-120*		*11/12/2023 11:21*	WG2167639
(S) Phenol-d5	*47.7*			*10.0-120*		*11/12/2023 11:21*	WG2167639
(S) Nitrobenzene-d5	*46.5*			*10.0-122*		*11/12/2023 11:21*	WG2167639
(S) 2-Fluorobiphenyl	*48.3*			*15.0-120*		*11/12/2023 11:21*	WG2167639
(S) 2,4,6-Tribromophenol	*64.3*			*10.0-127*		*11/12/2023 11:21*	WG2167639
(S) p-Terphenyl-d14	*52.3*			*10.0-120*		*11/12/2023 11:21*	WG2167639

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	11/16/2023 23:03	WG2172866
1,1-Dichloroethene	U		0.0200	0.100	1	11/16/2023 23:03	WG2172866
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/16/2023 23:03	WG2172866
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/16/2023 23:03	WG2172866
Tetrachloroethene	U		0.0280	0.100	1	11/16/2023 23:03	WG2172866
Trichloroethene	0.933		0.0160	0.0400	1	11/16/2023 23:03	WG2172866
Vinyl chloride	0.0740	J	0.0273	0.100	1	11/16/2023 23:03	WG2172866
(S) Toluene-d8	*99.1*			*75.0-131*		*11/16/2023 23:03*	WG2172866
(S) 4-Bromofluorobenzene	*87.9*			*67.0-138*		*11/16/2023 23:03*	WG2172866
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*11/16/2023 23:03*	WG2172866

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	11/08/2023 17:44	WG2166993

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000764	0.00164	1	11/12/2023 09:06	WG2169490
1,2-Dichloroethane	U		0.00106	0.00409	1	11/12/2023 09:06	WG2169490
1,1-Dichloroethene	U		0.000991	0.00409	1	11/12/2023 09:06	WG2169490
cis-1,2-Dichloroethene	U		0.00120	0.00409	1	11/12/2023 09:06	WG2169490
trans-1,2-Dichloroethene	U		0.00170	0.00818	1	11/12/2023 09:06	WG2169490
Ethylbenzene	U		0.00121	0.00409	1	11/12/2023 09:06	WG2169490
Tetrachloroethene	U		0.00147	0.00409	1	11/12/2023 09:06	WG2169490
Toluene	0.00232	J	0.00213	0.00818	1	11/12/2023 09:06	WG2169490
Trichloroethene	0.0280		0.000955	0.00164	1	11/12/2023 09:06	WG2169490
Vinyl chloride	U		0.00190	0.00409	1	11/12/2023 09:06	WG2169490
Xylenes, Total	U		0.00144	0.0106	1	11/12/2023 09:06	WG2169490
(S) Toluene-d8	*101*			*75.0-131*		*11/12/2023 09:06*	WG2169490
(S) 4-Bromofluorobenzene	*98.9*			*67.0-138*		*11/12/2023 09:06*	WG2169490
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*11/12/2023 09:06*	WG2169490

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	11/08/2023 17:44	WG2166993

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000698	0.00150	1	11/12/2023 09:26	WG2169490
1,2-Dichloroethane	U		0.000970	0.00374	1	11/12/2023 09:26	WG2169490
1,1-Dichloroethene	U		0.000906	0.00374	1	11/12/2023 09:26	WG2169490
cis-1,2-Dichloroethene	U		0.00110	0.00374	1	11/12/2023 09:26	WG2169490
trans-1,2-Dichloroethene	U		0.00156	0.00748	1	11/12/2023 09:26	WG2169490
Ethylbenzene	U		0.00110	0.00374	1	11/12/2023 09:26	WG2169490
Tetrachloroethene	U		0.00134	0.00374	1	11/12/2023 09:26	WG2169490
Toluene	0.00329	J	0.00194	0.00748	1	11/12/2023 09:26	WG2169490
Trichloroethene	0.160		0.000873	0.00150	1	11/12/2023 09:26	WG2169490
Vinyl chloride	U		0.00173	0.00374	1	11/12/2023 09:26	WG2169490
Xylenes, Total	U		0.00132	0.00972	1	11/12/2023 09:26	WG2169490
(S) Toluene-d8	*99.0*			*75.0-131*		*11/12/2023 09:26*	WG2169490
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*		*11/12/2023 09:26*	WG2169490
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/12/2023 09:26*	WG2169490

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.2		1	11/08/2023 17:44	WG2166993

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000678	0.00145	1	11/12/2023 09:46	WG2169490
1,2-Dichloroethane	U		0.000942	0.00363	1	11/12/2023 09:46	WG2169490
1,1-Dichloroethene	U		0.000879	0.00363	1	11/12/2023 09:46	WG2169490
cis-1,2-Dichloroethene	U		0.00106	0.00363	1	11/12/2023 09:46	WG2169490
trans-1,2-Dichloroethene	U		0.00151	0.00725	1	11/12/2023 09:46	WG2169490
Ethylbenzene	U		0.00107	0.00363	1	11/12/2023 09:46	WG2169490
Tetrachloroethene	U		0.00130	0.00363	1	11/12/2023 09:46	WG2169490
Toluene	U		0.00189	0.00725	1	11/12/2023 09:46	WG2169490
Trichloroethene	U		0.000847	0.00145	1	11/12/2023 09:46	WG2169490
Vinyl chloride	U		0.00168	0.00363	1	11/12/2023 09:46	WG2169490
Xylenes, Total	U		0.00128	0.00943	1	11/12/2023 09:46	WG2169490
(S) Toluene-d8	*98.5*			*75.0-131*		*11/12/2023 09:46*	WG2169490
(S) 4-Bromofluorobenzene	*97.8*			*67.0-138*		*11/12/2023 09:46*	WG2169490
(S) 1,2-Dichloroethane-d4	*99.3*			*70.0-130*		*11/12/2023 09:46*	WG2169490

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/10/2023 23:12	WG2169072
1,2-Dichloroethane	U		0.0190	0.100	1	11/10/2023 23:12	WG2169072
1,1-Dichloroethene	U		0.0200	0.100	1	11/10/2023 23:12	WG2169072
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/10/2023 23:12	WG2169072
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/10/2023 23:12	WG2169072
Ethylbenzene	U		0.0212	0.100	1	11/10/2023 23:12	WG2169072
Tetrachloroethene	U		0.0280	0.100	1	11/10/2023 23:12	WG2169072
Toluene	U		0.0500	0.200	1	11/10/2023 23:12	WG2169072
Trichloroethene	U		0.0160	0.0400	1	11/10/2023 23:12	WG2169072
Vinyl chloride	U		0.0273	0.100	1	11/10/2023 23:12	WG2169072
Xylenes, Total	U		0.191	0.260	1	11/10/2023 23:12	WG2169072
(S) Toluene-d8	*94.5*			*75.0-131*		*11/10/2023 23:12*	WG2169072
(S) 4-Bromofluorobenzene	*93.3*			*67.0-138*		*11/10/2023 23:12*	WG2169072
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*11/10/2023 23:12*	WG2169072

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.0		1	11/08/2023 17:44	WG2166993

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000727	0.00156	1	11/12/2023 10:06	WG2169490
1,2-Dichloroethane	U		0.00101	0.00389	1	11/12/2023 10:06	WG2169490
1,1-Dichloroethene	U		0.000944	0.00389	1	11/12/2023 10:06	WG2169490
cis-1,2-Dichloroethene	U		0.00114	0.00389	1	11/12/2023 10:06	WG2169490
trans-1,2-Dichloroethene	U		0.00162	0.00779	1	11/12/2023 10:06	WG2169490
Ethylbenzene	U		0.00115	0.00389	1	11/12/2023 10:06	WG2169490
Tetrachloroethene	U		0.00140	0.00389	1	11/12/2023 10:06	WG2169490
Toluene	U		0.00202	0.00779	1	11/12/2023 10:06	WG2169490
Trichloroethene	U		0.000910	0.00156	1	11/12/2023 10:06	WG2169490
Vinyl chloride	U		0.00181	0.00389	1	11/12/2023 10:06	WG2169490
Xylenes, Total	U		0.00137	0.0101	1	11/12/2023 10:06	WG2169490
(S) Toluene-d8	*98.4*			*75.0-131*		*11/12/2023 10:06*	WG2169490
(S) 4-Bromofluorobenzene	*99.1*			*67.0-138*		*11/12/2023 10:06*	WG2169490
(S) 1,2-Dichloroethane-d4	*97.6*			*70.0-130*		*11/12/2023 10:06*	WG2169490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0112	0.416	1	11/12/2023 11:42	WG2167639
(S) 2-Fluorophenol	*53.7*			*12.0-120*		*11/12/2023 11:42*	WG2167639
(S) Phenol-d5	*48.0*			*10.0-120*		*11/12/2023 11:42*	WG2167639
(S) Nitrobenzene-d5	*49.4*			*10.0-122*		*11/12/2023 11:42*	WG2167639
(S) 2-Fluorobiphenyl	*50.3*			*15.0-120*		*11/12/2023 11:42*	WG2167639
(S) 2,4,6-Tribromophenol	*70.5*			*10.0-127*		*11/12/2023 11:42*	WG2167639
(S) p-Terphenyl-d14	*57.7*			*10.0-120*		*11/12/2023 11:42*	WG2167639

Method Blank (MB)

(MB) R3997423-1 11/08/23 15:57

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00800	J		

L1674698-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1674698-20 11/08/23 15:57 • (DUP) R3997423-3 11/08/23 15:57

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.4	85.7	1	1.51		10

Laboratory Control Sample (LCS)

(LCS) R3997423-2 11/08/23 15:57

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.9	99.9	90.0-110	

Method Blank (MB)

(MB) R3997432-1 11/08/23 17:44

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1674786-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1674786-10 11/08/23 17:44 • (DUP) R3997432-3 11/08/23 17:44

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.1	81.7	1	0.722		10

Laboratory Control Sample (LCS)

(LCS) R3997432-2 11/08/23 17:44

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

Method Blank (MB)

(MB) R3998788-3 11/09/23 11:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	0.948	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*99.1*			*77.0-120*

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

(LCS) R3998788-1 11/09/23 09:32 • (LCSD) R3998788-2 11/09/23 09:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	4.48	6.30	81.5	115	71.0-124		J3	33.8	20
(S) a,a,a-Trifluorotoluene(FID)				*99.9*	*106*	*77.0-120*				

L1674030-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674030-02 11/09/23 13:13 • (MS) R3998788-4 11/10/23 03:55 • (MSD) R3998788-5 11/10/23 06:48

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	140	239	357	352	84.1	81.0	25	50.0-150	E	E	1.23	27
(S) a,a,a-Trifluorotoluene(FID)					*97.4*	*100*		*77.0-120*				

Method Blank (MB)

(MB) R3998908-3 11/10/23 20:54

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	*94.1*			*75.0-131*
(S) 4-Bromofluorobenzene	*96.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*

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

(LCS) R3998908-1 11/10/23 18:32 • (LCSD) R3998908-2 11/10/23 18:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.32	5.27	106	105	70.0-123			0.944	20
1,2-Dichloroethane	5.00	5.47	5.74	109	115	65.0-131			4.82	20
1,1-Dichloroethene	5.00	5.27	5.32	105	106	65.0-131			0.944	20
cis-1,2-Dichloroethene	5.00	5.32	5.33	106	107	73.0-125			0.188	20
trans-1,2-Dichloroethene	5.00	5.38	5.62	108	112	71.0-125			4.36	20
Ethylbenzene	5.00	4.86	4.92	97.2	98.4	74.0-126			1.23	20
Tetrachloroethene	5.00	4.89	4.95	97.8	99.0	70.0-136			1.22	20
Toluene	5.00	4.86	4.93	97.2	98.6	75.0-121			1.43	20
Trichloroethene	5.00	5.59	5.68	112	114	76.0-126			1.60	20
Vinyl chloride	5.00	4.47	4.46	89.4	89.2	63.0-134			0.224	20
Xylenes, Total	15.0	13.2	14.2	88.0	94.7	72.0-127			7.30	20
(S) Toluene-d8				*94.8*	*95.3*	*75.0-131*				
(S) 4-Bromofluorobenzene				*90.0*	*92.6*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*103*	*108*	*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) R4001223-3 11/16/23 20:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
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
Tetrachloroethene	U		0.0280	0.100
Trichloroethene	U		0.0160	0.0400
Vinyl chloride	U		0.0273	0.100
(S) Toluene-d8	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*83.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

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

(LCS) R4001223-1 11/16/23 18:02 • (LCSD) R4001223-2 11/16/23 18:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	5.00	4.97	4.81	99.4	96.2	65.0-131			3.27	20
1,1-Dichloroethene	5.00	4.71	4.15	94.2	83.0	65.0-131			12.6	20
cis-1,2-Dichloroethene	5.00	4.89	4.50	97.8	90.0	73.0-125			8.31	20
trans-1,2-Dichloroethene	5.00	4.88	4.45	97.6	89.0	71.0-125			9.22	20
Tetrachloroethene	5.00	4.78	4.77	95.6	95.4	70.0-136			0.209	20
Trichloroethene	5.00	4.99	4.61	99.8	92.2	76.0-126			7.92	20
Vinyl chloride	5.00	4.11	3.67	82.2	73.4	63.0-134			11.3	20
(S) Toluene-d8				*101*	*101*	*75.0-131*				
(S) 4-Bromofluorobenzene				*88.3*	*85.5*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*112*	*102*	*70.0-130*				

Method Blank (MB)

(MB) R3999368-3 11/12/23 06:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Ethylbenzene	U		0.000737	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*99.6*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.0*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*

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

(LCS) R3999368-1 11/12/23 04:49 • (LCSD) R3999368-2 11/12/23 05:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.131	0.147	105	118	70.0-123			11.5	20
1,2-Dichloroethane	0.125	0.134	0.153	107	122	65.0-131			13.2	20
1,1-Dichloroethene	0.125	0.131	0.153	105	122	65.0-131			15.5	20
cis-1,2-Dichloroethene	0.125	0.125	0.145	100	116	73.0-125			14.8	20
trans-1,2-Dichloroethene	0.125	0.114	0.133	91.2	106	71.0-125			15.4	20
Ethylbenzene	0.125	0.117	0.124	93.6	99.2	74.0-126			5.81	20
Tetrachloroethene	0.125	0.114	0.128	91.2	102	70.0-136			11.6	20
Toluene	0.125	0.125	0.133	100	106	75.0-121			6.20	20
Trichloroethene	0.125	0.120	0.138	96.0	110	76.0-126			14.0	20
Vinyl chloride	0.125	0.122	0.140	97.6	112	63.0-134			13.7	20
Xylenes, Total	0.375	0.358	0.390	95.5	104	72.0-127			8.56	20
(S) Toluene-d8				*96.8*	*94.8*	*75.0-131*				
(S) 4-Bromofluorobenzene				*97.5*	*94.9*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*107*	*112*	*70.0-130*				

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

L1674786-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674786-10 11/12/23 09:26 • (MS) R3999368-4 11/12/23 13:25 • (MSD) R3999368-5 11/12/23 13:45

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Benzene	0.830	U	0.709	0.674	85.4	81.3	1	50.0-150			4.97	37
1,2-Dichloroethane	0.830	U	0.673	0.689	81.1	83.1	1	50.0-150			2.41	35
1,1-Dichloroethene	0.830	U	0.631	0.588	76.0	70.8	1	50.0-150			7.12	37
cis-1,2-Dichloroethene	0.830	U	0.757	0.698	91.2	84.1	1	50.0-150			8.02	37
trans-1,2-Dichloroethene	0.830	U	0.589	0.567	71.0	68.3	1	50.0-150			3.88	37
Ethylbenzene	0.830	U	0.718	0.671	86.5	80.9	1	50.0-150			6.67	38
Tetrachloroethene	0.830	U	0.649	0.603	78.2	72.6	1	50.0-150			7.41	39
Toluene	0.830	0.00329	0.689	0.652	82.7	78.2	1	50.0-150			5.57	38
Trichloroethene	0.830	0.160	0.875	0.858	86.1	84.1	1	50.0-150			1.90	38
Vinyl chloride	0.830	U	0.487	0.464	58.7	55.9	1	50.0-150			5.03	37
Xylenes, Total	2.50	U	2.24	2.12	89.8	85.0	1	50.0-150			5.48	38
(S) Toluene-d8					*93.8*	*94.5*		*75.0-131*				
(S) 4-Bromofluorobenzene					*102*	*101*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*104*	*104*		*70.0-130*				

Method Blank (MB)

(MB) R3998007-1 11/10/23 02:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*44.4*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3998007-2 11/10/23 02:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	30.1	60.2	50.0-150	
(S) o-Terphenyl			*60.4*	*18.0-148*	

L1674068-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674068-01 11/10/23 03:04 • (MS) R3998096-1 11/10/23 03:17 • (MSD) R3998096-2 11/10/23 03:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	60.7	4.04	27.7	31.6	38.9	45.3	1	50.0-150	J6	J6	13.1	20
(S) o-Terphenyl					*46.5*	*44.7*		*18.0-148*				

Sample Narrative:

OS: Sample resembles laboratory standard for Hydraulic Oil and Mineral Spirits.

Method Blank (MB)

(MB) R3999479-2 11/12/23 10:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pentachlorophenol	U		0.00896	0.333
(S) 2-Fluorophenol	*52.4*			*12.0-120*
(S) Phenol-d5	*48.6*			*10.0-120*
(S) Nitrobenzene-d5	*47.4*			*10.0-122*
(S) 2-Fluorobiphenyl	*50.8*			*15.0-120*
(S) 2,4,6-Tribromophenol	*66.4*			*10.0-127*
(S) p-Terphenyl-d14	*61.3*			*10.0-120*

Laboratory Control Sample (LCS)

(LCS) R3999479-1 11/12/23 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pentachlorophenol	0.666	0.382	57.4	29.0-120	
(S) 2-Fluorophenol			*63.8*	*12.0-120*	
(S) Phenol-d5			*57.8*	*10.0-120*	
(S) Nitrobenzene-d5			*50.2*	*10.0-122*	
(S) 2-Fluorobiphenyl			*64.6*	*15.0-120*	
(S) 2,4,6-Tribromophenol			*96.7*	*10.0-127*	
(S) p-Terphenyl-d14			*71.2*	*10.0-120*	

L1674622-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1674622-05 11/12/23 12:25 • (MS) R3999479-3 11/12/23 12:46 • (MSD) R3999479-4 11/12/23 13:08

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	0.833	U	0.394	0.347	47.3	41.6	1	50.0-150	J6	J6	12.8	31
(S) 2-Fluorophenol					*49.5*	*46.5*		*12.0-120*				
(S) Phenol-d5					*43.5*	*40.4*		*10.0-120*				
(S) Nitrobenzene-d5					*38.4*	*37.2*		*10.0-122*				
(S) 2-Fluorobiphenyl					*46.8*	*44.1*		*15.0-120*				
(S) 2,4,6-Tribromophenol					*70.7*	*64.0*		*10.0-127*				
(S) p-Terphenyl-d14					*52.0*	*48.6*		*10.0-120*				

INTERNAL STANDARD SUMMARY

Instrument: VOCGC15 • File ID: 1109_03

11/09/23 09:09

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1109_03	394279700	34016
Upper Limit		788559400	68032
Lower Limit		197139900	17008
LCS R3998788-1 WG2167723 1x	1109_04	420298600	63788
LCSD R3998788-2 WG2167723 1x	1109_05	368782900	61891
BLANK R3998788-3 WG2167723 25x	1109_08	348959600	83698

Instrument: VOCGC15 • File ID: 1109_19

11/09/23 16:25

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1109_19	397150100	70126
Upper Limit		794300200	140252
Lower Limit		198575100	35063
L1674786-01 WG2167723 25x	1109_25	362664100	96131
L1674786-02 WG2167723 25x	1109_26	386332900	71500
L1674786-03 WG2167723 25x	1109_27	375924000	29885
L1674786-04 WG2167723 25x	1109_28	355173300	50256
L1674786-05 WG2167723 25x	1109_29	360405000	130121
L1674786-06 WG2167723 25x	1109_30	364247100	33771

Instrument: VOCGC15 • File ID: 1109_32

11/09/23 23:32

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1109_32	385373200	120580
Upper Limit		770746400	241160
Lower Limit		192686600	60290
L1674786-07 WG2167723 25x	1109_34	394306900	180905
MS R3998788-4 WG2167723 25x	1109_40	361046200	51093
MSD R3998788-5 WG2167723 25x	1109_41	369294500	42520

INTERNAL STANDARD SUMMARY

Instrument: VOCMS37 • File ID: 1112_03

11/12/23 04:49

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1112_03	431498.90	251433.30	203903.20
Upper Limit		862998	502867	407806
Lower Limit		215749	125717	101952
LCS R3999368-1 WG2169490 1x	1112_03LCS	431498.90	251433.30	203903.20
LCSD R3999368-2 WG2169490 1x	1112_04	429121.20	275724.40	211766
BLANK R3999368-3 WG2169490 1x	1112_08	456130.70	250363.60	193838
L1674786-01 WG2169490 1x	1112_09	445782.80	243540.60	193183.60
L1674786-02 WG2169490 1x	1112_10	490542.50	280919.50	209224.60
L1674786-03 WG2169490 1x	1112_11	466583.80	269029.60	206989.50
L1674786-04 WG2169490 1x	1112_12	479220.40	284487.50	217657.30
L1674786-05 WG2169490 1x	1112_13	493358.80	286450.40	216725
L1674786-06 WG2169490 1x	1112_14	493615.40	289482.80	225236.40
L1674786-07 WG2169490 1x	1112_15	494605.70	283819.80	214659
L1674786-09 WG2169490 1x	1112_16	517650.10	291767.30	224856.50
L1674786-10 WG2169490 1x	1112_17	500957.30	289563	223191.70
L1674786-11 WG2169490 1x	1112_18	512992.70	294261.10	227385.90
L1674786-13 WG2169490 1x	1112_19	519863.50	300542.60	230651.50
MS R3999368-4 WG2169490 1x	1112_29	631164.80	397000.70	326814.50
MSD R3999368-5 WG2169490 1x	1112_30	661099.90	417666	345700.20

INTERNAL STANDARD SUMMARY

Instrument: VOCMS53 • File ID: 1110_29-1

11/10/23 18:32

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1110_29-1	452201.60	201375.90	155130.60
Upper Limit		904403	402752	310261
Lower Limit		226101	100688	77565
LCS R3998908-1 WG2169072 1x	1110_29LCS	452201.60	201375.90	155130.60
LCSD R3998908-2 WG2169072 1x	1110_30	441095.10	190601.20	158766.10
BLANK R3998908-3 WG2169072 1x	1110_35	438999.80	187479.20	167651.40
L1674786-12 WG2169072 1x	1110_41	385963.60	164285.90	138275.20

Instrument: VOCMS53 • File ID: 1116a_29-1

11/16/23 18:02

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1116a_29-1	434275.60	177083.40	133879.50
Upper Limit		868551	354167	267759
Lower Limit		217138	88542	66940
LCS R4001223-1 WG2172866 1x	1116a_29LCSA	434275.60	177083.40	133879.50
LCSD R4001223-2 WG2172866 1x	1116a_30A	465937.80	191408.10	136981.90
BLANK R4001223-3 WG2172866 1x	1116a_36	443571.60	175843.80	124919.50
L1674786-08 WG2172866 1x	1116a_40	423736.10	166279.90	120360.20

Instrument: VOCMS57 • File ID: 1113_28-2

11/13/23 16:42

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1113_28-2	371720.20	195677.10	217475.90
Upper Limit		743440	391354	434952
Lower Limit		185860	97839	108738
LCS R3999342-1 WG2170135 1x	1113_28LCS	371720.20	195677.10	217475.90
LCSD R3999342-2 WG2170135 1x	1113_29	390422.90	211541.20	239862.20
BLANK R3999342-3 WG2170135 1x	1113_34	386686.10	202919.80	236294.40

INTERNAL STANDARD SUMMARY

Instrument: BNAMS24 • File ID: 1112_03

11/12/23 09:19

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1112_03	17782	68673	38764	66045	53103	50926
Upper Limit		35564	137346	77528	132090	106206	101852
Lower Limit		8891	34337	19382	33023	26552	25463
LCS R3999479-1 WG2167639 1x	1112_05	13646	65705	30807	52142	43256	39381
BLANK R3999479-2 WG2167639 1x	1112_06	17757	71251	39931	67234	52851	50109
L1674786-06 WG2167639 1x	1112_07	16902	68345	36751	62074	49388	47032
L1674786-07 WG2167639 1x	1112_08	16339	67063	36340	62304	49199	48639
L1674786-13 WG2167639 1x	1112_09	15869	61710	33904	55989	44195	43954
MS R3999479-3 WG2167639 1x	1112_12	15947	72746	35609	60152	48250	47308
MSD R3999479-4 WG2167639 1x	1112_13	15780	70946	34688	58818	46861	45187

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
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.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
ARCADIS - BNSF Region 2
1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

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: SEATTLE, WA

Please Circle: (PT) MT CT ET

Phone: **206-726-4753**

Client Project # **30195976**

Lab Project # **BNSF2ARCA-TIMEOIL**

Collected by (print): ELIZABETH SUTELLETA

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270 8ozClr-NoPres	TOCWB, PERMEABILITY 4ozClr-NoPres	V8260 40mlAmb/MeOH10ml/Syr	8270 PCP 100 ml AMB NOPRES	NWTPHDX LVI NOSGT 40ml AMB HCl	NWTPHGX 40ml AMB HCl	V8260 40ml AMB HCl		Remarks	Sample # (lab only)
SB-BN-02-10(110323)		SS	10	11/03/23	13:10	3	X	X	X**		X							-01
SB-BN-02-15(110323)		SS	15	11/03/23	12:55	3	X	X	X**		X							-02
SB-BN-02-19(110323)		SS	19	11/03/23	12:38	3	X	X	X**		X							-03
SB-BN-03-20(110323)		SS	20	11/03/23	8:31	3	X	X			X							-04
SB-BN-03-35(110323)		SS	35	11/03/23	8:49	3	X	X			X							-05
SB-BN-09-10(110323)		SS	10	11/03/23	13:55	3	X	X	X		X							-06
SB-BN-09-15(110323)		SS	15	11/03/23	13:39	3	X	X	X		X							-07
SB-BN-03-GW(110323)		~~GW~~ SS	—	11/03/23	14:40	3									X		*	-08
~~SB-BN-07-10(110623~~		~~SS~~ SS	10	11-06-23	1035	3			X		X						***	-09
SB-BN-07-20(110623)		SS	20	11-06-23	1103	3			X		X						MS/MSD	-10

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # L1674786

T 1221

Acctnum: **BNSF2ARCA**
Template: **T240415**
Prelogin: **P1032344**
PM: **4089 - Andi R Jones**
PB: 10-25-23 Gm
Shipped Via: **FedEX Ground**

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

Remarks:V8260: Special List *** PCP 8270 ON HOLD FOR SB-BN-07-10(110623) & SB-BN-07-20(110623)
V8270: PCP only
* 5day turnaround for SB-BN-03-GW(110323)

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6643 4313 0184

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) No HCL MeoH TBR	If preservation required by Login: Date/Time
	11-06-23	1300		2	
~~Relinquished by~~ : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: DPA8 3.3+0=3.3	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11-7-23 Time: 9:00	Hold: / Condition: NCF / (OK)

Company Name/Address:
ARCADIS - BNSF Region 2

1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

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: SEATTLE, WA

Please Circle: (PT) MT CT ET

Phone: **206-726-4753**

Client Project # **30195976**

Lab Project # **BNSF2ARCA-TIMEOIL**

Collected by (print): ELIZABETH SCHELLER

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270 8ozClr-NoPres	TOCWB, PERMEABILITY 4ozClr-NoPres	V8260 40mlAmb/MeOH10ml/Syr					Remarks	Sample # (lab only)
SB-BN07-35(110623)		SS	35	11-06-23	1120	3			X		X						-11
TB-03 (110623)		GW6a	—	—	—	3					X						-12
SB-DUP-02 (110623)		SS	—	11-06-23	—	3			X		X						-13

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # L1674786

Table #

Acctnum: **BNSF2ARCA**
Template: **T240415**
Prelogin: **P1032344**
PM: **4089 - Andi R Jones**
PB: 10-25-23 Gm

Shipped Via: **FedEX Ground**

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

Remarks:V8260: Special List
V8270: PCP only

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6643 9313 0184

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
[signature]	11-06-23	1300		2 (01)	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
				DPA8 3.3+0.3=3.3	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:
			[signature]	11-7-23	9:00

Hold: | Condition: NCF / OK

ANALYTICAL REPORT

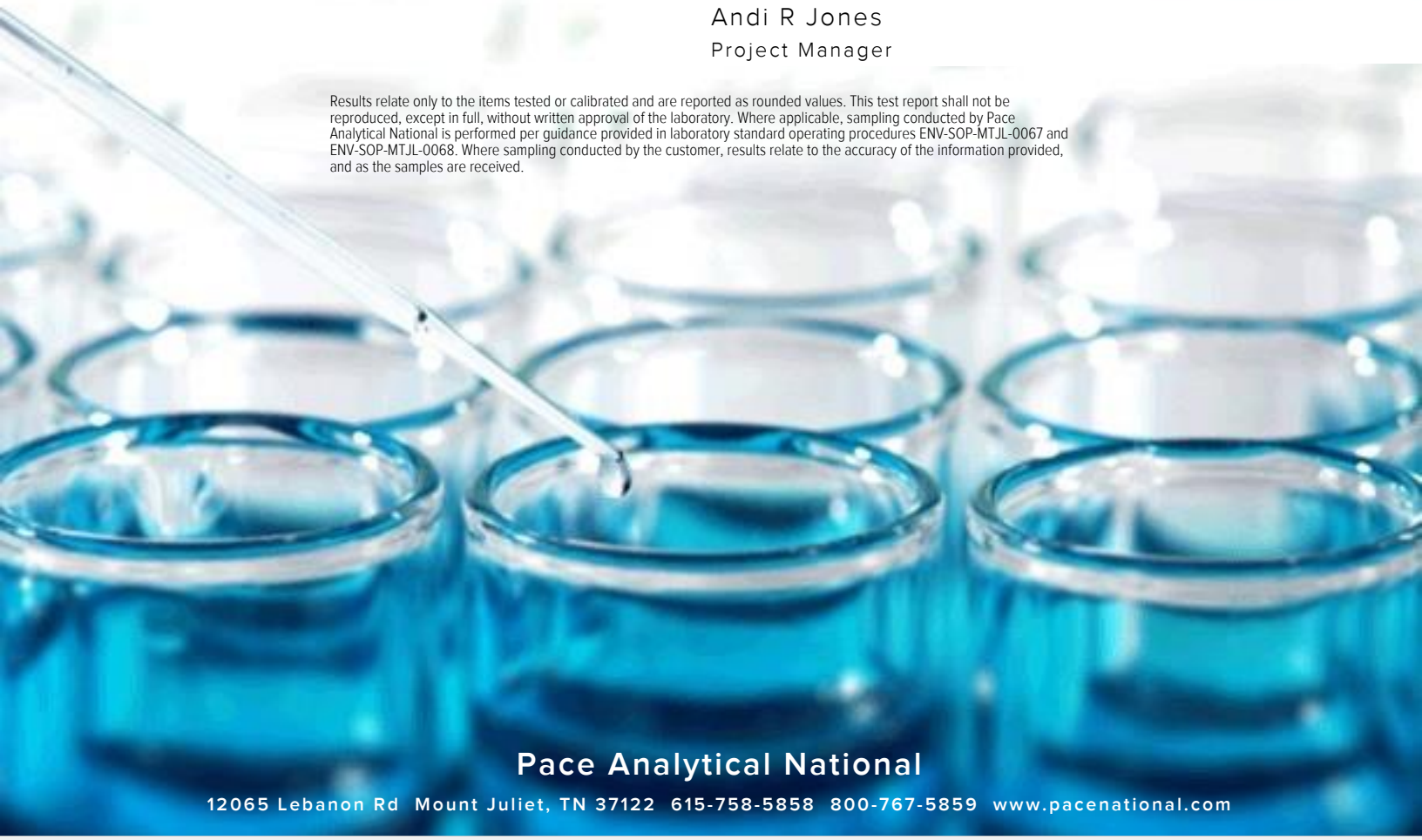
November 28, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1676873
Samples Received:	11/11/2023
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



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

TABLE OF CONTENTS

SB-BN-10-10(110723) L1676873-01 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 11:41 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170026	1	11/14/23 12:38	11/14/23 12:52	CMK	Mt. Juliet, TN
Wet Chemistry by Method WALKLEY-BLACK	WG2172646	1	11/19/23 15:35	11/19/23 17:52	CAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171458	25	11/07/23 11:41	11/15/23 11:52	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/07/23 11:41	11/17/23 05:39	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171259	1	11/15/23 22:05	11/16/23 10:59	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2171365	1	11/15/23 16:29	11/16/23 15:24	DSH	Mt. Juliet, TN

SB-BN-10-20(110723) L1676873-02 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 13:37 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170026	1	11/14/23 12:38	11/14/23 12:52	CMK	Mt. Juliet, TN
Wet Chemistry by Method WALKLEY-BLACK	WG2172646	1	11/19/23 15:35	11/19/23 17:53	CAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171458	26	11/07/23 13:37	11/15/23 16:20	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1.04	11/07/23 13:37	11/17/23 05:59	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171259	1	11/15/23 22:05	11/16/23 10:08	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2171365	1	11/15/23 16:29	11/16/23 15:04	DSH	Mt. Juliet, TN

SB-BN-10-35(110723) L1676873-03 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 15:10 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170026	1	11/14/23 12:38	11/14/23 12:52	CMK	Mt. Juliet, TN
Wet Chemistry by Method WALKLEY-BLACK	WG2172646	1	11/19/23 15:35	11/19/23 17:53	CAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171458	30.8	11/07/23 15:10	11/15/23 16:44	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1.23	11/07/23 15:10	11/17/23 06:18	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171259	1	11/15/23 22:05	11/16/23 09:42	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2171365	1	11/15/23 16:29	11/16/23 13:23	DSH	Mt. Juliet, TN

SB-BN-05-12(110723) L1676873-04 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/06/23 15:23 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170026	1	11/14/23 12:38	11/14/23 12:52	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/06/23 15:23	11/17/23 06:38	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2174912	10	11/06/23 15:23	11/20/23 22:07	JHH	Mt. Juliet, TN

SB-BN-05-20(110723) L1676873-05 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 08:00 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170026	1	11/14/23 12:38	11/14/23 12:52	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/07/23 08:00	11/17/23 06:58	DWR	Mt. Juliet, TN

SB-BN-05-35(110723) L1676873-06 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 08:25 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170027	1	11/14/23 12:21	11/14/23 12:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/07/23 08:25	11/17/23 07:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2174912	1	11/07/23 08:25	11/20/23 22:26	JHH	Mt. Juliet, TN

SB-BN-04-10(110823) L1676873-07 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 10:56 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170027	1	11/14/23 12:21	11/14/23 12:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171458	25	11/08/23 10:56	11/15/23 17:07	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 10:56	11/17/23 07:37	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2174912	1	11/08/23 10:56	11/20/23 22:45	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171259	1	11/15/23 22:05	11/16/23 10:20	JAS	Mt. Juliet, TN

SB-BN-DUP-03(110823) L1676873-08 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 00:00 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170027	1	11/14/23 12:21	11/14/23 12:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171458	25	11/08/23 00:00	11/15/23 17:55	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 00:00	11/17/23 07:56	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171259	1	11/15/23 22:05	11/16/23 09:55	JAS	Mt. Juliet, TN

TB-05(110923) L1676873-09 GW

Collected by: Roberto Piemontese | Collected date/time: 11/09/23 00:00 | Received date/time: 11/11/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173907	1	11/19/23 04:10	11/19/23 04:10	DYW	Mt. Juliet, TN

CASE NARRATIVE

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

Andi R Jones
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.7		1	11/14/2023 12:52	WG2170026

Wet Chemistry by Method WALKLEY-BLACK

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TOC By Walkley Black	6870		30.8	121	1	11/19/2023 17:52	WG2172646

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	5.51		1.23	3.62	25	11/15/2023 11:52	WG2171458
(S) a,a,a-Trifluorotoluene(FID)	*98.1*			*77.0-120*		*11/15/2023 11:52*	WG2171458

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.935		0.000676	0.00145	1	11/17/2023 05:39	WG2172824
1,2-Dichloroethane	U		0.000939	0.00362	1	11/17/2023 05:39	WG2172824
1,1-Dichloroethene	U		0.000877	0.00362	1	11/17/2023 05:39	WG2172824
cis-1,2-Dichloroethene	U		0.00106	0.00362	1	11/17/2023 05:39	WG2172824
trans-1,2-Dichloroethene	U		0.00151	0.00724	1	11/17/2023 05:39	WG2172824
Ethylbenzene	0.00220	J	0.00107	0.00362	1	11/17/2023 05:39	WG2172824
Tetrachloroethene	U		0.00130	0.00362	1	11/17/2023 05:39	WG2172824
Toluene	0.00977		0.00188	0.00724	1	11/17/2023 05:39	WG2172824
Trichloroethene	0.00284		0.000845	0.00145	1	11/17/2023 05:39	WG2172824
Vinyl chloride	U		0.00168	0.00362	1	11/17/2023 05:39	WG2172824
Xylenes, Total	0.00754	J	0.00127	0.00941	1	11/17/2023 05:39	WG2172824
(S) Toluene-d8	*109*			*75.0-131*		*11/17/2023 05:39*	WG2172824
(S) 4-Bromofluorobenzene	*88.3*			*67.0-138*		*11/17/2023 05:39*	WG2172824
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*		*11/17/2023 05:39*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	2.37	J	1.61	4.84	1	11/16/2023 10:59	WG2171259
Residual Range Organics (RRO)	6.94	J	4.03	12.1	1	11/16/2023 10:59	WG2171259
(S) o-Terphenyl	*58.6*			*18.0-148*		*11/16/2023 10:59*	WG2171259

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0108	0.403	1	11/16/2023 15:24	WG2171365
(S) 2-Fluorophenol	*54.7*			*12.0-120*		*11/16/2023 15:24*	WG2171365
(S) Phenol-d5	*54.1*			*10.0-120*		*11/16/2023 15:24*	WG2171365
(S) Nitrobenzene-d5	*53.3*			*10.0-122*		*11/16/2023 15:24*	WG2171365
(S) 2-Fluorobiphenyl	*49.7*			*15.0-120*		*11/16/2023 15:24*	WG2171365
(S) 2,4,6-Tribromophenol	*54.7*			*10.0-127*		*11/16/2023 15:24*	WG2171365
(S) p-Terphenyl-d14	*54.8*			*10.0-120*		*11/16/2023 15:24*	WG2171365

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.6		1	11/14/2023 12:52	WG2170026

Wet Chemistry by Method WALKLEY-BLACK

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TOC By Walkley Black	3690		29.1	114	1	11/19/2023 17:53	WG2172646

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.98	J	1.13	3.32	26	11/15/2023 16:20	WG2171458
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*11/15/2023 16:20*	WG2171458

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00552		0.000621	0.00133	1.04	11/17/2023 05:59	WG2172824
1,2-Dichloroethane	U		0.000863	0.00332	1.04	11/17/2023 05:59	WG2172824
1,1-Dichloroethene	U		0.000805	0.00332	1.04	11/17/2023 05:59	WG2172824
cis-1,2-Dichloroethene	U		0.000975	0.00332	1.04	11/17/2023 05:59	WG2172824
trans-1,2-Dichloroethene	U		0.00138	0.00664	1.04	11/17/2023 05:59	WG2172824
Ethylbenzene	0.00113	J	0.000979	0.00332	1.04	11/17/2023 05:59	WG2172824
Tetrachloroethene	U		0.00119	0.00332	1.04	11/17/2023 05:59	WG2172824
Toluene	0.00432	J	0.00173	0.00664	1.04	11/17/2023 05:59	WG2172824
Trichloroethene	0.00997		0.000776	0.00133	1.04	11/17/2023 05:59	WG2172824
Vinyl chloride	U		0.00155	0.00332	1.04	11/17/2023 05:59	WG2172824
Xylenes, Total	0.00741	J	0.00117	0.00864	1.04	11/17/2023 05:59	WG2172824
(S) Toluene-d8	*112*			*75.0-131*		*11/17/2023 05:59*	WG2172824
(S) 4-Bromofluorobenzene	*88.8*			*67.0-138*		*11/17/2023 05:59*	WG2172824
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*		*11/17/2023 05:59*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.73	J	1.52	4.57	1	11/16/2023 10:08	WG2171259
Residual Range Organics (RRO)	U		3.80	11.4	1	11/16/2023 10:08	WG2171259
(S) o-Terphenyl	*45.0*			*18.0-148*		*11/16/2023 10:08*	WG2171259

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0102	0.380	1	11/16/2023 15:04	WG2171365
(S) 2-Fluorophenol	*50.6*			*12.0-120*		*11/16/2023 15:04*	WG2171365
(S) Phenol-d5	*50.8*			*10.0-120*		*11/16/2023 15:04*	WG2171365
(S) Nitrobenzene-d5	*48.0*			*10.0-122*		*11/16/2023 15:04*	WG2171365
(S) 2-Fluorobiphenyl	*46.5*			*15.0-120*		*11/16/2023 15:04*	WG2171365
(S) 2,4,6-Tribromophenol	*52.1*			*10.0-127*		*11/16/2023 15:04*	WG2171365
(S) p-Terphenyl-d14	*53.2*			*10.0-120*		*11/16/2023 15:04*	WG2171365

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.0		1	11/14/2023 12:52	WG2170026

Wet Chemistry by Method WALKLEY-BLACK

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TOC By Walkley Black	1290		30.3	119	1	11/19/2023 17:53	WG2172646

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.40	4.14	30.8	11/15/2023 16:44	WG2171458
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*11/15/2023 16:44*	WG2171458

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000772	0.00165	1.23	11/17/2023 06:18	WG2172824
1,2-Dichloroethane	U		0.00107	0.00414	1.23	11/17/2023 06:18	WG2172824
1,1-Dichloroethene	U		0.00100	0.00414	1.23	11/17/2023 06:18	WG2172824
cis-1,2-Dichloroethene	U		0.00121	0.00414	1.23	11/17/2023 06:18	WG2172824
trans-1,2-Dichloroethene	U		0.00172	0.00827	1.23	11/17/2023 06:18	WG2172824
Ethylbenzene	U		0.00122	0.00414	1.23	11/17/2023 06:18	WG2172824
Tetrachloroethene	U		0.00148	0.00414	1.23	11/17/2023 06:18	WG2172824
Toluene	U		0.00215	0.00827	1.23	11/17/2023 06:18	WG2172824
Trichloroethene	0.0107		0.000965	0.00165	1.23	11/17/2023 06:18	WG2172824
Vinyl chloride	U		0.00192	0.00414	1.23	11/17/2023 06:18	WG2172824
Xylenes, Total	0.00181	J	0.00145	0.0108	1.23	11/17/2023 06:18	WG2172824
(S) Toluene-d8	*111*			*75.0-131*		*11/17/2023 06:18*	WG2172824
(S) 4-Bromofluorobenzene	*87.3*			*67.0-138*		*11/17/2023 06:18*	WG2172824
(S) 1,2-Dichloroethane-d4	*91.3*			*70.0-130*		*11/17/2023 06:18*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.58	4.76	1	11/16/2023 09:42	WG2171259
Residual Range Organics (RRO)	U		3.96	11.9	1	11/16/2023 09:42	WG2171259
(S) o-Terphenyl	*48.2*			*18.0-148*		*11/16/2023 09:42*	WG2171259

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Pentachlorophenol	U		0.0107	0.396	1	11/16/2023 13:23	WG2171365
(S) 2-Fluorophenol	*51.1*			*12.0-120*		*11/16/2023 13:23*	WG2171365
(S) Phenol-d5	*49.7*			*10.0-120*		*11/16/2023 13:23*	WG2171365
(S) Nitrobenzene-d5	*46.7*			*10.0-122*		*11/16/2023 13:23*	WG2171365
(S) 2-Fluorobiphenyl	*45.5*			*15.0-120*		*11/16/2023 13:23*	WG2171365
(S) 2,4,6-Tribromophenol	*52.0*			*10.0-127*		*11/16/2023 13:23*	WG2171365
(S) p-Terphenyl-d14	*53.3*			*10.0-120*		*11/16/2023 13:23*	WG2171365

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.5		1	11/14/2023 12:52	WG2170026

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000916	0.00353	1	11/17/2023 06:38	WG2172824
1,1-Dichloroethene	0.00395		0.000855	0.00353	1	11/17/2023 06:38	WG2172824
cis-1,2-Dichloroethene	0.490		0.00104	0.00353	1	11/17/2023 06:38	WG2172824
trans-1,2-Dichloroethene	0.673		0.00147	0.00706	1	11/17/2023 06:38	WG2172824
Tetrachloroethene	U		0.00126	0.00353	1	11/17/2023 06:38	WG2172824
Trichloroethene	5.93		0.00824	0.0141	10	11/20/2023 22:07	WG2174912
Vinyl chloride	U		0.00164	0.00353	1	11/17/2023 06:38	WG2172824
(S) Toluene-d8	*107*			*75.0-131*		*11/17/2023 06:38*	WG2172824
(S) Toluene-d8	*95.9*			*75.0-131*		*11/20/2023 22:07*	WG2174912
(S) 4-Bromofluorobenzene	*88.3*			*67.0-138*		*11/17/2023 06:38*	WG2172824
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/20/2023 22:07*	WG2174912
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*		*11/17/2023 06:38*	WG2172824
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/20/2023 22:07*	WG2174912

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.5		1	11/14/2023 12:52	WG2170026

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000953	0.00367	1	11/17/2023 06:58	WG2172824
1,1-Dichloroethene	U		0.000890	0.00367	1	11/17/2023 06:58	WG2172824
cis-1,2-Dichloroethene	0.00708		0.00108	0.00367	1	11/17/2023 06:58	WG2172824
trans-1,2-Dichloroethene	0.00217	J	0.00153	0.00734	1	11/17/2023 06:58	WG2172824
Tetrachloroethene	U		0.00132	0.00367	1	11/17/2023 06:58	WG2172824
Trichloroethene	1.54		0.000857	0.00147	1	11/17/2023 06:58	WG2172824
Vinyl chloride	U		0.00170	0.00367	1	11/17/2023 06:58	WG2172824
(S) Toluene-d8	*109*			*75.0-131*		*11/17/2023 06:58*	WG2172824
(S) 4-Bromofluorobenzene	*87.9*			*67.0-138*		*11/17/2023 06:58*	WG2172824
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*11/17/2023 06:58*	WG2172824

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.2		1	11/14/2023 12:36	WG2170027

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000920	0.00355	1	11/17/2023 07:17	WG2172824
1,1-Dichloroethene	U		0.000859	0.00355	1	11/17/2023 07:17	WG2172824
cis-1,2-Dichloroethene	0.0227		0.00104	0.00355	1	11/17/2023 07:17	WG2172824
trans-1,2-Dichloroethene	U		0.00148	0.00709	1	11/17/2023 07:17	WG2172824
Tetrachloroethene	U		0.00127	0.00355	1	11/17/2023 07:17	WG2172824
Trichloroethene	0.0134		0.000828	0.00142	1	11/20/2023 22:26	WG2174912
Vinyl chloride	U		0.00165	0.00355	1	11/17/2023 07:17	WG2172824
(S) Toluene-d8	*111*			*75.0-131*		*11/17/2023 07:17*	WG2172824
(S) Toluene-d8	*100*			*75.0-131*		*11/20/2023 22:26*	WG2174912
(S) 4-Bromofluorobenzene	*86.6*			*67.0-138*		*11/17/2023 07:17*	WG2172824
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*11/20/2023 22:26*	WG2174912
(S) 1,2-Dichloroethane-d4	*97.5*			*70.0-130*		*11/17/2023 07:17*	WG2172824
(S) 1,2-Dichloroethane-d4	*98.4*			*70.0-130*		*11/20/2023 22:26*	WG2174912

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.7		1	11/14/2023 12:36	WG2170027

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.36	4.02	25	11/15/2023 17:07	WG2171458
(S) a,a,a-Trifluorotoluene(FID)	*99.8*			*77.0-120*		*11/15/2023 17:07*	WG2171458

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.00104	0.00402	1	11/17/2023 07:37	WG2172824
1,1-Dichloroethene	U		0.000974	0.00402	1	11/17/2023 07:37	WG2172824
cis-1,2-Dichloroethene	U		0.00118	0.00402	1	11/17/2023 07:37	WG2172824
trans-1,2-Dichloroethene	U		0.00167	0.00804	1	11/17/2023 07:37	WG2172824
Tetrachloroethene	U		0.00144	0.00402	1	11/17/2023 07:37	WG2172824
Trichloroethene	0.0152		0.000939	0.00161	1	11/20/2023 22:45	WG2174912
Vinyl chloride	U		0.00186	0.00402	1	11/17/2023 07:37	WG2172824
(S) Toluene-d8	*109*			*75.0-131*		*11/17/2023 07:37*	WG2172824
(S) Toluene-d8	*95.6*			*75.0-131*		*11/20/2023 22:45*	WG2174912
(S) 4-Bromofluorobenzene	*86.8*			*67.0-138*		*11/17/2023 07:37*	WG2172824
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/20/2023 22:45*	WG2174912
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/17/2023 07:37*	WG2172824
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*11/20/2023 22:45*	WG2174912

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	2.15	J	1.73	5.22	1	11/16/2023 10:20	WG2171259
Residual Range Organics (RRO)	4.75	J	4.34	13.0	1	11/16/2023 10:20	WG2171259
(S) o-Terphenyl	*35.9*			*18.0-148*		*11/16/2023 10:20*	WG2171259

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.3		1	11/14/2023 12:36	WG2170027

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.39	J	1.24	3.66	25	11/15/2023 17:55	WG2171458
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*77.0-120*		*11/15/2023 17:55*	WG2171458

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000950	0.00366	1	11/17/2023 07:56	WG2172824
1,1-Dichloroethene	U		0.000887	0.00366	1	11/17/2023 07:56	WG2172824
cis-1,2-Dichloroethene	U		0.00107	0.00366	1	11/17/2023 07:56	WG2172824
trans-1,2-Dichloroethene	U		0.00152	0.00732	1	11/17/2023 07:56	WG2172824
Tetrachloroethene	U		0.00131	0.00366	1	11/17/2023 07:56	WG2172824
Trichloroethene	U		0.000855	0.00146	1	11/17/2023 07:56	WG2172824
Vinyl chloride	U		0.00170	0.00366	1	11/17/2023 07:56	WG2172824
(S) Toluene-d8	*112*			*75.0-131*		*11/17/2023 07:56*	WG2172824
(S) 4-Bromofluorobenzene	*91.5*			*67.0-138*		*11/17/2023 07:56*	WG2172824
(S) 1,2-Dichloroethane-d4	*99.6*			*70.0-130*		*11/17/2023 07:56*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.64	4.92	1	11/16/2023 09:55	WG2171259
Residual Range Organics (RRO)	U		4.10	12.3	1	11/16/2023 09:55	WG2171259
(S) o-Terphenyl	*42.2*			*18.0-148*		*11/16/2023 09:55*	WG2171259

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	11/19/2023 04:10	WG2173907
cis-1,2-Dichloroethene	U		0.126	1.00	1	11/19/2023 04:10	WG2173907
trans-1,2-Dichloroethene	U		0.149	1.00	1	11/19/2023 04:10	WG2173907
1,2-Dichloropropane	U		0.149	1.00	1	11/19/2023 04:10	WG2173907
1,1-Dichloropropene	U		0.142	1.00	1	11/19/2023 04:10	WG2173907
Ethylbenzene	U		0.137	1.00	1	11/19/2023 04:10	WG2173907
Tetrachloroethene	U		0.300	1.00	1	11/19/2023 04:10	WG2173907
Toluene	U		0.278	1.00	1	11/19/2023 04:10	WG2173907
Trichloroethene	U		0.190	1.00	1	11/19/2023 04:10	WG2173907
Vinyl chloride	U		0.234	1.00	1	11/19/2023 04:10	WG2173907
Xylenes, Total	U		0.174	3.00	1	11/19/2023 04:10	WG2173907
(S) Toluene-d8	*98.0*			*80.0-120*		*11/19/2023 04:10*	WG2173907
(S) 4-Bromofluorobenzene	*84.9*			*77.0-126*		*11/19/2023 04:10*	WG2173907
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*11/19/2023 04:10*	WG2173907

Method Blank (MB)

(MB) R3999989-1 11/14/23 12:52

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00300			

L1676873-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1676873-05 11/14/23 12:52 • (DUP) R3999989-3 11/14/23 12:52

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	82.5	80.0	1	3.11		10

Laboratory Control Sample (LCS)

(LCS) R3999989-2 11/14/23 12:52

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

Method Blank (MB)

(MB) R3999984-1 11/14/23 12:36

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00300			

L1676873-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1676873-07 11/14/23 12:36 • (DUP) R3999984-3 11/14/23 12:36

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	76.7	75.6	1	1.38		10

Laboratory Control Sample (LCS)

(LCS) R3999984-2 11/14/23 12:36

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	90.0-110	

QUALITY CONTROL SUMMARY

L1676873-01,02,03

Method Blank (MB)

(MB) R4001980-1 11/19/23 17:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TOC By Walkley Black	U		25.5	100

L1676873-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1676873-01 11/19/23 17:52 • (DUP) R4001980-3 11/19/23 17:52

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC By Walkley Black	6870	6730	1	2.09		20

Laboratory Control Sample (LCS)

(LCS) R4001980-2 11/19/23 17:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC By Walkley Black	4890	4590	93.8	40.0-160	

L1677225-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-02 11/19/23 17:54 • (MS) R4001980-4 11/19/23 17:54 • (MSD) R4001980-5 11/19/23 17:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC By Walkley Black	4780	6880	11200	11300	90.8	92.2	1	80.0-120			0.591	20

L1677225-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-03 11/19/23 18:02 • (MS) R4001980-6 11/19/23 18:09 • (MSD) R4001980-7 11/19/23 18:15

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC By Walkley Black	5060	8350	12700	12500	85.1	82.5	1	80.0-120		E	1.04	20

Method Blank (MB)

(MB) R4000946-3 11/15/23 10:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*77.0-120*

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

(LCS) R4000946-1 11/15/23 09:20 • (LCSD) R4000946-2 11/15/23 09:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.85	6.46	106	117	71.0-124			9.91	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*105*	*77.0-120*				

L1676873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676873-07 11/15/23 17:07 • (MS) R4000946-4 11/16/23 00:09 • (MSD) R4000946-5 11/16/23 00:32

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	222	U	169	166	76.1	74.6	25	50.0-150			1.92	27
(S) a,a,a-Trifluorotoluene(FID)					*92.9*	*93.3*		*77.0-120*				

Method Blank (MB)

(MB) R4002388-3 11/17/23 05:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Ethylbenzene	U		0.000737	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*110*			*75.0-131*
(S) 4-Bromofluorobenzene	*87.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*

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

(LCS) R4002388-1 11/17/23 03:41 • (LCSD) R4002388-2 11/17/23 04:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.105	0.110	84.0	88.0	70.0-123			4.65	20
1,2-Dichloroethane	0.125	0.123	0.125	98.4	100	65.0-131			1.61	20
1,1-Dichloroethene	0.125	0.106	0.109	84.8	87.2	65.0-131			2.79	20
cis-1,2-Dichloroethene	0.125	0.104	0.103	83.2	82.4	73.0-125			0.966	20
trans-1,2-Dichloroethene	0.125	0.103	0.105	82.4	84.0	71.0-125			1.92	20
Ethylbenzene	0.125	0.130	0.128	104	102	74.0-126			1.55	20
Tetrachloroethene	0.125	0.136	0.146	109	117	70.0-136			7.09	20
Toluene	0.125	0.131	0.133	105	106	75.0-121			1.52	20
Trichloroethene	0.125	0.116	0.116	92.8	92.8	76.0-126			0.000	20
Vinyl chloride	0.125	0.101	0.115	80.8	92.0	63.0-134			13.0	20
Xylenes, Total	0.375	0.363	0.381	96.8	102	72.0-127			4.84	20
(S) Toluene-d8				*105*	*104*	*75.0-131*				
(S) 4-Bromofluorobenzene				*90.2*	*92.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*110*	*70.0-130*				

L1676873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676873-07 11/17/23 07:37 • (MS) R4002388-4 11/17/23 12:10 • (MSD) R4002388-5 11/17/23 12:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.00	U	0.807	0.783	80.3	77.9	1	50.0-150			3.03	37
1,2-Dichloroethane	1.00	U	0.813	0.818	81.0	81.4	1	50.0-150			0.591	35
1,1-Dichloroethene	1.00	U	0.818	0.813	81.4	81.0	1	50.0-150			0.591	37
cis-1,2-Dichloroethene	1.00	U	0.775	0.749	77.1	74.6	1	50.0-150			3.38	37
trans-1,2-Dichloroethene	1.00	U	0.783	0.759	77.9	75.5	1	50.0-150			3.13	37
Ethylbenzene	1.00	U	0.965	0.950	96.0	94.6	1	50.0-150			1.51	38
Tetrachloroethene	1.00	U	1.06	1.04	105	104	1	50.0-150			1.53	39
Toluene	1.00	0.00217	0.974	0.968	96.7	96.1	1	50.0-150			0.662	38
Trichloroethene	1.00	0.0156	0.923	0.867	90.3	84.7	1	50.0-150			6.29	38
Vinyl chloride	1.00	U	0.776	0.749	77.3	74.6	1	50.0-150			3.58	37
Xylenes, Total	3.02	U	2.81	2.80	93.1	92.6	1	50.0-150			0.573	38
(S) Toluene-d8					*103*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*87.0*	*86.6*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*111*	*105*		*70.0-130*				

L1677225-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-01 11/17/23 08:35 • (MS) R4002388-6 11/17/23 12:49 • (MSD) R4002388-7 11/17/23 13:09

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.806	U	0.640	0.545	79.4	67.6	1	50.0-150			16.1	37
1,2-Dichloroethane	0.806	U	0.667	0.632	82.7	78.4	1	50.0-150			5.30	35
1,1-Dichloroethene	0.806	U	0.640	0.415	79.4	51.5	1	50.0-150		J3	42.7	37
cis-1,2-Dichloroethene	0.806	U	0.606	0.543	75.1	67.4	1	50.0-150			10.9	37
trans-1,2-Dichloroethene	0.806	U	0.612	0.491	75.9	61.0	1	50.0-150			21.8	37
Ethylbenzene	0.806	U	0.762	0.689	94.6	85.4	1	50.0-150			10.1	38
Tetrachloroethene	0.806	U	0.834	0.640	103	79.4	1	50.0-150			26.3	39
Toluene	0.806	0.00275	0.771	0.701	95.4	86.6	1	50.0-150			9.56	38
Trichloroethene	0.806	U	0.721	0.579	89.5	71.8	1	50.0-150			21.9	38
Vinyl chloride	0.806	U	0.598	0.355	74.2	44.1	1	50.0-150		J3 J6	50.9	37
Xylenes, Total	2.43	0.00401	2.25	2.05	92.7	84.4	1	50.0-150			9.45	38
(S) Toluene-d8					*102*	*104*		*75.0-131*				
(S) 4-Bromofluorobenzene					*87.1*	*90.3*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*112*	*104*		*70.0-130*				

L1677225-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-02 11/17/23 08:55 • (MS) R4002388-8 11/17/23 13:28 • (MSD) R4002388-9 11/17/23 13:48

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.786	U	0.620	0.627	78.9	79.8	1	50.0-150			1.14	37
1,2-Dichloroethane	0.786	U	0.610	0.615	77.7	78.2	1	50.0-150			0.694	35
1,1-Dichloroethene	0.786	U	0.640	0.636	81.4	80.9	1	50.0-150			0.666	37
cis-1,2-Dichloroethene	0.786	U	0.581	0.590	73.9	75.1	1	50.0-150			1.69	37
trans-1,2-Dichloroethene	0.786	U	0.607	0.606	77.3	77.1	1	50.0-150			0.233	37
Ethylbenzene	0.786	U	0.753	0.741	95.9	94.2	1	50.0-150			1.71	38
Tetrachloroethene	0.786	U	0.844	0.820	107	104	1	50.0-150			2.89	39
Toluene	0.786	0.00476	0.772	0.756	97.6	95.6	1	50.0-150			2.04	38
Trichloroethene	0.786	U	0.690	0.709	87.7	90.3	1	50.0-150			2.83	38
Vinyl chloride	0.786	U	0.595	0.610	75.7	77.7	1	50.0-150			2.59	37
Xylenes, Total	2.36	0.00195	2.18	2.17	92.1	91.5	1	50.0-150			0.651	38
(S) Toluene-d8					*104*	*101*		*75.0-131*				
(S) 4-Bromofluorobenzene					*86.1*	*87.5*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*102*	*110*		*70.0-130*				

L1677225-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-03 11/17/23 09:14 • (MS) R4002388-10 11/17/23 14:07 • (MSD) R4002388-11 11/17/23 14:27

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.893	U	0.747	0.711	83.7	79.7	1	50.0-150			4.90	37
1,2-Dichloroethane	0.893	U	0.727	0.708	81.4	79.3	1	50.0-150			2.60	35
1,1-Dichloroethene	0.893	U	0.778	0.703	87.1	78.8	1	50.0-150			10.1	37
cis-1,2-Dichloroethene	0.893	U	0.705	0.646	79.0	72.3	1	50.0-150			8.74	37
trans-1,2-Dichloroethene	0.893	U	0.731	0.669	81.9	75.0	1	50.0-150			8.87	37
Ethylbenzene	0.893	U	0.901	0.848	101	95.0	1	50.0-150			6.04	38
Tetrachloroethene	0.893	U	1.00	0.938	112	105	1	50.0-150			6.41	39
Toluene	0.893	0.00203	0.918	0.856	103	95.6	1	50.0-150			7.01	38
Trichloroethene	0.893	U	0.823	0.793	92.2	88.9	1	50.0-150			3.65	38
Vinyl chloride	0.893	U	0.741	0.674	83.0	75.5	1	50.0-150			9.44	37
Xylenes, Total	2.69	0.00197	2.62	2.45	97.6	91.3	1	50.0-150			6.73	38
(S) Toluene-d8					*105*	*102*		*75.0-131*				
(S) 4-Bromofluorobenzene					*86.8*	*87.5*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*101*	*108*		*70.0-130*				

Method Blank (MB)

(MB) R4002627-2 11/20/23 20:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Trichloroethene	U		0.000584	0.00100
(S) Toluene-d8	*98.6*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4002627-1 11/20/23 19:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.125	0.154	123	76.0-126	
(S) Toluene-d8			*96.8*	*75.0-131*	
(S) 4-Bromofluorobenzene			*104*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*94.8*	*70.0-130*	

Method Blank (MB)

(MB) R4002757-3 11/18/23 21:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
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	*97.6*			*80.0-120*
(S) 4-Bromofluorobenzene	*86.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*

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

(LCS) R4002757-1 11/18/23 19:49 • (LCSD) R4002757-2 11/18/23 20:11

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	4.61	4.65	92.2	93.0	70.0-123			0.864	20
cis-1,2-Dichloroethene	5.00	4.35	4.40	87.0	88.0	73.0-120			1.14	20
trans-1,2-Dichloroethene	5.00	4.55	4.41	91.0	88.2	73.0-120			3.13	20
1,2-Dichloropropane	5.00	4.86	4.92	97.2	98.4	77.0-125			1.23	20
1,1-Dichloropropene	5.00	4.88	4.56	97.6	91.2	74.0-126			6.78	20
Ethylbenzene	5.00	4.17	4.16	83.4	83.2	79.0-123			0.240	20
Tetrachloroethene	5.00	4.62	5.13	92.4	103	72.0-132			10.5	20
Toluene	5.00	4.53	4.76	90.6	95.2	79.0-120			4.95	20
Trichloroethene	5.00	4.98	4.71	99.6	94.2	78.0-124			5.57	20
Vinyl chloride	5.00	5.77	6.02	115	120	67.0-131			4.24	20
Xylenes, Total	15.0	12.6	12.9	84.0	86.0	79.0-123			2.35	20
(S) Toluene-d8				*96.6*	*94.6*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.1*	*91.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*103*	*97.3*	*70.0-130*				

Method Blank (MB)

(MB) R4000531-1 11/16/23 03:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*46.4*			*18.0-148*

Method Blank (MB)

(MB) R4000692-1 11/16/23 09:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*48.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4000531-2 11/16/23 03:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	26.9	53.8	50.0-150	
(S) o-Terphenyl			*49.5*	*18.0-148*	

L1676873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676873-07 11/16/23 10:20 • (MS) R4000692-2 11/16/23 10:33 • (MSD) R4000692-3 11/16/23 10:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	65.2	2.15	45.6	37.8	66.7	54.7	1	50.0-150			18.8	20
(S) o-Terphenyl					*62.6*	*49.8*		*18.0-148*				

Method Blank (MB)

(MB) R4000829-2 11/16/23 10:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pentachlorophenol	U		0.00896	0.333
(S) 2-Fluorophenol	*57.2*			*12.0-120*
(S) Phenol-d5	*55.7*			*10.0-120*
(S) Nitrobenzene-d5	*53.8*			*10.0-122*
(S) 2-Fluorobiphenyl	*52.0*			*15.0-120*
(S) 2,4,6-Tribromophenol	*52.9*			*10.0-127*
(S) p-Terphenyl-d14	*59.5*			*10.0-120*

Laboratory Control Sample (LCS)

(LCS) R4000829-1 11/16/23 09:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Pentachlorophenol	0.666	0.299	44.9	29.0-120	
(S) 2-Fluorophenol			*58.7*	*12.0-120*	
(S) Phenol-d5			*58.0*	*10.0-120*	
(S) Nitrobenzene-d5			*47.1*	*10.0-122*	
(S) 2-Fluorobiphenyl			*53.8*	*15.0-120*	
(S) 2,4,6-Tribromophenol			*61.7*	*10.0-127*	
(S) p-Terphenyl-d14			*59.8*	*10.0-120*	

L1676954-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676954-01 11/16/23 15:45 • (MS) R4000829-3 11/16/23 16:05 • (MSD) R4000829-4 11/16/23 16:25

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	0.666	U	0.316	0.318	47.4	47.7	1	50.0-150	J6	J6	0.631	31
(S) 2-Fluorophenol					*57.8*	*58.1*		*12.0-120*				
(S) Phenol-d5					*59.0*	*58.6*		*10.0-120*				
(S) Nitrobenzene-d5					*51.4*	*45.9*		*10.0-122*				
(S) 2-Fluorobiphenyl					*51.4*	*52.6*		*15.0-120*				
(S) 2,4,6-Tribromophenol					*61.9*	*64.6*		*10.0-127*				
(S) p-Terphenyl-d14					*57.1*	*57.4*		*10.0-120*				

INTERNAL STANDARD SUMMARY

Instrument: VOCGC15 • File ID: 1115_03

11/15/23 08:57

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1115_03	423965600	77879
Upper Limit		847931200	155758
Lower Limit		211982800	38940
LCS R4000946-1 WG2171458 1x	1115_04	418204300	83318
LCSD R4000946-2 WG2171458 1x	1115_05	380106000	74027
BLANK R4000946-3 WG2171458 25x	1115_07	368537900	57265
L1676873-01 WG2171458 25x	1115_09	279970300	118903

Instrument: VOCGC15 • File ID: 1115_16

11/15/23 15:24

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1115_16	428744300	90085
Upper Limit		857488600	180170
Lower Limit		214372100	45043
L1676873-02 WG2171458 26x	1115_18	383710600	43944
L1676873-03 WG2171458 30.8x	1115_19	371768900	
L1676873-07 WG2171458 25x	1115_20	365601200	87468
L1676873-08 WG2171458 25x	1115_21	351338700	121896
MS R4000946-4 WG2171458 25x	1115_35	426836700	120179
MSD R4000946-5 WG2171458 25x	1115_36	432253900	79146

INTERNAL STANDARD SUMMARY

Instrument: VOCMS57 • File ID: 1120a_58-1

11/20/23 19:22

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	1120a_58-1	489418.40	271789.30	244363.40
Upper Limit		978837	543579	488727
Lower Limit		244709	135895	122182
LCS R4002627-1 WG2174912 1x	1120a_59	461798.50	259906.20	232083.10
BLANK R4002627-2 WG2174912 1x	1120a_63	475205.60	261595.70	239781.20
L1676873-04 WG2174912 10x	1120a_65	439636.30	257511.80	246073.60
L1676873-06 WG2174912 1x	1120a_66	485422.30	268858.20	251608.50
L1676873-07 WG2174912 1x	1120a_67	414126.90	232570.80	247187.30

Instrument: VOCMS59 • File ID: 1117_02

11/17/23 03:41

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	1117_02	449502.50	196976.10	172244.50
Upper Limit		899005	393952	344489
Lower Limit		224751	98488	86122
LCS R4002388-1 WG2172824 1x	1117_02LCS	449502.50	196976.10	172244.50
LCSD R4002388-2 WG2172824 1x	1117_03	431458	187546.40	169548.90
BLANK R4002388-3 WG2172824 1x	1117_07	506468.60	206042.90	166130.30
L1676873-01 WG2172824 1x	1117_08	486821.80	200685.60	160100
L1676873-02 WG2172824 1.04x	1117_09	483075.90	196069.10	159706.70
L1676873-03 WG2172824 1.23x	1117_10	473029	195178.50	155194.80
L1676873-04 WG2172824 1x	1117_11	390775.60	195684.90	161842.50
L1676873-05 WG2172824 1x	1117_12	455573.20	198837.50	167478.70
L1676873-06 WG2172824 1x	1117_13	498920.30	202285.50	166048.70
L1676873-07 WG2172824 1x	1117_14	484892	196531	157118
L1676873-08 WG2172824 1x	1117_15	489834.30	196549.30	160885.30
MS R4002388-4 WG2172824 1x	1117_28	486075.30	225256.60	185419.70
MSD R4002388-5 WG2172824 1x	1117_29	500505.20	222933.70	182461.40
MS R4002388-6 WG2172824 1x	1117_30	503821.60	230559.30	196020.60
MSD R4002388-7 WG2172824 1x	1117_31	519229.60	224333.90	199159.50
MS R4002388-8 WG2172824 1x	1117_32	504667.80	223786.60	186061.70
MSD R4002388-9 WG2172824 1x	1117_33	506973	232951	187523.30
MS R4002388-10 WG2172824 1x	1117_34	499411.60	222612.10	183771.70
MSD R4002388-11 WG2172824 1x	1117_35	521153.70	235336	188854.60

INTERNAL STANDARD SUMMARY

Instrument: VOCMS16 • File ID: 1118_28-2

11/18/23 19:49

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1118_28-2	247144	101447	88026
Upper Limit		494288	202894	176052
Lower Limit		123572	50724	44013
LCS R4002757-1 WG2173907 1x	1118_28LCSA	247144	101447	88026
LCSD R4002757-2 WG2173907 1x	1118_29A	258110	108335	89861
BLANK R4002757-3 WG2173907 1x	1118_32	243112	98963	77553
L1676873-09 WG2173907 1x	1118_50	209858	82152	62436

INTERNAL STANDARD SUMMARY

Instrument: BNAMS11 • File ID: 1116_03

11/16/23 08:36

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1116_03	61575	243431	125920	224228	209279	192872
Upper Limit		123150	486862	251840	448456	418558	385744
Lower Limit		30788	121716	62960	112114	104640	96436
LCS R4000829-1 WG2171365 1x	1116_05	56421	268663	121503	215596	203182	191739
BLANK R4000829-2 WG2171365 1x	1116_06	57470	229818	121344	216225	190508	182121
L1676873-03 WG2171365 1x	1116_16	54544	218224	116145	207591	185859	170113
L1676873-02 WG2171365 1x	1116_21	54697	219147	115624	210722	190637	171876
L1676873-01 WG2171365 1x	1116_22	54726	219907	117319	211140	190147	175546
MS R4000829-3 WG2171365 1x	1116_24	59728	271210	131558	229645	216850	198190
MSD R4000829-4 WG2171365 1x	1116_25	62252	280921	135236	239686	229394	208531

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
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.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
ARCADIS - BNSF Region 2
1420 5th Avenue, Suite 2400
Seattle, WA 98101

Billing Information:
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): **ROBERTO PIEMONTE**

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed: STD TAT

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270 8ozClr-NoPres	TOCWB, PERMEABILITY 4ozClr-NoPres	V8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
SB-BN-10-10(110723)	G	SS	10	11/07/23	11:41	3	X	X	X	X	X		-01
SB-BN-10-20(110723)	G	SS	20	11/07/23	13:37	4	X	X	X	X	X		-02
SB-BN-10-35(110723)	G	SS	35	11/07/23	15:10	4	X	X	X	X	X		-03
SB-BN-05-12(110623)	G	SS	12	11/06/23	15:23	3					X		-04
SB-BN-05-20(110723)	G	SS	20	11/07/23	8:09	3					X		-05
SB-BN-05-35(110723)	G	SS	35	11/07/23	8:25	3					X		-06
SB-BN-04-10(110823)	G	SS	10	11/08/23	10:56	9	X	X			X	MS/MSD	-07
SB-DUP-03(110823)	G	SS	—	11/08/23	—	3	X	X			X		-08
TB-05(110923)	—	SS	—	—	—	3	X	X			X		-09
		SS											

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # L1676877

G207

Acctnum: **BNSF2ARCA**
Template: **T240415**
Prelogin: **P1032344**
PM: **4089 - Andi R Jones**
PB: 10-25-23 6m
Shipped Via: **FedEX Ground**

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

Remarks:V8260: Special List
V8270: PCP only

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
ROBERTO PIEMONTE	11/09/23	1145		3 2 1
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp DPA8 °C 4.1+0=4.1 Bottles Received: 32
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Evi Dawson 17	Date: 11-10-23 Time: 800

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

ANALYTICAL REPORT

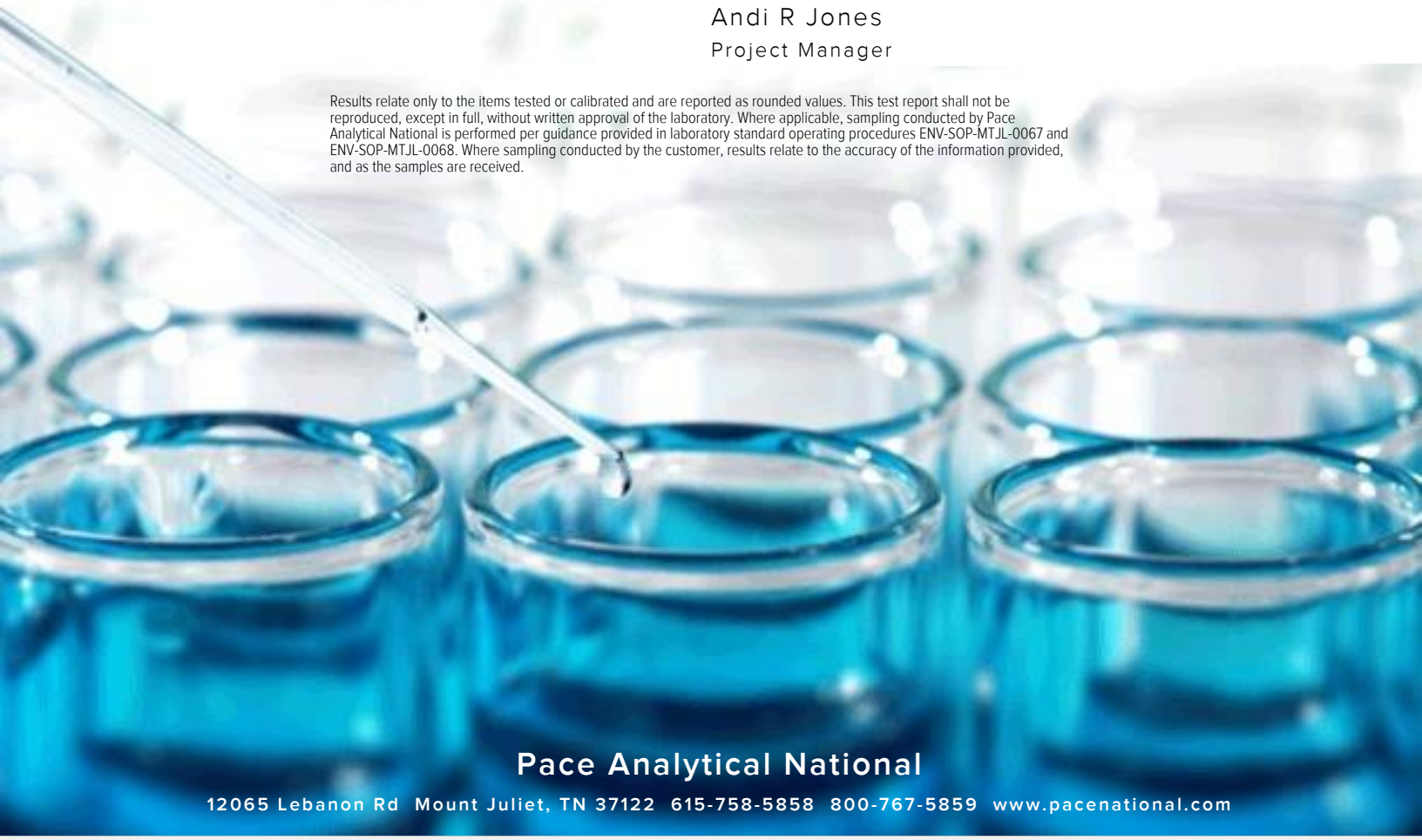
November 22, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1677083
Samples Received:	11/10/2023
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



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

TABLE OF CONTENTS

EB-02(110723) L1677083-01 GW

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 06:45 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2170704	1	11/14/23 13:04	11/14/23 13:04	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173211	1	11/17/23 23:35	11/17/23 23:35	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171261	1	11/16/23 07:35	11/20/23 23:45	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2169570	1.11	11/12/23 07:19	11/13/23 01:44	AGW	Mt. Juliet, TN

EB-03(110723) L1677083-02 GW

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 09:13 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173211	1	11/17/23 23:55	11/17/23 23:55	DWR	Mt. Juliet, TN

EB-04(110823) L1677083-03 GW

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 06:30 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2170704	1	11/14/23 13:26	11/14/23 13:26	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173211	1	11/18/23 00:14	11/18/23 00:14	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171261	1	11/16/23 07:35	11/21/23 00:04	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2169570	1.05	11/12/23 07:19	11/13/23 02:04	AGW	Mt. Juliet, TN

SB-BN-05-GW(110723) L1677083-04 GW

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 11:35 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2171550	1	11/15/23 15:55	11/15/23 15:55	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172655	100	11/16/23 22:10	11/16/23 22:10	KSD	Mt. Juliet, TN

EB-05(110823) L1677083-05 GW

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 16:16 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2170704	1	11/14/23 13:48	11/14/23 13:48	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173211	1	11/18/23 00:33	11/18/23 00:33	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171261	1	11/16/23 07:35	11/21/23 00:24	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2169570	1.11	11/12/23 07:19	11/13/23 02:25	AGW	Mt. Juliet, TN

MW-DUP-01(110723) L1677083-06 GW

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 00:00 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2171550	1	11/15/23 16:15	11/15/23 16:15	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172655	100	11/16/23 22:30	11/16/23 22:30	KSD	Mt. Juliet, TN

SB-BN-10-GW(110823) L1677083-07 GW

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 09:15 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2171550	1	11/15/23 16:55	11/15/23 16:55	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172655	1	11/16/23 18:48	11/16/23 18:48	KSD	Mt. Juliet, TN

EB-06(110923) L1677083-08 GW

Collected by: Roberto Piemontese | Collected date/time: 11/09/23 07:30 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2170704	1	11/14/23 14:10	11/14/23 14:10	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173211	1	11/18/23 00:52	11/18/23 00:52	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171261	1	11/16/23 07:35	11/21/23 00:43	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2169570	2	11/12/23 07:19	11/13/23 02:46	AGW	Mt. Juliet, TN

EB-07(110923) L1677083-09 GW

Collected by: Roberto Piemontese | Collected date/time: 11/09/23 08:10 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2170704	1	11/14/23 14:32	11/14/23 14:32	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173211	1	11/18/23 01:11	11/18/23 01:11	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171261	1	11/16/23 07:35	11/21/23 01:03	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2169570	1	11/12/23 07:19	11/13/23 03:07	AGW	Mt. Juliet, TN

TB-04(110923) L1677083-10 GW

Collected by: Roberto Piemontese | Collected date/time: 11/07/23 00:00 | Received date/time: 11/10/23 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173211	1	11/17/23 23:16	11/17/23 23:16	DWR	Mt. Juliet, TN

CASE NARRATIVE

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

Andi R Jones
Project Manager

Sample Delivery Group (SDG) Narrative

An aliquot for analysis was taken from the original container received due to volume requirements of the laboratory's procedure. Rinsing of the original sample container for inclusion in the sample extraction was not performed.

Lab Sample ID	Project Sample ID	Method
L1677083-09	EB-07(110923)	8270E

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	11/14/2023 13:04	WG2170704
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*11/14/2023 13:04*	WG2170704

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/17/2023 23:35	WG2173211
1,2-Dichloroethane	U		0.0190	0.100	1	11/17/2023 23:35	WG2173211
1,1-Dichloroethene	U		0.0200	0.100	1	11/17/2023 23:35	WG2173211
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/17/2023 23:35	WG2173211
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/17/2023 23:35	WG2173211
Ethylbenzene	U		0.0212	0.100	1	11/17/2023 23:35	WG2173211
Tetrachloroethene	U		0.0280	0.100	1	11/17/2023 23:35	WG2173211
Toluene	U		0.0500	0.200	1	11/17/2023 23:35	WG2173211
Trichloroethene	U		0.0160	0.0400	1	11/17/2023 23:35	WG2173211
Vinyl chloride	U		0.0273	0.100	1	11/17/2023 23:35	WG2173211
Xylenes, Total	U		0.191	0.260	1	11/17/2023 23:35	WG2173211
(S) Toluene-d8	*100*			*75.0-131*		*11/17/2023 23:35*	WG2173211
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/17/2023 23:35*	WG2173211
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*		*11/17/2023 23:35*	WG2173211

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	
Diesel Range Organics (DRO)	U		66.7	200	1	11/20/2023 23:45	WG2171261
Residual Range Organics (RRO)	U		83.3	250	1	11/20/2023 23:45	WG2171261
(S) o-Terphenyl	*72.6*			*52.0-156*		*11/20/2023 23:45*	WG2171261

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		0.347	1.11	1.11	11/13/2023 01:44	WG2169570
(S) 2-Fluorophenol	*36.6*			*10.0-120*		*11/13/2023 01:44*	WG2169570
(S) Phenol-d5	*23.2*			*10.0-120*		*11/13/2023 01:44*	WG2169570
(S) Nitrobenzene-d5	*61.0*			*10.0-127*		*11/13/2023 01:44*	WG2169570
(S) 2-Fluorobiphenyl	*58.4*			*10.0-130*		*11/13/2023 01:44*	WG2169570
(S) 2,4,6-Tribromophenol	*68.0*			*10.0-155*		*11/13/2023 01:44*	WG2169570
(S) p-Terphenyl-d14	*70.7*			*10.0-128*		*11/13/2023 01:44*	WG2169570

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	11/17/2023 23:55	WG2173211
1,1-Dichloroethene	U		0.0200	0.100	1	11/17/2023 23:55	WG2173211
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/17/2023 23:55	WG2173211
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/17/2023 23:55	WG2173211
Tetrachloroethene	U		0.0280	0.100	1	11/17/2023 23:55	WG2173211
Trichloroethene	U		0.0160	0.0400	1	11/17/2023 23:55	WG2173211
Vinyl chloride	U		0.0273	0.100	1	11/17/2023 23:55	WG2173211
(S) Toluene-d8	*103*			*75.0-131*		*11/17/2023 23:55*	WG2173211
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/17/2023 23:55*	WG2173211
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*11/17/2023 23:55*	WG2173211

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	11/14/2023 13:26	WG2170704
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*		*11/14/2023 13:26*	WG2170704

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/18/2023 00:14	WG2173211
1,2-Dichloroethane	U		0.0190	0.100	1	11/18/2023 00:14	WG2173211
1,1-Dichloroethene	U		0.0200	0.100	1	11/18/2023 00:14	WG2173211
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/18/2023 00:14	WG2173211
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/18/2023 00:14	WG2173211
Ethylbenzene	U		0.0212	0.100	1	11/18/2023 00:14	WG2173211
Tetrachloroethene	U		0.0280	0.100	1	11/18/2023 00:14	WG2173211
Toluene	U		0.0500	0.200	1	11/18/2023 00:14	WG2173211
Trichloroethene	U		0.0160	0.0400	1	11/18/2023 00:14	WG2173211
Vinyl chloride	U		0.0273	0.100	1	11/18/2023 00:14	WG2173211
Xylenes, Total	U		0.191	0.260	1	11/18/2023 00:14	WG2173211
(S) Toluene-d8	*102*			*75.0-131*		*11/18/2023 00:14*	WG2173211
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*11/18/2023 00:14*	WG2173211
(S) 1,2-Dichloroethane-d4	*92.8*			*70.0-130*		*11/18/2023 00:14*	WG2173211

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	
Diesel Range Organics (DRO)	U		66.7	200	1	11/21/2023 00:04	WG2171261
Residual Range Organics (RRO)	U		83.3	250	1	11/21/2023 00:04	WG2171261
(S) o-Terphenyl	*70.0*			*52.0-156*		*11/21/2023 00:04*	WG2171261

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	11/13/2023 02:04	WG2169570
(S) 2-Fluorophenol	*32.4*			*10.0-120*		*11/13/2023 02:04*	WG2169570
(S) Phenol-d5	*20.5*			*10.0-120*		*11/13/2023 02:04*	WG2169570
(S) Nitrobenzene-d5	*63.9*			*10.0-127*		*11/13/2023 02:04*	WG2169570
(S) 2-Fluorobiphenyl	*64.2*			*10.0-130*		*11/13/2023 02:04*	WG2169570
(S) 2,4,6-Tribromophenol	*66.7*			*10.0-155*		*11/13/2023 02:04*	WG2169570
(S) p-Terphenyl-d14	*69.6*			*10.0-128*		*11/13/2023 02:04*	WG2169570

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		0.0819	1.00	1	11/15/2023 15:55	WG2171550
1,1-Dichloroethene	2.88		0.188	1.00	1	11/15/2023 15:55	WG2171550
cis-1,2-Dichloroethene	180		0.126	1.00	1	11/15/2023 15:55	WG2171550
trans-1,2-Dichloroethene	47.6		0.149	1.00	1	11/15/2023 15:55	WG2171550
Tetrachloroethene	U		0.300	1.00	1	11/15/2023 15:55	WG2171550
Trichloroethene	2120		19.0	100	100	11/16/2023 22:10	WG2172655
Vinyl chloride	4.71		0.234	1.00	1	11/15/2023 15:55	WG2171550
(S) Toluene-d8	*118*			*80.0-120*		*11/15/2023 15:55*	WG2171550
(S) Toluene-d8	*111*			*80.0-120*		*11/16/2023 22:10*	WG2172655
(S) 4-Bromofluorobenzene	*83.5*			*77.0-126*		*11/15/2023 15:55*	WG2171550
(S) 4-Bromofluorobenzene	*89.1*			*77.0-126*		*11/16/2023 22:10*	WG2172655
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*11/15/2023 15:55*	WG2171550
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*11/16/2023 22:10*	WG2172655

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	11/14/2023 13:48	WG2170704
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*11/14/2023 13:48*	WG2170704

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/18/2023 00:33	WG2173211
1,2-Dichloroethane	U		0.0190	0.100	1	11/18/2023 00:33	WG2173211
1,1-Dichloroethene	U		0.0200	0.100	1	11/18/2023 00:33	WG2173211
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/18/2023 00:33	WG2173211
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/18/2023 00:33	WG2173211
Ethylbenzene	U		0.0212	0.100	1	11/18/2023 00:33	WG2173211
Tetrachloroethene	U		0.0280	0.100	1	11/18/2023 00:33	WG2173211
Toluene	U		0.0500	0.200	1	11/18/2023 00:33	WG2173211
Trichloroethene	U		0.0160	0.0400	1	11/18/2023 00:33	WG2173211
Vinyl chloride	U		0.0273	0.100	1	11/18/2023 00:33	WG2173211
Xylenes, Total	U		0.191	0.260	1	11/18/2023 00:33	WG2173211
(S) Toluene-d8	*101*			*75.0-131*		*11/18/2023 00:33*	WG2173211
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*11/18/2023 00:33*	WG2173211
(S) 1,2-Dichloroethane-d4	*93.1*			*70.0-130*		*11/18/2023 00:33*	WG2173211

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	
Diesel Range Organics (DRO)	U		66.7	200	1	11/21/2023 00:24	WG2171261
Residual Range Organics (RRO)	U		83.3	250	1	11/21/2023 00:24	WG2171261
(S) o-Terphenyl	*70.0*			*52.0-156*		*11/21/2023 00:24*	WG2171261

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		0.347	1.11	1.11	11/13/2023 02:25	WG2169570
(S) 2-Fluorophenol	*36.1*			*10.0-120*		*11/13/2023 02:25*	WG2169570
(S) Phenol-d5	*23.9*			*10.0-120*		*11/13/2023 02:25*	WG2169570
(S) Nitrobenzene-d5	*55.6*			*10.0-127*		*11/13/2023 02:25*	WG2169570
(S) 2-Fluorobiphenyl	*56.2*			*10.0-130*		*11/13/2023 02:25*	WG2169570
(S) 2,4,6-Tribromophenol	*62.6*			*10.0-155*		*11/13/2023 02:25*	WG2169570
(S) p-Terphenyl-d14	*70.3*			*10.0-128*		*11/13/2023 02:25*	WG2169570

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		0.0819	1.00	1	11/15/2023 16:15	WG2171550
1,1-Dichloroethene	3.07		0.188	1.00	1	11/15/2023 16:15	WG2171550
cis-1,2-Dichloroethene	184		0.126	1.00	1	11/15/2023 16:15	WG2171550
trans-1,2-Dichloroethene	49.1		0.149	1.00	1	11/15/2023 16:15	WG2171550
Tetrachloroethene	U		0.300	1.00	1	11/15/2023 16:15	WG2171550
Trichloroethene	2010		19.0	100	100	11/16/2023 22:30	WG2172655
Vinyl chloride	5.37		0.234	1.00	1	11/15/2023 16:15	WG2171550
(S) Toluene-d8	*118*			*80.0-120*		*11/15/2023 16:15*	WG2171550
(S) Toluene-d8	*111*			*80.0-120*		*11/16/2023 22:30*	WG2172655
(S) 4-Bromofluorobenzene	*82.1*			*77.0-126*		*11/15/2023 16:15*	WG2171550
(S) 4-Bromofluorobenzene	*90.3*			*77.0-126*		*11/16/2023 22:30*	WG2172655
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*11/15/2023 16:15*	WG2171550
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*11/16/2023 22:30*	WG2172655

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		0.0819	1.00	1	11/15/2023 16:55	WG2171550
1,1-Dichloroethene	U		0.188	1.00	1	11/15/2023 16:55	WG2171550
cis-1,2-Dichloroethene	0.250	J	0.126	1.00	1	11/15/2023 16:55	WG2171550
trans-1,2-Dichloroethene	U		0.149	1.00	1	11/15/2023 16:55	WG2171550
Tetrachloroethene	U		0.300	1.00	1	11/15/2023 16:55	WG2171550
Trichloroethene	0.382	J	0.190	1.00	1	11/16/2023 18:48	WG2172655
Vinyl chloride	U		0.234	1.00	1	11/15/2023 16:55	WG2171550
(S) Toluene-d8	*113*			*80.0-120*		*11/15/2023 16:55*	WG2171550
(S) Toluene-d8	*109*			*80.0-120*		*11/16/2023 18:48*	WG2172655
(S) 4-Bromofluorobenzene	*83.8*			*77.0-126*		*11/15/2023 16:55*	WG2171550
(S) 4-Bromofluorobenzene	*89.3*			*77.0-126*		*11/16/2023 18:48*	WG2172655
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*11/15/2023 16:55*	WG2171550
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*11/16/2023 18:48*	WG2172655

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	11/14/2023 14:10	WG2170704
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*11/14/2023 14:10*	WG2170704

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/18/2023 00:52	WG2173211
1,2-Dichloroethane	U		0.0190	0.100	1	11/18/2023 00:52	WG2173211
1,1-Dichloroethene	U		0.0200	0.100	1	11/18/2023 00:52	WG2173211
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/18/2023 00:52	WG2173211
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/18/2023 00:52	WG2173211
Ethylbenzene	U		0.0212	0.100	1	11/18/2023 00:52	WG2173211
Tetrachloroethene	U		0.0280	0.100	1	11/18/2023 00:52	WG2173211
Toluene	U		0.0500	0.200	1	11/18/2023 00:52	WG2173211
Trichloroethene	U		0.0160	0.0400	1	11/18/2023 00:52	WG2173211
Vinyl chloride	U		0.0273	0.100	1	11/18/2023 00:52	WG2173211
Xylenes, Total	U		0.191	0.260	1	11/18/2023 00:52	WG2173211
(S) Toluene-d8	*104*			*75.0-131*		*11/18/2023 00:52*	WG2173211
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*11/18/2023 00:52*	WG2173211
(S) 1,2-Dichloroethane-d4	*93.7*			*70.0-130*		*11/18/2023 00:52*	WG2173211

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	
Diesel Range Organics (DRO)	U		66.7	200	1	11/21/2023 00:43	WG2171261
Residual Range Organics (RRO)	U		83.3	250	1	11/21/2023 00:43	WG2171261
(S) o-Terphenyl	*68.9*			*52.0-156*		*11/21/2023 00:43*	WG2171261

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		0.626	2.00	2	11/13/2023 02:46	WG2169570
(S) 2-Fluorophenol	*31.3*			*10.0-120*		*11/13/2023 02:46*	WG2169570
(S) Phenol-d5	*20.7*			*10.0-120*		*11/13/2023 02:46*	WG2169570
(S) Nitrobenzene-d5	*56.0*			*10.0-127*		*11/13/2023 02:46*	WG2169570
(S) 2-Fluorobiphenyl	*52.0*			*10.0-130*		*11/13/2023 02:46*	WG2169570
(S) 2,4,6-Tribromophenol	*62.3*			*10.0-155*		*11/13/2023 02:46*	WG2169570
(S) p-Terphenyl-d14	*68.0*			*10.0-128*		*11/13/2023 02:46*	WG2169570

Sample Narrative:

L1677083-08 WG2169570: Dilution due to sample volume.

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	11/14/2023 14:32	WG2170704
(S) a,a,a-Trifluorotoluene(FID)	*105*			*78.0-120*		*11/14/2023 14:32*	WG2170704

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/18/2023 01:11	WG2173211
1,2-Dichloroethane	U		0.0190	0.100	1	11/18/2023 01:11	WG2173211
1,1-Dichloroethene	U		0.0200	0.100	1	11/18/2023 01:11	WG2173211
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/18/2023 01:11	WG2173211
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/18/2023 01:11	WG2173211
Ethylbenzene	U		0.0212	0.100	1	11/18/2023 01:11	WG2173211
Tetrachloroethene	U		0.0280	0.100	1	11/18/2023 01:11	WG2173211
Toluene	U		0.0500	0.200	1	11/18/2023 01:11	WG2173211
Trichloroethene	U		0.0160	0.0400	1	11/18/2023 01:11	WG2173211
Vinyl chloride	U		0.0273	0.100	1	11/18/2023 01:11	WG2173211
Xylenes, Total	U		0.191	0.260	1	11/18/2023 01:11	WG2173211
(S) Toluene-d8	*103*			*75.0-131*		*11/18/2023 01:11*	WG2173211
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*11/18/2023 01:11*	WG2173211
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*		*11/18/2023 01:11*	WG2173211

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	
Diesel Range Organics (DRO)	U		66.7	200	1	11/21/2023 01:03	WG2171261
Residual Range Organics (RRO)	U		83.3	250	1	11/21/2023 01:03	WG2171261
(S) o-Terphenyl	*66.3*			*52.0-156*		*11/21/2023 01:03*	WG2171261

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		0.313	1.00	1	11/13/2023 03:07	WG2169570
(S) 2-Fluorophenol	*39.7*			*10.0-120*		*11/13/2023 03:07*	WG2169570
(S) Phenol-d5	*26.2*			*10.0-120*		*11/13/2023 03:07*	WG2169570
(S) Nitrobenzene-d5	*64.3*			*10.0-127*		*11/13/2023 03:07*	WG2169570
(S) 2-Fluorobiphenyl	*67.7*			*10.0-130*		*11/13/2023 03:07*	WG2169570
(S) 2,4,6-Tribromophenol	*74.5*			*10.0-155*		*11/13/2023 03:07*	WG2169570
(S) p-Terphenyl-d14	*73.4*			*10.0-128*		*11/13/2023 03:07*	WG2169570

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0160	0.0400	1	11/17/2023 23:16	WG2173211
1,2-Dichloroethane	U		0.0190	0.100	1	11/17/2023 23:16	WG2173211
1,1-Dichloroethene	U		0.0200	0.100	1	11/17/2023 23:16	WG2173211
cis-1,2-Dichloroethene	U		0.0276	0.100	1	11/17/2023 23:16	WG2173211
trans-1,2-Dichloroethene	U		0.0572	0.200	1	11/17/2023 23:16	WG2173211
Ethylbenzene	U		0.0212	0.100	1	11/17/2023 23:16	WG2173211
Tetrachloroethene	U		0.0280	0.100	1	11/17/2023 23:16	WG2173211
Toluene	U		0.0500	0.200	1	11/17/2023 23:16	WG2173211
Trichloroethene	0.117		0.0160	0.0400	1	11/17/2023 23:16	WG2173211
Vinyl chloride	U		0.0273	0.100	1	11/17/2023 23:16	WG2173211
Xylenes, Total	U		0.191	0.260	1	11/17/2023 23:16	WG2173211
(S) Toluene-d8	*101*			*75.0-131*		*11/17/2023 23:16*	WG2173211
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/17/2023 23:16*	WG2173211
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*		*11/17/2023 23:16*	WG2173211

Method Blank (MB)

(MB) R4000466-3 11/14/23 12:42

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*

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

(LCS) R4000466-1 11/14/23 11:00 • (LCSD) R4000466-2 11/14/23 11:58

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	5500	4920	5050	89.5	91.8	70.0-124			2.61	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*107*	*78.0-120*				

Method Blank (MB)

(MB) R4000794-3 11/15/23 09:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
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
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*116*			*80.0-120*
(S) 4-Bromofluorobenzene	*82.3*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*

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

(LCS) R4000794-1 11/15/23 08:59 • (LCSD) R4000794-2 11/15/23 09:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
1,2-Dichloroethane	5.00	4.80	4.77	96.0	95.4	70.0-128			0.627	20
1,1-Dichloroethene	5.00	5.61	5.61	112	112	71.0-124			0.000	20
cis-1,2-Dichloroethene	5.00	5.04	5.07	101	101	73.0-120			0.593	20
trans-1,2-Dichloroethene	5.00	5.14	5.05	103	101	73.0-120			1.77	20
Tetrachloroethene	5.00	6.04	6.08	121	122	72.0-132			0.660	20
Vinyl chloride	5.00	5.86	5.68	117	114	67.0-131			3.12	20
(S) Toluene-d8				*114*	*115*	*80.0-120*				
(S) 4-Bromofluorobenzene				*89.4*	*90.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*106*	*108*	*70.0-130*				

L1677083-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677083-04 11/15/23 15:55 • (MS) R4000794-4 11/15/23 17:53 • (MSD) R4000794-5 11/15/23 18:12

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	%	%		%			%	%
1,2-Dichloroethane	10.0	U	11.2	10.7	112	107	1	29.0-151			4.57	27
1,1-Dichloroethene	10.0	2.88	16.2	16.0	133	131	1	11.0-160			1.24	29
cis-1,2-Dichloroethene	10.0	180	183	183	30.0	30.0	1	10.0-160			0.000	27
trans-1,2-Dichloroethene	10.0	47.6	57.0	58.3	94.0	107	1	17.0-153			2.25	27
Tetrachloroethene	10.0	U	14.4	14.2	144	142	1	10.0-160			1.40	27
Vinyl chloride	10.0	4.71	17.9	18.4	132	137	1	10.0-160			2.75	27
(S) Toluene-d8					*110*	*113*		*80.0-120*				
(S) 4-Bromofluorobenzene					*88.2*	*92.5*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*107*	*106*		*70.0-130*				

QUALITY CONTROL SUMMARY

L1677083-04,06,07

Method Blank (MB)

(MB) R4001130-4 11/16/23 16:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	*109*			*80.0-120*
(S) 4-Bromofluorobenzene	*86.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*

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

(LCS) R4001130-1 11/16/23 15:22 • (LCSD) R4001130-2 11/16/23 15:42

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	%	%	%			%	%
Trichloroethene	5.00	5.80	6.03	116	121	78.0-124			3.89	20
(S) Toluene-d8				*106*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*91.1*	*92.1*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*117*	*120*	*70.0-130*				

Method Blank (MB)

(MB) R4002235-3 11/17/23 22:40

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	*103*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*92.4*			*70.0-130*

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

(LCS) R4002235-1 11/17/23 20:17 • (LCSD) R4002235-2 11/17/23 20:36

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	4.91	4.74	98.2	94.8	70.0-123			3.52	20
1,2-Dichloroethane	5.00	4.53	4.30	90.6	86.0	65.0-131			5.21	20
1,1-Dichloroethene	5.00	4.77	4.51	95.4	90.2	65.0-131			5.60	20
cis-1,2-Dichloroethene	5.00	5.23	4.91	105	98.2	73.0-125			6.31	20
trans-1,2-Dichloroethene	5.00	5.22	4.91	104	98.2	71.0-125			6.12	20
Ethylbenzene	5.00	5.28	4.95	106	99.0	74.0-126			6.45	20
Tetrachloroethene	5.00	5.34	5.14	107	103	70.0-136			3.82	20
Toluene	5.00	5.01	4.83	100	96.6	75.0-121			3.66	20
Trichloroethene	5.00	5.60	5.07	112	101	76.0-126			9.93	20
Vinyl chloride	5.00	5.40	4.89	108	97.8	63.0-134			9.91	20
Xylenes, Total	15.0	15.4	15.2	103	101	72.0-127			1.31	20
(S) Toluene-d8				*99.9*	*102*	*75.0-131*				
(S) 4-Bromofluorobenzene				*99.7*	*100*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*94.8*	*93.7*	*70.0-130*				

Method Blank (MB)

(MB) R4002444-1 11/17/23 15:53

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
(S) o-Terphenyl	*72.5*			*52.0-156*

Laboratory Control Sample (LCS)

(LCS) R4002444-2 11/17/23 16:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	1500	1400	93.3	50.0-150	
(S) o-Terphenyl			*81.5*	*52.0-156*	

L1676617-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676617-36 11/18/23 02:05 • (MS) R4002444-3 11/18/23 02:24 • (MSD) R4002444-4 11/18/23 02:45

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1430	U	1380	1330	96.5	93.0	1	50.0-150			3.69	20
(S) o-Terphenyl					*83.2*	*77.9*		*52.0-156*				

Method Blank (MB)

(MB) R3999983-3 11/13/23 01:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Pentachlorophenol	U		0.313	1.00
(S) 2-Fluorophenol	*38.8*			*10.0-120*
(S) Phenol-d5	*25.6*			*10.0-120*
(S) Nitrobenzene-d5	*61.7*			*10.0-127*
(S) 2-Fluorobiphenyl	*64.1*			*10.0-130*
(S) 2,4,6-Tribromophenol	*70.5*			*10.0-155*
(S) p-Terphenyl-d14	*73.6*			*10.0-128*

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

(LCS) R3999983-2 11/13/23 00:41 • (LCSD) R3999983-1 11/13/23 00:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	50.0	33.3	33.8	66.6	67.6	23.0-120			1.49	25
(S) 2-Fluorophenol				*35.5*	*38.5*	*10.0-120*				
(S) Phenol-d5				*23.3*	*26.2*	*10.0-120*				
(S) Nitrobenzene-d5				*60.3*	*60.2*	*10.0-127*				
(S) 2-Fluorobiphenyl				*70.3*	*66.7*	*10.0-130*				
(S) 2,4,6-Tribromophenol				*79.0*	*74.5*	*10.0-155*				
(S) p-Terphenyl-d14				*73.7*	*67.3*	*10.0-128*				

INTERNAL STANDARD SUMMARY

Instrument: VOCGC12 • File ID: 1114_03

11/14/23 11:00

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1114_03	787295500	757605900
Upper Limit		1574591000	1515212000
Lower Limit		393647700	378802900
LCS R4000466-1 WG2170704 1x	1114_03u	787295500	757605900
LCSD R4000466-2 WG2170704 1x	1114_04	767238200	743528100
BLANK R4000466-3 WG2170704 1x	1114_06	659051100	659015900
L1677083-01 WG2170704 1x	1114_07	682760800	680619600
L1677083-03 WG2170704 1x	1114_08	660694300	660755100
L1677083-05 WG2170704 1x	1114_09	665486100	665507500
L1677083-08 WG2170704 1x	1114_10	649632400	649654100
L1677083-09 WG2170704 1x	1114_11	684366500	682388000

INTERNAL STANDARD SUMMARY

Instrument: VOCMS32 • File ID: 1115_02-3

11/15/23 08:59

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1115_02-3	186063	73309	65769
Upper Limit		372126	146618	131538
Lower Limit		93032	36655	32885
LCS R4000794-1 WG2171550 1x	1115_02LCS	186063	73309	65769
LCSD R4000794-2 WG2171550 1x	1115_03	188363	73590	67885
BLANK R4000794-3 WG2171550 1x	1115_05	164709	63531	53116
L1677083-04 WG2171550 1x	1115_20	180545	68548	59274
L1677083-06 WG2171550 1x	1115_21	172989	65737	54269
L1677083-07 WG2171550 1x	1115_22	160341	61660	52088
MS R4000794-4 WG2171550 1x	1115_25	198305	80941	76054
MSD R4000794-5 WG2171550 1x	1115_26	198389	78245	70456

Instrument: VOCMS36 • File ID: 1116_26-3

11/16/23 15:22

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1116_26-3	245372	111961	102333
Upper Limit		490744	223922	204666
Lower Limit		122686	55981	51167
LCS R4001130-1 WG2172655 1x	1116_26LCSB	245372	111961	102333
LCSD R4001130-2 WG2172655 1x	1116_27B	249763	112787	105469
BLANK R4001130-4 WG2172655 1x	1116_30B	231350	104199	88658
L1677083-07 WG2172655 1x	1116_35	217313	96270	82507
L1677083-04 WG2172655 100x	1116_45	216599	93804	82169
L1677083-06 WG2172655 100x	1116_46	216921	92512	81998

INTERNAL STANDARD SUMMARY

Instrument: VOCMS58 • File ID: 1117_34

11/17/23 20:17

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	1117_34	890600.90	379846.90	325588.50
Upper Limit		1781202	759694	651177
Lower Limit		445300	189923	162794
LCS R4002235-1 WG2173211 1x	1117_34LCS	890600.90	379846.90	325588.50
LCSD R4002235-2 WG2173211 1x	1117_35	886045.20	378732.80	322452.80
BLANK R4002235-3 WG2173211 1x	1117_39	887006.40	372729.30	322659.30
L1677083-10 WG2173211 1x	1117_40	891714	379237	350389.70
L1677083-01 WG2173211 1x	1117_41	842060.40	360223.80	330119.70
L1677083-02 WG2173211 1x	1117_42	847961.10	354483.50	324269.80
L1677083-03 WG2173211 1x	1117_43	875832.90	374658.40	333564.40
L1677083-05 WG2173211 1x	1117_44	867745.10	369210.50	335265.60
L1677083-08 WG2173211 1x	1117_45	814446	343793.20	302387.40
L1677083-09 WG2173211 1x	1117_46	876546.30	365151.50	316868

INTERNAL STANDARD SUMMARY

Instrument: BNAMS29 • File ID: 1112_06-1

11/12/23 23:59

Sample ID	File ID	1,4-DICHLOROBENZENE-D4	NAPHTHALENE-D8	ACENAPHTHENE-D10	PHENANTHRENE-D10	CHRYSENE-D12	PERYLENE-D12
		Response	Response	Response	Response	Response	Response
Standard	1112_06-1	92617	374865	231806	464328	461600	474968
Upper Limit		185234	749730	463612	928656	923200	949936
Lower Limit		46309	187433	115903	232164	230800	237484
LCSD R3999983-1 WG2169570 1x	1112_07	89250	399061	234881	488070	490644	507929
LCS R3999983-2 WG2169570 1x	1112_08	117999	521590	302759	622879	602135	610233
BLANK R3999983-3 WG2169570 1x	1112_09	96406	396818	257567	553455	536876	549932
L1677083-01 WG2169570 1.11x	1112_11	104307	421844	274956	600464	602419	612578
L1677083-03 WG2169570 1.05x	1112_12	115364	456822	283498	592477	600429	616547
L1677083-05 WG2169570 1.11x	1112_13	105328	421477	264838	554008	551927	559246
L1677083-08 WG2169570 2x	1112_14	114941	457029	297834	624959	614494	610997
L1677083-09 WG2169570 1x	1112_15	116916	468663	305347	653275	636573	640898

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

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative	Chain of Custody Page 1 of 1
ARCADIS - BNSF Region 2 1420 5th Avenue, Suite 2400 Seattle, WA 98101	Accounts Payable 1420 5th Avenue, Suite 2400 Seattle, WA 98101			Pace PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

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): ROBERTO PIEMONTESE

Site/Facility ID #: BNSF TIME OIL

P.O. #:

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
- ___ Same Day
- ___ Next Day
- ___ Two Day
- ___ Three Day
- ✓ Five Day
- ✓ 5 Day (Rad Only)
- ___ 10 Day (Rad Only) → 8260 ONLY

Quote #:

Date Results Needed: STD TAT

SDG #: L1677083 B195

Table #:

Acctnum: BNSF2ARCA

Template: T240430

Prelogin: P1032348

PM: 4089 - Andi R Jones

PB: 10-25-23 6m

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	8270PCP 100ml Amb NoPres	NWTPHDXLVINOSGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	V8260 40mlAmb-HCl	Remarks	Sample # (lab only)
EB-02(110723)	G	GW	–	11/07/23	6:45	10	X	X	X	X		-01
EB-03(110723)	G	GW	–	11/07/23	9:13	10				X		-02
EB-04(110823)	G	GW	–	11/08/23	6:30	10	X	X	X	X		-03
SB-BN-05-GW(110723)	G	GW	–	11/07/23	11:35	30				X	MS/MSD	-04
EB-05(110823)	G	GW	–	11/08/23	16:16	10	X	X	X	X		-05
MW-DUP-01(110723)	G	GW	–	11/07/23	–	10				X		-06
SB-BN-10-GW(110823)	G	GW	–	11/08/23	9:15	8				X		-07
EB-06(110923)	G	GW	–	11/09/23	7:30	10	X	X	X	X		-08
EB-07(110923)	G	GW	–	11/09/23	8:10	10	X	X	X	X		-09
TB-04(110923)	–	GW	–	–	–	3				X		-10

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

Remarks: V8260: Special list, 8270: PCP only
*Samples may be analyzed for V8260ULL pending results
5 DAY RUSH FOR 8260 ONLY
RUN HL FIRST, IF ND THEN RUN LL

pH ______ Temp ______ Flow ______ Other ______

Samples returned via: __ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
- COC Seal Present/Intact: __NP (Y) _N
- COC Signed/Accurate: ✓ _N
- Bottles arrive intact: ✓ _N
- Correct bottles used: ✓ _N
- Sufficient volume sent: ✓ _N

If Applicable
- VOA Zero Headspace: ✓ _N
- Preservation Correct/Checked: (Y) _N
- RAD Screen <0.5 mR/hr: (Y) _N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No HCL / MeoH TBR
[signature]	11/09/23	11:56		1HCl 2MeOH
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: [illegible] °C 3.0+0=3.0 Bottles Received: 107
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) g 10	Date: 11.10.23 Time: 8:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

ANALYTICAL REPORT

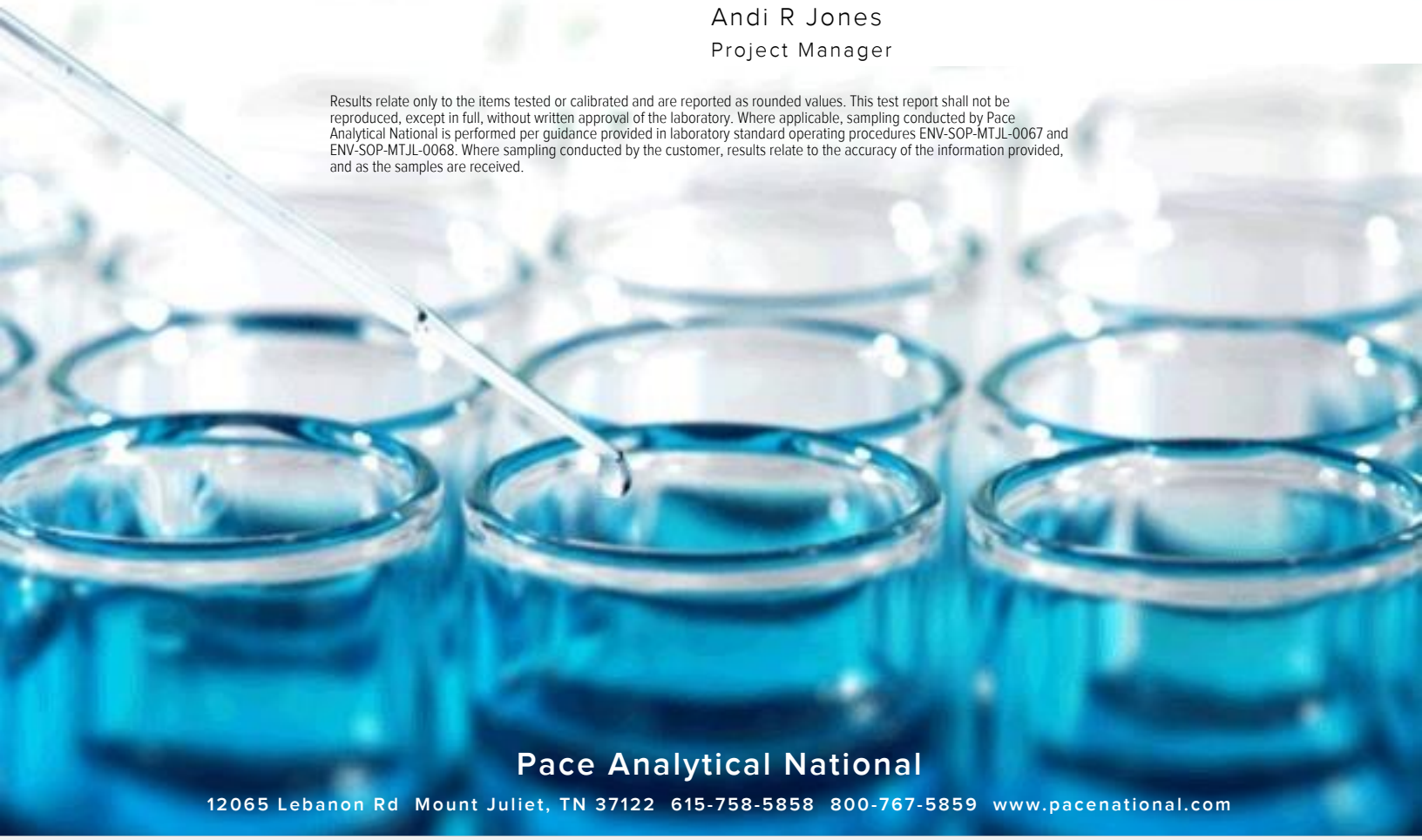
November 28, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1677225
Samples Received:	11/11/2023
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



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

TABLE OF CONTENTS

SB-BN-04-15(110823) L1677225-01 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 10:41 | Received date/time: 11/11/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170901	1	11/14/23 16:30	11/14/23 16:40	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171599	25	11/08/23 10:41	11/15/23 12:16	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 10:41	11/17/23 08:35	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2172197	1	11/16/23 21:04	11/17/23 12:59	JAS	Mt. Juliet, TN

SB-BN-01-10(110823) L1677225-02 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 14:51 | Received date/time: 11/11/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170901	1	11/14/23 16:30	11/14/23 16:40	CMK	Mt. Juliet, TN
Wet Chemistry by Method WALKLEY-BLACK	WG2172646	1	11/19/23 15:35	11/19/23 17:54	CAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171599	25	11/08/23 14:51	11/15/23 12:35	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 14:51	11/17/23 08:55	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171751	1	11/16/23 09:23	11/16/23 15:17	KAP	Mt. Juliet, TN

SB-BN-01-15(110823) L1677225-03 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 15:15 | Received date/time: 11/11/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170903	1	11/14/23 16:13	11/14/23 16:28	CMK	Mt. Juliet, TN
Wet Chemistry by Method WALKLEY-BLACK	WG2172646	1	11/19/23 15:35	11/19/23 18:02	CAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171599	25	11/08/23 15:15	11/15/23 12:54	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 15:15	11/17/23 09:14	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2171751	1	11/16/23 09:23	11/16/23 14:38	KAP	Mt. Juliet, TN

SB-DUP-04(110823) L1677225-04 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 00:00 | Received date/time: 11/11/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170903	1	11/14/23 16:13	11/14/23 16:28	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171599	25	11/08/23 00:00	11/15/23 13:14	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 00:00	11/17/23 09:34	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2172197	1	11/16/23 21:04	11/17/23 12:20	JAS	Mt. Juliet, TN

SB-DUP-05(110823) L1677225-05 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 00:00 | Received date/time: 11/11/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170903	1	11/14/23 16:13	11/14/23 16:28	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2171599	25	11/08/23 00:00	11/15/23 13:33	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 00:00	11/17/23 09:53	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2172197	1	11/16/23 21:04	11/17/23 12:33	JAS	Mt. Juliet, TN

SB-DUP-06(110823) L1677225-06 Solid

Collected by: Roberto Piemontese | Collected date/time: 11/08/23 00:00 | Received date/time: 11/11/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2170972	1	11/15/23 11:45	11/15/23 12:06	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2172382	25	11/08/23 00:00	11/16/23 12:08	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2172824	1	11/08/23 00:00	11/17/23 10:13	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2172197	1	11/16/23 21:04	11/17/23 12:46	JAS	Mt. Juliet, TN

SAMPLE SUMMARY

TB-06(110923) L1677225-07 GW

Collected by: Roberto Piemontese
Collected date/time: 11/08/23 00:00
Received date/time: 11/11/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2173907	1	11/19/23 04:32	11/19/23 04:32	DYW	Mt. Juliet, TN

CASE NARRATIVE

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

Andi R Jones
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.7		1	11/14/2023 16:40	WG2170901

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.33	3.91	25	11/15/2023 12:16	WG2171599
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*77.0-120*		*11/15/2023 12:16*	WG2171599

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.00102	0.00391	1	11/17/2023 08:35	WG2172824
1,1-Dichloroethene	U	J3	0.000948	0.00391	1	11/17/2023 08:35	WG2172824
cis-1,2-Dichloroethene	U		0.00115	0.00391	1	11/17/2023 08:35	WG2172824
trans-1,2-Dichloroethene	U		0.00163	0.00782	1	11/17/2023 08:35	WG2172824
Tetrachloroethene	U		0.00140	0.00391	1	11/17/2023 08:35	WG2172824
Trichloroethene	U		0.000914	0.00156	1	11/17/2023 08:35	WG2172824
Vinyl chloride	U	J3 J6	0.00182	0.00391	1	11/17/2023 08:35	WG2172824
(S) Toluene-d8	*112*			*75.0-131*		*11/17/2023 08:35*	WG2172824
(S) 4-Bromofluorobenzene	*95.1*			*67.0-138*		*11/17/2023 08:35*	WG2172824
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*11/17/2023 08:35*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.67	5.02	1	11/17/2023 12:59	WG2172197
Residual Range Organics (RRO)	U		4.18	12.5	1	11/17/2023 12:59	WG2172197
(S) o-Terphenyl	*49.8*			*18.0-148*		*11/17/2023 12:59*	WG2172197

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	11/14/2023 16:40	WG2170901

Wet Chemistry by Method WALKLEY-BLACK

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TOC By Walkley Black	6880		30.5	120	1	11/19/2023 17:54	WG2172646

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.41	J	1.20	3.54	25	11/15/2023 12:35	WG2171599
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*77.0-120*		*11/15/2023 12:35*	WG2171599

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000919	0.00354	1	11/17/2023 08:55	WG2172824
1,1-Dichloroethene	U		0.000858	0.00354	1	11/17/2023 08:55	WG2172824
cis-1,2-Dichloroethene	U		0.00104	0.00354	1	11/17/2023 08:55	WG2172824
trans-1,2-Dichloroethene	U		0.00147	0.00708	1	11/17/2023 08:55	WG2172824
Tetrachloroethene	U		0.00127	0.00354	1	11/17/2023 08:55	WG2172824
Trichloroethene	U		0.000827	0.00142	1	11/17/2023 08:55	WG2172824
Vinyl chloride	U		0.00164	0.00354	1	11/17/2023 08:55	WG2172824
(S) Toluene-d8	*113*			*75.0-131*		*11/17/2023 08:55*	WG2172824
(S) 4-Bromofluorobenzene	*91.9*			*67.0-138*		*11/17/2023 08:55*	WG2172824
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*11/17/2023 08:55*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.59	4.78	1	11/16/2023 15:17	WG2171751
Residual Range Organics (RRO)	4.80	J	3.98	12.0	1	11/16/2023 15:17	WG2171751
(S) o-Terphenyl	*42.9*			*18.0-148*		*11/16/2023 15:17*	WG2171751

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.0		1	11/14/2023 16:28	WG2170903

Wet Chemistry by Method WALKLEY-BLACK

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TOC By Walkley Black	8350		32.3	127	1	11/19/2023 18:02	WG2172646

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.41	J	1.32	3.88	25	11/15/2023 12:54	WG2171599
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*77.0-120*		*11/15/2023 12:54*	WG2171599

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.00101	0.00388	1	11/17/2023 09:14	WG2172824
1,1-Dichloroethene	U		0.000941	0.00388	1	11/17/2023 09:14	WG2172824
cis-1,2-Dichloroethene	U		0.00114	0.00388	1	11/17/2023 09:14	WG2172824
trans-1,2-Dichloroethene	U		0.00161	0.00776	1	11/17/2023 09:14	WG2172824
Tetrachloroethene	U		0.00139	0.00388	1	11/17/2023 09:14	WG2172824
Trichloroethene	U		0.000907	0.00155	1	11/17/2023 09:14	WG2172824
Vinyl chloride	U		0.00180	0.00388	1	11/17/2023 09:14	WG2172824
(S) Toluene-d8	*109*			*75.0-131*		*11/17/2023 09:14*	WG2172824
(S) 4-Bromofluorobenzene	*92.4*			*67.0-138*		*11/17/2023 09:14*	WG2172824
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*11/17/2023 09:14*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1.68	J	1.68	5.06	1	11/16/2023 14:38	WG2171751
Residual Range Organics (RRO)	U		4.21	12.7	1	11/16/2023 14:38	WG2171751
(S) o-Terphenyl	*27.8*			*18.0-148*		*11/16/2023 14:38*	WG2171751

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	70.4		1	11/14/2023 16:28	WG2170903

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.59	4.68	25	11/15/2023 13:14	WG2171599
(S) a,a,a-Trifluorotoluene(FID)	*95.2*			*77.0-120*		*11/15/2023 13:14*	WG2171599

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.00121	0.00468	1	11/17/2023 09:34	WG2172824
1,1-Dichloroethene	U		0.00113	0.00468	1	11/17/2023 09:34	WG2172824
cis-1,2-Dichloroethene	U		0.00137	0.00468	1	11/17/2023 09:34	WG2172824
trans-1,2-Dichloroethene	U		0.00195	0.00935	1	11/17/2023 09:34	WG2172824
Tetrachloroethene	U		0.00168	0.00468	1	11/17/2023 09:34	WG2172824
Trichloroethene	U		0.00109	0.00187	1	11/17/2023 09:34	WG2172824
Vinyl chloride	U		0.00217	0.00468	1	11/17/2023 09:34	WG2172824
(S) Toluene-d8	*107*			*75.0-131*		*11/17/2023 09:34*	WG2172824
(S) 4-Bromofluorobenzene	*92.6*			*67.0-138*		*11/17/2023 09:34*	WG2172824
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*11/17/2023 09:34*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.89	5.69	1	11/17/2023 12:20	WG2172197
Residual Range Organics (RRO)	U		4.73	14.2	1	11/17/2023 12:20	WG2172197
(S) o-Terphenyl	*45.7*			*18.0-148*		*11/17/2023 12:20*	WG2172197

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.7		1	11/14/2023 16:28	WG2170903

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.28	J	1.21	3.56	25	11/15/2023 13:33	WG2171599
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*		*11/15/2023 13:33*	WG2171599

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.000924	0.00356	1	11/17/2023 09:53	WG2172824
1,1-Dichloroethene	U		0.000863	0.00356	1	11/17/2023 09:53	WG2172824
cis-1,2-Dichloroethene	U		0.00104	0.00356	1	11/17/2023 09:53	WG2172824
trans-1,2-Dichloroethene	U		0.00148	0.00712	1	11/17/2023 09:53	WG2172824
Tetrachloroethene	U		0.00128	0.00356	1	11/17/2023 09:53	WG2172824
Trichloroethene	U		0.000831	0.00142	1	11/17/2023 09:53	WG2172824
Vinyl chloride	U		0.00165	0.00356	1	11/17/2023 09:53	WG2172824
(S) Toluene-d8	*112*			*75.0-131*		*11/17/2023 09:53*	WG2172824
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*		*11/17/2023 09:53*	WG2172824
(S) 1,2-Dichloroethane-d4	*99.9*			*70.0-130*		*11/17/2023 09:53*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.61	4.83	1	11/17/2023 12:33	WG2172197
Residual Range Organics (RRO)	U		4.02	12.1	1	11/17/2023 12:33	WG2172197
(S) o-Terphenyl	*52.2*			*18.0-148*		*11/17/2023 12:33*	WG2172197

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.7		1	11/15/2023 12:06	WG2170972

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	4.54		1.42	4.19	25	11/16/2023 12:08	WG2172382
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*77.0-120*		*11/16/2023 12:08*	WG2172382

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,2-Dichloroethane	U		0.00109	0.00419	1	11/17/2023 10:13	WG2172824
1,1-Dichloroethene	U		0.00101	0.00419	1	11/17/2023 10:13	WG2172824
cis-1,2-Dichloroethene	U		0.00123	0.00419	1	11/17/2023 10:13	WG2172824
trans-1,2-Dichloroethene	U		0.00174	0.00837	1	11/17/2023 10:13	WG2172824
Tetrachloroethene	U		0.00150	0.00419	1	11/17/2023 10:13	WG2172824
Trichloroethene	U		0.000978	0.00167	1	11/17/2023 10:13	WG2172824
Vinyl chloride	U		0.00194	0.00419	1	11/17/2023 10:13	WG2172824
(S) Toluene-d8	*113*			*75.0-131*		*11/17/2023 10:13*	WG2172824
(S) 4-Bromofluorobenzene	*92.0*			*67.0-138*		*11/17/2023 10:13*	WG2172824
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*		*11/17/2023 10:13*	WG2172824

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.76	5.29	1	11/17/2023 12:46	WG2172197
Residual Range Organics (RRO)	U		4.40	13.2	1	11/17/2023 12:46	WG2172197
(S) o-Terphenyl	*49.1*			*18.0-148*		*11/17/2023 12:46*	WG2172197

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		0.0819	1.00	1	11/19/2023 04:32	WG2173907
1,1-Dichloroethene	U		0.188	1.00	1	11/19/2023 04:32	WG2173907
cis-1,2-Dichloroethene	U		0.126	1.00	1	11/19/2023 04:32	WG2173907
trans-1,2-Dichloroethene	U		0.149	1.00	1	11/19/2023 04:32	WG2173907
Tetrachloroethene	U		0.300	1.00	1	11/19/2023 04:32	WG2173907
Trichloroethene	U		0.190	1.00	1	11/19/2023 04:32	WG2173907
Vinyl chloride	U		0.234	1.00	1	11/19/2023 04:32	WG2173907
(S) Toluene-d8	*98.1*			*80.0-120*		*11/19/2023 04:32*	WG2173907
(S) 4-Bromofluorobenzene	*85.8*			*77.0-126*		*11/19/2023 04:32*	WG2173907
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*11/19/2023 04:32*	WG2173907

Method Blank (MB)

(MB) R4000011-1 11/14/23 16:40

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00300			

L1677176-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1677176-12 11/14/23 16:40 • (DUP) R4000011-3 11/14/23 16:40

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.0	88.3	1	1.43		10

Laboratory Control Sample (LCS)

(LCS) R4000011-2 11/14/23 16:40

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.9	99.8	90.0-110	

QUALITY CONTROL SUMMARY

L1677225-03,04,05

Method Blank (MB)

(MB) R4000003-1 11/14/23 16:28

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00500	J		

L1677147-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1677147-04 11/14/23 16:28 • (DUP) R4000003-3 11/14/23 16:28

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.9	90.8	1	2.32		10

Laboratory Control Sample (LCS)

(LCS) R4000003-2 11/14/23 16:28

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	90.0-110	

Method Blank (MB)

(MB) R4000530-1 11/15/23 12:06

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1677235-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1677235-01 11/15/23 12:06 • (DUP) R4000530-3 11/15/23 12:06

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	86.0	86.7	1	0.787		10

Laboratory Control Sample (LCS)

(LCS) R4000530-2 11/15/23 12:06

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

Method Blank (MB)

(MB) R4001980-1 11/19/23 17:51

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
TOC By Walkley Black	U		25.5	100

L1676873-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1676873-01 11/19/23 17:52 • (DUP) R4001980-3 11/19/23 17:52

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
TOC By Walkley Black	6870	6730	1	2.09		20

Laboratory Control Sample (LCS)

(LCS) R4001980-2 11/19/23 17:51

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
TOC By Walkley Black	4890	4590	93.8	40.0-160	

L1677225-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-02 11/19/23 17:54 • (MS) R4001980-4 11/19/23 17:54 • (MSD) R4001980-5 11/19/23 17:55

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TOC By Walkley Black	4780	6880	11200	11300	90.8	92.2	1	80.0-120			0.591	20

L1677225-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-03 11/19/23 18:02 • (MS) R4001980-6 11/19/23 18:09 • (MSD) R4001980-7 11/19/23 18:15

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TOC By Walkley Black	5060	8350	12700	12500	85.1	82.5	1	80.0-120		E	1.04	20

Method Blank (MB)

(MB) R4001524-2 11/15/23 11:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*77.0-120*

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

(LCS) R4001524-1 11/15/23 09:44 • (LCSD) R4001524-3 11/15/23 11:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.56	5.07	101	92.2	71.0-124			9.22	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*103*	*77.0-120*				

L1677225-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-01 11/15/23 12:16 • (MS) R4001524-4 11/15/23 19:44 • (MSD) R4001524-5 11/15/23 20:04

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	177	U	137	138	77.4	78.1	25	50.0-150			0.910	27
(S) a,a,a-Trifluorotoluene(FID)					*102*	*101*		*77.0-120*				

L1677225-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-02 11/15/23 12:35 • (MS) R4001524-6 11/15/23 20:23 • (MSD) R4001524-7 11/15/23 20:42

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	174	1.41	128	128	72.6	72.6	25	50.0-150			0.000	27
(S) a,a,a-Trifluorotoluene(FID)					*100*	*98.8*		*77.0-120*				

L1677225-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-03 11/15/23 12:54 • (MS) R4001524-8 11/15/23 21:01 • (MSD) R4001524-9 11/15/23 21:21

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	197	1.41	147	150	73.9	75.4	25	50.0-150			1.98	27
(S) a,a,a-Trifluorotoluene(FID)					*100*	*98.3*		*77.0-120*				

Method Blank (MB)

(MB) R4001626-3 11/16/23 11:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*93.6*			*77.0-120*

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

(LCS) R4001626-1 11/16/23 10:41 • (LCSD) R4001626-2 11/16/23 11:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.25	4.88	95.5	88.7	71.0-124			7.31	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*103*	*77.0-120*				

L1677225-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-06 11/16/23 12:08 • (MS) R4001626-4 11/16/23 18:35 • (MSD) R4001626-5 11/16/23 18:54

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	209	4.54	177	174	82.6	81.0	25	50.0-150			1.90	27
(S) a,a,a-Trifluorotoluene(FID)					*105*	*104*		*77.0-120*				

Method Blank (MB)

(MB) R4002388-3 11/17/23 05:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
Tetrachloroethene	U		0.000896	0.00250
Trichloroethene	U		0.000584	0.00100
Vinyl chloride	U		0.00116	0.00250
(S) Toluene-d8	*110*			*75.0-131*
(S) 4-Bromofluorobenzene	*87.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*

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

(LCS) R4002388-1 11/17/23 03:41 • (LCSD) R4002388-2 11/17/23 04:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.125	0.123	0.125	98.4	100	65.0-131			1.61	20
1,1-Dichloroethene	0.125	0.106	0.109	84.8	87.2	65.0-131			2.79	20
cis-1,2-Dichloroethene	0.125	0.104	0.103	83.2	82.4	73.0-125			0.966	20
trans-1,2-Dichloroethene	0.125	0.103	0.105	82.4	84.0	71.0-125			1.92	20
Tetrachloroethene	0.125	0.136	0.146	109	117	70.0-136			7.09	20
Trichloroethene	0.125	0.116	0.116	92.8	92.8	76.0-126			0.000	20
Vinyl chloride	0.125	0.101	0.115	80.8	92.0	63.0-134			13.0	20
(S) Toluene-d8				*105*	*104*	*75.0-131*				
(S) 4-Bromofluorobenzene				*90.2*	*92.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*110*	*70.0-130*				

L1676873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676873-07 11/17/23 07:37 • (MS) R4002388-4 11/17/23 12:10 • (MSD) R4002388-5 11/17/23 12:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	1.00	U	0.813	0.818	81.0	81.4	1	50.0-150			0.591	35
1,1-Dichloroethene	1.00	U	0.818	0.813	81.4	81.0	1	50.0-150			0.591	37
cis-1,2-Dichloroethene	1.00	U	0.775	0.749	77.1	74.6	1	50.0-150			3.38	37
trans-1,2-Dichloroethene	1.00	U	0.783	0.759	77.9	75.5	1	50.0-150			3.13	37
Tetrachloroethene	1.00	U	1.06	1.04	105	104	1	50.0-150			1.53	39
Trichloroethene	1.00	0.0156	0.923	0.867	90.3	84.7	1	50.0-150			6.29	38

L1676873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1676873-07 11/17/23 07:37 • (MS) R4002388-4 11/17/23 12:10 • (MSD) R4002388-5 11/17/23 12:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	1.00	U	0.776	0.749	77.3	74.6	1	50.0-150			3.58	37
(S) Toluene-d8					*103*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*87.0*	*86.6*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*111*	*105*		*70.0-130*				

L1677225-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-01 11/17/23 08:35 • (MS) R4002388-6 11/17/23 12:49 • (MSD) R4002388-7 11/17/23 13:09

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.806	U	0.667	0.632	82.7	78.4	1	50.0-150			5.30	35
1,1-Dichloroethene	0.806	U	0.640	0.415	79.4	51.5	1	50.0-150		J3	42.7	37
cis-1,2-Dichloroethene	0.806	U	0.606	0.543	75.1	67.4	1	50.0-150			10.9	37
trans-1,2-Dichloroethene	0.806	U	0.612	0.491	75.9	61.0	1	50.0-150			21.8	37
Tetrachloroethene	0.806	U	0.834	0.640	103	79.4	1	50.0-150			26.3	39
Trichloroethene	0.806	U	0.721	0.579	89.5	71.8	1	50.0-150			21.9	38
Vinyl chloride	0.806	U	0.598	0.355	74.2	44.1	1	50.0-150		J3 J6	50.9	37
(S) Toluene-d8					*102*	*104*		*75.0-131*				
(S) 4-Bromofluorobenzene					*87.1*	*90.3*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*112*	*104*		*70.0-130*				

L1677225-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-02 11/17/23 08:55 • (MS) R4002388-8 11/17/23 13:28 • (MSD) R4002388-9 11/17/23 13:48

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.786	U	0.610	0.615	77.7	78.2	1	50.0-150			0.694	35
1,1-Dichloroethene	0.786	U	0.640	0.636	81.4	80.9	1	50.0-150			0.666	37
cis-1,2-Dichloroethene	0.786	U	0.581	0.590	73.9	75.1	1	50.0-150			1.69	37
trans-1,2-Dichloroethene	0.786	U	0.607	0.606	77.3	77.1	1	50.0-150			0.233	37
Tetrachloroethene	0.786	U	0.844	0.820	107	104	1	50.0-150			2.89	39
Trichloroethene	0.786	U	0.690	0.709	87.7	90.3	1	50.0-150			2.83	38
Vinyl chloride	0.786	U	0.595	0.610	75.7	77.7	1	50.0-150			2.59	37
(S) Toluene-d8					*104*	*101*		*75.0-131*				
(S) 4-Bromofluorobenzene					*86.1*	*87.5*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*102*	*110*		*70.0-130*				

L1677225-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-03 11/17/23 09:14 • (MS) R4002388-10 11/17/23 14:07 • (MSD) R4002388-11 11/17/23 14:27

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.893	U	0.727	0.708	81.4	79.3	1	50.0-150			2.60	35
1,1-Dichloroethene	0.893	U	0.778	0.703	87.1	78.8	1	50.0-150			10.1	37
cis-1,2-Dichloroethene	0.893	U	0.705	0.646	79.0	72.3	1	50.0-150			8.74	37
trans-1,2-Dichloroethene	0.893	U	0.731	0.669	81.9	75.0	1	50.0-150			8.87	37
Tetrachloroethene	0.893	U	1.00	0.938	112	105	1	50.0-150			6.41	39
Trichloroethene	0.893	U	0.823	0.793	92.2	88.9	1	50.0-150			3.65	38
Vinyl chloride	0.893	U	0.741	0.674	83.0	75.5	1	50.0-150			9.44	37
(S) Toluene-d8					*105*	*102*		*75.0-131*				
(S) 4-Bromofluorobenzene					*86.8*	*87.5*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*101*	*108*		*70.0-130*				

Method Blank (MB)

(MB) R4002757-3 11/18/23 21:16

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
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Trichloroethene	U		0.190	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*97.6*			*80.0-120*
(S) 4-Bromofluorobenzene	*86.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*

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

(LCS) R4002757-1 11/18/23 19:49 • (LCSD) R4002757-2 11/18/23 20:11

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 %
1,2-Dichloroethane	5.00	5.06	5.07	101	101	70.0-128			0.197	20
1,1-Dichloroethene	5.00	4.26	4.14	85.2	82.8	71.0-124			2.86	20
cis-1,2-Dichloroethene	5.00	4.35	4.40	87.0	88.0	73.0-120			1.14	20
trans-1,2-Dichloroethene	5.00	4.55	4.41	91.0	88.2	73.0-120			3.13	20
Tetrachloroethene	5.00	4.62	5.13	92.4	103	72.0-132			10.5	20
Trichloroethene	5.00	4.98	4.71	99.6	94.2	78.0-124			5.57	20
Vinyl chloride	5.00	5.77	6.02	115	120	67.0-131			4.24	20
(S) Toluene-d8				*96.6*	*94.6*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.1*	*91.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*103*	*97.3*	*70.0-130*				

Method Blank (MB)

(MB) R4000961-1 11/16/23 13:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*59.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4000961-2 11/16/23 13:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	31.8	63.6	50.0-150	
(S) o-Terphenyl			*54.4*	*18.0-148*	

L1677225-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-03 11/16/23 14:38 • (MS) R4000961-3 11/16/23 14:51 • (MSD) R4000961-4 11/16/23 15:04

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	63.3	1.68	33.5	36.3	53.0	57.4	1	50.0-150			7.97	20
(S) o-Terphenyl					*33.8*	*33.2*		*18.0-148*				

L1677225-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677225-02 11/16/23 15:17 • (MS) R4000961-5 11/16/23 15:30 • (MSD) R4000961-6 11/16/23 15:43

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	58.4	U	36.4	33.4	62.3	56.5	1	50.0-150			8.58	20
(S) o-Terphenyl					*41.1*	*37.1*		*18.0-148*				

Method Blank (MB)

(MB) R4001362-1 11/17/23 11:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*60.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4001362-2 11/17/23 12:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	28.3	56.6	50.0-150	
(S) o-Terphenyl			*54.1*	*18.0-148*	

L1677177-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1677177-07 11/17/23 14:18 • (MS) R4001362-3 11/17/23 14:31 • (MSD) R4001362-4 11/17/23 14:44

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	50.9	U	29.3	29.9	57.5	59.5	1	50.0-150			2.14	20
(S) o-Terphenyl					*50.8*	*50.6*		*18.0-148*				

INTERNAL STANDARD SUMMARY

Instrument: VOCGC17 • File ID: 1115_03

11/15/23 09:25

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1115_03	206791200	51623580
Upper Limit		413582400	103247200
Lower Limit		103395600	25811790
LCS R4001524-1 WG2171599 1x	1115_04	196378300	50820720
BLANK R4001524-2 WG2171599 25x	1115_07	194762600	194762600
LCSD R4001524-3 WG2171599 1x	1115_08	212720800	48396380
L1677225-01 WG2171599 25x	1115_10	188523600	188523600
L1677225-02 WG2171599 25x	1115_11	207523700	207523700
L1677225-03 WG2171599 25x	1115_12	188304700	188304700
L1677225-04 WG2171599 25x	1115_13	202124100	202124100
L1677225-05 WG2171599 25x	1115_14	189525400	189525400
MS R4001524-4 WG2171599 25x	1115_32	200345300	29320530
MSD R4001524-5 WG2171599 25x	1115_33	208246200	30540070
MS R4001524-6 WG2171599 25x	1115_34	214535700	29580840
MSD R4001524-7 WG2171599 25x	1115_35	202645000	28241990
MS R4001524-8 WG2171599 25x	1115_36	201180800	28366680
MSD R4001524-9 WG2171599 25x	1115_37	208570900	30037360

Instrument: VOCGC17 • File ID: 1116_04

11/16/23 10:22

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1116_04	213192500	47449760
Upper Limit		426385000	94899520
Lower Limit		106596200	23724880
LCS R4001626-1 WG2172382 1x	1116_05	218503800	51827440
LCSD R4001626-2 WG2172382 1x	1116_06	229877700	51212700
BLANK R4001626-3 WG2172382 25x	1116_08	190742000	190742000
L1677225-06 WG2172382 25x	1116_09	203773600	203773600
MS R4001626-4 WG2172382 25x	1116_29	203305800	43003470
MSD R4001626-5 WG2172382 25x	1116_30	190333900	40730180

INTERNAL STANDARD SUMMARY

Instrument: VOCMS59 • File ID: 1117_02

11/17/23 03:41

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1117_02	449502.50	196976.10	172244.50
Upper Limit		899005	393952	344489
Lower Limit		224751	98488	86122
LCS R4002388-1 WG2172824 1x	1117_02LCS	449502.50	196976.10	172244.50
LCSD R4002388-2 WG2172824 1x	1117_03	431458	187546.40	169548.90
BLANK R4002388-3 WG2172824 1x	1117_07	506468.60	206042.90	166130.30
L1677225-01 WG2172824 1x	1117_17	482801.20	192617.60	159146.30
L1677225-02 WG2172824 1x	1117_18	484600.50	192901.10	159412.10
L1677225-03 WG2172824 1x	1117_19	473250.90	190542.40	164143.30
L1677225-04 WG2172824 1x	1117_20	485027.50	196270.70	163251.80
L1677225-05 WG2172824 1x	1117_21	475363.60	184860.80	154955.70
L1677225-06 WG2172824 1x	1117_22	491236.50	188577	163120.80
MS R4002388-4 WG2172824 1x	1117_28	486075.30	225256.60	185419.70
MSD R4002388-5 WG2172824 1x	1117_29	500505.20	222933.70	182461.40
MS R4002388-6 WG2172824 1x	1117_30	503821.60	230559.30	196020.60
MSD R4002388-7 WG2172824 1x	1117_31	519229.60	224333.90	199159.50
MS R4002388-8 WG2172824 1x	1117_32	504667.80	223786.60	186061.70
MSD R4002388-9 WG2172824 1x	1117_33	506973	232951	187523.30
MS R4002388-10 WG2172824 1x	1117_34	499411.60	222612.10	183771.70
MSD R4002388-11 WG2172824 1x	1117_35	521153.70	235336	188854.60

INTERNAL STANDARD SUMMARY

Instrument: VOCMS16 • File ID: 1118_28-2

11/18/23 19:49

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1118_28-2	247144	101447	88026
Upper Limit		494288	202894	176052
Lower Limit		123572	50724	44013
LCS R4002757-1 WG2173907 1x	1118_28LCSA	247144	101447	88026
LCSD R4002757-2 WG2173907 1x	1118_29A	258110	108335	89861
BLANK R4002757-3 WG2173907 1x	1118_32	243112	98963	77553
L1677225-07 WG2173907 1x	1118_51	212147	84220	64623

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
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.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
ARCADIS - BNSF Region 2

1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

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

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**

SDG # 167725

J073

Collected by (print): **ROBERTO PIEMONTESE**

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed: STD TAT

Acctnum: **BNSF2ARCA**
Template: **T240415**
Prelogin: **P1032344**
PM: **4089 - Andi R Jones**
PB: 10-25-23 Em
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	SV8270 8ozClr-NoPres	TOCWB, PERMEABILITY 4ozClr-NoPres	V8260 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
SB-BN-04-15(110823)	G	SS	15	11/08/23	10:41	9	X	X			X	MS/MSD	-01
SB-BN-01-10(110823)	G	SS	10	11/08/23	14:51	10	X	X	X	X	X	MS/MSD	-02
SB-BN-01-15(110823)	G	SS	15	11/08/23	15:15	10	X	X		X	X	MS/MSD	-03
SB-DUP-04(110823)	G	SS	—	11/08/23	—	3	X	X			X		-04
SB-DUP-05(110823)	G	SS	—	11/08/23	—	3	X	X			X		-05
SB-DUP-06(110823)	G	SS	—	11/08/23	—	3	X	X			X		-06
TB-06(110923)	—	SS	—	—	—	3					X		-07
		SS											
		SS											
		SS											

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

Remarks:V8260: Special List
V8270: PCP only

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR	If preservation required by Login: Date/Time
ROBERTO PIEMONTESE	11/09/23	11:53			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.2 °C Bottles Received: 38	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/11/23 Time: 0900	Hold: / Condition: NCF / OK

ANALYTICAL REPORT

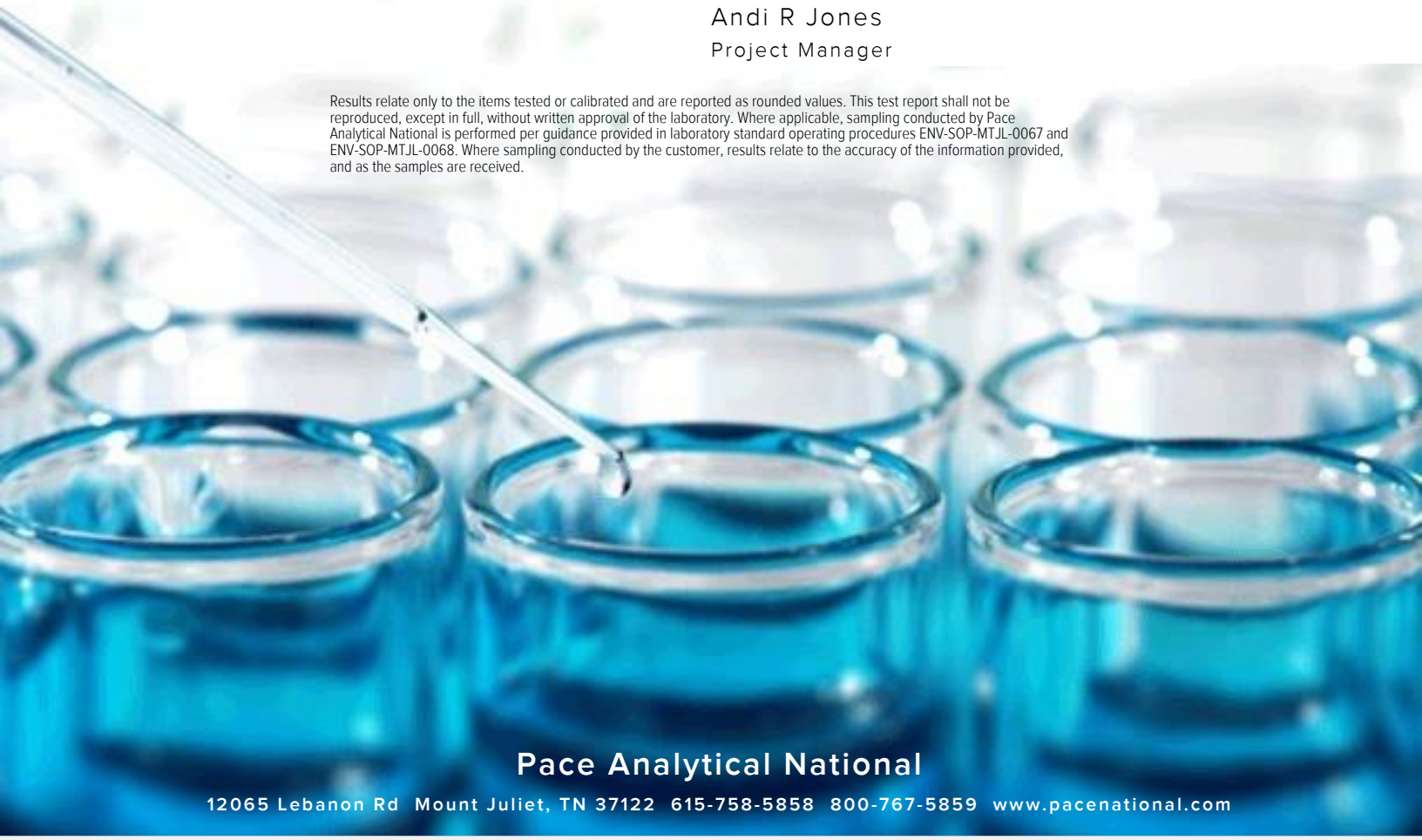
December 19, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1682288
Samples Received:	11/29/2023
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



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

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01MW97(112723) L1682288-01 GW

Collected by: Roberto Piemontese | Collected date/time: 11/27/23 13:15 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2180609	1	12/03/23 21:11	12/03/23 21:11	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 14:45	12/05/23 14:45	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/05/23 18:45	12/05/23 18:45	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180138	1	12/01/23 08:33	12/04/23 11:25	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180400	1	12/01/23 11:47	12/04/23 10:52	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2180054	1	11/30/23 21:43	11/30/23 21:43	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/10/23 22:51	12/10/23 22:51	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2179845	1	11/30/23 12:56	12/01/23 06:17	NH	Mt. Juliet, TN

MW-BN-03(112723) L1682288-02 GW

Collected by: Roberto Piemontese | Collected date/time: 11/27/23 11:25 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2180609	1	12/03/23 21:24	12/03/23 21:24	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 15:01	12/05/23 15:01	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/05/23 19:08	12/05/23 19:08	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180138	1	12/01/23 08:33	12/04/23 11:28	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180400	1	12/01/23 11:47	12/04/23 10:55	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2181548	1	12/02/23 16:59	12/02/23 16:59	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2182149	50	12/05/23 06:42	12/05/23 06:42	JCP	Mt. Juliet, TN

01MW93(112723) L1682288-03 GW

Collected by: Roberto Piemontese | Collected date/time: 11/27/23 14:55 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2180609	1	12/03/23 21:26	12/03/23 21:26	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 15:17	12/05/23 15:17	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/05/23 19:30	12/05/23 19:30	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180138	1	12/01/23 08:33	12/04/23 11:31	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180400	1	12/01/23 11:47	12/04/23 10:57	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2180054	1	11/30/23 22:05	11/30/23 22:05	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2181548	1	12/02/23 17:20	12/02/23 17:20	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2182149	10	12/05/23 06:20	12/05/23 06:20	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2179845	1	11/30/23 12:56	12/01/23 06:37	NH	Mt. Juliet, TN

01MW98(112823) L1682288-04 GW

Collected by: Roberto Piemontese | Collected date/time: 11/28/23 10:05 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2180609	1	12/03/23 21:28	12/03/23 21:28	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 15:33	12/05/23 15:33	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/05/23 19:54	12/05/23 19:54	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180138	1	12/01/23 08:33	12/04/23 11:34	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180400	1	12/01/23 11:47	12/04/23 11:00	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2180054	1	11/30/23 22:27	11/30/23 22:27	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/10/23 23:10	12/10/23 23:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2187034	20	12/12/23 00:32	12/12/23 00:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2179845	1	11/30/23 12:56	12/01/23 06:57	NH	Mt. Juliet, TN

MW-BN-02(112823) L1682288-05 GW

Collected by: Roberto Piemontese | Collected date/time: 11/28/23 12:45 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2180609	1	12/03/23 21:30	12/03/23 21:30	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 15:49	12/05/23 15:49	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/05/23 20:15	12/05/23 20:15	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180138	1	12/01/23 08:33	12/04/23 11:36	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180400	1	12/01/23 11:47	12/04/23 11:03	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2180054	1	11/30/23 22:48	11/30/23 22:48	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/10/23 23:29	12/10/23 23:29	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2187034	1	12/11/23 23:53	12/11/23 23:53	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2179845	1	11/30/23 12:56	12/01/23 07:18	NH	Mt. Juliet, TN

MW-BN-01(112823) L1682288-06 GW

Collected by: Roberto Piemontese | Collected date/time: 11/28/23 14:15 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2180609	1	12/03/23 21:32	12/03/23 21:32	CAT	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 16:05	12/05/23 16:05	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/05/23 20:40	12/05/23 20:40	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180138	1	12/01/23 08:33	12/04/23 11:39	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2180400	1	12/01/23 11:47	12/04/23 11:06	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2180054	1	11/30/23 23:10	11/30/23 23:10	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/10/23 23:48	12/10/23 23:48	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2179845	1	11/30/23 12:56	12/01/23 07:38	NH	Mt. Juliet, TN

MW-DUP-01(112823) L1682288-07 GW

Collected by: Roberto Piemontese | Collected date/time: 11/28/23 00:00 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2180054	1	11/30/23 23:32	11/30/23 23:32	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/11/23 00:08	12/11/23 00:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2187034	20	12/12/23 00:52	12/12/23 00:52	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2179845	1	11/30/23 12:56	12/01/23 07:58	NH	Mt. Juliet, TN

TB-01(112823) L1682288-08 GW

Collected by: Roberto Piemontese | Collected date/time: 11/28/23 00:00 | Received date/time: 11/29/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2181548	1	12/02/23 15:17	12/02/23 15:17	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/10/23 22:13	12/10/23 22:13	DWR	Mt. Juliet, TN

CASE NARRATIVE

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

Andi R Jones
Project Manager

Sample Delivery Group (SDG) Narrative

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1682288-08	TB-01(112823)	8260D

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		50.0	100	1	12/03/2023 21:11	WG2180609

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	4680		379	1000	1	12/05/2023 14:45	WG2181864
Sulfate	1250	J	594	5000	1	12/05/2023 14:45	WG2181864

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	4730		102	1000	1	12/05/2023 18:45	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	1230		18.0	100	1	12/04/2023 10:52	WG2180400
Iron,Dissolved	41.9	J	18.0	100	1	12/04/2023 11:25	WG2180138
Manganese	405		0.934	10.0	1	12/04/2023 10:52	WG2180400
Manganese,Dissolved	14.2		0.934	10.0	1	12/04/2023 11:25	WG2180138

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	U		31.6	100	1	11/30/2023 21:43	WG2180054
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*78.0-120*		*11/30/2023 21:43*	WG2180054

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	12/10/2023 22:51	WG2186766
1,1-Dichloroethene	U		0.0200	0.100	1	12/10/2023 22:51	WG2186766
cis-1,2-Dichloroethene	2.90		0.0276	0.100	1	12/10/2023 22:51	WG2186766
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/10/2023 22:51	WG2186766
Tetrachloroethene	U		0.0280	0.100	1	12/10/2023 22:51	WG2186766
Trichloroethene	8.11		0.0160	0.0400	1	12/10/2023 22:51	WG2186766
Vinyl chloride	U		0.0273	0.100	1	12/10/2023 22:51	WG2186766
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*12/10/2023 22:51*	WG2186766
(S) 1,2-Dichloroethane-d4	*81.1*			*70.0-130*		*12/10/2023 22:51*	WG2186766

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)	88.7	J	66.7	200	1	12/01/2023 06:17	WG2179845
Residual Range Organics (RRO)	103	J	83.3	250	1	12/01/2023 06:17	WG2179845
(S) o-Terphenyl	*81.1*			*52.0-156*		*12/01/2023 06:17*	WG2179845

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	12/03/2023 21:24	WG2180609

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10500		379	1000	1	12/05/2023 15:01	WG2181864
Sulfate	38400		594	5000	1	12/05/2023 15:01	WG2181864

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)	7030		102	1000	1	12/05/2023 19:08	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	133		18.0	100	1	12/04/2023 10:55	WG2180400
Iron,Dissolved	22.9	J	18.0	100	1	12/04/2023 11:28	WG2180138
Manganese	399		0.934	10.0	1	12/04/2023 10:55	WG2180400
Manganese,Dissolved	405		0.934	10.0	1	12/04/2023 11:28	WG2180138

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	6.21		0.0941	1.00	1	12/02/2023 16:59	WG2181548
1,2-Dichloroethane	U		0.0819	1.00	1	12/02/2023 16:59	WG2181548
1,1-Dichloroethene	4.93		0.188	1.00	1	12/02/2023 16:59	WG2181548
cis-1,2-Dichloroethene	204		6.30	50.0	50	12/05/2023 06:42	WG2182149
trans-1,2-Dichloroethene	39.7		0.149	1.00	1	12/02/2023 16:59	WG2181548
Ethylbenzene	U		0.137	1.00	1	12/02/2023 16:59	WG2181548
Tetrachloroethene	U		0.300	1.00	1	12/02/2023 16:59	WG2181548
Toluene	1.70		0.278	1.00	1	12/02/2023 16:59	WG2181548
Trichloroethene	4210		9.50	50.0	50	12/05/2023 06:42	WG2182149
Vinyl chloride	7.60		0.234	1.00	1	12/02/2023 16:59	WG2181548
Xylenes, Total	U		0.174	3.00	1	12/02/2023 16:59	WG2181548
(S) Toluene-d8	*106*			*80.0-120*		*12/02/2023 16:59*	WG2181548
(S) Toluene-d8	*111*			*80.0-120*		*12/05/2023 06:42*	WG2182149
(S) 4-Bromofluorobenzene	*97.1*			*77.0-126*		*12/02/2023 16:59*	WG2181548
(S) 4-Bromofluorobenzene	*82.9*			*77.0-126*		*12/05/2023 06:42*	WG2182149
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*12/02/2023 16:59*	WG2181548
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*12/05/2023 06:42*	WG2182149

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	12/03/2023 21:26	WG2180609

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	11800		379	1000	1	12/05/2023 15:17	WG2181864
Sulfate	14200		594	5000	1	12/05/2023 15:17	WG2181864

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)	8490		102	1000	1	12/05/2023 19:30	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	226		18.0	100	1	12/04/2023 10:57	WG2180400
Iron,Dissolved	U		18.0	100	1	12/04/2023 11:31	WG2180138
Manganese	1100		0.934	10.0	1	12/04/2023 10:57	WG2180400
Manganese,Dissolved	1040		0.934	10.0	1	12/04/2023 11:31	WG2180138

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	692		31.6	100	1	11/30/2023 22:05	WG2180054
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*11/30/2023 22:05*	WG2180054

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		0.0819	1.00	1	12/02/2023 17:20	WG2181548
1,1-Dichloroethene	5.45		0.188	1.00	1	12/02/2023 17:20	WG2181548
cis-1,2-Dichloroethene	57.6		1.26	10.0	10	12/05/2023 06:20	WG2182149
trans-1,2-Dichloroethene	8.14		0.149	1.00	1	12/02/2023 17:20	WG2181548
Tetrachloroethene	U		0.300	1.00	1	12/02/2023 17:20	WG2181548
Trichloroethene	1410		1.90	10.0	10	12/05/2023 06:20	WG2182149
Vinyl chloride	1.08		0.234	1.00	1	12/02/2023 17:20	WG2181548
(S) Toluene-d8	*106*			*80.0-120*		*12/02/2023 17:20*	WG2181548
(S) Toluene-d8	*115*			*80.0-120*		*12/05/2023 06:20*	WG2182149
(S) 4-Bromofluorobenzene	*97.3*			*77.0-126*		*12/02/2023 17:20*	WG2181548
(S) 4-Bromofluorobenzene	*83.1*			*77.0-126*		*12/05/2023 06:20*	WG2182149
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*		*12/02/2023 17:20*	WG2181548
(S) 1,2-Dichloroethane-d4	*94.0*			*70.0-130*		*12/05/2023 06:20*	WG2182149

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	
Diesel Range Organics (DRO)	1870		66.7	200	1	12/01/2023 06:37	WG2179845
Residual Range Organics (RRO)	1000		83.3	250	1	12/01/2023 06:37	WG2179845
(S) o-Terphenyl	*87.9*			*52.0-156*		*12/01/2023 06:37*	WG2179845

Sample Narrative:

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	

L1682288-03 WG2179845: Sample resembles laboratory standard for Hydraulic Fluid.

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	12/03/2023 21:28	WG2180609

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	2810		379	1000	1	12/05/2023 15:33	WG2181864
Sulfate	24300		594	5000	1	12/05/2023 15:33	WG2181864

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)	7980		102	1000	1	12/05/2023 19:54	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	138		18.0	100	1	12/04/2023 11:00	WG2180400
Iron,Dissolved	U		18.0	100	1	12/04/2023 11:34	WG2180138
Manganese	101		0.934	10.0	1	12/04/2023 11:00	WG2180400
Manganese,Dissolved	94.4		0.934	10.0	1	12/04/2023 11:34	WG2180138

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	304	B	31.6	100	1	11/30/2023 22:27	WG2180054
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*78.0-120*		*11/30/2023 22:27*	WG2180054

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	12/10/2023 23:10	WG2186766
1,1-Dichloroethene	0.755		0.0200	0.100	1	12/10/2023 23:10	WG2186766
cis-1,2-Dichloroethene	48.8		0.0276	0.100	1	12/10/2023 23:10	WG2186766
trans-1,2-Dichloroethene	2.51		0.0572	0.200	1	12/10/2023 23:10	WG2186766
Tetrachloroethene	0.0550	J	0.0280	0.100	1	12/10/2023 23:10	WG2186766
Trichloroethene	594		0.320	0.800	20	12/12/2023 00:32	WG2187034
Vinyl chloride	U		0.0273	0.100	1	12/10/2023 23:10	WG2186766
(S) Toluene-d8	*105*			*75.0-131*		*12/10/2023 23:10*	WG2186766
(S) Toluene-d8	*109*			*75.0-131*		*12/12/2023 00:32*	WG2187034
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*12/10/2023 23:10*	WG2186766
(S) 4-Bromofluorobenzene	*81.3*			*67.0-138*		*12/12/2023 00:32*	WG2187034
(S) 1,2-Dichloroethane-d4	*83.4*			*70.0-130*		*12/10/2023 23:10*	WG2186766
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*		*12/12/2023 00:32*	WG2187034

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	
Diesel Range Organics (DRO)	1010		66.7	200	1	12/01/2023 06:57	WG2179845
Residual Range Organics (RRO)	1230		83.3	250	1	12/01/2023 06:57	WG2179845
(S) o-Terphenyl	*89.5*			*52.0-156*		*12/01/2023 06:57*	WG2179845

Sample Narrative:

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	

L1682288-04 WG2179845: Sample resembles laboratory standard for Hydraulic Fluid.

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	57.0	J	50.0	100	1	12/03/2023 21:30	WG2180609

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	35200		379	1000	1	12/05/2023 15:49	WG2181864
Sulfate	23600		594	5000	1	12/05/2023 15:49	WG2181864

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)	4460		102	1000	1	12/05/2023 20:15	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	129		18.0	100	1	12/04/2023 11:03	WG2180400
Iron,Dissolved	U		18.0	100	1	12/04/2023 11:36	WG2180138
Manganese	56.0		0.934	10.0	1	12/04/2023 11:03	WG2180400
Manganese,Dissolved	54.7		0.934	10.0	1	12/04/2023 11:36	WG2180138

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	11/30/2023 22:48	WG2180054
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*78.0-120*		*11/30/2023 22:48*	WG2180054

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	12/10/2023 23:29	WG2186766
1,1-Dichloroethene	U		0.0200	0.100	1	12/10/2023 23:29	WG2186766
cis-1,2-Dichloroethene	U		0.0276	0.100	1	12/10/2023 23:29	WG2186766
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/10/2023 23:29	WG2186766
Tetrachloroethene	0.0630	J	0.0280	0.100	1	12/10/2023 23:29	WG2186766
Trichloroethene	0.372		0.0160	0.0400	1	12/11/2023 23:53	WG2187034
Vinyl chloride	U		0.0273	0.100	1	12/10/2023 23:29	WG2186766
(S) Toluene-d8	*104*			*75.0-131*		*12/10/2023 23:29*	WG2186766
(S) Toluene-d8	*108*			*75.0-131*		*12/11/2023 23:53*	WG2187034
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*12/10/2023 23:29*	WG2186766
(S) 4-Bromofluorobenzene	*83.2*			*67.0-138*		*12/11/2023 23:53*	WG2187034
(S) 1,2-Dichloroethane-d4	*84.5*			*70.0-130*		*12/10/2023 23:29*	WG2186766
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*		*12/11/2023 23:53*	WG2187034

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	
Diesel Range Organics (DRO)	224		66.7	200	1	12/01/2023 07:18	WG2179845
Residual Range Organics (RRO)	322		83.3	250	1	12/01/2023 07:18	WG2179845
(S) o-Terphenyl	*86.3*			*52.0-156*		*12/01/2023 07:18*	WG2179845

Sample Narrative:

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	

L1682288-05 WG2179845: Sample resembles laboratory standard for Hydraulic Fluid.

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Nitrate-Nitrite	764		50.0	100	1	12/03/2023 21:32	WG2180609

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	8180		379	1000	1	12/05/2023 16:05	WG2181864
Sulfate	22700		594	5000	1	12/05/2023 16:05	WG2181864

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)	11300		102	1000	1	12/05/2023 20:40	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	68.2	J	18.0	100	1	12/04/2023 11:06	WG2180400
Iron,Dissolved	U		18.0	100	1	12/04/2023 11:39	WG2180138
Manganese	28.2		0.934	10.0	1	12/04/2023 11:06	WG2180400
Manganese,Dissolved	23.1		0.934	10.0	1	12/04/2023 11:39	WG2180138

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	11/30/2023 23:10	WG2180054
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*78.0-120*		*11/30/2023 23:10*	WG2180054

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	12/10/2023 23:48	WG2186766
1,1-Dichloroethene	U		0.0200	0.100	1	12/10/2023 23:48	WG2186766
cis-1,2-Dichloroethene	2.21		0.0276	0.100	1	12/10/2023 23:48	WG2186766
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/10/2023 23:48	WG2186766
Tetrachloroethene	0.0570	J	0.0280	0.100	1	12/10/2023 23:48	WG2186766
Trichloroethene	35.6		0.0160	0.0400	1	12/10/2023 23:48	WG2186766
Vinyl chloride	U		0.0273	0.100	1	12/10/2023 23:48	WG2186766
(S) Toluene-d8	*104*			*75.0-131*		*12/10/2023 23:48*	WG2186766
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*12/10/2023 23:48*	WG2186766
(S) 1,2-Dichloroethane-d4	*84.3*			*70.0-130*		*12/10/2023 23:48*	WG2186766

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	
Diesel Range Organics (DRO)	1400		66.7	200	1	12/01/2023 07:38	WG2179845
Residual Range Organics (RRO)	1920		83.3	250	1	12/01/2023 07:38	WG2179845
(S) o-Terphenyl	*90.0*			*52.0-156*		*12/01/2023 07:38*	WG2179845

Sample Narrative:

L1682288-06 WG2179845: 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	284	B	31.6	100	1	11/30/2023 23:32	WG2180054
(S) a,a,a-Trifluorotoluene(FID)	*99.3*			*78.0-120*		*11/30/2023 23:32*	WG2180054

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	12/11/2023 00:08	WG2186766
1,1-Dichloroethene	0.750		0.0200	0.100	1	12/11/2023 00:08	WG2186766
cis-1,2-Dichloroethene	48.7		0.0276	0.100	1	12/11/2023 00:08	WG2186766
trans-1,2-Dichloroethene	2.35		0.0572	0.200	1	12/11/2023 00:08	WG2186766
Tetrachloroethene	0.0380	J	0.0280	0.100	1	12/11/2023 00:08	WG2186766
Trichloroethene	647		0.320	0.800	20	12/12/2023 00:52	WG2187034
Vinyl chloride	0.208		0.0273	0.100	1	12/11/2023 00:08	WG2186766
(S) Toluene-d8	*104*			*75.0-131*		*12/11/2023 00:08*	WG2186766
(S) Toluene-d8	*109*			*75.0-131*		*12/12/2023 00:52*	WG2187034
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*12/11/2023 00:08*	WG2186766
(S) 4-Bromofluorobenzene	*80.6*			*67.0-138*		*12/12/2023 00:52*	WG2187034
(S) 1,2-Dichloroethane-d4	*84.3*			*70.0-130*		*12/11/2023 00:08*	WG2186766
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*12/12/2023 00:52*	WG2187034

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)	1020		66.7	200	1	12/01/2023 07:58	WG2179845
Residual Range Organics (RRO)	1500		83.3	250	1	12/01/2023 07:58	WG2179845
(S) o-Terphenyl	*88.9*			*52.0-156*		*12/01/2023 07:58*	WG2179845

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	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	0.0670		0.0160	0.0400	1	12/10/2023 22:13	WG2186766
Benzene	U		0.0941	1.00	1	12/02/2023 15:17	WG2181548
1,2-Dichloroethane	U		0.0190	0.100	1	12/10/2023 22:13	WG2186766
1,1-Dichloroethene	U		0.0200	0.100	1	12/10/2023 22:13	WG2186766
1,2-Dichloroethane	U		0.0819	1.00	1	12/02/2023 15:17	WG2181548
1,1-Dichloroethene	U		0.188	1.00	1	12/02/2023 15:17	WG2181548
cis-1,2-Dichloroethene	U		0.0276	0.100	1	12/10/2023 22:13	WG2186766
cis-1,2-Dichloroethene	U		0.126	1.00	1	12/02/2023 15:17	WG2181548
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/10/2023 22:13	WG2186766
trans-1,2-Dichloroethene	U		0.149	1.00	1	12/02/2023 15:17	WG2181548
Ethylbenzene	U		0.0212	0.100	1	12/10/2023 22:13	WG2186766
Ethylbenzene	U		0.137	1.00	1	12/02/2023 15:17	WG2181548
Tetrachloroethene	U		0.0280	0.100	1	12/10/2023 22:13	WG2186766
Tetrachloroethene	U		0.300	1.00	1	12/02/2023 15:17	WG2181548
Toluene	0.264		0.0500	0.200	1	12/10/2023 22:13	WG2186766
Toluene	U		0.278	1.00	1	12/02/2023 15:17	WG2181548
Trichloroethene	0.115		0.0160	0.0400	1	12/10/2023 22:13	WG2186766
Trichloroethene	U		0.190	1.00	1	12/02/2023 15:17	WG2181548
Vinyl chloride	U		0.0273	0.100	1	12/10/2023 22:13	WG2186766
Vinyl chloride	U		0.234	1.00	1	12/02/2023 15:17	WG2181548
Xylenes, Total	U		0.191	0.260	1	12/10/2023 22:13	WG2186766
Xylenes, Total	U		0.174	3.00	1	12/02/2023 15:17	WG2181548
(S) Toluene-d8	*108*			*75.0-131*		*12/10/2023 22:13*	WG2186766
(S) Toluene-d8	*104*			*80.0-120*		*12/02/2023 15:17*	WG2181548
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*12/10/2023 22:13*	WG2186766
(S) 4-Bromofluorobenzene	*96.8*			*77.0-126*		*12/02/2023 15:17*	WG2181548
(S) 1,2-Dichloroethane-d4	*87.5*			*70.0-130*		*12/10/2023 22:13*	WG2186766
(S) 1,2-Dichloroethane-d4	*122*			*70.0-130*		*12/02/2023 15:17*	WG2181548

QUALITY CONTROL SUMMARY

L1682288-01,02,03,04,05,06

Method Blank (MB)

(MB) R4007909-1 12/03/23 20:20

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

L1682176-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1682176-15 12/03/23 20:35 • (DUP) R4007909-9 12/03/23 20:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	1340	1340	1	0.0749		20

Laboratory Control Sample (LCS)

(LCS) R4007909-2 12/03/23 20:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2530	101	90.0-110	

L1682176-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1682176-13 12/03/23 20:24 • (MS) R4007909-7 12/03/23 20:29 • (MSD) R4007909-8 12/03/23 20:31

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 %
Nitrate-Nitrite	2500	U	2600	2630	104	105	1	90.0-110			1.34	20

L1682176-15 Original Sample (OS) • Matrix Spike (MS)

(OS) L1682176-15 12/03/23 20:35 • (MS) R4007909-10 12/03/23 20:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	1340	3990	106	1	90.0-110	

Method Blank (MB)

(MB) R4008999-1 12/05/23 09:49

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

L1680497-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1680497-01 12/05/23 11:35 • (DUP) R4008999-3 12/05/23 11:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7450	7750	1	3.96		15
Sulfate	72700	72600	1	0.121		15

L1683704-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1683704-03 12/05/23 19:21 • (DUP) R4008999-6 12/05/23 19:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10800	10800	1	0.131		15
Sulfate	115000	115000	1	0.132		15

Laboratory Control Sample (LCS)

(LCS) R4008999-2 12/05/23 10:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39900	99.8	80.0-120	
Sulfate	40000	40700	102	80.0-120	

L1680497-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1680497-01 12/05/23 11:35 • (MS) R4008999-4 12/05/23 12:06 • (MSD) R4008999-5 12/05/23 12:22

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	7450	46200	46200	96.8	96.9	1	80.0-120			0.106	15
Sulfate	40000	72700	98900	99000	65.6	65.7	1	80.0-120	J6	J6	0.0799	15

L1683704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1683704-03 12/05/23 19:21 • (MS) R4008999-7 12/05/23 19:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	10800	48200	93.5	1	80.0-120	
Sulfate	40000	115000	132000	43.1	1	80.0-120	J6

Method Blank (MB)

(MB) R4009084-2 12/05/23 12:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	148	J	102	1000

L1682288-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1682288-06 12/05/23 20:40 • (DUP) R4009084-5 12/05/23 21:05

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	11300	11500	1	1.23		20

L1676544-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1676544-01 12/06/23 02:00 • (DUP) R4009084-8 12/06/23 02:29

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	57900	58800	2	1.54		20

Laboratory Control Sample (LCS)

(LCS) R4009084-1 12/05/23 11:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24800	99.4	85.0-115	

L1678658-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1678658-01 12/05/23 15:43 • (MS) R4009084-3 12/05/23 16:06 • (MSD) R4009084-4 12/05/23 16:47

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 %
TOC (Total Organic Carbon)	25000	1510	26800	26800	101	101	1	85.0-115			0.112	20

L1683675-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683675-04 12/05/23 22:54 • (MS) R4009084-6 12/05/23 23:18 • (MSD) R4009084-7 12/05/23 23:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	525	25900	25800	101	101	1	85.0-115			0.349	20

Method Blank (MB)

(MB) R4007474-1 12/02/23 17:08

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

Laboratory Control Sample (LCS)

(LCS) R4007474-2 12/02/23 17:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Iron,Dissolved	10000	9400	94.0	80.0-120	
Manganese,Dissolved	1000	976	97.6	80.0-120	

L1682288-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1682288-01 12/02/23 17:13 • (MS) R4007474-4 12/02/23 17:19 • (MSD) R4007474-5 12/02/23 17:21

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	%	%		%			%	%
Iron,Dissolved	10000	28.6	9420	9470	93.9	94.4	1	75.0-125			0.516	20
Manganese,Dissolved	1000	14.6	989	991	97.4	97.6	1	75.0-125			0.178	20

Method Blank (MB)

(MB) R4007475-1 12/02/23 18:16

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

Laboratory Control Sample (LCS)

(LCS) R4007475-2 12/02/23 18:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Iron	10000	9910	99.1	80.0-120	
Manganese	1000	1030	103	80.0-120	

L1682288-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1682288-01 12/02/23 18:22 • (MS) R4007475-4 12/02/23 18:27 • (MSD) R4007475-5 12/02/23 18:30

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	%	%		%			%	%
Iron	10000	1180	10800	10900	96.5	97.7	1	75.0-125			1.08	20
Manganese	1000	412	1390	1390	97.9	97.6	1	75.0-125			0.193	20

Method Blank (MB)

(MB) R4007131-3 11/30/23 17:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	38.6	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*78.0-120*

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

(LCS) R4007131-1 11/30/23 16:22 • (LCSD) R4007131-2 11/30/23 16:44

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	5500	4760	5070	86.5	92.2	70.0-124			6.31	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*102*	*78.0-120*				

L1681773-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1681773-05 12/01/23 01:22 • (MS) R4007131-4 12/01/23 02:27 • (MSD) R4007131-5 12/01/23 02:49

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	5500	U	4740	4780	86.2	86.9	1	10.0-155			0.840	21
(S) a,a,a-Trifluorotoluene(FID)					*99.3*	*100*		*78.0-120*				

Method Blank (MB)

(MB) R4007580-3 12/02/23 10:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	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	*98.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*

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

(LCS) R4007580-1 12/02/23 09:36 • (LCSD) R4007580-2 12/02/23 09:56

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	4.58	4.70	91.6	94.0	70.0-123			2.59	20
1,2-Dichloroethane	5.00	5.33	5.60	107	112	70.0-128			4.94	20
1,1-Dichloroethene	5.00	4.84	5.08	96.8	102	71.0-124			4.84	20
cis-1,2-Dichloroethene	5.00	4.45	4.51	89.0	90.2	73.0-120			1.34	20
trans-1,2-Dichloroethene	5.00	4.71	5.11	94.2	102	73.0-120			8.15	20
Ethylbenzene	5.00	4.90	4.77	98.0	95.4	79.0-123			2.69	20
Tetrachloroethene	5.00	5.06	5.11	101	102	72.0-132			0.983	20
Toluene	5.00	4.74	4.75	94.8	95.0	79.0-120			0.211	20
Trichloroethene	5.00	4.96	4.77	99.2	95.4	78.0-124			3.91	20
Vinyl chloride	5.00	5.01	5.36	100	107	67.0-131			6.75	20
Xylenes, Total	15.0	14.1	14.3	94.0	95.3	79.0-123			1.41	20
(S) Toluene-d8				*99.4*	*99.3*	*80.0-120*				
(S) 4-Bromofluorobenzene				*98.3*	*99.2*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*115*	*114*	*70.0-130*				

Method Blank (MB)

(MB) R4008245-3 12/04/23 21:11

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	*112*			*80.0-120*
(S) 4-Bromofluorobenzene	*86.2*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*

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

(LCS) R4008245-1 12/04/23 20:06 • (LCSD) R4008245-2 12/04/23 20:28

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	4.53	4.47	90.6	89.4	73.0-120			1.33	20
Trichloroethene	5.00	5.25	4.94	105	98.8	78.0-124			6.08	20
(S) Toluene-d8				*107*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*86.4*	*86.9*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*91.0*	*90.1*	*70.0-130*				

Method Blank (MB)

(MB) R4010598-3 12/10/23 20:26

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	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*82.2*			*70.0-130*

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

(LCS) R4010598-1 12/10/23 18:51 • (LCSD) R4010598-2 12/10/23 19:10

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	4.90	4.65	98.0	93.0	70.0-123			5.24	20
1,2-Dichloroethane	5.00	4.28	4.08	85.6	81.6	65.0-131			4.78	20
1,1-Dichloroethene	5.00	4.58	4.75	91.6	95.0	65.0-131			3.64	20
cis-1,2-Dichloroethene	5.00	5.29	5.28	106	106	73.0-125			0.189	20
trans-1,2-Dichloroethene	5.00	5.51	5.43	110	109	71.0-125			1.46	20
Ethylbenzene	5.00	5.16	5.21	103	104	74.0-126			0.964	20
Tetrachloroethene	5.00	5.48	5.44	110	109	70.0-136			0.733	20
Toluene	5.00	5.08	5.10	102	102	75.0-121			0.393	20
Trichloroethene	5.00	5.07	4.95	101	99.0	76.0-126			2.40	20
Vinyl chloride	5.00	4.60	4.30	92.0	86.0	63.0-134			6.74	20
Xylenes, Total	15.0	15.9	15.9	106	106	72.0-127			0.000	20
(S) Toluene-d8				*103*	*102*	*75.0-131*				
(S) 4-Bromofluorobenzene				*102*	*105*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*87.2*	*88.9*	*70.0-130*				

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/11/23 00:27 • (MS) R4010598-4 12/11/23 04:35 • (MSD) R4010598-5 12/11/23 04:55

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	5.89	6.08	118	122	1	10.0-149			3.17	37
1,2-Dichloroethane	5.00	U	4.90	5.16	98.0	103	1	10.0-148			5.17	35
1,1-Dichloroethene	5.00	U	6.22	6.29	124	126	1	10.0-155			1.12	37
cis-1,2-Dichloroethene	5.00	U	6.69	6.94	134	139	1	10.0-149			3.67	37
trans-1,2-Dichloroethene	5.00	U	6.80	6.80	136	136	1	10.0-150			0.000	37
Ethylbenzene	5.00	U	6.78	6.92	136	138	1	10.0-160			2.04	38
Tetrachloroethene	5.00	U	7.22	7.59	144	152	1	10.0-156			5.00	39
Toluene	5.00	0.464	6.90	7.29	129	137	1	10.0-156			5.50	38
Trichloroethene	5.00	0.564	6.73	6.92	123	127	1	10.0-156			2.78	38
Vinyl chloride	5.00	U	5.90	6.00	118	120	1	10.0-160			1.68	37
Xylenes, Total	15.0	U	17.1	21.1	114	141	1	10.0-160			20.9	38
(S) Toluene-d8					*102*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*101*	*102*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*88.8*	*84.6*		*70.0-130*				

Method Blank (MB)

(MB) R4011093-3 12/11/23 19:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Trichloroethene	U		0.0160	0.0400
(S) Toluene-d8	*111*			*75.0-131*
(S) 4-Bromofluorobenzene	*82.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*

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

(LCS) R4011093-1 12/11/23 18:16 • (LCSD) R4011093-2 12/11/23 18:36

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	%	%	%			%	%
Trichloroethene	5.00	5.44	5.31	109	106	76.0-126			2.42	20
(S) Toluene-d8				*105*	*106*	*75.0-131*				
(S) 4-Bromofluorobenzene				*85.2*	*87.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*91.6*	*94.9*	*70.0-130*				

Method Blank (MB)

(MB) R4007464-3 12/01/23 02:19

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
(S) o-Terphenyl	*81.5*			*52.0-156*

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

(LCS) R4007464-1 12/01/23 01:38 • (LCSD) R4007464-2 12/01/23 01:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1470	1540	98.0	103	50.0-150			4.65	20
(S) o-Terphenyl				*88.5*	*86.0*	*52.0-156*				

INTERNAL STANDARD SUMMARY

Instrument: VOCGC12 • File ID: 1130A_05

11/30/23 16:22

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1130A_05	806387200	775186800
Upper Limit		1612774000	1550374000
Lower Limit		403193600	387593400
LCS R4007131-1 WG2180054 1x	1130A_05u	806387200	775186800
LCSD R4007131-2 WG2180054 1x	1130A_06	799552200	754526600
BLANK R4007131-3 WG2180054 1x	1130A_08	673236400	673155400

Instrument: VOCGC12 • File ID: 1130A_17

11/30/23 20:50

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1130A_17	788743900	767981000
Upper Limit		1577488000	1535962000
Lower Limit		394371900	383990500
L1682288-01 WG2180054 1x	1130A_19	677991200	678008500
L1682288-03 WG2180054 1x	1130A_20	680530100	676975800
L1682288-04 WG2180054 1x	1130A_21	650906600	651031900
L1682288-05 WG2180054 1x	1130A_22	661410400	661371800
L1682288-06 WG2180054 1x	1130A_23	671427500	671467500
L1682288-07 WG2180054 1x	1130A_24	690704300	690790400
MS R4007131-4 WG2180054 1x	1130A_32	792060500	742125100
MSD R4007131-5 WG2180054 1x	1130A_33	811725500	756057500

INTERNAL STANDARD SUMMARY

Instrument: VOCMS16 • File ID: 1204_31-3

12/04/23 20:06

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1204_31-3	439851	163158	158645
Upper Limit		879702	326316	317290
Lower Limit		219926	81579	79323
LCS R4008245-1 WG2182149 1x	1204_31LCSC	439851	163158	158645
LCSD R4008245-2 WG2182149 1x	1204_32C	440103	168073	158583
BLANK R4008245-3 WG2182149 1x	1204_34C	377470	129016	115799
L1682288-03 WG2182149 10x	1204_56	372267	126061	109743
L1682288-02 WG2182149 50x	1204_57	398733	135474	120366

Instrument: VOCMS26 • File ID: 1202_02-2

12/02/23 09:36

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1202_02-2	151989	72058	60451
Upper Limit		303978	144116	120902
Lower Limit		75995	36029	30226
LCS R4007580-1 WG2181548 1x	1202_02LCS	151989	72058	60451
LCSD R4007580-2 WG2181548 1x	1202_03	150020	71133	59645
BLANK R4007580-3 WG2181548 1x	1202_06	145917	65367	53011
L1682288-08 WG2181548 1x	1202_09	141412	64784	51454
L1682288-02 WG2181548 1x	1202_14	140015	62827	50473
L1682288-03 WG2181548 1x	1202_15	139580	62277	50769

Instrument: VOCMS53 • File ID: 1210_29-2

12/10/23 18:51

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1210_29-2	1194848	455606	451035.90
Upper Limit		2389696	911212	902072
Lower Limit		597424	227803	225518
LCS R4010598-1 WG2186766 1x	1210_29LCS	1194848	455606	451035.90
LCSD R4010598-2 WG2186766 1x	1210_30	1198767	445109.20	449276

INTERNAL STANDARD SUMMARY

Instrument: VOCMS53 • File ID: 1210_29-2

12/10/23 18:51

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
BLANK R4010598-3 WG2186766 1x	1210_34	1342146	500793.20	499782.30
L1682288-08 WG2186766 1x	1210_35	1396734	487538.50	435843.60
L1682288-01 WG2186766 1x	1210_37	1246236	449332.10	416471.20
L1682288-04 WG2186766 1x	1210_38	1239733	439130	426974.50
L1682288-05 WG2186766 1x	1210_39	1205044	440065.90	420595.60
L1682288-06 WG2186766 1x	1210_40	1189110	428990.90	422119.80
L1682288-07 WG2186766 1x	1210_41	1262544	442019.70	449486.70
MS R4010598-4 WG2186766 1x	1210_55	1119634	424991.40	419252.40
MSD R4010598-5 WG2186766 1x	1210_56	1161716	425740.20	418214.10

Instrument: VOCMS59 • File ID: 1211_29-1

12/11/23 18:16

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1211_29-1	565102.50	238634.90	194991.60
Upper Limit		1130205	477270	389983
Lower Limit		282551	119317	97496
LCS R4011093-1 WG2187034 1x	1211_29LCS	565102.50	238634.90	194991.60
LCSD R4011093-2 WG2187034 1x	1211_30	571393	243431.80	198757.20
BLANK R4011093-3 WG2187034 1x	1211_33	528430.60	210563	166084
L1682288-05 WG2187034 1x	1211_35	554880.20	230545.80	170067.90
L1682288-04 WG2187034 20x	1211_37	531904.90	224988.50	173406
L1682288-07 WG2187034 20x	1211_38	467197.50	205286.30	155233.10

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.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

ARCADIS - BNSF Region 2

1420 5th Avenue, Suite 2400
Seattle, WA 98101

Billing Information:
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: SEATTLE, WA

Please Circle: PT MT CT ET

Phone: **206-726-4753**

Client Project # **30195976**

Lab Project # **BNSF2ARCA-TIMEOIL**

Collected by (print): ROBERTO PIEMONTE

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Quote #

Date Results Needed: 8260 ONLY / STDTAT

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

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

SDG # L1682288

F028

Acctnum: **BNSF2ARCA**
Template: **T242285**
Prelogin: **P1038614**
PM: **4089 - Andi R Jones**
PB: CS 11/21/23

Shipped Via: **FedEX Priority**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	8270PCP 100ml Amb NoPres	CHLORIDE,SULFATE 125mlHDPE-NoPres	Diss Metals - FE,MN 250mlHDPE-NoPres	NO2NO3 250mlHDPE-H2SO4 <2	NWTPHDXLVINOSGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	TOC 250mlAmb-HCl <2	Total Metals - FE,MN 250mlHDPE-HNO3 <2	V8260 40mlAmb-HCl	Remarks	Sample # (lab only)
~~RP MW-BN-97(112723)~~ 01MW97(112723)	G	GW	—	11/27/23	13:15	16			X	X	X	X	X	X	X	X		-01
MW-BN-03(112723)	G	GW	—	11/27/23	11:25	16			X	X	X			X	X	X		-02
~~RP MW-BN-93(112723)~~ 01MW93(112723)	G	GW	—	11/27/23	14:55	16			X	X	X	X	X	X	X	X		-03
~~RP MW-BN-98(112823)~~ 01MW98(112823)	G	GW	—	11/28/23	10:05	16			X	X	X	X	X	X	X	X		-04
MW-BN-02(112823)	G	GW	—	11/28/23	12:45	16			X	X	X	X	X	X	X	X		-05
MW-BN-01(112823)	G	GW	—	11/28/23	14:15	16			X	X	X	X	X	X	X	X		-04
MW-DUP-01(112823)	G	GW	—	11/28/23	—	11						X	X			X		-07
TB-01(112723)	—	GW	—	—	—	3						X	X			X		-06
		GW																
		GW																

* 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 _____

PH-10BDH4321 TRC-2352362
CR6-20221V
PH-10BDH4321 TRC-2352362
CR6-20221V

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/28/23	16:15	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Christopher L. Gallien

Trip Blank Received: Yes / No (HCL / MeoH) TBR
2

Temp: ~~12.8~~ 3.4 °C Bottles Received: 91

Date: 11/29/23 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

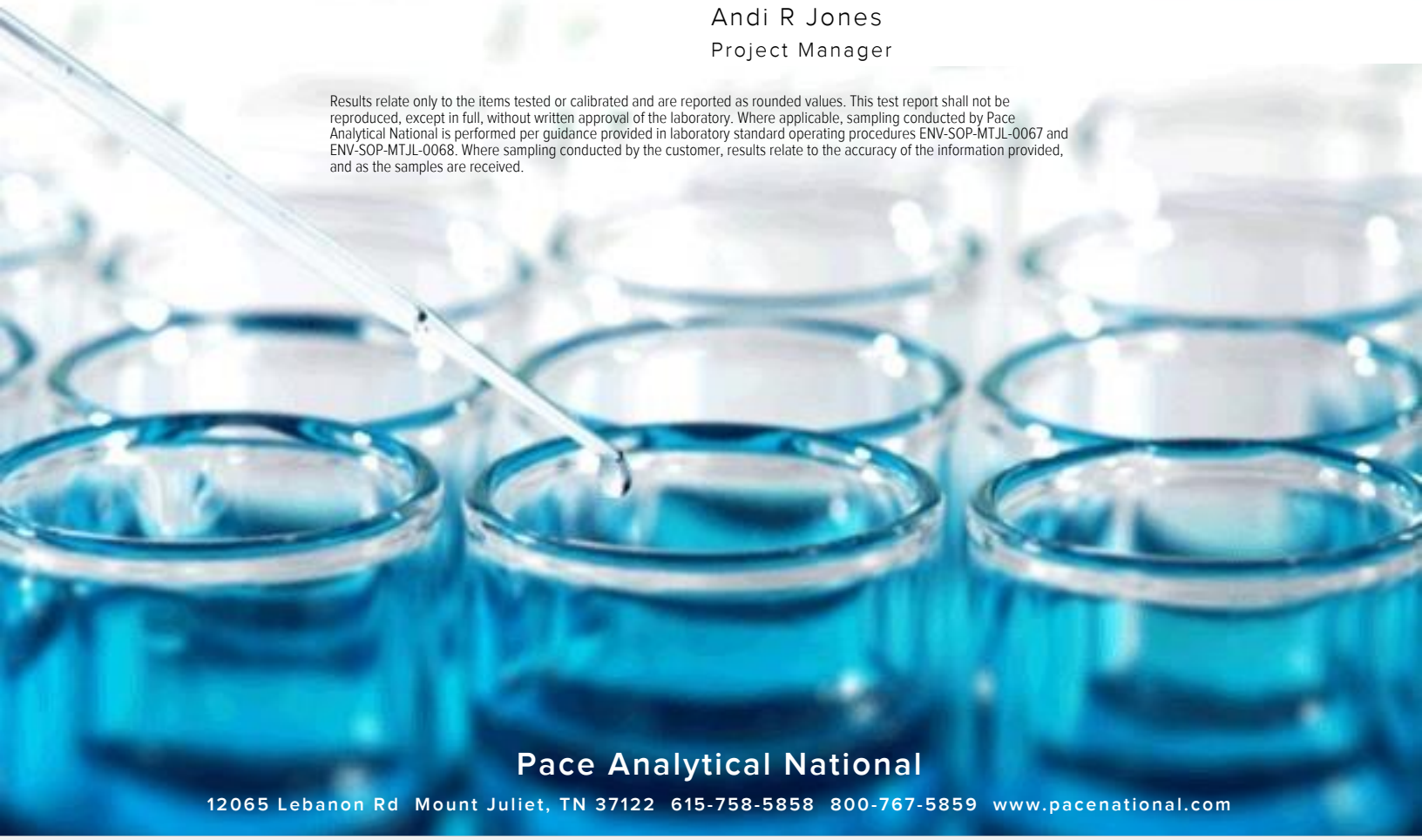
December 19, 2023

ARCADIS - BNSF Region 2

Sample Delivery Group:	L1683704
Samples Received:	12/01/2023
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



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

TABLE OF CONTENTS

SAMPLE SUMMARY

01MW96(112923) L1683704-01 GW

Collected by: Roberto Piemontese | Collected date/time: 11/29/23 07:45 | Received date/time: 12/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2183532	1	12/06/23 13:19	12/06/23 13:19	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2183842	1	12/06/23 15:31	12/06/23 15:31	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2181785	1	12/04/23 10:18	12/05/23 03:25	TGB	Mt. Juliet, TN

01MW92(112923) L1683704-02 GW

Collected by: Roberto Piemontese | Collected date/time: 11/29/23 09:35 | Received date/time: 12/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2183329	1	12/05/23 20:55	12/05/23 20:55	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 19:05	12/05/23 19:05	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2184005	1	12/09/23 13:22	12/09/23 13:22	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/06/23 00:06	12/06/23 00:06	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2181958	1	12/06/23 08:54	12/07/23 01:23	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2183471	1	12/06/23 11:01	12/08/23 09:49	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2183532	5	12/06/23 14:24	12/06/23 14:24	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2183842	1	12/06/23 15:54	12/06/23 15:54	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2185236	50	12/07/23 22:21	12/07/23 22:21	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2181785	1	12/04/23 10:18	12/05/23 03:45	TGB	Mt. Juliet, TN

01MW95(112923) L1683704-03 GW

Collected by: Roberto Piemontese | Collected date/time: 11/29/23 11:35 | Received date/time: 12/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2183329	1	12/05/23 20:56	12/05/23 20:56	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2181864	1	12/05/23 19:21	12/05/23 19:21	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2184005	5	12/09/23 13:34	12/09/23 13:34	ASM	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/06/23 00:27	12/06/23 00:27	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2181958	1	12/06/23 08:54	12/07/23 01:25	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2183471	1	12/06/23 11:01	12/08/23 09:19	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2188962	1	12/13/23 20:57	12/13/23 20:57	ADM	Mt. Juliet, TN

01MW94(112923) L1683704-04 GW

Collected by: Roberto Piemontese | Collected date/time: 11/29/23 13:40 | Received date/time: 12/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 353.2	WG2183329	1	12/05/23 20:57	12/05/23 20:57	AEC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2182861	1	12/06/23 01:32	12/06/23 01:32	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2184796	1	12/08/23 11:47	12/08/23 11:47	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9060A	WG2182881	1	12/06/23 00:49	12/06/23 00:49	DMA	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2181958	1	12/06/23 08:54	12/07/23 01:28	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2183532	5	12/06/23 14:02	12/06/23 14:02	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/11/23 00:27	12/11/23 00:27	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2187034	1	12/12/23 00:12	12/12/23 00:12	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2181785	1	12/04/23 10:18	12/05/23 01:44	TGB	Mt. Juliet, TN

EB-01(112923) L1683704-05 GW

Collected by: Roberto Piemontese | Collected date/time: 11/29/23 15:40 | Received date/time: 12/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2184506	1	12/07/23 02:56	12/07/23 02:56	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/11/23 00:46	12/11/23 00:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2182218	1	12/05/23 22:06	12/06/23 10:58	MAA	Mt. Juliet, TN

WASTE_GW_01(112923) L1683704-06 GW

Collected by: Roberto Piemontese | Collected date/time: 11/29/23 15:50 | Received date/time: 12/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG2181943	1	12/05/23 10:24	12/05/23 17:18	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2183471	1	12/06/23 11:01	12/08/23 09:51	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2183532	1	12/06/23 13:41	12/06/23 13:41	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2183842	1	12/06/23 17:24	12/06/23 17:24	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2185236	20	12/07/23 23:51	12/07/23 23:51	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2182218	1	12/05/23 22:06	12/06/23 11:19	MAA	Mt. Juliet, TN

TB-02(112923) L1683704-07 GW

Collected by: Roberto Piemontese | Collected date/time: 11/29/23 00:00 | Received date/time: 12/01/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2183842	1	12/06/23 17:47	12/06/23 17:47	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2185236	1	12/08/23 00:14	12/08/23 00:14	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2186766	1	12/10/23 22:32	12/10/23 22:32	DWR	Mt. Juliet, TN

CASE NARRATIVE

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

Andi R Jones
Project Manager

Sample Delivery Group (SDG) Narrative

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1683704-07	TB-02(112923)	8260D

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	86.1	J	31.6	100	1	12/06/2023 13:19	WG2183532
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*		*12/06/2023 13:19*	WG2183532

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	0.492	J	0.0941	1.00	1	12/06/2023 15:31	WG2183842
1,2-Dichloroethane	U		0.0819	1.00	1	12/06/2023 15:31	WG2183842
1,1-Dichloroethene	U		0.188	1.00	1	12/06/2023 15:31	WG2183842
cis-1,2-Dichloroethene	2.20		0.126	1.00	1	12/06/2023 15:31	WG2183842
trans-1,2-Dichloroethene	U		0.149	1.00	1	12/06/2023 15:31	WG2183842
Ethylbenzene	U		0.137	1.00	1	12/06/2023 15:31	WG2183842
Tetrachloroethene	U		0.300	1.00	1	12/06/2023 15:31	WG2183842
Toluene	1.49		0.278	1.00	1	12/06/2023 15:31	WG2183842
Trichloroethene	0.523	J	0.190	1.00	1	12/06/2023 15:31	WG2183842
Vinyl chloride	0.774	J	0.234	1.00	1	12/06/2023 15:31	WG2183842
Xylenes, Total	U		0.174	3.00	1	12/06/2023 15:31	WG2183842
(S) Toluene-d8	*95.3*			*80.0-120*		*12/06/2023 15:31*	WG2183842
(S) 4-Bromofluorobenzene	*94.3*			*77.0-126*		*12/06/2023 15:31*	WG2183842
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*		*12/06/2023 15:31*	WG2183842

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)	2460		66.7	200	1	12/05/2023 03:25	WG2181785
Residual Range Organics (RRO)	634		83.3	250	1	12/05/2023 03:25	WG2181785
(S) o-Terphenyl	*73.7*			*52.0-156*		*12/05/2023 03:25*	WG2181785

Sample Narrative:

L1683704-01 WG2181785: Sample resembles laboratory standard for Diesel.

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		50.0	100	1	12/05/2023 20:55	WG2183329

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	9490		379	1000	1	12/05/2023 19:05	WG2181864
Sulfate	8370		594	5000	1	12/09/2023 13:22	WG2184005

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	9360		102	1000	1	12/06/2023 00:06	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron	854		18.0	100	1	12/08/2023 09:49	WG2183471
Iron,Dissolved	45.0	J	18.0	100	1	12/07/2023 01:23	WG2181958
Manganese	830		0.934	10.0	1	12/08/2023 09:49	WG2183471
Manganese,Dissolved	795		0.934	10.0	1	12/07/2023 01:23	WG2181958

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	770		158	500	5	12/06/2023 14:24	WG2183532
(S) a,a,a-Trifluorotoluene(FID)	*102*			*78.0-120*		*12/06/2023 14:24*	WG2183532

Sample Narrative:

L1683704-02 WG2183532: Lowest possible dilution due to sample foaming.

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	0.312	J	0.0941	1.00	1	12/06/2023 15:54	WG2183842
1,2-Dichloroethane	0.133	J	0.0819	1.00	1	12/06/2023 15:54	WG2183842
1,1-Dichloroethene	1.76		0.188	1.00	1	12/06/2023 15:54	WG2183842
cis-1,2-Dichloroethene	191		0.126	1.00	1	12/06/2023 15:54	WG2183842
trans-1,2-Dichloroethene	90.8		0.149	1.00	1	12/06/2023 15:54	WG2183842
Ethylbenzene	U		0.137	1.00	1	12/06/2023 15:54	WG2183842
Tetrachloroethene	U		0.300	1.00	1	12/06/2023 15:54	WG2183842
Toluene	1.15		0.278	1.00	1	12/06/2023 15:54	WG2183842
Trichloroethene	1350		9.50	50.0	50	12/07/2023 22:21	WG2185236
Vinyl chloride	2.46		0.234	1.00	1	12/06/2023 15:54	WG2183842
Xylenes, Total	U		0.174	3.00	1	12/06/2023 15:54	WG2183842
(S) Toluene-d8	*103*			*80.0-120*		*12/06/2023 15:54*	WG2183842
(S) Toluene-d8	*102*			*80.0-120*		*12/07/2023 22:21*	WG2185236
(S) 4-Bromofluorobenzene	*98.7*			*77.0-126*		*12/06/2023 15:54*	WG2183842
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*		*12/07/2023 22:21*	WG2185236
(S) 1,2-Dichloroethane-d4	*98.3*			*70.0-130*		*12/06/2023 15:54*	WG2183842
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*12/07/2023 22:21*	WG2185236

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	
Diesel Range Organics (DRO)	2640		66.7	200	1	12/05/2023 03:45	WG2181785
Residual Range Organics (RRO)	1130		83.3	250	1	12/05/2023 03:45	WG2181785
(S) o-Terphenyl	*70.0*			*52.0-156*		*12/05/2023 03:45*	WG2181785

Sample Narrative:

L1683704-02 WG2181785: Sample resembles laboratory standard for Diesel.

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	12/05/2023 20:56	WG2183329

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chloride	10800		379	1000	1	12/05/2023 19:21	WG2181864
Sulfate	106000		2970	25000	5	12/09/2023 13:34	WG2184005

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)	4190		102	1000	1	12/06/2023 00:27	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Iron	3300		18.0	100	1	12/08/2023 09:19	WG2183471
Iron,Dissolved	U		18.0	100	1	12/07/2023 01:25	WG2181958
Manganese	1140		0.934	10.0	1	12/08/2023 09:19	WG2183471
Manganese,Dissolved	1130		0.934	10.0	1	12/07/2023 01:25	WG2181958

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	12/13/2023 20:57	WG2188962
1,1-Dichloroethene	U		0.0200	0.100	1	12/13/2023 20:57	WG2188962
cis-1,2-Dichloroethene	U		0.0276	0.100	1	12/13/2023 20:57	WG2188962
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/13/2023 20:57	WG2188962
Tetrachloroethene	U		0.0280	0.100	1	12/13/2023 20:57	WG2188962
Trichloroethene	1.19		0.0160	0.0400	1	12/13/2023 20:57	WG2188962
Vinyl chloride	U	C3	0.0273	0.100	1	12/13/2023 20:57	WG2188962
(S) Toluene-d8	*108*			*75.0-131*		*12/13/2023 20:57*	WG2188962
(S) 4-Bromofluorobenzene	*86.4*			*67.0-138*		*12/13/2023 20:57*	WG2188962
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*12/13/2023 20:57*	WG2188962

Wet Chemistry by Method 353.2

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		50.0	100	1	12/05/2023 20:57	WG2183329

Wet Chemistry by Method 9056A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Chloride	13600		379	1000	1	12/06/2023 01:32	WG2182861
Sulfate	7560		594	5000	1	12/06/2023 01:32	WG2182861
Sulfate	6030		594	5000	1	12/08/2023 11:47	WG2184796

Wet Chemistry by Method 9060A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	4850		102	1000	1	12/06/2023 00:49	WG2182881

Metals (ICP) by Method 6010D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Iron,Dissolved	19.7	J	18.0	100	1	12/07/2023 01:28	WG2181958
Manganese,Dissolved	876		0.934	10.0	1	12/07/2023 01:28	WG2181958

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	U		158	500	5	12/06/2023 14:02	WG2183532
(S) a,a,a-Trifluorotoluene(FID)	*102*			*78.0-120*		*12/06/2023 14:02*	WG2183532

Sample Narrative:

L1683704-04 WG2183532: Lowest possible dilution due to sample foaming.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	12/11/2023 00:27	WG2186766
1,1-Dichloroethene	U		0.0200	0.100	1	12/11/2023 00:27	WG2186766
cis-1,2-Dichloroethene	U		0.0276	0.100	1	12/11/2023 00:27	WG2186766
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/11/2023 00:27	WG2186766
Tetrachloroethene	U		0.0280	0.100	1	12/11/2023 00:27	WG2186766
Trichloroethene	0.324		0.0160	0.0400	1	12/12/2023 00:12	WG2187034
Vinyl chloride	U		0.0273	0.100	1	12/11/2023 00:27	WG2186766
(S) Toluene-d8	*104*			*75.0-131*		*12/11/2023 00:27*	WG2186766
(S) Toluene-d8	*111*			*75.0-131*		*12/12/2023 00:12*	WG2187034
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*12/11/2023 00:27*	WG2186766
(S) 4-Bromofluorobenzene	*83.9*			*67.0-138*		*12/12/2023 00:12*	WG2187034
(S) 1,2-Dichloroethane-d4	*84.3*			*70.0-130*		*12/11/2023 00:27*	WG2186766
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*		*12/12/2023 00:12*	WG2187034

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	
Diesel Range Organics (DRO)	653		66.7	200	1	12/05/2023 01:44	WG2181785
Residual Range Organics (RRO)	2320		83.3	250	1	12/05/2023 01:44	WG2181785
(S) o-Terphenyl	*85.8*			*52.0-156*		*12/05/2023 01:44*	WG2181785

Sample Narrative:

L1683704-04 WG2181785: Sample does not resemble laboratory standards.

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	U		31.6	100	1	12/07/2023 02:56	WG2184506
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*12/07/2023 02:56*	WG2184506

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0190	0.100	1	12/11/2023 00:46	WG2186766
1,1-Dichloroethene	U		0.0200	0.100	1	12/11/2023 00:46	WG2186766
cis-1,2-Dichloroethene	U		0.0276	0.100	1	12/11/2023 00:46	WG2186766
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/11/2023 00:46	WG2186766
Tetrachloroethene	U		0.0280	0.100	1	12/11/2023 00:46	WG2186766
Trichloroethene	U		0.0160	0.0400	1	12/11/2023 00:46	WG2186766
Vinyl chloride	U		0.0273	0.100	1	12/11/2023 00:46	WG2186766
(S) Toluene-d8	*103*			*75.0-131*		*12/11/2023 00:46*	WG2186766
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*12/11/2023 00:46*	WG2186766
(S) 1,2-Dichloroethane-d4	*83.6*			*70.0-130*		*12/11/2023 00:46*	WG2186766

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)	80.3	J	66.7	200	1	12/06/2023 10:58	WG2182218
Residual Range Organics (RRO)	292		83.3	250	1	12/06/2023 10:58	WG2182218
(S) o-Terphenyl	*122*			*52.0-156*		*12/06/2023 10:58*	WG2182218

Sample Narrative:

L1683704-05 WG2182218: Sample resembles laboratory standard for Hydraulic Oil.

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	12/05/2023 17:18	WG2181943

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	5.88	J	4.40	10.0	1	12/08/2023 09:51	WG2183471
Barium	85.6		0.736	5.00	1	12/08/2023 09:51	WG2183471
Cadmium	U		0.479	2.00	1	12/08/2023 09:51	WG2183471
Chromium	5.00	J	1.40	10.0	1	12/08/2023 09:51	WG2183471
Lead	9.96		2.99	6.00	1	12/08/2023 09:51	WG2183471
Selenium	U		7.35	10.0	1	12/08/2023 09:51	WG2183471
Silver	U		1.54	5.00	1	12/08/2023 09:51	WG2183471

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	351		31.6	100	1	12/06/2023 13:41	WG2183532
(S) a,a,a-Trifluorotoluene(FID)	*102*			*78.0-120*		*12/06/2023 13:41*	WG2183532

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		0.0819	1.00	1	12/06/2023 17:24	WG2183842
1,1-Dichloroethene	0.732	J	0.188	1.00	1	12/06/2023 17:24	WG2183842
cis-1,2-Dichloroethene	36.0		0.126	1.00	1	12/06/2023 17:24	WG2183842
trans-1,2-Dichloroethene	5.20		0.149	1.00	1	12/06/2023 17:24	WG2183842
Tetrachloroethene	U		0.300	1.00	1	12/06/2023 17:24	WG2183842
Trichloroethene	555		3.80	20.0	20	12/07/2023 23:51	WG2185236
Vinyl chloride	0.680	J	0.234	1.00	1	12/06/2023 17:24	WG2183842
(S) Toluene-d8	*102*			*80.0-120*		*12/06/2023 17:24*	WG2183842
(S) Toluene-d8	*101*			*80.0-120*		*12/07/2023 23:51*	WG2185236
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*12/06/2023 17:24*	WG2183842
(S) 4-Bromofluorobenzene	*95.6*			*77.0-126*		*12/07/2023 23:51*	WG2185236
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*12/06/2023 17:24*	WG2183842
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/07/2023 23:51*	WG2185236

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	
Diesel Range Organics (DRO)	1330		66.7	200	1	12/06/2023 11:19	WG2182218
Residual Range Organics (RRO)	2430		83.3	250	1	12/06/2023 11:19	WG2182218
(S) o-Terphenyl	*126*			*52.0-156*		*12/06/2023 11:19*	WG2182218

Sample Narrative:

L1683704-06 WG2182218: Sample resembles laboratory standard for Hydraulic Oil and Hydraulic Fluid.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	0.0330	J	0.0160	0.0400	1	12/10/2023 22:32	WG2186766
Benzene	U		0.0941	1.00	1	12/06/2023 17:47	WG2183842
1,2-Dichloroethane	U		0.0190	0.100	1	12/10/2023 22:32	WG2186766
1,1-Dichloroethene	U		0.0200	0.100	1	12/10/2023 22:32	WG2186766
1,2-Dichloroethane	U		0.0819	1.00	1	12/06/2023 17:47	WG2183842
1,1-Dichloroethene	U		0.188	1.00	1	12/06/2023 17:47	WG2183842
cis-1,2-Dichloroethene	U		0.0276	0.100	1	12/10/2023 22:32	WG2186766
cis-1,2-Dichloroethene	U		0.126	1.00	1	12/06/2023 17:47	WG2183842
trans-1,2-Dichloroethene	U		0.0572	0.200	1	12/10/2023 22:32	WG2186766
trans-1,2-Dichloroethene	U		0.149	1.00	1	12/06/2023 17:47	WG2183842
Ethylbenzene	U		0.0212	0.100	1	12/10/2023 22:32	WG2186766
Ethylbenzene	U		0.137	1.00	1	12/06/2023 17:47	WG2183842
Tetrachloroethene	U		0.0280	0.100	1	12/10/2023 22:32	WG2186766
Tetrachloroethene	U		0.300	1.00	1	12/06/2023 17:47	WG2183842
Toluene	0.123	J	0.0500	0.200	1	12/10/2023 22:32	WG2186766
Toluene	U		0.278	1.00	1	12/06/2023 17:47	WG2183842
Trichloroethene	U		0.0160	0.0400	1	12/10/2023 22:32	WG2186766
Trichloroethene	U		0.190	1.00	1	12/08/2023 00:14	WG2185236
Vinyl chloride	U		0.0273	0.100	1	12/10/2023 22:32	WG2186766
Vinyl chloride	U		0.234	1.00	1	12/06/2023 17:47	WG2183842
Xylenes, Total	U		0.191	0.260	1	12/10/2023 22:32	WG2186766
Xylenes, Total	U		0.174	3.00	1	12/06/2023 17:47	WG2183842
(S) Toluene-d8	*105*			*75.0-131*		*12/10/2023 22:32*	WG2186766
(S) Toluene-d8	*102*			*80.0-120*		*12/06/2023 17:47*	WG2183842
(S) Toluene-d8	*103*			*80.0-120*		*12/08/2023 00:14*	WG2185236
(S) 4-Bromofluorobenzene	*97.5*			*67.0-138*		*12/10/2023 22:32*	WG2186766
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*12/06/2023 17:47*	WG2183842
(S) 4-Bromofluorobenzene	*96.0*			*77.0-126*		*12/08/2023 00:14*	WG2185236
(S) 1,2-Dichloroethane-d4	*83.2*			*70.0-130*		*12/10/2023 22:32*	WG2186766
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*12/06/2023 17:47*	WG2183842
(S) 1,2-Dichloroethane-d4	*97.6*			*70.0-130*		*12/08/2023 00:14*	WG2185236

Method Blank (MB)

(MB) R4008502-1 12/05/23 20:19

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

L1683421-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1683421-02 12/05/23 20:41 • (DUP) R4008502-6 12/05/23 20:42

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	475	484	1	1.88		20

L1683393-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1683393-01 12/05/23 21:02 • (DUP) R4008502-8 12/05/23 21:07

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	6440	6480	2	0.619		20

Laboratory Control Sample (LCS)

(LCS) R4008502-2 12/05/23 20:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2500	2550	102	90.0-110	

L1683421-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1683421-02 12/05/23 20:41 • (MS) R4008502-7 12/05/23 20:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2500	475	3070	104	1	90.0-110	

L1683393-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683393-01 12/05/23 21:02 • (MS) R4008502-9 12/05/23 21:09 • (MSD) R4008502-10 12/05/23 21:10

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 %
Nitrate-Nitrite	2500	6440	9060	8960	105	101	2	90.0-110			1.11	20

Method Blank (MB)

(MB) R4008999-1 12/05/23 09:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000

L1680497-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1680497-01 12/05/23 11:35 • (DUP) R4008999-3 12/05/23 11:50

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7450	7750	1	3.96		15

L1683704-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1683704-03 12/05/23 19:21 • (DUP) R4008999-6 12/05/23 19:37

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10800	10800	1	0.131		15

Laboratory Control Sample (LCS)

(LCS) R4008999-2 12/05/23 10:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	39900	99.8	80.0-120	

L1680497-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1680497-01 12/05/23 11:35 • (MS) R4008999-4 12/05/23 12:06 • (MSD) R4008999-5 12/05/23 12:22

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	7450	46200	46200	96.8	96.9	1	80.0-120			0.106	15

L1683704-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1683704-03 12/05/23 19:21 • (MS) R4008999-7 12/05/23 19:53

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	10800	48200	93.5	1	80.0-120	

Method Blank (MB)

(MB) R4009017-3 12/05/23 18:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Chloride	U		379	1000
Sulfate	608	J	594	5000

L1682155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1682155-01 12/05/23 22:05 • (DUP) R4009017-5 12/05/23 22:21

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	8030	8030	1	0.0361		15
Sulfate	14800	14800	1	0.156		15

L1683704-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1683704-04 12/06/23 01:32 • (DUP) R4009017-7 12/06/23 01:47

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13600	13600	1	0.161		15
Sulfate	7560	7380	1	2.38		15

Laboratory Control Sample (LCS)

(LCS) R4009017-4 12/05/23 18:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40000	40100	100	80.0-120	
Sulfate	40000	37000	92.5	80.0-120	

L1682155-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1682155-01 12/05/23 22:05 • (MS) R4009017-6 12/05/23 22:37

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40000	8030	47200	98.0	1	80.0-120	
Sulfate	40000	14800	48100	83.2	1	80.0-120	

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

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/06/23 01:32 • (MS) R4009017-8 12/06/23 02:03 • (MSD) R4009017-9 12/06/23 02:19

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40000	13600	52100	52200	96.2	96.3	1	80.0-120			0.122	15
Sulfate	40000	7560	42500	42400	87.4	87.1	1	80.0-120			0.274	15

QUALITY CONTROL SUMMARY

L1683704-02,03

Method Blank (MB)

(MB) R4010401-1 12/09/23 06:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Sulfate	U		594	5000

L1682799-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1682799-06 12/09/23 07:42 • (DUP) R4010401-6 12/09/23 07:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Sulfate	277000	276000	1	0.367	E	15

Laboratory Control Sample (LCS)

(LCS) R4010401-2 12/09/23 07:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Sulfate	40000	39000	97.5	80.0-120	

L1682799-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1682799-06 12/09/23 07:42 • (MS) R4010401-7 12/09/23 08:08 • (MSD) R4010401-8 12/09/23 08:20

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	%	%		%			%	%
Sulfate	40000	277000	274000	275000	0.000	0.000	1	80.0-120	E V	E V	0.262	15

Method Blank (MB)

(MB) R4010024-1 12/08/23 04:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Sulfate	U		594	5000

L1681768-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1681768-09 12/08/23 05:21 • (DUP) R4010024-3 12/08/23 05:34

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	U	U	1	0.000		15

L1683704-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1683704-04 12/08/23 11:47 • (DUP) R4010024-5 12/08/23 12:00

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	6030	5990	1	0.666		15

Laboratory Control Sample (LCS)

(LCS) R4010024-2 12/08/23 04:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40000	38200	95.6	80.0-120	

L1681768-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1681768-09 12/08/23 05:21 • (MS) R4010024-4 12/08/23 05:50

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	40000	U	38800	96.9	1	80.0-120	

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/08/23 11:47 • (MS) R4010024-6 12/08/23 12:42 • (MSD) R4010024-7 12/08/23 12:56

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 %
Sulfate	40000	6030	42800	42000	92.0	90.0	1	80.0-120			1.86	15

Method Blank (MB)

(MB) R4009084-2 12/05/23 12:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TOC (Total Organic Carbon)	148	J	102	1000

L1682288-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1682288-06 12/05/23 20:40 • (DUP) R4009084-5 12/05/23 21:05

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	11300	11500	1	1.23		20

L1676544-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1676544-01 12/06/23 02:00 • (DUP) R4009084-8 12/06/23 02:29

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
TOC (Total Organic Carbon)	57900	58800	2	1.54		20

Laboratory Control Sample (LCS)

(LCS) R4009084-1 12/05/23 11:47

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	25000	24800	99.4	85.0-115	

L1678658-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1678658-01 12/05/23 15:43 • (MS) R4009084-3 12/05/23 16:06 • (MSD) R4009084-4 12/05/23 16:47

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 %
TOC (Total Organic Carbon)	25000	1510	26800	26800	101	101	1	85.0-115			0.112	20

L1683675-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683675-04 12/05/23 22:54 • (MS) R4009084-6 12/05/23 23:18 • (MSD) R4009084-7 12/05/23 23:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	25000	525	25900	25800	101	101	1	85.0-115			0.349	20

QUALITY CONTROL SUMMARY

L1683704-06

Method Blank (MB)

(MB) R4008472-1 12/05/23 16:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

Laboratory Control Sample (LCS)

(LCS) R4008472-2 12/05/23 16:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.23	108	80.0-120	

L1683750-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683750-07 12/05/23 17:03 • (MS) R4008472-3 12/05/23 17:05 • (MSD) R4008472-4 12/05/23 17:08

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 %
Mercury	3.00	U	2.99	2.93	99.5	97.6	1	75.0-125			1.92	20

Method Blank (MB)

(MB) R4009102-1 12/07/23 01:37

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

Laboratory Control Sample (LCS)

(LCS) R4009102-2 12/07/23 01:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Iron	10000	9610	96.1	80.0-120	
Manganese	1000	978	97.8	80.0-120	

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/07/23 01:42 • (MS) R4009102-4 12/07/23 01:48 • (MSD) R4009102-5 12/07/23 01:50

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	%	%		%			%	%
Iron	10000	1260	10800	10900	95.1	96.0	1	75.0-125			0.899	20
Manganese	1000	871	1810	1820	94.3	95.4	1	75.0-125			0.610	20

Method Blank (MB)

(MB) R4009101-1 12/07/23 00:03

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

Laboratory Control Sample (LCS)

(LCS) R4009101-2 12/07/23 00:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron,Dissolved	10000	9480	94.8	80.0-120	
Manganese,Dissolved	1000	969	96.9	80.0-120	

L1683559-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683559-03 12/07/23 00:09 • (MS) R4009101-4 12/07/23 00:15 • (MSD) R4009101-5 12/07/23 00:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Iron,Dissolved	10000	18.2	9260	9390	92.4	93.7	1	75.0-125			1.42	20
Manganese,Dissolved	1000	24.5	964	976	94.0	95.1	1	75.0-125			1.19	20

Method Blank (MB)

(MB) R4009102-1 12/07/23 01:37

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

Laboratory Control Sample (LCS)

(LCS) R4009102-2 12/07/23 01:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Iron	10000	9610	96.1	80.0-120	
Manganese	1000	978	97.8	80.0-120	

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/07/23 01:42 • (MS) R4009102-4 12/07/23 01:48 • (MSD) R4009102-5 12/07/23 01:50

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	%	%		%			%	%
Iron	10000	1260	10800	10900	95.1	96.0	1	75.0-125			0.899	20
Manganese	1000	871	1810	1820	94.3	95.4	1	75.0-125			0.610	20

Method Blank (MB)

(MB) R4010043-1 12/08/23 09:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic	U		4.40	10.0
Barium	U		0.736	5.00
Cadmium	U		0.479	2.00
Chromium	U		1.40	10.0
Iron	U		18.0	100
Lead	U		2.99	6.00
Manganese	4.39	J	0.934	10.0
Selenium	U		7.35	10.0
Silver	U		1.54	5.00

Laboratory Control Sample (LCS)

(LCS) R4010043-2 12/08/23 09:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	1000	1020	102	80.0-120	
Barium	1000	1040	104	80.0-120	
Cadmium	1000	1010	101	80.0-120	
Chromium	1000	1030	103	80.0-120	
Iron	10000	10000	100	80.0-120	
Lead	1000	975	97.5	80.0-120	
Manganese	1000	998	99.8	80.0-120	
Selenium	1000	1020	102	80.0-120	
Silver	200	203	102	80.0-120	

L1683704-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-03 12/08/23 09:19 • (MS) R4010043-4 12/08/23 09:24 • (MSD) R4010043-5 12/08/23 09:27

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 %
Arsenic	1000	10.8	1020	1030	101	102	1	75.0-125			0.857	20
Barium	1000	125	1110	1120	98.6	99.3	1	75.0-125			0.606	20
Cadmium	1000	0.910	984	997	98.3	99.6	1	75.0-125			1.34	20
Chromium	1000	2.43	964	965	96.2	96.2	1	75.0-125			0.0444	20
Iron	10000	3300	12800	12800	94.6	95.3	1	75.0-125			0.614	20
Lead	1000	3.27	948	951	94.5	94.8	1	75.0-125			0.324	20
Manganese	1000	1140	2080	2080	94.9	94.5	1	75.0-125			0.149	20
Selenium	1000	U	1000	1020	100	102	1	75.0-125			1.75	20
Silver	200	U	197	199	98.6	99.6	1	75.0-125			1.06	20

Method Blank (MB)

(MB) R4009045-3 12/06/23 11:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*

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

(LCS) R4009045-1 12/06/23 09:57 • (LCSD) R4009045-2 12/06/23 10:19

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	5500	5440	5600	98.9	102	70.0-124			2.90	20
(S) a,a,a-Trifluorotoluene(FID)				*108*	*107*	*78.0-120*				

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/06/23 14:02 • (MS) R4009045-4 12/06/23 21:43 • (MSD) R4009045-5 12/06/23 22:04

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	27500	U	22000	23400	80.0	85.1	5	10.0-155			6.17	21
(S) a,a,a-Trifluorotoluene(FID)					*104*	*105*		*78.0-120*				

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.

Method Blank (MB)

(MB) R4009162-3 12/07/23 02:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*

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

(LCS) R4009162-1 12/07/23 00:30 • (LCSD) R4009162-2 12/07/23 00:52

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	5500	5050	4900	91.8	89.1	70.0-124			3.02	20
(S) a,a,a-Trifluorotoluene(FID)				*107*	*105*	*78.0-120*				

Method Blank (MB)

(MB) R4009498-3 12/06/23 09:54

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	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*94.2*			*70.0-130*

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

(LCS) R4009498-1 12/06/23 08:48 • (LCSD) R4009498-2 12/06/23 09:10

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.16	5.07	103	101	70.0-123			1.76	20
1,2-Dichloroethane	5.00	4.66	4.65	93.2	93.0	70.0-128			0.215	20
1,1-Dichloroethene	5.00	4.72	4.75	94.4	95.0	71.0-124			0.634	20
cis-1,2-Dichloroethene	5.00	5.12	5.02	102	100	73.0-120			1.97	20
trans-1,2-Dichloroethene	5.00	4.90	4.73	98.0	94.6	73.0-120			3.53	20
Ethylbenzene	5.00	5.35	5.27	107	105	79.0-123			1.51	20
Tetrachloroethene	5.00	4.88	4.90	97.6	98.0	72.0-132			0.409	20
Toluene	5.00	5.06	4.89	101	97.8	79.0-120			3.42	20
Trichloroethene	5.00	4.82	5.04	96.4	101	78.0-124			4.46	20
Vinyl chloride	5.00	5.34	5.21	107	104	67.0-131			2.46	20
Xylenes, Total	15.0	16.2	15.9	108	106	79.0-123			1.87	20
(S) Toluene-d8				*102*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*101*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*97.4*	*97.9*	*70.0-130*				

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/06/23 16:39 • (MS) R4009498-4 12/06/23 18:54 • (MSD) R4009498-5 12/06/23 19:17

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	5.24	4.62	105	92.4	1	17.0-158			12.6	27
1,2-Dichloroethane	5.00	U	4.38	4.02	87.6	80.4	1	29.0-151			8.57	27
1,1-Dichloroethene	5.00	U	4.68	4.16	93.6	83.2	1	11.0-160			11.8	29
cis-1,2-Dichloroethene	5.00	U	4.72	4.30	94.4	86.0	1	10.0-160			9.31	27
trans-1,2-Dichloroethene	5.00	U	4.56	4.05	91.2	81.0	1	17.0-153			11.8	27
Ethylbenzene	5.00	U	5.27	4.72	105	94.4	1	30.0-155			11.0	27
Tetrachloroethene	5.00	U	4.75	4.37	95.0	87.4	1	10.0-160			8.33	27
Toluene	5.00	0.483	6.12	5.25	113	95.3	1	26.0-154			15.3	28
Trichloroethene	5.00	0.711	5.07	4.63	87.2	78.4	1	10.0-160			9.07	25
Vinyl chloride	5.00	U	4.79	4.30	95.8	86.0	1	10.0-160			10.8	27
Xylenes, Total	15.0	U	16.5	14.4	110	96.0	1	29.0-154			13.6	28
(S) Toluene-d8					*101*	*102*		*80.0-120*				
(S) 4-Bromofluorobenzene					*99.2*	*96.9*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*98.6*	*94.8*		*70.0-130*				

Method Blank (MB)

(MB) R4009890-3 12/07/23 20:05

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Trichloroethene	U		0.190	1.00
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.2*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.4*			*70.0-130*

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

(LCS) R4009890-1 12/07/23 18:35 • (LCSD) R4009890-2 12/07/23 18:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Trichloroethene	5.00	4.92	4.44	98.4	88.8	78.0-124			10.3	20
(S) Toluene-d8				*102*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*95.3*	*100*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*96.0*	*99.2*	*70.0-130*				

Method Blank (MB)

(MB) R4010598-3 12/10/23 20:26

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	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*82.2*			*70.0-130*

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

(LCS) R4010598-1 12/10/23 18:51 • (LCSD) R4010598-2 12/10/23 19:10

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	4.90	4.65	98.0	93.0	70.0-123			5.24	20
1,2-Dichloroethane	5.00	4.28	4.08	85.6	81.6	65.0-131			4.78	20
1,1-Dichloroethene	5.00	4.58	4.75	91.6	95.0	65.0-131			3.64	20
cis-1,2-Dichloroethene	5.00	5.29	5.28	106	106	73.0-125			0.189	20
trans-1,2-Dichloroethene	5.00	5.51	5.43	110	109	71.0-125			1.46	20
Ethylbenzene	5.00	5.16	5.21	103	104	74.0-126			0.964	20
Tetrachloroethene	5.00	5.48	5.44	110	109	70.0-136			0.733	20
Toluene	5.00	5.08	5.10	102	102	75.0-121			0.393	20
Trichloroethene	5.00	5.07	4.95	101	99.0	76.0-126			2.40	20
Vinyl chloride	5.00	4.60	4.30	92.0	86.0	63.0-134			6.74	20
Xylenes, Total	15.0	15.9	15.9	106	106	72.0-127			0.000	20
(S) Toluene-d8				*103*	*102*	*75.0-131*				
(S) 4-Bromofluorobenzene				*102*	*105*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*87.2*	*88.9*	*70.0-130*				

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/11/23 00:27 • (MS) R4010598-4 12/11/23 04:35 • (MSD) R4010598-5 12/11/23 04:55

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	5.89	6.08	118	122	1	10.0-149			3.17	37
1,2-Dichloroethane	5.00	U	4.90	5.16	98.0	103	1	10.0-148			5.17	35
1,1-Dichloroethene	5.00	U	6.22	6.29	124	126	1	10.0-155			1.12	37
cis-1,2-Dichloroethene	5.00	U	6.69	6.94	134	139	1	10.0-149			3.67	37
trans-1,2-Dichloroethene	5.00	U	6.80	6.80	136	136	1	10.0-150			0.000	37
Ethylbenzene	5.00	U	6.78	6.92	136	138	1	10.0-160			2.04	38
Tetrachloroethene	5.00	U	7.22	7.59	144	152	1	10.0-156			5.00	39
Toluene	5.00	0.464	6.90	7.29	129	137	1	10.0-156			5.50	38
Trichloroethene	5.00	0.564	6.73	6.92	123	127	1	10.0-156			2.78	38
Vinyl chloride	5.00	U	5.90	6.00	118	120	1	10.0-160			1.68	37
Xylenes, Total	15.0	U	17.1	21.1	114	141	1	10.0-160			20.9	38
(S) Toluene-d8					*102*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*101*	*102*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*88.8*	*84.6*		*70.0-130*				

Method Blank (MB)

(MB) R4011093-3 12/11/23 19:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Trichloroethene	U		0.0160	0.0400
(S) Toluene-d8	*111*			*75.0-131*
(S) 4-Bromofluorobenzene	*82.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*

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

(LCS) R4011093-1 12/11/23 18:16 • (LCSD) R4011093-2 12/11/23 18:36

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	%	%	%			%	%
Trichloroethene	5.00	5.44	5.31	109	106	76.0-126			2.42	20
(S) Toluene-d8				*105*	*106*	*75.0-131*				
(S) 4-Bromofluorobenzene				*85.2*	*87.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*91.6*	*94.9*	*70.0-130*				

Method Blank (MB)

(MB) R4012270-3 12/13/23 11:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
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
Tetrachloroethene	U		0.0280	0.100
Trichloroethene	U		0.0160	0.0400
Vinyl chloride	U		0.0273	0.100
(S) Toluene-d8	*106*			*75.0-131*
(S) 4-Bromofluorobenzene	*86.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*

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

(LCS) R4012270-1 12/13/23 09:44 • (LCSD) R4012270-2 12/13/23 10:04

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	5.00	4.81	4.75	96.2	95.0	65.0-131			1.26	20
1,1-Dichloroethene	5.00	4.30	4.61	86.0	92.2	65.0-131			6.96	20
cis-1,2-Dichloroethene	5.00	4.61	4.60	92.2	92.0	73.0-125			0.217	20
trans-1,2-Dichloroethene	5.00	4.35	4.79	87.0	95.8	71.0-125			9.63	20
Tetrachloroethene	5.00	5.36	5.43	107	109	70.0-136			1.30	20
Trichloroethene	5.00	5.02	5.43	100	109	76.0-126			7.85	20
Vinyl chloride	5.00	3.75	3.90	75.0	78.0	63.0-134			3.92	20
(S) Toluene-d8				*104*	*106*	*75.0-131*				
(S) 4-Bromofluorobenzene				*91.0*	*89.9*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*95.1*	*96.8*	*70.0-130*				

Method Blank (MB)

(MB) R4008303-1 12/05/23 01:03

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
(S) o-Terphenyl	*83.0*			*52.0-156*

Laboratory Control Sample (LCS)

(LCS) R4008303-2 12/05/23 01:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	1500	1580	105	50.0-150	
(S) o-Terphenyl			*95.5*	*52.0-156*	

L1683704-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1683704-04 12/05/23 01:44 • (MS) R4008303-3 12/05/23 02:04 • (MSD) R4008303-4 12/05/23 02:24

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 %
Diesel Range Organics (DRO)	1430	653	2260	2220	112	110	1	50.0-150			1.79	20
(S) o-Terphenyl					*75.3*	*68.9*		*52.0-156*				

Sample Narrative:

OS: Sample does not resemble laboratory standards.

Method Blank (MB)

(MB) R4008881-1 12/06/23 08:57

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
(S) o-Terphenyl	*112*			*52.0-156*

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

(LCS) R4008881-2 12/06/23 09:18 • (LCSD) R4008881-3 12/06/23 09:38

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	1460	1420	97.3	94.7	50.0-150			2.78	20
(S) o-Terphenyl				*134*	*129*	*52.0-156*				

INTERNAL STANDARD SUMMARY

Instrument: VOCGC12 • File ID: 1206_03

12/06/23 09:57

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1206_03	805991400	756309100
Upper Limit		1611983000	1512618000
Lower Limit		402995700	378154600
LCS R4009045-1 WG2183532 1x	1206_03u	805991400	756309100
LCSD R4009045-2 WG2183532 1x	1206_04	806292700	779444700
BLANK R4009045-3 WG2183532 1x	1206_06	700360700	697768200
L1683704-01 WG2183532 1x	1206_10	702563300	701399600
L1683704-06 WG2183532 1x	1206_11	694759200	694831100
L1683704-04 WG2183532 5x	1206_12	688831300	688791000
L1683704-02 WG2183532 5x	1206_13	673579600	673679700
MS R4009045-4 WG2183532 5x	1206_31	802427700	785385900
MSD R4009045-5 WG2183532 5x	1206_32	809519500	791574100

Instrument: VOCGC12 • File ID: 1206_35

12/06/23 23:54

Sample ID	File ID	FLUOROBENZENE (FID) Response	FLUOROBENZENE (PID) Response
Standard	1206_35	828661800	771496400
Upper Limit		1657324000	1542993000
Lower Limit		414330900	385748200
LCS R4009162-1 WG2184506 1x	1206_36	808676200	777415000
LCSD R4009162-2 WG2184506 1x	1206_37	822363600	764995000
BLANK R4009162-3 WG2184506 1x	1206_39	701084800	701032800
L1683704-05 WG2184506 1x	1206_41	677747100	675352600

INTERNAL STANDARD SUMMARY

Instrument: VOCMS35 • File ID: 1206_02-1

12/06/23 08:48

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1206_02-1	344308	147572	125413
Upper Limit		688616	295144	250826
Lower Limit		172154	73786	62707
LCS R4009498-1 WG2183842 1x	1206_02LCS	344308	147572	125413
LCSD R4009498-2 WG2183842 1x	1206_03	337111	145418	123508
BLANK R4009498-3 WG2183842 1x	1206_05	336991	140407	111392
L1683704-01 WG2183842 1x	1206_18	297353	138493	104284
L1683704-02 WG2183842 1x	1206_19	315691	133783	105983
L1683704-06 WG2183842 1x	1206_23	302010	127338	104914
L1683704-07 WG2183842 1x	1206_24	314521	135374	109696
MS R4009498-4 WG2183842 1x	1206_27	335003	145623	119279
MSD R4009498-5 WG2183842 1x	1206_28	358616	153800	119515

Instrument: VOCMS35 • File ID: 1207_27-3

12/07/23 18:35

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1207_27-3	318590	135095	104101
Upper Limit		637180	270190	208202
Lower Limit		159295	67548	52051
LCS R4009890-1 WG2185236 1x	1207_27LCSA	318590	135095	104101
LCSD R4009890-2 WG2185236 1x	1207_28A	336129	146814	117994
BLANK R4009890-3 WG2185236 1x	1207_31A	311447	131060	101688
L1683704-02 WG2185236 50x	1207_36	308203	131550	104074
L1683704-06 WG2185236 20x	1207_40	304788	133476	103322
L1683704-07 WG2185236 1x	1207_41	301687	127088	93653

INTERNAL STANDARD SUMMARY

Instrument: VOCMS53 • File ID: 1210_29-2

12/10/23 18:51

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1210_29-2	1194848	455606	451035.90
Upper Limit		2389696	911212	902072
Lower Limit		597424	227803	225518
LCS R4010598-1 WG2186766 1x	1210_29LCS	1194848	455606	451035.90
LCSD R4010598-2 WG2186766 1x	1210_30	1198767	445109.20	449276
BLANK R4010598-3 WG2186766 1x	1210_34	1342146	500793.20	499782.30
L1683704-07 WG2186766 1x	1210_36	1340217	505704.10	436790.10
L1683704-04 WG2186766 1x	1210_42	1201592	437366.60	417018.50
L1683704-05 WG2186766 1x	1210_43	1198900	427793.70	418614.60
MS R4010598-4 WG2186766 1x	1210_55	1119634	424991.40	419252.40
MSD R4010598-5 WG2186766 1x	1210_56	1161716	425740.20	418214.10

Instrument: VOCMS59 • File ID: 1211_29-1

12/11/23 18:16

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1211_29-1	565102.50	238634.90	194991.60
Upper Limit		1130205	477270	389983
Lower Limit		282551	119317	97496
LCS R4011093-1 WG2187034 1x	1211_29LCS	565102.50	238634.90	194991.60
LCSD R4011093-2 WG2187034 1x	1211_30	571393	243431.80	198757.20
BLANK R4011093-3 WG2187034 1x	1211_33	528430.60	210563	166084
L1683704-04 WG2187034 1x	1211_36	535886.40	221869.60	178274.80

Instrument: VOCMS59 • File ID: 1213_02-1

12/13/23 09:44

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1213_02-1	602365.60	259724.30	218528
Upper Limit		1204731	519449	437056
Lower Limit		301183	129862	109264
LCS R4012270-1 WG2188962 1x	1213_02LCSA	602365.60	259724.30	218528

INTERNAL STANDARD SUMMARY

Instrument: VOCMS59 • File ID: 1213_02-1

12/13/23 09:44

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
LCSD R4012270-2 WG2188962 1x	1213_03A	599344.20	258759.80	215970.10
BLANK R4012270-3 WG2188962 1x	1213_06	566383.60	236823.70	187795
L1683704-03 WG2188962 1x	1213_29	517583	212177.90	171580.10

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
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.
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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
ARCADIS - BNSF Region 2
1420 5th Avenue, Suite 2400
Seattle, WA 98101

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

Pres Chk

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): ROBERTO PIEMONTESE

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

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ✓ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day 8260 ONLY

Quote #

Date Results Needed: STD TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	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	RCRA 8 METALS	Remarks	Sample # (lab only)
01 MW96 (112923)	G	GW	—	11/29/23	7:45	10					X	X			X			-01
01 MW92 (112923)	G	GW	—	11/29/23	9:35	16		X	X	X	X	X	X	X	X			-02
01 MW25 (112923)	G	GW	—	11/29/23	11:35	16		X	X	X	X	X	X	X	X			-03
01 MW94 (112923)	G	GW	—	11/29/23	13:40	38		X	X	X	X	X	X	X	X		MS/MSD*	-04
EB-01 (112923)	G	GW	—	11/29/23	15:40	11					X	X			X			-05
WASTE_GW_01 (112923)	C	GW	—	11/29/23	15:50	12					X	X			X	X		-06
TB LOG TB-02 (112923)	—	GW	—	11/28	—	2					X*	X*			X			-07
		GW																
		GW																
		GW																

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

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

SDG # 168304
1070

Acctnum: **BNSF2ARCA**
Template: **T242285**
Prelogin: **P1038614**
PM: 4089 - Andi R Jones
PB: CK 11/21/23

Shipped Via: **FedEX Priority**

* 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
* MS/MSD: V8260, ~~PAH~~ NWTPH-Gx, NWTPH-DX ONLY

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
ROBERTO PIEMONTESE	11/30/23	12:00		2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.6 °C Bottles Received: 6	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12-1-23 Time: 9:00	Hold: / Condition: NCF / OK