Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NRM2021328541
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Marvin Soriwei Title: Program Manager, Risk Management & Remediation

Signature: Date: 4/5/2021

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: Chad Hensley Date: 07/27/201

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Date: 07/27/201

SITE INFORMATION

Report Type: Work Plan NRM2021328541

General Site Information:						
Site:	EVGSAU 2437-001 (West) Flowline Release					
Company:	ConocoPhillips					
Section, Township and Range	Unit Letter M	Sec. 19	T 17S	R 35 E		
Lease Number:	Associated API No. 30-025-02086					
County:	Lea					
GPS:	32.816604°			-103.502019°		
Surface Owner:	State					
Mineral Owner:	State					
Directions:	Depart from Buckeye, NM (TX-238 and Buckeye Rd.). Head north on TX-238 for 0.72 miles. Turn right onto lease road. Headnorth/northeast for 0.32 miles. Turn right onto lease road. Head east for 0.91 miles.Arrive at location. Site is on the right side of the lease road.					

Release Data:		
Date Released:	7/22/2020	
Type Release:	Produced Water/Oil	
Source of Contamination:	Flowline leak	
Fluid Released:	12.9 bbls	
Fluids Recovered:	0 bbls	

Official Communication:			
Name:	Marvin Soriwei		Christian M. Llull
Company:	Conoco Phillips - RMR		Tetra Tech
Address:	935 N. Eldridge Pkwy.		8911 North Capital of Texas Highway
			Building 2, Suite 2310
City:	Houston, Texas 77079		Austin, Texas
Phone number:	(832) 486-2730		(512) 338-2861
Fax:			
Email:	marvin.soriwei@conocophillips.com		christian.llull@tetratech.com

Site Characterization	
Shallowest Depth to Groundwater:	*92' below surface*
Impact to groundwater or surface water:	*No*
Extents within 300 feet of a watercourse:	*No*
Extents within 200 feet of lakebed, sinkhole, or playa la	*Yes*
Extents within 300 feet of an occupied structure:	*No*
Extents within 500 horizontal feet of a private water we	*No*
Extents within 1000 feet of any water well or spring:	*No*
Extents within incorporated municipal well field:	*No*
Extents within 300 feet of a wetland:	*No*
Extents overlying a subsurface mine:	*No*
Karst Potential:	*Low*
Extents within a 100-year floodplain:	*No*
Impact to areas not on a production site:	*No*

Recommended Remedial Action Levels (RRALs)			
Benzene	***Total BTEX***	***TPH (GRO+DRO+MRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*100 mg/kg*	*600 mg/kg*

TETRA TECH

April 14, 2021

District Supervisor
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Release Characterization and Remediation Work Plan
ConocoPhillips
EVGSAU 2437-001 (West) Flowline Release
Unit Letter M, Section 19, Township 17 South, Range 35 East
Lea County, New Mexico
Incident ID# NRM2021328541

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred from the flowline of the East Vacuum Grayburg-San Andres Unit (EVGSAU) 2437-001 well (API No. 30-025-02086). The release point is located on the EVGSAU 2437-001 flowline, approximately 0.45 miles southwest of the EVGSAU Satellite #1 facility. The well is located approximately 0.65 miles west-southwest of the release footprint. The release footprint is located in Public Land Survey System (PLSS) Unit Letter M, Section 19, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.816604°, -103.502019°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Attachment A), the release was discovered on July 22, 2020. 10.3 barrels (bbls) of produced water and 2.6 bbls of oil were reported released, of which none were recovered. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on October 5, 2020. The NMOCD Incident ID for this release is NRM2021328541.

SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.0029 New Mexico Administrative Code (NMAC). The Site is located within a playa lake and OSE waterbody. The Site is in an area of low karst potential.

The Site is within a New Mexico oil and gas production area. According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are four (4) water wells within a ½ mile (800-meter) radius with an average depth to groundwater at 92 feet (ft.) below ground surface (bgs) around the Site. The site characterization data is included in Appendix B.

REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action

Tetra Tech
901 West Wall St., Suite 100, Midland, TX 79701
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

Based on the site characterization and the playa lake, the remediation RRALs for the Site are as follows:

Constituent	RRAL
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

INITIAL RESPONSE

In accordance with 19.15.29.8. B. (4) NMAC that states “the responsible party may commence remediation immediately after discovery of a release”, ConocoPhillips elected to begin initial remediation of the impacted area in late 2020. The release extent was initially identified as an area along the flowline that runs to the south of a lease road. The visibly impacted soil in the release footprint was excavated by COP personnel with heavy equipment to approximately 2 ft. bgs. The release footprint was excavated in an egg-shaped area equaling approximately 8,115 square feet. Figure 3 depicts the release extent and the excavated area from initial response.

SITE ASSESSMENT

In order to achieve horizontal and vertical delineation of the release extent, Tetra Tech personnel conducted soil sampling on January 21, 2021 on behalf of ConocoPhillips. A total of nine (9) borings (BH-1 through BH-9) were installed using an air rotary drilling rig. Two (2) borings (BH-1 and BH-2) were installed within the release extent to a depth of 20 feet bgs to achieve vertical delineation.

During assessment activities, an unrelated previously excavated area to the immediate east of the release footprint was identified. One boring (BH-3) was drilled within this previously excavated area to determine if residual impact existed, if any. The remaining 6 borings (BH-4 through BH-9) were installed along the perimeter of the NRM2021328541 release extent (to the north, east, south and west, respectively) to a depth of 7 feet bgs to attempt to achieve horizontal delineation. Figure 3 depicts the release extent, excavated areas and the January 2021 soil boring locations. Boring logs, included as Appendix C, present soil descriptions, sample depths, and field screening data from the 2021 assessment activities.

A total of forty-two (42) soil samples were collected from the nine (9) locations within and surrounding the release extent and initial response area. These soil samples were sent to Pace Analytical to be analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M and BTEX via EPA Method 8021B. Copies of the laboratory analytical report and chain-of-custody documentation are included in Appendix D. Photographic documentation of the Site and the initial response excavation area is included in Appendix E.

To complete horizontal delineation, Tetra Tech personnel returned to the Site on March 2, 2021 to install one additional hand auger boring (BH-10) north of boring BH-5 to complete horizontal delineation of the release extent. Boring location BH-10 was installed to a depth of 1-foot bgs. One sample was collected and submitted to Pace to analyzed for chlorides via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix C.

SUMMARY OF ANALYTICAL RESULTS

Sample results from the soil assessment are summarized in Table 1. Analytical results associated with the two interior boring locations BH-1 and BH-2 exceeded the RRAL of 600 mg/kg for chloride and/or 100 mg/kg for TPH to depths of 3 feet bgs and 7 feet bgs, respectively. Analytical results for exterior boring location BH-5 exceeded the RRAL for TPH at the 0-1’ depth interval. All other analytical results from the initial assessment were below the Site RRALs.

Analytical results were below Site RRALs for chloride, TPH and BTEX for the additional boring BH-10. The previously excavated area identified to the east of the existing release footprint had no Table I exceedances nor exceedances of the reclamation requirements. Thus, after the additional hand auger sampling activities in March 2021, the release is considered fully delineated.

REMEDIATION WORK PLAN

Based on the analytical results, ConocoPhillips proposes to remove the remaining impacted material as shown in Figure 5. Impacted soils will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum total depth of 7 feet below the surrounding surface (5 feet below existing excavation floor) or until a representative sample from the walls and bottom of the excavation is below the RRALs. The western portion of the release extent will be excavated to a total depth of 3 feet below the surrounding surface (1 foot below existing excavation floor). The northeastern portion of the release extent will be excavated to a depth of 1 foot below the surrounding surface. Any area containing pressurized lines will be hand-dug to a depth of 3 feet or the maximum extent practicable and heavy equipment will come no more than 3 ft from any pressurized lines.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation bottom and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is approximately 750 cubic yards.

Based on the results of the Site assessment, no additional soil remediation is necessary at the previously excavated area identified to the east of the NRM2021328541 area. However, as this is an off-pad area, Site reclamation and restoration activities are warranted in order to properly contour the area and establish vegetative cover that reflects a life-form ratio of plus or minus fifty percent of pre-disturbance levels. The open excavation will be backfilled with non-waste containing, uncontaminated, earthen material blended with clean topsoil, and contoured to promote drainage and root penetration.

ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 5. Seventeen (17) confirmation floor samples and twenty-five (25) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses a surface area of approximately 7,850 square feet.

These confirmation sidewall and floor samples will be representative of no more than approximately 500 square feet of excavated area. Confirmation samples will be sent to an accredited analytical laboratory for analysis of chloride, TPH, and BTEX. Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade.

SITE RECLAMATION AND RESTORATION PLAN

The backfilled areas will be seeded in Spring 2021 (first favorable growing season) to aid in revegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Loamy (L) Sites Seed Mixture will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The NMSLO seed mixture details and corresponding pounds pure live seed per acre are included in Appendix F.

CONCLUSION

ConocoPhillips proposes to begin remediation activities at the Site within 90 days of NMOCD plan approval. Upon completion of the proposed work, a final closure report detailing the remediation activities and the results of the confirmation sampling will be submitted to NMOCD. If you have any questions concerning the soil assessment or the proposed remediation activities for the Site, please call me at (512) 338-2861 or Greg at (432) 682-4559.

Sincerely,
Tetra Tech, Inc.

Christian M. Llull, P.G.
Project Manager

Greg W. Pope, P.G.
Program Manager

cc:
Mr. Marvin Soriwei, RMR – ConocoPhillips
Mr. Charles Beauvais, GPBU - ConocoPhillips

LIST OF ATTACHMENTS

Figures:

Figure 1 – Overview Map
Figure 2 – Site Location/Topographic Map
Figure 3 – Approximate Release Extent and Site Assessment
Figure 4 – Proposed Remediation Extent
Figure 5 – Alternative Confirmation Sampling Plan

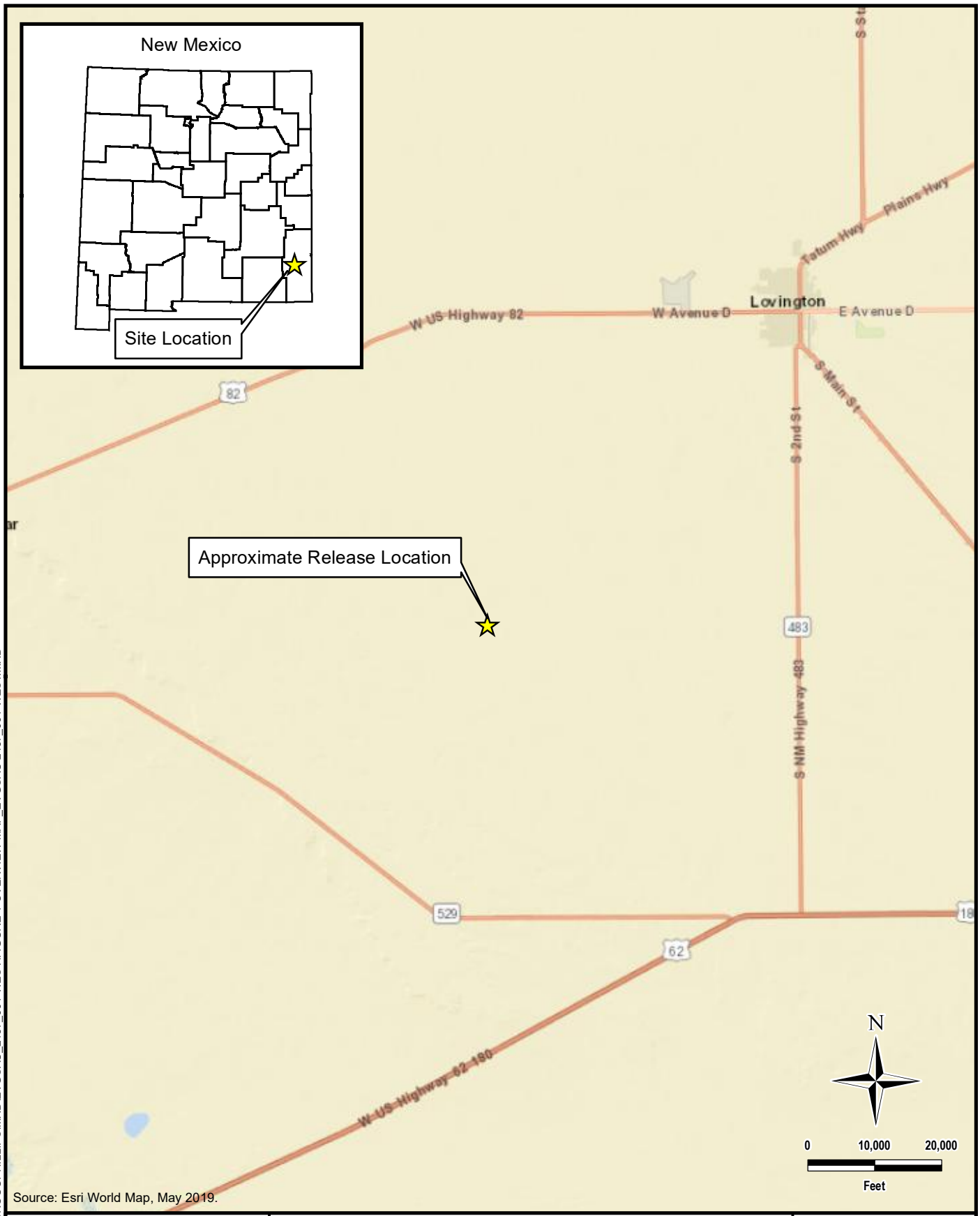
Tables:

Table 1 – Summary of Analytical Results – Soil Assessment

Appendices:

Appendix A – C-141 Forms
Appendix B – Site Characterization Data
Appendix C – Soil Boring Logs
Appendix D – Laboratory Analytical Data
Appendix E – Photographic Documentation
Appendix F – NMSLO Seed Mixture Details

FIGURES



Source: Esri World Map, May 2019.

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2437_001 WEST\FIGURE 1 OVERVIEW MAP_EVGSAU 2437_001 WEST.MXD

TETRA TECH

www.tetratech.com

901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

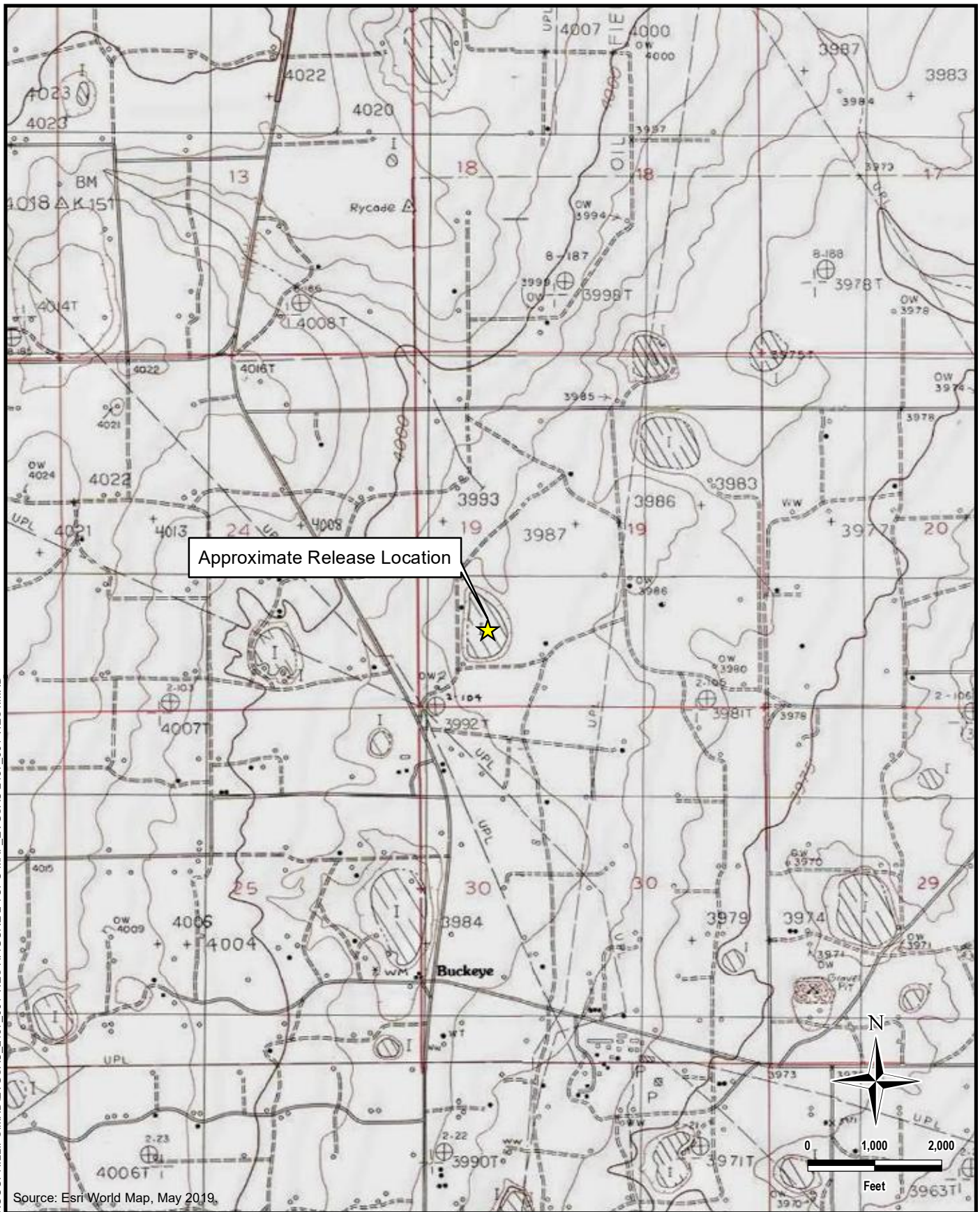
CONOCOPHILLIPS

INCIDENT ID# NRM2021328541
(32.816607°, -103.501989°)
LEA COUNTY, NEW MEXICO

EVGSAU 2437-001 WEST FLOWLINE RELEASE
OVERVIEW MAP

PROJECT NO.:	212C-MD-02401
DATE:	MARCH 15, 2021
DESIGNED BY:	AAM

Figure No.
1



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2437_001 WEST\FIGURE 2 TOPO MAP_EVGSAU 2437_001 WEST.MXD

TETRA TECH

www.tetratech.com

901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

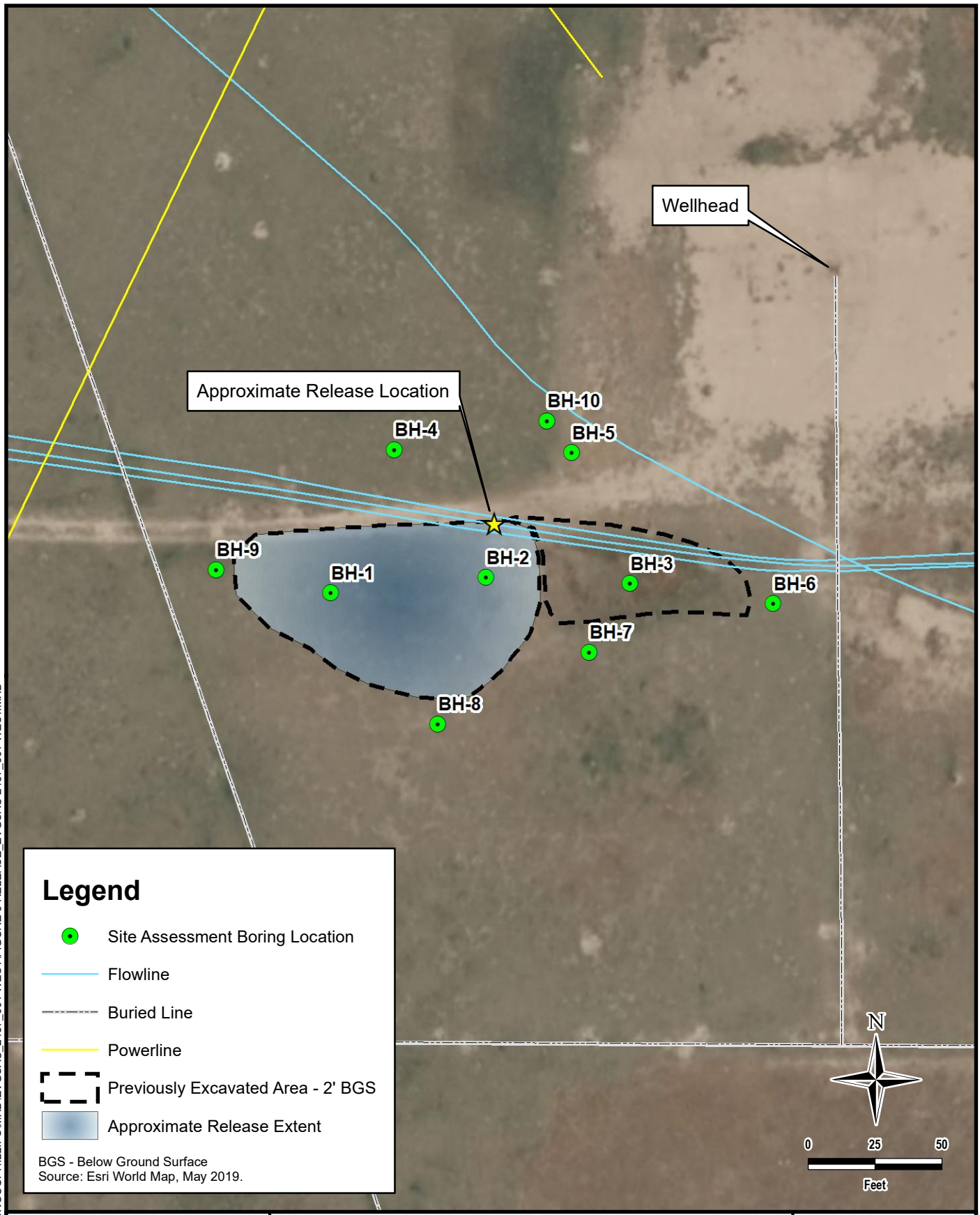
CONOCOPHILLIPS

INCIDENT ID# NRM2021328541
(32.816607°, -103.501989°)
LEA COUNTY, NEW MEXICO

EVGSAU 2437-001 WEST FLOWLINE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02401
DATE:	MARCH 15, 2021
DESIGNED BY:	AAM

Figure No.
2



Legend

- Site Assessment Boring Location
- Flowline
- Buried Line
- Powerline
- Previously Excavated Area - 2' BGS
- Approximate Release Extent

BGS - Below Ground Surface
Source: Esri World Map, May 2019.

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2437_001 WEST\FIGURE 3 RELEASE_EVGSAU 2437_001 WEST.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

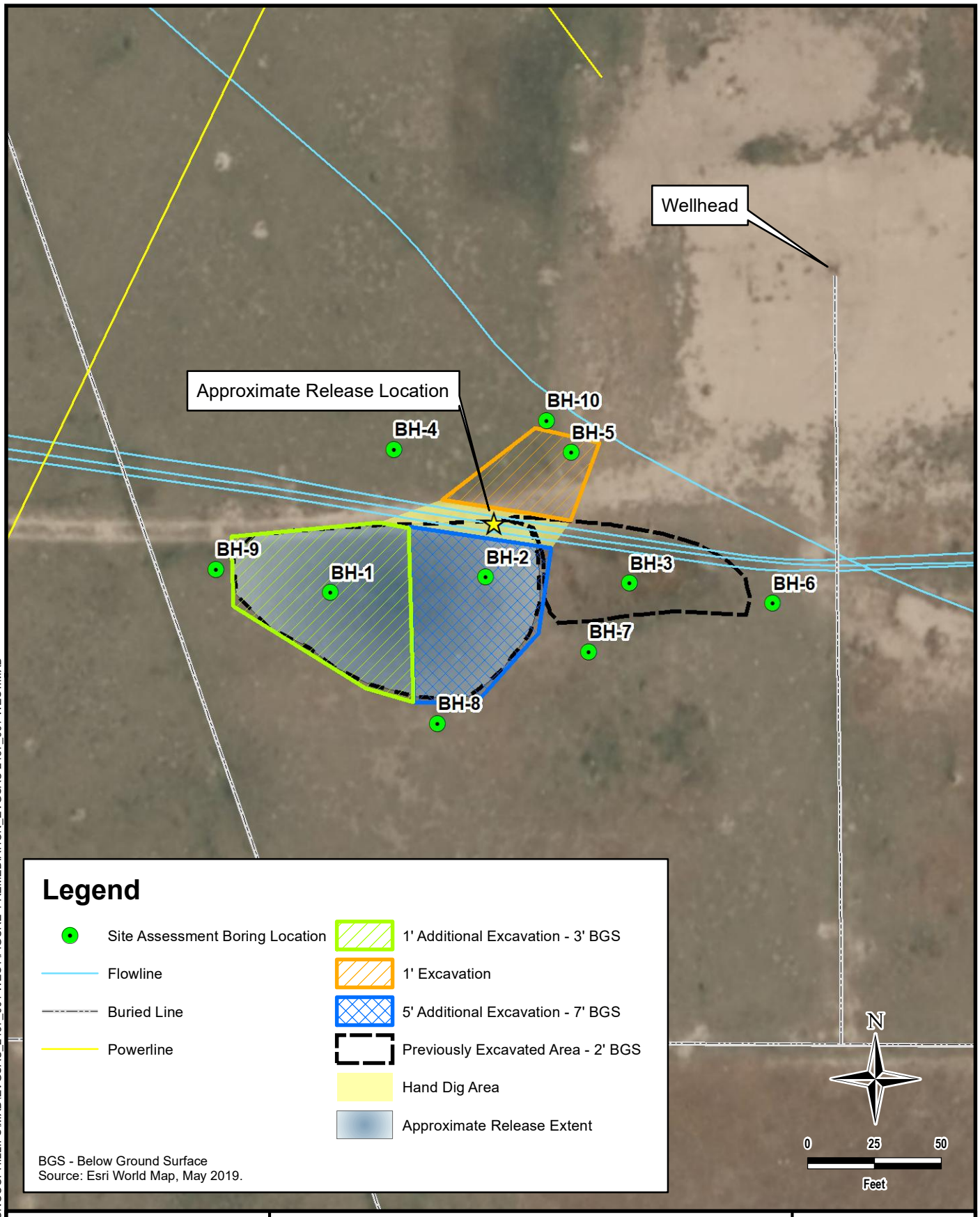
CONOCOPHILLIPS

INCIDENT ID# NRM2021328541
(32.816607°, -103.501989°)
LEA COUNTY, NEW MEXICO

EVGSAU 2437-001 WEST FLOWLINE RELEASE
APPROXIMATE RELEASE EXTENT AND SITE ASSESSMENT

PROJECT NO.:	212C-MD-02401
DATE:	MARCH 24, 2021
DESIGNED BY:	AAM

Figure No.
3



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2437_001 WEST\FIGURE 4 REMEDIATION_EVGSAU 2437_001 WEST.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

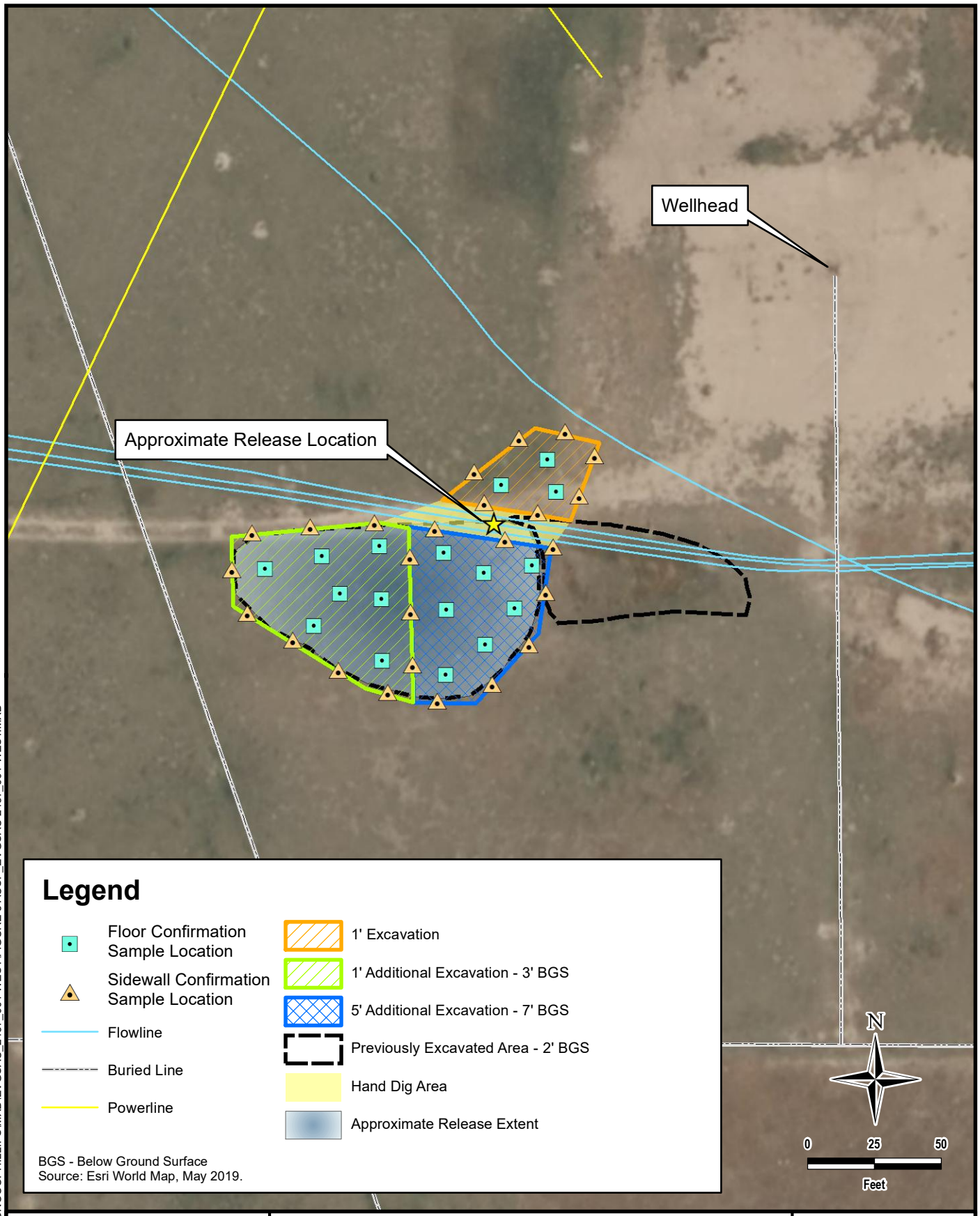
CONOCOPHILLIPS

INCIDENT ID# NRM2021328541
(32.816607°, -103.501989°)
LEA COUNTY, NEW MEXICO

EVGSAU 2437-001 WEST FLOWLINE RELEASE
PROPOSED REMEDIATION EXTENT

PROJECT NO.:	212C-MD-02401
DATE:	MARCH 24, 2021
DESIGNED BY:	AAM

Figure No.
4



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2437_001 WEST\FIGURE 5 ACSP_EVGSAU 2437_001 WEST.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

CONOCOPHILLIPS

INCIDENT ID# NRM2021328541
(32.816607°, -103.501989°)
LEA COUNTY, NEW MEXICO

EVGSAU 2437-001 WEST FLOWLINE RELEASE
ALTERNATIVE CONFIRMATION SAMPLING PLAN

PROJECT NO.:	212C-MD-02401
DATE:	MARCH 24, 2021
DESIGNED BY:	AAM

Figure No.
5

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT - nRM2021328541
CONOCOPHILLIPS
EVGSAU 2437-001 WEST FLOWLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]									TPH[3]							
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX	GRO[4] C_3 - C_{10}		DRO C_{10} - C_{28}		ORO C_{28} - C_{40}		Total TPH (GRO+DRO+ORO)
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
BH-1	1/21/2021	2-3	-	-	***8590***		< 0.0102		< 0.0512		0.0438		0.255		0.299	45.4		9040		6550		***15635***
		4-5	-	-	29.9		< 0.00129		< 0.00645		< 0.00323		< 0.00839		-	< 0.115		14.5		7.05		21.6
		6-7	-	-	17.6	J	< 0.00125		< 0.00627		< 0.00313		0.00342	J	0.00342	< 0.113		10.8		8.45		19.3
		9-10	-	-	15.2	J	< 0.00126		< 0.00631		< 0.00315		< 0.00820		-	< 0.113		< 4.52		1.33	J	1.33
		14-15	-	-	20.4	J	< 0.00144		< 0.00719		< 0.00360		< 0.00935		-	< 0.122		< 4.88		2.28	J	2.28
		19-20	-	-	44.8		< 0.00124		< 0.00622		< 0.00311		< 0.00809		-	< 0.112		3.03	J	2.33	J	5.36
BH-2	1/21/2021	2-3	-	-	***10700***		0.00626	J	0.661		2.06		3.08		5.81	369		4790		2750		***7909***
		4-5	-	-	***10200***		0.000884	J	0.00368	J	0.0731		0.0106		0.0883	21.7		1070		552		***1644***
		6-7	-	-	***839***		< 0.00132		< 0.00661		< 0.00330		< 0.00859		-	0.104	J	33.0		17.9		51.0
		9-10	-	-	54.5		< 0.00127		< 0.00638		< 0.00318		< 0.00826		-	0.0257	J	7.63		2.47	J	10.1
		14-15	-	-	27.3		< 0.00126		< 0.00631		< 0.00315		< 0.00820		-	< 0.113		< 4.52		1.04	J	1.04
		19-20	-	-	23.7		< 0.00129		< 0.00644		< 0.00322		< 0.00838		-	< 0.114		< 4.58		0.891	J	0.891
BH-3	1/21/2021	2-3	-	-	< 24.8		< 0.00148		< 0.00738		< 0.00369		< 0.00960		-	< 0.124		< 4.95		0.596	J	0.596
		4-5	-	-	< 24.4		< 0.00144		< 0.00718		< 0.00359		< 0.00933		-	< 0.112		< 4.87		0.609	J	0.609
		6-7	-	-	< 24.0		< 0.00140		< 0.00701		< 0.00351		< 0.00912		-	< 0.120		< 4.80		< 4.80		-
		9-10	-	-	< 24.4		< 0.00144		< 0.00720		< 0.00360		< 0.00936		-	< 0.122		7.48		0.964	J	8.44
		14-15	-	-	< 22.3		< 0.00123		< 0.00614		< 0.00307		< 0.00798		-	< 0.111		< 4.45		< 4.45		-
		19-20	-	-	< 23.2		< 0.00132		< 0.00661		< 0.00331		< 0.00860		-	< 0.116		< 4.64		< 4.64		-
BH-4	1/21/2021	0-1	-	-	< 22.6		< 0.00126		< 0.00631		< 0.00315		< 0.00820		-	< 0.113		7.47		15.5		23.0
		2-3	-	-	< 22.4		< 0.00124		< 0.00621		< 0.00310		< 0.00807		-	< 0.112		2.23	J	4.76		6.99
		4-5	-	-	22.6		< 0.00122		< 0.00611		< 0.00306		< 0.00795		-	< 0.111		5.31		6.80		12.1
		6-7	-	-	< 21.9		< 0.00120		< 0.00598		< 0.00299		< 0.00777		-	< 0.110		< 4.39		0.914	J	0.914
BH-5	1/21/2021	0-1	-	-	108		< 0.00137	J3	< 0.00683	J3	< 0.00341	J3	< 0.00888	J3	-	< 0.118		31.3		123		***154***
		2-3	-	-	< 22.7		< 0.00127		0.00378	B J	< 0.00317		0.00181	J	0.00559	< 0.113		4.95		9.09		14.0
		4-5	-	-	23.2		< 0.00116		< 0.00582		< 0.00291		< 0.00757		-	0.0514	J	14.3		7.38		21.7
		6-7	-	-	15.6	J	< 0.00127		< 0.00635		< 0.00318		< 0.00826		-	< 0.114		10.8		5.24		16.0
BH-6	1/21/2021	0-1	-	-	52.6		< 0.00132		< 0.00662		< 0.00331		< 0.00860		-	0.0366	J	29.8		21.8		51.6
		2-3	-	-	27.8		< 0.00125		< 0.00623		< 0.00311		< 0.00809		-	< 0.112		8.16		11.0		19.2
		4-5	-	-	15.6	J	< 0.00115		< 0.00573		< 0.00286		< 0.00744		-	0.171		3.34	J	4.89		8.40
		6-7	-	-	140		< 0.00124		< 0.00618		< 0.00309		< 0.00803		-	< 0.112		2.36	J	3.47	J	5.83
BH-7	1/21/2021	0-1	-	-	15.7		< 0.00130		0.00168	J	< 0.00324		< 0.00842		0.00168	< 0.115		21.2		74.6		95.8
		2-3	-	-	< 22.6		< 0.00126		< 0.00629		< 0.00315		< 0.00818		-	0.0447	J	8.85		10.4		19.3
		4-5	-	-	20.6	J	< 0.00116		< 0.00582		< 0.00291		< 0.00757		-	0.579		61.4		17.2		79.2
		6-7	-	-	53.4		< 0.00130		< 0.00648		< 0.00324		< 0.00843		-	0.0486	J	8.57		8.39		17.0
BH-8	1/21/2021	0-1	-	-	< 22.8		< 0.00128		< 0.00640		< 0.00320		< 0.00832		-	0.513		6.52		19.3		26.3
		2-3	-	-	< 22.5		< 0.00125		< 0.00623		< 0.00312		< 0.00810		-	0.0330	J	3.59	J	12.8		16.4
		4-5	-	-	11.3	J	< 0.00123		< 0.00615		< 0.00307		< 0.00799		-	< 0.111		8.93		6.19		15.1
		6-7	-	-	81.0		< 0.00131		< 0.00653		< 0.00326		< 0.00848		-	< 0.115		5.34		7.50		12.8
BH-9	1/21/2021	0-1	-	-	17.6	J	< 0.00123		< 0.00614		< 0.00307		< 0.00798		-	< 0.111		7.97		14.5		22.5
		2-3	-	-	26.4		< 0.00123		< 0.00617		< 0.00309		< 0.00802		-	< 0.112		14.6		20.1		34.7
		4-5	-	-	53.5		< 0.00120		< 0.00599		< 0.00299		< 0.00778		-	< 0.110		9.44		14.7		24.1
		6-7	-	-	16.2	J	< 0.00126		< 0.00631		< 0.00316		< 0.00821		-	< 0.113		< 4.53		3.96	J	3.96
BH-10	3/2/2021	0-1	-	-	< 22.2		< 0.00122		< 0.00608		< 0.00304		< 0.00791		-	0.0259	J	4.91		8.97		13.9

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics

Bold and italicized values indicate exceedance of proposed RRALs

1 EPA Method 300.0
2 EPA Method 8260B
3 EPA Method 8015
4 EPA Method 8015D/GRO

QUALIFIERS:

B The same analyte is found in the associated blank.

APPENDIX A
C-141 Forms

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2021328541
District RP	
Facility ID	
Application ID	

0

Release Notification

Responsible Party

Responsible Party ConocoPhillips Company	OGRID 217817
Contact Name Kelsy Waggaman	Contact Telephone 505-577-9071
Contact email Kelsy.Waggaman@ConocoPhillips.com	Incident # *(assigned by OCD)* NRM2021328541
Contact mailing address 29 Vacuum Complex Lane, Lovington, NM 88260	

Location of Release Source

Latitude 32.816603 Longitude -103.502290
(NAD 83 in decimal degrees to 5 decimal places)

Site Name EVGSAU 2437-001	Site Type Pasture
Date Release Discovered 7/22/20	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
M	19	17S	35E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 2.6	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 10.3	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Flowline Leak

State of New Mexico
Oil Conservation Division

Incident ID	NRM2021328541
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐Yes ☒No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kelsy Waggaman Title: Environmental Coordinator

Signature: [signature] Date: 10/5/20

email: Kelsy.Waggaman@ConocoPhillips.com Telephone: 505-577-9071

OCD Only

Received by: Ramona Marcus Date: 10/13/2020

Incident ID	NRM2021328541
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	92 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☒ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2021328541
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Marvin Soriwei Title: Program Manager, Risk Management & Remediation

Signature: Date: 4/5/2021

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2021328541
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Marvin Soriwei Title: Program Manager, Risk Management & Remediation

Signature: Date: 4/5/2021

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: Date:

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Date:

APPENDIX B
Site Characterization Data

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 05439	L	LE	2	3	3	19	17S	35E	640212	3631888*	59	135	85	50
L 04829 POD7	L	LE	3	3	3	19	17S	35E	640012	3631688*	336	210	70	140
L 06357 S	L	LE		1	1	30	17S	35E	640119	3631386*	569	163	85	78
L 06357 S2	L	LE	3	1	1	30	17S	35E	640017	3631285	692	230	130	100

Average Depth to Water: **92 feet**

Minimum Depth: **70 feet**

Maximum Depth: **130 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 640231 **Northing (Y):** 3631944 **Radius:** 800

***UTM location was derived from PLSS - see Help**

COP-EVGSAU 2437-001 West Flow Line

212C-MD-02401

Legend

- High
- Low
- Medium

Lovington

Lea

32.816761 -103.501453 EVGSAU 2437-001 West Flow Line

Hobbs

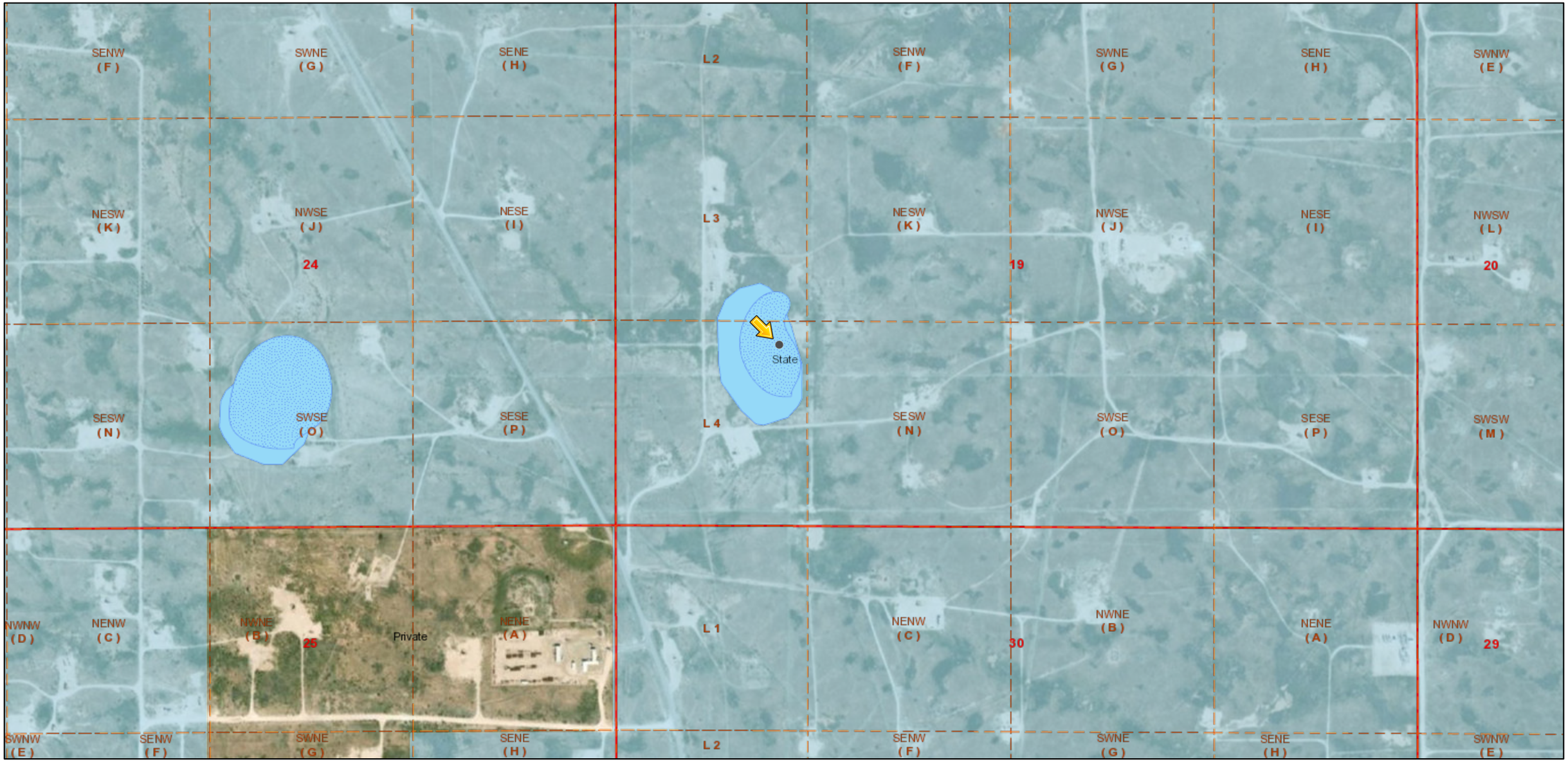
Google Earth

Image Landsat / Copernicus

N

20 mi

EVGSAU 2437-001 West Flow Line



3/2/2021, 12:02:53 PM

Override 1

OCD District Offices

PLSS First Division

PLSS Second Division

Land Ownership

BLM

BOR

DOD

DOE

FS

FWS

I

NPS

P

S

SGF

SP

USDA

VCNP

OSE Water-bodies

PLJV Probable Playas

OSE Streams

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

U.S. BLM, USDA FSA, GeoEye, Maxar, OCD, BLM

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

APPENDIX C
Soil Boring Logs

212C-MD-02401	TETRA TECH	**LOG OF BORING BH-1**	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816540°, -103.502194° | Surface Elevation: 3990 ft

Borehole Number: BH-1 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-- Location was previously excavated to approximately 2 feet below ground surface.		
													2	
												-SM- SILTY SAND: Brown, loose, dry, with slight odor, no staining.	3	BH-1 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-1 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.		BH-1 (6-7')
												-- With interbedded caliche and calcrete		
10														BH-1 (9-10')
15														BH-1 (14-15')
20													20	BH-1 (19-20')

Bottom of borehole at 20.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	**LOG OF BORING BH-2**	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816555°, -103.502005° | Surface Elevation: 3990 ft

Borehole Number: BH-2 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-- Location was previously excavated to approximately 2 feet below ground surface.		
													2	
												-SM- SILTY SAND: Brown, loose, dry, with slight odor, no staining.	3	BH-2 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-2 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.		BH-2 (6-7')
												-- With interbedded caliche and calcrete		
10														BH-2 (9-10')
15														BH-2 (14-15')
20													20	BH-2 (19-20')

Bottom of borehole at 20.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	**LOG OF BORING BH-3**	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816547°, -103.501830° | Surface Elevation: 3990 ft

Borehole Number: BH-3 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-- Location was previously excavated to approximately 2 feet below ground surface.		
													2	
												-SM- SILTY SAND: Brown, loose, dry, with no odor, no staining.	3	BH-3 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-3 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.		BH-3 (6-7')
												-- With interbedded caliche and calcrete		
10														BH-3 (9-10')
15														BH-3 (14-15')
20													20	BH-3 (19-20')

Bottom of borehole at 20.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401 | TETRA TECH | **LOG OF BORING BH-4** | Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816686°, -103.502115° | Surface Elevation: 3990 ft

Borehole Number: BH-4 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SM- SILTY SAND: Brown, loose, dry, with no odor, no staining.		BH-4 (0-1')
													3	BH-4 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-4 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.	7	BH-4 (6-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	LOG OF BORING BH-5	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816525°, -103.501900° | Surface Elevation: 3990 ft

Borehole Number: BH-5 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SM- SILTY SAND: Brown, loose, dry, with slight odor, no staining.		BH-5 (0-1')
													3	BH-5 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-5 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.	7	BH-5 (6-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Shelby, Bulk Sample, Grab Sample, Acetate Liner, Vane Shear, California, Test Pit

Operation Types: Mud Rotary, Continuous Flight Auger, Wash Rotary, Hand Auger, Air Rotary, Direct Push, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	LOG OF BORING BH-6	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816540°, -103.501656° | Surface Elevation: 3990 ft

Borehole Number: BH-6 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SM- SILTY SAND: Brown, loose, dry, with no odor, no staining.		BH-6 (0-1')
													3	BH-6 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-6 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.	7	BH-6 (6-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	LOG OF BORING BH-7	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816477°, -103.501881° | Surface Elevation: 3990 ft

Borehole Number: BH-7 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SM- SILTY SAND: Brown, loose, dry, with no odor, no staining.		BH-7 (0-1')
													3	BH-7 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-7 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.	7	BH-7 (6-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Shelby, Bulk Sample, Grab Sample, Acetate Liner, Vane Shear, California, Test Pit

Operation Types: Mud Rotary, Continuous Flight Auger, Wash Rotary, Hand Auger, Air Rotary, Direct Push, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	**LOG OF BORING BH-8**	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816405°, -103.502065° | Surface Elevation: 3990 ft

Borehole Number: BH-8 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SM- SILTY SAND: Brown, loose, dry, with no odor, no staining.		BH-8 (0-1')
													3	BH-8 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-8 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.	7	BH-8 (6-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	LOG OF BORING BH-9	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816565°, -103.502333° | Surface Elevation: 3990 ft

Borehole Number: BH-9 | Borehole Diameter (in.): 8 | Date Started: 1/21/2021 | Date Finished: 1/21/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SM- SILTY SAND: Brown, loose, dry, with no odor, no staining.		BH-9 (0-1')
													3	BH-9 (2-3')
												-- CALICHE: White, hard, indurated, dry, with no odor, no staining.		
5														BH-9 (4-5')
													6	
												-SM- SILTY SAND: White, with gravel, heavily cemented, dry, with no odor, no staining.	7	BH-9 (6-7')

Bottom of borehole at 7.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02401	TETRA TECH	**LOG OF BORING BH-10**	Page 1 of 1

Project Name: EVGSAU 2437-001 West Flowline Release

Borehole Location: GPS Coordinates: 32.816715°, -103.501929° | Surface Elevation: 3990 ft

Borehole Number: BH-10 | Borehole Diameter (in.): 4 | Date Started: 3/2/2021 | Date Finished: 3/2/2021

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SM- SILTY SAND: Brown, loose, dry, with no odor, no staining.	1	BH-10 (0-1')

Bottom of borehole at 1.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical sample intervals are shown in the "Remarks" column above. Surface elevation was collected using Google Earth.

Logger: Adrian Garcia | Drilling Equipment: Hand Auger | Driller: Tetra Tech

APPENDIX D
Laboratory Analytical Data

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 01, 2021

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1309821
Samples Received:	01/23/2021
Project Number:	212C-MD-02401
Description:	COP EVGSAU 2437-001 West Flowline Release

Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701

Entire Report Reviewed By:

Chris McCord
Project Manager

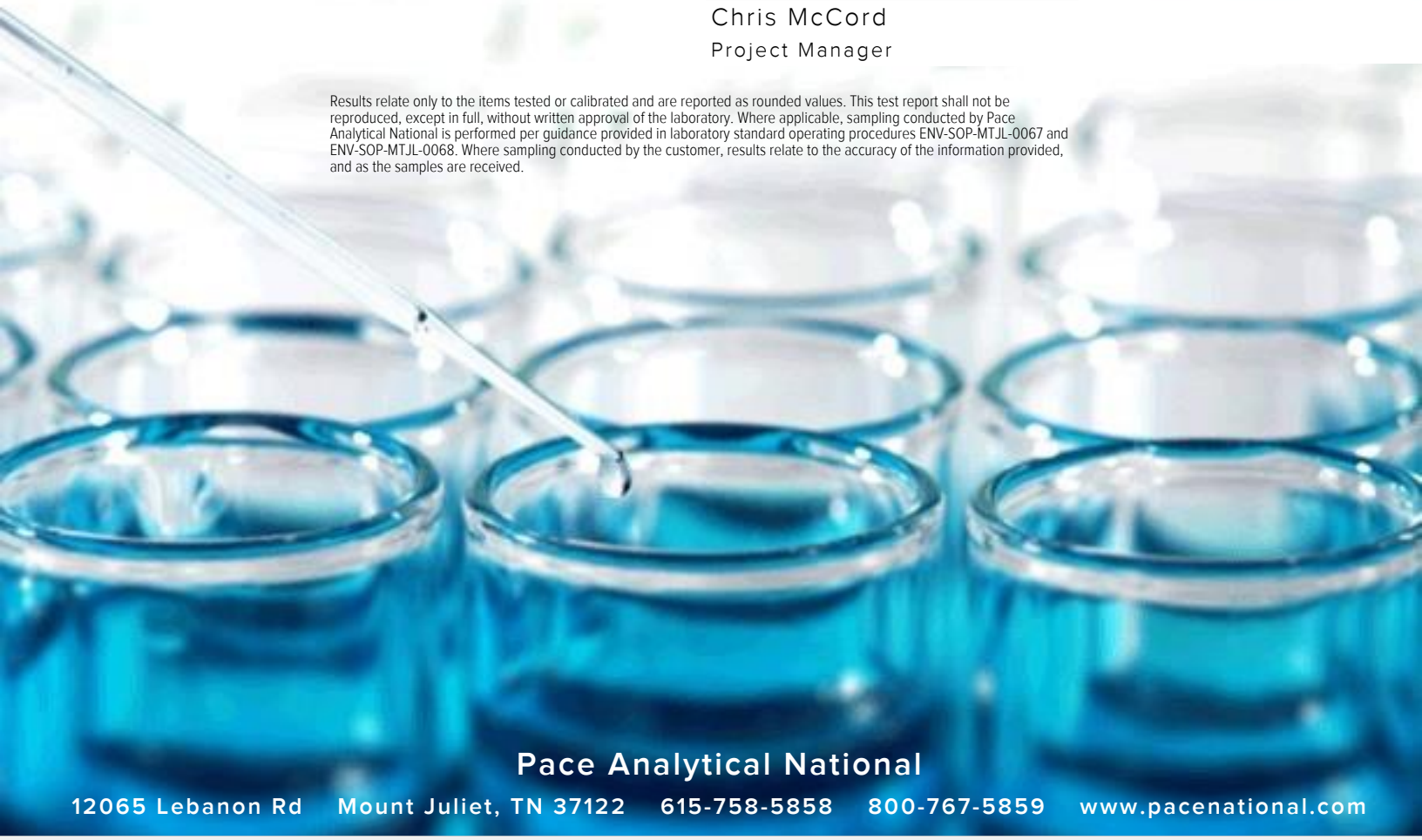


TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 4

Cn: Case Narrative 13

Sr: Sample Results 14

BH-1 (2'-3') L1309821-01 14

BH-1 (4'-5') L1309821-02 15

BH-1 (6'-7') L1309821-03 16

BH-1 (9'-10') L1309821-04 17

BH-1 (14'-15') L1309821-05 18

BH-1 (19'-20') L1309821-06 19

BH-2 (2'-3') L1309821-07 20

BH-2 (4'-5') L1309821-08 21

BH-2 (6'-7') L1309821-09 22

BH-2 (9'-10') L1309821-10 23

BH-2 (14'-15') L1309821-11 24

BH-2 (19'-20') L1309821-12 25

BH-3 (2'-3') L1309821-13 26

BH-3 (4'-5') L1309821-14 27

BH-3 (6'-7') L1309821-15 28

BH-3 (9'-10') L1309821-16 29

BH-3 (14'-15') L1309821-17 30

BH-3 (19'-20') L1309821-18 31

BH-4 (0'-1') L1309821-19 32

BH-4 (2'-3') L1309821-20 33

BH-4 (4'-5') L1309821-21 34

BH-4 (6'-7') L1309821-22 35

BH-5 (0'-1') L1309821-23 36

BH-5 (2'-3') L1309821-24 37

BH-5 (4'-5') L1309821-25 38

BH-5 (6'-7') L1309821-26 39

BH-6 (0'-1') L1309821-27 40

BH-6 (2'-3') L1309821-28 41

BH-6 (4'-5') L1309821-29 42

BH-6 (6'-7') L1309821-30 43

BH-7 (0'-1') L1309821-31 44

BH-7 (2'-3') L1309821-32 45

BH-7 (4'-5') L1309821-33 46

BH-7 (6'-7') L1309821-34 47

BH-8 (0'-1') L1309821-35 48

BH-8 (2'-3') L1309821-36 49
BH-8 (4'-5') L1309821-37 50
BH-8 (6'-7') L1309821-38 51
BH-9 (0'-1') L1309821-39 52
BH-9 (2'-3') L1309821-40 53
BH-9 (4'-5') L1309821-41 54
BH-9 (6'-7') L1309821-42 55
Qc: Quality Control Summary 56
Total Solids by Method 2540 G-2011 56
Wet Chemistry by Method 300.0 61
Volatile Organic Compounds (GC) by Method 8015D/GRO 68
Volatile Organic Compounds (GC/MS) by Method 8260B 71
Semi-Volatile Organic Compounds (GC) by Method 8015 75
Gl: Glossary of Terms 80
Al: Accreditations & Locations 81
Sc: Sample Chain of Custody 82

BH-1 (2'-3') L1309821-01 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 10:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612440	1	01/29/21 09:47	01/29/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	20	01/28/21 14:30	01/29/21 02:01	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	100	01/26/21 09:34	01/30/21 19:45	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	8	01/26/21 09:34	01/29/21 02:49	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612949	100	01/29/21 07:50	01/31/21 13:28	CAG	Mt. Juliet, TN

BH-1 (4'-5') L1309821-02 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 10:10 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612440	1	01/29/21 09:47	01/29/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	1	01/28/21 14:30	01/29/21 02:10	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	1	01/26/21 09:34	01/30/21 15:37	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 21:26	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612949	1	01/29/21 07:50	01/30/21 15:16	JDG	Mt. Juliet, TN

BH-1 (6'-7') L1309821-03 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 10:20 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612440	1	01/29/21 09:47	01/29/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	1	01/28/21 14:30	01/29/21 02:35	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	1	01/26/21 09:34	01/30/21 15:57	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 21:45	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612949	1	01/29/21 07:50	01/30/21 15:29	JDG	Mt. Juliet, TN

BH-1 (9'-10') L1309821-04 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 10:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612440	1	01/29/21 09:47	01/29/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	1	01/28/21 14:30	01/29/21 03:03	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	1	01/26/21 09:34	01/30/21 16:18	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 22:04	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/30/21 23:58	JN	Mt. Juliet, TN

BH-1 (14'-15') L1309821-05 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 10:40 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612440	1	01/29/21 09:47	01/29/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	1	01/28/21 14:30	01/29/21 03:12	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	1	01/26/21 09:34	01/30/21 16:39	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 22:23	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 00:12	JN	Mt. Juliet, TN

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

BH-1 (19'-20') L1309821-06 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 11:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612440	1	01/29/21 09:47	01/29/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	1	01/28/21 14:30	01/29/21 03:22	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	1	01/26/21 09:34	01/30/21 17:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 22:42	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 00:25	JN	Mt. Juliet, TN

BH-2 (2'-3') L1309821-07 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 11:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612440	1	01/29/21 09:47	01/29/21 09:59	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	20	01/28/21 14:30	01/29/21 03:31	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	100	01/26/21 09:34	01/30/21 19:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	8	01/26/21 09:34	01/29/21 03:08	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	50	01/30/21 07:07	01/31/21 13:28	CAG	Mt. Juliet, TN

BH-2 (4'-5') L1309821-08 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 11:40 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612853	1	01/29/21 10:34	01/29/21 10:42	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1610999	20	01/28/21 14:30	01/29/21 03:41	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	25	01/26/21 09:34	01/30/21 17:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613548	1	01/26/21 09:34	01/29/21 22:32	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	5	01/30/21 07:07	01/31/21 13:15	CAG	Mt. Juliet, TN

BH-2 (6'-7') L1309821-09 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 11:50 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612853	1	01/29/21 10:34	01/29/21 10:42	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611003	1	01/26/21 19:39	01/27/21 07:25	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613571	1	01/26/21 09:34	01/30/21 17:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 23:01	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 07:28	JN	Mt. Juliet, TN

BH-2 (9'-10') L1309821-10 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 12:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612853	1	01/29/21 10:34	01/29/21 10:42	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611003	1	01/26/21 19:39	01/27/21 07:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 16:04	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 23:20	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 01:29	JN	Mt. Juliet, TN

BH-2 (14'-15') L1309821-11 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 12:10 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612853	1	01/29/21 10:34	01/29/21 10:42	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611003	1	01/26/21 19:39	01/27/21 07:44	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 16:26	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 23:39	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 01:43	JN	Mt. Juliet, TN

BH-2 (19'-20') L1309821-12 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 12:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612853	1	01/29/21 10:34	01/29/21 10:42	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611003	1	01/26/21 19:39	01/27/21 07:53	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 16:49	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/28/21 23:58	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 01:56	JN	Mt. Juliet, TN

BH-3 (2'-3') L1309821-13 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 13:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612853	1	01/29/21 10:34	01/29/21 10:42	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611003	1	01/26/21 19:39	01/27/21 08:03	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 17:11	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 00:17	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 02:10	JN	Mt. Juliet, TN

BH-3 (4'-5') L1309821-14 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 13:10 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612853	1	01/29/21 10:34	01/29/21 10:42	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:20	01/29/21 13:50	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 17:34	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 00:36	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 02:23	JN	Mt. Juliet, TN

BH-3 (6'-7') L1309821-15 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 13:20 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:16	01/29/21 14:00	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 17:55	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 00:55	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 02:37	JN	Mt. Juliet, TN

BH-3 (9'-10') L1309821-16 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 13:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:16	01/29/21 14:09	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 18:17	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 01:14	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 03:58	JN	Mt. Juliet, TN

BH-3 (14'-15') L1309821-17 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 13:40 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:16	01/29/21 14:38	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 18:39	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 01:33	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 02:50	JN	Mt. Juliet, TN

BH-3 (19'-20') L1309821-18 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 14:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:16	01/29/21 14:48	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 19:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 01:52	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 03:04	JN	Mt. Juliet, TN

BH-4 (0'-1') L1309821-19 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 14:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:16	01/29/21 14:57	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 19:23	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 02:11	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 04:12	JN	Mt. Juliet, TN

BH-4 (2'-3') L1309821-20 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 14:40 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:16	01/29/21 15:07	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 19:45	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612766	1	01/26/21 09:34	01/29/21 02:30	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 03:18	JN	Mt. Juliet, TN

BH-4 (4'-5') L1309821-21 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 14:50 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611004	1	01/28/21 22:16	01/29/21 15:16	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 20:07	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612917	1	01/26/21 09:34	01/28/21 18:53	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 03:31	JN	Mt. Juliet, TN

BH-4 (6'-7') L1309821-22 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 15:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611005	1	01/27/21 11:31	01/27/21 13:29	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613927	1	01/26/21 09:34	01/30/21 20:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612917	1	01/26/21 09:34	01/28/21 19:12	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 03:45	JN	Mt. Juliet, TN

BH-5 (0'-1') L1309821-23 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 15:10 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1611005	1	01/27/21 11:31	01/27/21 13:38	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/30/21 23:50	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1612917	1	01/26/21 14:00	01/28/21 19:31	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612951	1	01/30/21 07:07	01/31/21 04:25	JN	Mt. Juliet, TN

BH-5 (2'-3') L1309821-24 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 15:20 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612855	1	01/29/21 10:43	01/29/21 10:50	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612425	1	01/28/21 16:03	01/28/21 18:57	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 00:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 09:20	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 16:08	JN	Mt. Juliet, TN

BH-5 (4'-5') L1309821-25 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 15:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612425	1	01/28/21 16:03	01/28/21 19:06	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 00:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 10:36	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 16:22	JN	Mt. Juliet, TN

BH-5 (6'-7') L1309821-26 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 15:40 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612425	1	01/28/21 16:03	01/28/21 19:16	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 00:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 10:55	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 16:35	JN	Mt. Juliet, TN

BH-6 (0'-1') L1309821-27 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 15:50 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612425	1	01/28/21 16:03	01/28/21 19:44	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 01:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 11:13	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 17:57	JN	Mt. Juliet, TN

BH-6 (2'-3') L1309821-28 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 16:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612425	1	01/28/21 16:03	01/28/21 19:54	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 01:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 11:32	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 16:49	JN	Mt. Juliet, TN

BH-6 (4'-5') L1309821-29 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 16:10 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612425	1	01/28/21 16:03	01/28/21 20:09	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 01:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 13:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 17:03	JN	Mt. Juliet, TN

BH-6 (6'-7') L1309821-30 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 16:20 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612425	1	01/28/21 16:03	01/28/21 20:37	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 02:15	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 13:26	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 17:16	JN	Mt. Juliet, TN

BH-7 (0'-1') L1309821-31 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 16:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612881	1	01/28/21 18:49	01/29/21 04:47	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 02:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 13:45	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 18:24	JN	Mt. Juliet, TN

BH-7 (2'-3') L1309821-32 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 16:40 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612881	1	01/28/21 18:49	01/29/21 05:16	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 02:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 14:04	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 17:30	JN	Mt. Juliet, TN

BH-7 (4'-5') L1309821-33 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 16:50 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612881	1	01/28/21 18:49	01/29/21 05:35	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 03:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 14:23	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 18:10	JN	Mt. Juliet, TN

BH-7 (6'-7') L1309821-34 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 17:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612856	1	01/29/21 10:52	01/29/21 11:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612881	1	01/28/21 18:49	01/29/21 05:45	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 03:38	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 14:42	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1612953	1	01/29/21 07:46	01/30/21 17:43	JN	Mt. Juliet, TN

BH-8 (0'-1') L1309821-35 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 17:10 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612881	1	01/28/21 18:49	01/29/21 06:13	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 03:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 15:01	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1613275	1	01/29/21 01:59	01/29/21 17:39	JDG	Mt. Juliet, TN

BH-8 (2'-3') L1309821-36 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 17:20 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612881	1	01/28/21 18:49	01/29/21 06:23	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 04:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 15:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1613275	1	01/29/21 01:59	01/29/21 17:52	JDG	Mt. Juliet, TN

BH-8 (4'-5') L1309821-37 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 17:30 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612885	1	01/28/21 23:45	01/29/21 02:06	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 04:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 15:39	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1613275	1	01/29/21 01:59	01/29/21 18:05	JDG	Mt. Juliet, TN

BH-8 (6'-7') L1309821-38 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 17:40 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612885	1	01/28/21 23:45	01/29/21 02:41	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 05:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 15:58	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1613275	1	01/29/21 01:59	01/29/21 18:18	JDG	Mt. Juliet, TN

BH-9 (0'-1') L1309821-39 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 17:50 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612885	1	01/28/21 23:45	01/29/21 02:59	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 05:21	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 16:17	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1614087	1	01/30/21 11:36	01/31/21 07:15	JN	Mt. Juliet, TN

BH-9 (2'-3') L1309821-40 Solid

Collected by: Joe Tyler | Collected date/time: 01/21/21 18:00 | Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612885	1	01/28/21 23:45	01/29/21 03:17	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 05:42	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 16:36	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1613275	1	01/29/21 01:59	01/29/21 21:36	JDG	Mt. Juliet, TN

BH-9 (4'-5') L1309821-41 Solid

Collected by: Joe Tyler
Collected date/time: 01/21/21 18:10
Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612885	1	01/28/21 23:45	01/29/21 03:35	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 06:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 16:54	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1613275	1	01/29/21 01:59	01/29/21 21:49	JDG	Mt. Juliet, TN

BH-9 (6'-7') L1309821-42 Solid

Collected by: Joe Tyler
Collected date/time: 01/21/21 18:20
Received date/time: 01/23/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1612857	1	01/29/21 11:10	01/29/21 11:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1612885	1	01/28/21 23:45	01/29/21 03:53	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1613974	1	01/26/21 14:00	01/31/21 06:24	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613100	1	01/26/21 14:00	01/29/21 17:13	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1613275	1	01/29/21 01:59	01/29/21 22:02	JDG	Mt. Juliet, TN

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.

Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	01/29/2021 09:59	WG1612440

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	8590		210	456	20	01/29/2021 02:01	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	45.4		2.78	12.8	100	01/30/2021 19:45	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*77.0-120*		*01/30/2021 19:45*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00479	0.0102	8	01/29/2021 02:49	WG1612766
Toluene	U		0.0133	0.0512	8	01/29/2021 02:49	WG1612766
Ethylbenzene	0.0438		0.00755	0.0256	8	01/29/2021 02:49	WG1612766
Total Xylenes	0.255		0.00901	0.0665	8	01/29/2021 02:49	WG1612766
(S) Toluene-d8	*96.3*			*75.0-131*		*01/29/2021 02:49*	WG1612766
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*01/29/2021 02:49*	WG1612766
(S) 1,2-Dichloroethane-d4	*97.5*			*70.0-130*		*01/29/2021 02:49*	WG1612766

Sample Narrative:

L1309821-01 WG1612766: Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	9040		184	456	100	01/31/2021 13:28	WG1612949
C28-C40 Oil Range	6550		31.2	456	100	01/31/2021 13:28	WG1612949
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*01/31/2021 13:28*	WG1612949

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	01/29/2021 09:59	WG1612440

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	29.9		10.5	22.9	1	01/29/2021 02:10	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0248	0.115	1	01/30/2021 15:37	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*91.1*			*77.0-120*		*01/30/2021 15:37*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000603	0.00129	1	01/28/2021 21:26	WG1612766
Toluene	U		0.00168	0.00645	1	01/28/2021 21:26	WG1612766
Ethylbenzene	U		0.000951	0.00323	1	01/28/2021 21:26	WG1612766
Total Xylenes	U		0.00114	0.00839	1	01/28/2021 21:26	WG1612766
(S) Toluene-d8	*99.2*			*75.0-131*		*01/28/2021 21:26*	WG1612766
(S) 4-Bromofluorobenzene	*98.0*			*67.0-138*		*01/28/2021 21:26*	WG1612766
(S) 1,2-Dichloroethane-d4	*89.7*			*70.0-130*		*01/28/2021 21:26*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	14.5		1.84	4.58	1	01/30/2021 15:16	WG1612949
C28-C40 Oil Range	7.05		0.314	4.58	1	01/30/2021 15:16	WG1612949
(S) o-Terphenyl	*43.9*			*18.0-148*		*01/30/2021 15:16*	WG1612949

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	01/29/2021 09:59	WG1612440

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	17.6	J	10.4	22.5	1	01/29/2021 02:35	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0244	0.113	1	01/30/2021 15:57	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*93.6*			*77.0-120*		*01/30/2021 15:57*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000585	0.00125	1	01/28/2021 21:45	WG1612766
Toluene	U		0.00163	0.00627	1	01/28/2021 21:45	WG1612766
Ethylbenzene	U		0.000924	0.00313	1	01/28/2021 21:45	WG1612766
Total Xylenes	0.00342	J	0.00110	0.00815	1	01/28/2021 21:45	WG1612766
(S) Toluene-d8	*99.2*			*75.0-131*		*01/28/2021 21:45*	WG1612766
(S) 4-Bromofluorobenzene	*98.4*			*67.0-138*		*01/28/2021 21:45*	WG1612766
(S) 1,2-Dichloroethane-d4	*87.9*			*70.0-130*		*01/28/2021 21:45*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	10.8		1.81	4.51	1	01/30/2021 15:29	WG1612949
C28-C40 Oil Range	8.45		0.309	4.51	1	01/30/2021 15:29	WG1612949
(S) o-Terphenyl	*53.0*			*18.0-148*		*01/30/2021 15:29*	WG1612949

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	01/29/2021 09:59	WG1612440

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	15.2	J	10.4	22.6	1	01/29/2021 03:03	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0245	0.113	1	01/30/2021 16:18	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*94.7*			*77.0-120*		*01/30/2021 16:18*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000589	0.00126	1	01/28/2021 22:04	WG1612766
Toluene	U		0.00164	0.00631	1	01/28/2021 22:04	WG1612766
Ethylbenzene	U		0.000930	0.00315	1	01/28/2021 22:04	WG1612766
Total Xylenes	U		0.00111	0.00820	1	01/28/2021 22:04	WG1612766
(S) Toluene-d8	*98.8*			*75.0-131*		*01/28/2021 22:04*	WG1612766
(S) 4-Bromofluorobenzene	*98.0*			*67.0-138*		*01/28/2021 22:04*	WG1612766
(S) 1,2-Dichloroethane-d4	*89.5*			*70.0-130*		*01/28/2021 22:04*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.82	4.52	1	01/30/2021 23:58	WG1612951
C28-C40 Oil Range	1.33	J	0.310	4.52	1	01/30/2021 23:58	WG1612951
(S) o-Terphenyl	*68.9*			*18.0-148*		*01/30/2021 23:58*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.0		1	01/29/2021 09:59	WG1612440

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	20.4	J	11.2	24.4	1	01/29/2021 03:12	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0265	0.122	1	01/30/2021 16:39	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*94.9*			*77.0-120*		*01/30/2021 16:39*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000672	0.00144	1	01/28/2021 22:23	WG1612766
Toluene	U		0.00187	0.00719	1	01/28/2021 22:23	WG1612766
Ethylbenzene	U		0.00106	0.00360	1	01/28/2021 22:23	WG1612766
Total Xylenes	U		0.00127	0.00935	1	01/28/2021 22:23	WG1612766
(S) Toluene-d8	*99.8*			*75.0-131*		*01/28/2021 22:23*	WG1612766
(S) 4-Bromofluorobenzene	*99.5*			*67.0-138*		*01/28/2021 22:23*	WG1612766
(S) 1,2-Dichloroethane-d4	*91.4*			*70.0-130*		*01/28/2021 22:23*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.96	4.88	1	01/31/2021 00:12	WG1612951
C28-C40 Oil Range	2.28	J	0.334	4.88	1	01/31/2021 00:12	WG1612951
(S) o-Terphenyl	*57.4*			*18.0-148*		*01/31/2021 00:12*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	01/29/2021 09:59	WG1612440

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	44.8		10.3	22.4	1	01/29/2021 03:22	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0243	0.112	1	01/30/2021 17:00	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*93.2*			*77.0-120*		*01/30/2021 17:00*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000581	0.00124	1	01/28/2021 22:42	WG1612766
Toluene	U		0.00162	0.00622	1	01/28/2021 22:42	WG1612766
Ethylbenzene	U		0.000917	0.00311	1	01/28/2021 22:42	WG1612766
Total Xylenes	U		0.00109	0.00809	1	01/28/2021 22:42	WG1612766
(S) Toluene-d8	*99.4*			*75.0-131*		*01/28/2021 22:42*	WG1612766
(S) 4-Bromofluorobenzene	*99.0*			*67.0-138*		*01/28/2021 22:42*	WG1612766
(S) 1,2-Dichloroethane-d4	*90.2*			*70.0-130*		*01/28/2021 22:42*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.03	J	1.81	4.49	1	01/31/2021 00:25	WG1612951
C28-C40 Oil Range	2.33	J	0.307	4.49	1	01/31/2021 00:25	WG1612951
(S) o-Terphenyl	*74.7*			*18.0-148*		*01/31/2021 00:25*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	01/29/2021 09:59	WG1612440

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	10700		212	461	20	01/29/2021 03:31	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	369		2.83	13.0	100	01/30/2021 19:25	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*92.1*			*77.0-120*		*01/30/2021 19:25*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00626	J	0.00488	0.0104	8	01/29/2021 03:08	WG1612766
Toluene	0.661		0.0136	0.0521	8	01/29/2021 03:08	WG1612766
Ethylbenzene	2.06		0.00769	0.0261	8	01/29/2021 03:08	WG1612766
Total Xylenes	3.08		0.00918	0.0678	8	01/29/2021 03:08	WG1612766
(S) Toluene-d8	*97.1*			*75.0-131*		*01/29/2021 03:08*	WG1612766
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*01/29/2021 03:08*	WG1612766
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*01/29/2021 03:08*	WG1612766

Sample Narrative:

L1309821-07 WG1612766: Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4790		92.7	230	50	01/31/2021 13:28	WG1612951
C28-C40 Oil Range	2750		15.8	230	50	01/31/2021 13:28	WG1612951
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*01/31/2021 13:28*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	01/29/2021 10:42	WG1612853

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	10200		227	494	20	01/29/2021 03:41	WG1610999

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	21.7		0.800	3.68	25	01/30/2021 17:41	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*77.0-120*		*01/30/2021 17:41*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000884	J	0.000688	0.00147	1	01/29/2021 22:32	WG1613548
Toluene	0.00368	J	0.00191	0.00736	1	01/29/2021 22:32	WG1613548
Ethylbenzene	0.0731		0.00109	0.00368	1	01/29/2021 22:32	WG1613548
Total Xylenes	0.0106		0.00130	0.00957	1	01/29/2021 22:32	WG1613548
(S) Toluene-d8	*106*			*75.0-131*		*01/29/2021 22:32*	WG1613548
(S) 4-Bromofluorobenzene	*114*			*67.0-138*		*01/29/2021 22:32*	WG1613548
(S) 1,2-Dichloroethane-d4	*87.9*			*70.0-130*		*01/29/2021 22:32*	WG1613548

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1070		9.95	24.7	5	01/31/2021 13:15	WG1612951
C28-C40 Oil Range	552		1.69	24.7	5	01/31/2021 13:15	WG1612951
(S) o-Terphenyl	*252*	J1		*18.0-148*		*01/31/2021 13:15*	WG1612951

Sample Narrative:

L1309821-08 WG1612951: Surrogate failure due to matrix interference

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	01/29/2021 10:42	WG1612853

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	839		10.7	23.2	1	01/27/2021 07:25	WG1611003

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.104	J	0.0252	0.116	1	01/30/2021 17:20	WG1613571
(S) a,a,a-Trifluorotoluene(FID)	*88.4*			*77.0-120*		*01/30/2021 17:20*	WG1613571

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000617	0.00132	1	01/28/2021 23:01	WG1612766
Toluene	U		0.00172	0.00661	1	01/28/2021 23:01	WG1612766
Ethylbenzene	U		0.000974	0.00330	1	01/28/2021 23:01	WG1612766
Total Xylenes	U		0.00116	0.00859	1	01/28/2021 23:01	WG1612766
(S) Toluene-d8	*98.5*			*75.0-131*		*01/28/2021 23:01*	WG1612766
(S) 4-Bromofluorobenzene	*98.5*			*67.0-138*		*01/28/2021 23:01*	WG1612766
(S) 1,2-Dichloroethane-d4	*92.6*			*70.0-130*		*01/28/2021 23:01*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	33.0		1.87	4.64	1	01/31/2021 07:28	WG1612951
C28-C40 Oil Range	17.9		0.318	4.64	1	01/31/2021 07:28	WG1612951
(S) o-Terphenyl	*70.4*			*18.0-148*		*01/31/2021 07:28*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	01/29/2021 10:42	WG1612853

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	54.5		10.4	22.7	1	01/27/2021 07:34	WG1611003

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0257	J	0.0246	0.114	1	01/30/2021 16:04	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 16:04*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000593	0.00127	1	01/28/2021 23:20	WG1612766
Toluene	U		0.00165	0.00635	1	01/28/2021 23:20	WG1612766
Ethylbenzene	U		0.000936	0.00318	1	01/28/2021 23:20	WG1612766
Total Xylenes	U		0.00112	0.00826	1	01/28/2021 23:20	WG1612766
(S) Toluene-d8	*99.6*			*75.0-131*		*01/28/2021 23:20*	WG1612766
(S) 4-Bromofluorobenzene	*99.3*			*67.0-138*		*01/28/2021 23:20*	WG1612766
(S) 1,2-Dichloroethane-d4	*92.0*			*70.0-130*		*01/28/2021 23:20*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.63		1.83	4.54	1	01/31/2021 01:29	WG1612951
C28-C40 Oil Range	2.47	J	0.311	4.54	1	01/31/2021 01:29	WG1612951
(S) o-Terphenyl	*62.9*			*18.0-148*		*01/31/2021 01:29*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	01/29/2021 10:42	WG1612853

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	27.3		10.4	22.6	1	01/27/2021 07:44	WG1611003

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0245	0.113	1	01/30/2021 16:26	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*01/30/2021 16:26*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000589	0.00126	1	01/28/2021 23:39	WG1612766
Toluene	U		0.00164	0.00631	1	01/28/2021 23:39	WG1612766
Ethylbenzene	U		0.000929	0.00315	1	01/28/2021 23:39	WG1612766
Total Xylenes	U		0.00111	0.00820	1	01/28/2021 23:39	WG1612766
(S) Toluene-d8	*99.9*			*75.0-131*		*01/28/2021 23:39*	WG1612766
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*01/28/2021 23:39*	WG1612766
(S) 1,2-Dichloroethane-d4	*92.1*			*70.0-130*		*01/28/2021 23:39*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.82	4.52	1	01/31/2021 01:43	WG1612951
C28-C40 Oil Range	1.04	J	0.310	4.52	1	01/31/2021 01:43	WG1612951
(S) o-Terphenyl	*58.9*			*18.0-148*		*01/31/2021 01:43*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.4		1	01/29/2021 10:42	WG1612853

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	23.7		10.5	22.9	1	01/27/2021 07:53	WG1611003

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0248	0.114	1	01/30/2021 16:49	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 16:49*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000602	0.00129	1	01/28/2021 23:58	WG1612766
Toluene	U		0.00168	0.00644	1	01/28/2021 23:58	WG1612766
Ethylbenzene	U		0.000950	0.00322	1	01/28/2021 23:58	WG1612766
Total Xylenes	U		0.00113	0.00838	1	01/28/2021 23:58	WG1612766
(S) Toluene-d8	*99.4*			*75.0-131*		*01/28/2021 23:58*	WG1612766
(S) 4-Bromofluorobenzene	*99.1*			*67.0-138*		*01/28/2021 23:58*	WG1612766
(S) 1,2-Dichloroethane-d4	*93.0*			*70.0-130*		*01/28/2021 23:58*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.84	4.58	1	01/31/2021 01:56	WG1612951
C28-C40 Oil Range	0.891	J	0.314	4.58	1	01/31/2021 01:56	WG1612951
(S) o-Terphenyl	*64.8*			*18.0-148*		*01/31/2021 01:56*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.8		1	01/29/2021 10:42	WG1612853

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		11.4	24.8	1	01/27/2021 08:03	WG1611003

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0269	0.124	1	01/30/2021 17:11	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 17:11*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000689	0.00148	1	01/29/2021 00:17	WG1612766
Toluene	U		0.00192	0.00738	1	01/29/2021 00:17	WG1612766
Ethylbenzene	U		0.00109	0.00369	1	01/29/2021 00:17	WG1612766
Total Xylenes	U		0.00130	0.00960	1	01/29/2021 00:17	WG1612766
(S) Toluene-d8	*99.0*			*75.0-131*		*01/29/2021 00:17*	WG1612766
(S) 4-Bromofluorobenzene	*98.7*			*67.0-138*		*01/29/2021 00:17*	WG1612766
(S) 1,2-Dichloroethane-d4	*90.2*			*70.0-130*		*01/29/2021 00:17*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.99	4.95	1	01/31/2021 02:10	WG1612951
C28-C40 Oil Range	0.596	J	0.339	4.95	1	01/31/2021 02:10	WG1612951
(S) o-Terphenyl	*66.2*			*18.0-148*		*01/31/2021 02:10*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	01/29/2021 10:42	WG1612853

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		11.2	24.4	1	01/29/2021 13:50	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0264	0.122	1	01/30/2021 17:34	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*01/30/2021 17:34*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000671	0.00144	1	01/29/2021 00:36	WG1612766
Toluene	U		0.00187	0.00718	1	01/29/2021 00:36	WG1612766
Ethylbenzene	U		0.00106	0.00359	1	01/29/2021 00:36	WG1612766
Total Xylenes	U		0.00126	0.00933	1	01/29/2021 00:36	WG1612766
(S) Toluene-d8	*99.4*			*75.0-131*		*01/29/2021 00:36*	WG1612766
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*01/29/2021 00:36*	WG1612766
(S) 1,2-Dichloroethane-d4	*91.0*			*70.0-130*		*01/29/2021 00:36*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.96	4.87	1	01/31/2021 02:23	WG1612951
C28-C40 Oil Range	0.609	J	0.334	4.87	1	01/31/2021 02:23	WG1612951
(S) o-Terphenyl	*64.2*			*18.0-148*		*01/31/2021 02:23*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.3		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		11.0	24.0	1	01/29/2021 14:00	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0261	0.120	1	01/30/2021 17:55	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 17:55*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000655	0.00140	1	01/29/2021 00:55	WG1612766
Toluene	U		0.00182	0.00701	1	01/29/2021 00:55	WG1612766
Ethylbenzene	U		0.00103	0.00351	1	01/29/2021 00:55	WG1612766
Total Xylenes	U		0.00123	0.00912	1	01/29/2021 00:55	WG1612766
(S) Toluene-d8	*99.4*			*75.0-131*		*01/29/2021 00:55*	WG1612766
(S) 4-Bromofluorobenzene	*98.3*			*67.0-138*		*01/29/2021 00:55*	WG1612766
(S) 1,2-Dichloroethane-d4	*91.1*			*70.0-130*		*01/29/2021 00:55*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.93	4.80	1	01/31/2021 02:37	WG1612951
C28-C40 Oil Range	U		0.329	4.80	1	01/31/2021 02:37	WG1612951
(S) o-Terphenyl	*69.0*			*18.0-148*		*01/31/2021 02:37*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.0		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		11.2	24.4	1	01/29/2021 14:09	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0265	0.122	1	01/30/2021 18:17	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 18:17*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000672	0.00144	1	01/29/2021 01:14	WG1612766
Toluene	U		0.00187	0.00720	1	01/29/2021 01:14	WG1612766
Ethylbenzene	U		0.00106	0.00360	1	01/29/2021 01:14	WG1612766
Total Xylenes	U		0.00127	0.00936	1	01/29/2021 01:14	WG1612766
(S) Toluene-d8	*97.9*			*75.0-131*		*01/29/2021 01:14*	WG1612766
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*01/29/2021 01:14*	WG1612766
(S) 1,2-Dichloroethane-d4	*94.1*			*70.0-130*		*01/29/2021 01:14*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.48		1.96	4.88	1	01/31/2021 03:58	WG1612951
C28-C40 Oil Range	0.964	J	0.334	4.88	1	01/31/2021 03:58	WG1612951
(S) o-Terphenyl	*69.5*			*18.0-148*		*01/31/2021 03:58*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.2	22.3	1	01/29/2021 14:38	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0242	0.111	1	01/30/2021 18:39	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 18:39*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000573	0.00123	1	01/29/2021 01:33	WG1612766
Toluene	U		0.00160	0.00614	1	01/29/2021 01:33	WG1612766
Ethylbenzene	U		0.000905	0.00307	1	01/29/2021 01:33	WG1612766
Total Xylenes	U		0.00108	0.00798	1	01/29/2021 01:33	WG1612766
(S) Toluene-d8	*97.9*			*75.0-131*		*01/29/2021 01:33*	WG1612766
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*01/29/2021 01:33*	WG1612766
(S) 1,2-Dichloroethane-d4	*93.8*			*70.0-130*		*01/29/2021 01:33*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.79	4.45	1	01/31/2021 02:50	WG1612951
C28-C40 Oil Range	U		0.305	4.45	1	01/31/2021 02:50	WG1612951
(S) o-Terphenyl	*69.0*			*18.0-148*		*01/31/2021 02:50*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.7	23.2	1	01/29/2021 14:48	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0252	0.116	1	01/30/2021 19:01	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 19:01*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000618	0.00132	1	01/29/2021 01:52	WG1612766
Toluene	U		0.00172	0.00661	1	01/29/2021 01:52	WG1612766
Ethylbenzene	U		0.000975	0.00331	1	01/29/2021 01:52	WG1612766
Total Xylenes	U		0.00116	0.00860	1	01/29/2021 01:52	WG1612766
(S) Toluene-d8	*99.3*			*75.0-131*		*01/29/2021 01:52*	WG1612766
(S) 4-Bromofluorobenzene	*97.9*			*67.0-138*		*01/29/2021 01:52*	WG1612766
(S) 1,2-Dichloroethane-d4	*89.8*			*70.0-130*		*01/29/2021 01:52*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.87	4.64	1	01/31/2021 03:04	WG1612951
C28-C40 Oil Range	U		0.318	4.64	1	01/31/2021 03:04	WG1612951
(S) o-Terphenyl	*65.9*			*18.0-148*		*01/31/2021 03:04*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.4	22.6	1	01/29/2021 14:57	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0245	0.113	1	01/30/2021 19:23	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*01/30/2021 19:23*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000589	0.00126	1	01/29/2021 02:11	WG1612766
Toluene	U		0.00164	0.00631	1	01/29/2021 02:11	WG1612766
Ethylbenzene	U		0.000930	0.00315	1	01/29/2021 02:11	WG1612766
Total Xylenes	U		0.00111	0.00820	1	01/29/2021 02:11	WG1612766
(S) Toluene-d8	*99.1*			*75.0-131*		*01/29/2021 02:11*	WG1612766
(S) 4-Bromofluorobenzene	*98.4*			*67.0-138*		*01/29/2021 02:11*	WG1612766
(S) 1,2-Dichloroethane-d4	*93.1*			*70.0-130*		*01/29/2021 02:11*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.47		1.82	4.52	1	01/31/2021 04:12	WG1612951
C28-C40 Oil Range	15.5		0.310	4.52	1	01/31/2021 04:12	WG1612951
(S) o-Terphenyl	*63.5*			*18.0-148*		*01/31/2021 04:12*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.3		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.3	22.4	1	01/29/2021 15:07	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0243	0.112	1	01/30/2021 19:45	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*01/30/2021 19:45*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000580	0.00124	1	01/29/2021 02:30	WG1612766
Toluene	U		0.00161	0.00621	1	01/29/2021 02:30	WG1612766
Ethylbenzene	U		0.000915	0.00310	1	01/29/2021 02:30	WG1612766
Total Xylenes	U		0.00109	0.00807	1	01/29/2021 02:30	WG1612766
(S) Toluene-d8	*99.7*			*75.0-131*		*01/29/2021 02:30*	WG1612766
(S) 4-Bromofluorobenzene	*99.4*			*67.0-138*		*01/29/2021 02:30*	WG1612766
(S) 1,2-Dichloroethane-d4	*90.8*			*70.0-130*		*01/29/2021 02:30*	WG1612766

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.23	J	1.80	4.48	1	01/31/2021 03:18	WG1612951
C28-C40 Oil Range	4.76		0.307	4.48	1	01/31/2021 03:18	WG1612951
(S) o-Terphenyl	*70.0*			*18.0-148*		*01/31/2021 03:18*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	22.6		10.2	22.2	1	01/29/2021 15:16	WG1611004

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0241	0.111	1	01/30/2021 20:07	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*01/30/2021 20:07*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000571	0.00122	1	01/28/2021 18:53	WG1612917
Toluene	U		0.00159	0.00611	1	01/28/2021 18:53	WG1612917
Ethylbenzene	U		0.000901	0.00306	1	01/28/2021 18:53	WG1612917
Total Xylenes	U		0.00108	0.00795	1	01/28/2021 18:53	WG1612917
(S) Toluene-d8	*104*			*75.0-131*		*01/28/2021 18:53*	WG1612917
(S) 4-Bromofluorobenzene	*99.6*			*67.0-138*		*01/28/2021 18:53*	WG1612917
(S) 1,2-Dichloroethane-d4	*85.9*			*70.0-130*		*01/28/2021 18:53*	WG1612917

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.31		1.79	4.44	1	01/31/2021 03:31	WG1612951
C28-C40 Oil Range	6.80		0.304	4.44	1	01/31/2021 03:31	WG1612951
(S) o-Terphenyl	*67.9*			*18.0-148*		*01/31/2021 03:31*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.1	21.9	1	01/27/2021 13:29	WG1611005

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0238	0.110	1	01/30/2021 20:29	WG1613927
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*01/30/2021 20:29*	WG1613927

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000558	0.00120	1	01/28/2021 19:12	WG1612917
Toluene	U		0.00155	0.00598	1	01/28/2021 19:12	WG1612917
Ethylbenzene	U		0.000881	0.00299	1	01/28/2021 19:12	WG1612917
Total Xylenes	U		0.00105	0.00777	1	01/28/2021 19:12	WG1612917
(S) Toluene-d8	*106*			*75.0-131*		*01/28/2021 19:12*	WG1612917
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*01/28/2021 19:12*	WG1612917
(S) 1,2-Dichloroethane-d4	*89.6*			*70.0-130*		*01/28/2021 19:12*	WG1612917

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.77	4.39	1	01/31/2021 03:45	WG1612951
C28-C40 Oil Range	0.914	J	0.301	4.39	1	01/31/2021 03:45	WG1612951
(S) o-Terphenyl	*48.3*			*18.0-148*		*01/31/2021 03:45*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.6		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	108		10.9	23.7	1	01/27/2021 13:38	WG1611005

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0257	0.118	1	01/30/2021 23:50	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*89.3*			*77.0-120*		*01/30/2021 23:50*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U	J3	0.000638	0.00137	1	01/28/2021 19:31	WG1612917
Toluene	U	J3	0.00178	0.00683	1	01/28/2021 19:31	WG1612917
Ethylbenzene	U	J3	0.00101	0.00341	1	01/28/2021 19:31	WG1612917
Total Xylenes	U	J3	0.00120	0.00888	1	01/28/2021 19:31	WG1612917
(S) Toluene-d8	*103*			*75.0-131*		*01/28/2021 19:31*	WG1612917
(S) 4-Bromofluorobenzene	*99.4*			*67.0-138*		*01/28/2021 19:31*	WG1612917
(S) 1,2-Dichloroethane-d4	*89.4*			*70.0-130*		*01/28/2021 19:31*	WG1612917

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	31.3		1.90	4.73	1	01/31/2021 04:25	WG1612951
C28-C40 Oil Range	123		0.324	4.73	1	01/31/2021 04:25	WG1612951
(S) o-Terphenyl	*66.8*			*18.0-148*		*01/31/2021 04:25*	WG1612951

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	01/29/2021 10:50	WG1612855

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.4	22.7	1	01/28/2021 18:57	WG1612425

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0246	0.113	1	01/31/2021 00:10	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.6*			*77.0-120*		*01/31/2021 00:10*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000593	0.00127	1	01/29/2021 09:20	WG1613100
Toluene	0.00378	B J	0.00165	0.00635	1	01/29/2021 09:20	WG1613100
Ethylbenzene	U		0.000935	0.00317	1	01/29/2021 09:20	WG1613100
Total Xylenes	0.00181	J	0.00112	0.00825	1	01/29/2021 09:20	WG1613100
(S) Toluene-d8	*110*			*75.0-131*		*01/29/2021 09:20*	WG1613100
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*01/29/2021 09:20*	WG1613100
(S) 1,2-Dichloroethane-d4	*84.6*			*70.0-130*		*01/29/2021 09:20*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.95		1.83	4.54	1	01/30/2021 16:08	WG1612953
C28-C40 Oil Range	9.09		0.311	4.54	1	01/30/2021 16:08	WG1612953
(S) o-Terphenyl	*74.4*			*18.0-148*		*01/30/2021 16:08*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.4		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	23.2		9.95	21.6	1	01/28/2021 19:06	WG1612425

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0514	J	0.0235	0.108	1	01/31/2021 00:31	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.5*			*77.0-120*		*01/31/2021 00:31*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000544	0.00116	1	01/29/2021 10:36	WG1613100
Toluene	U		0.00151	0.00582	1	01/29/2021 10:36	WG1613100
Ethylbenzene	U		0.000858	0.00291	1	01/29/2021 10:36	WG1613100
Total Xylenes	U		0.00102	0.00757	1	01/29/2021 10:36	WG1613100
(S) Toluene-d8	*111*			*75.0-131*		*01/29/2021 10:36*	WG1613100
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*01/29/2021 10:36*	WG1613100
(S) 1,2-Dichloroethane-d4	*80.1*			*70.0-130*		*01/29/2021 10:36*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	14.3		1.74	4.33	1	01/30/2021 16:22	WG1612953
C28-C40 Oil Range	7.38		0.296	4.33	1	01/30/2021 16:22	WG1612953
(S) o-Terphenyl	*67.4*			*18.0-148*		*01/30/2021 16:22*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	15.6	J	10.4	22.7	1	01/28/2021 19:16	WG1612425

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0246	0.114	1	01/31/2021 00:52	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*89.8*			*77.0-120*		*01/31/2021 00:52*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000593	0.00127	1	01/29/2021 10:55	WG1613100
Toluene	U		0.00165	0.00635	1	01/29/2021 10:55	WG1613100
Ethylbenzene	U		0.000936	0.00318	1	01/29/2021 10:55	WG1613100
Total Xylenes	U		0.00112	0.00826	1	01/29/2021 10:55	WG1613100
(S) Toluene-d8	*108*			*75.0-131*		*01/29/2021 10:55*	WG1613100
(S) 4-Bromofluorobenzene	*113*			*67.0-138*		*01/29/2021 10:55*	WG1613100
(S) 1,2-Dichloroethane-d4	*87.0*			*70.0-130*		*01/29/2021 10:55*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	10.8		1.83	4.54	1	01/30/2021 16:35	WG1612953
C28-C40 Oil Range	5.24		0.311	4.54	1	01/30/2021 16:35	WG1612953
(S) o-Terphenyl	*68.6*			*18.0-148*		*01/30/2021 16:35*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	52.6		10.7	23.2	1	01/28/2021 19:44	WG1612425

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0366	J	0.0252	0.116	1	01/31/2021 01:13	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.1*			*77.0-120*		*01/31/2021 01:13*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000618	0.00132	1	01/29/2021 11:13	WG1613100
Toluene	U		0.00172	0.00662	1	01/29/2021 11:13	WG1613100
Ethylbenzene	U		0.000975	0.00331	1	01/29/2021 11:13	WG1613100
Total Xylenes	U		0.00116	0.00860	1	01/29/2021 11:13	WG1613100
(S) Toluene-d8	*106*			*75.0-131*		*01/29/2021 11:13*	WG1613100
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*01/29/2021 11:13*	WG1613100
(S) 1,2-Dichloroethane-d4	*85.4*			*70.0-130*		*01/29/2021 11:13*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	29.8		1.87	4.64	1	01/30/2021 17:57	WG1612953
C28-C40 Oil Range	21.8		0.318	4.64	1	01/30/2021 17:57	WG1612953
(S) o-Terphenyl	*73.0*			*18.0-148*		*01/30/2021 17:57*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	27.8		10.3	22.5	1	01/28/2021 19:54	WG1612425

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0244	0.112	1	01/31/2021 01:33	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*		*01/31/2021 01:33*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000582	0.00125	1	01/29/2021 11:32	WG1613100
Toluene	U		0.00162	0.00623	1	01/29/2021 11:32	WG1613100
Ethylbenzene	U		0.000918	0.00311	1	01/29/2021 11:32	WG1613100
Total Xylenes	U		0.00110	0.00809	1	01/29/2021 11:32	WG1613100
(S) Toluene-d8	*108*			*75.0-131*		*01/29/2021 11:32*	WG1613100
(S) 4-Bromofluorobenzene	*113*			*67.0-138*		*01/29/2021 11:32*	WG1613100
(S) 1,2-Dichloroethane-d4	*86.0*			*70.0-130*		*01/29/2021 11:32*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	8.16		1.81	4.49	1	01/30/2021 16:49	WG1612953
C28-C40 Oil Range	11.0		0.308	4.49	1	01/30/2021 16:49	WG1612953
(S) o-Terphenyl	*79.4*			*18.0-148*		*01/30/2021 16:49*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.2		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	15.6	J	9.87	21.4	1	01/28/2021 20:09	WG1612425

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.171		0.0233	0.107	1	01/31/2021 01:54	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*94.0*			*77.0-120*		*01/31/2021 01:54*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000535	0.00115	1	01/29/2021 13:07	WG1613100
Toluene	U		0.00149	0.00573	1	01/29/2021 13:07	WG1613100
Ethylbenzene	U		0.000844	0.00286	1	01/29/2021 13:07	WG1613100
Total Xylenes	U		0.00101	0.00744	1	01/29/2021 13:07	WG1613100
(S) Toluene-d8	*112*			*75.0-131*		*01/29/2021 13:07*	WG1613100
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*01/29/2021 13:07*	WG1613100
(S) 1,2-Dichloroethane-d4	*74.3*			*70.0-130*		*01/29/2021 13:07*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.34	J	1.73	4.29	1	01/30/2021 17:03	WG1612953
C28-C40 Oil Range	4.89		0.294	4.29	1	01/30/2021 17:03	WG1612953
(S) o-Terphenyl	*71.3*			*18.0-148*		*01/30/2021 17:03*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.4		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	140		10.3	22.4	1	01/28/2021 20:37	WG1612425

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0243	0.112	1	01/31/2021 02:15	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*93.2*			*77.0-120*		*01/31/2021 02:15*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000577	0.00124	1	01/29/2021 13:26	WG1613100
Toluene	U		0.00161	0.00618	1	01/29/2021 13:26	WG1613100
Ethylbenzene	U		0.000911	0.00309	1	01/29/2021 13:26	WG1613100
Total Xylenes	U		0.00109	0.00803	1	01/29/2021 13:26	WG1613100
(S) Toluene-d8	*108*			*75.0-131*		*01/29/2021 13:26*	WG1613100
(S) 4-Bromofluorobenzene	*116*			*67.0-138*		*01/29/2021 13:26*	WG1613100
(S) 1,2-Dichloroethane-d4	*87.6*			*70.0-130*		*01/29/2021 13:26*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.36	J	1.80	4.47	1	01/30/2021 17:16	WG1612953
C28-C40 Oil Range	3.47	J	0.306	4.47	1	01/30/2021 17:16	WG1612953
(S) o-Terphenyl	*74.2*			*18.0-148*		*01/30/2021 17:16*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.2		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	15.7	J	10.6	22.9	1	01/29/2021 04:47	WG1612881

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0249	0.115	1	01/31/2021 02:36	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*		*01/31/2021 02:36*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000605	0.00130	1	01/29/2021 13:45	WG1613100
Toluene	0.00168	J	0.00168	0.00648	1	01/29/2021 13:45	WG1613100
Ethylbenzene	U		0.000954	0.00324	1	01/29/2021 13:45	WG1613100
Total Xylenes	U		0.00114	0.00842	1	01/29/2021 13:45	WG1613100
(S) Toluene-d8	*107*			*75.0-131*		*01/29/2021 13:45*	WG1613100
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*01/29/2021 13:45*	WG1613100
(S) 1,2-Dichloroethane-d4	*87.4*			*70.0-130*		*01/29/2021 13:45*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	21.2		1.85	4.59	1	01/30/2021 18:24	WG1612953
C28-C40 Oil Range	74.6		0.314	4.59	1	01/30/2021 18:24	WG1612953
(S) o-Terphenyl	*72.5*			*18.0-148*		*01/30/2021 18:24*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.6		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.4	22.6	1	01/29/2021 05:16	WG1612881

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0447	J	0.0245	0.113	1	01/31/2021 02:56	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.6*			*77.0-120*		*01/31/2021 02:56*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000588	0.00126	1	01/29/2021 14:04	WG1613100
Toluene	U		0.00164	0.00629	1	01/29/2021 14:04	WG1613100
Ethylbenzene	U		0.000927	0.00315	1	01/29/2021 14:04	WG1613100
Total Xylenes	U		0.00111	0.00818	1	01/29/2021 14:04	WG1613100
(S) Toluene-d8	*107*			*75.0-131*		*01/29/2021 14:04*	WG1613100
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*01/29/2021 14:04*	WG1613100
(S) 1,2-Dichloroethane-d4	*87.5*			*70.0-130*		*01/29/2021 14:04*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	8.85		1.82	4.52	1	01/30/2021 17:30	WG1612953
C28-C40 Oil Range	10.4		0.309	4.52	1	01/30/2021 17:30	WG1612953
(S) o-Terphenyl	*78.9*			*18.0-148*		*01/30/2021 17:30*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.4		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	20.6	J	9.96	21.6	1	01/29/2021 05:35	WG1612881

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.579		0.0235	0.108	1	01/31/2021 03:17	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.2*			*77.0-120*		*01/31/2021 03:17*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000544	0.00116	1	01/29/2021 14:23	WG1613100
Toluene	U		0.00151	0.00582	1	01/29/2021 14:23	WG1613100
Ethylbenzene	U		0.000858	0.00291	1	01/29/2021 14:23	WG1613100
Total Xylenes	U		0.00102	0.00757	1	01/29/2021 14:23	WG1613100
(S) Toluene-d8	*108*			*75.0-131*		*01/29/2021 14:23*	WG1613100
(S) 4-Bromofluorobenzene	*113*			*67.0-138*		*01/29/2021 14:23*	WG1613100
(S) 1,2-Dichloroethane-d4	*83.7*			*70.0-130*		*01/29/2021 14:23*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	61.4		1.74	4.33	1	01/30/2021 18:10	WG1612953
C28-C40 Oil Range	17.2		0.296	4.33	1	01/30/2021 18:10	WG1612953
(S) o-Terphenyl	*65.3*			*18.0-148*		*01/30/2021 18:10*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	01/29/2021 11:00	WG1612856

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	53.4		10.6	23.0	1	01/29/2021 05:45	WG1612881

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0486	J	0.0249	0.115	1	01/31/2021 03:38	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*94.3*			*77.0-120*		*01/31/2021 03:38*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000606	0.00130	1	01/29/2021 14:42	WG1613100
Toluene	U		0.00169	0.00648	1	01/29/2021 14:42	WG1613100
Ethylbenzene	U		0.000956	0.00324	1	01/29/2021 14:42	WG1613100
Total Xylenes	U		0.00114	0.00843	1	01/29/2021 14:42	WG1613100
(S) Toluene-d8	*108*			*75.0-131*		*01/29/2021 14:42*	WG1613100
(S) 4-Bromofluorobenzene	*114*			*67.0-138*		*01/29/2021 14:42*	WG1613100
(S) 1,2-Dichloroethane-d4	*86.6*			*70.0-130*		*01/29/2021 14:42*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	8.57		1.85	4.59	1	01/30/2021 17:43	WG1612953
C28-C40 Oil Range	8.39		0.315	4.59	1	01/30/2021 17:43	WG1612953
(S) o-Terphenyl	*79.1*			*18.0-148*		*01/30/2021 17:43*	WG1612953

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.5	22.8	1	01/29/2021 06:13	WG1612881

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.513		0.0247	0.114	1	01/31/2021 03:58	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.9*			*77.0-120*		*01/31/2021 03:58*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000598	0.00128	1	01/29/2021 15:01	WG1613100
Toluene	U		0.00166	0.00640	1	01/29/2021 15:01	WG1613100
Ethylbenzene	U		0.000944	0.00320	1	01/29/2021 15:01	WG1613100
Total Xylenes	U		0.00113	0.00832	1	01/29/2021 15:01	WG1613100
(S) Toluene-d8	*107*			*75.0-131*		*01/29/2021 15:01*	WG1613100
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*01/29/2021 15:01*	WG1613100
(S) 1,2-Dichloroethane-d4	*85.9*			*70.0-130*		*01/29/2021 15:01*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.52		1.84	4.56	1	01/29/2021 17:39	WG1613275
C28-C40 Oil Range	19.3		0.312	4.56	1	01/29/2021 17:39	WG1613275
(S) o-Terphenyl	*49.2*			*18.0-148*		*01/29/2021 17:39*	WG1613275

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.3	22.5	1	01/29/2021 06:23	WG1612881

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0330	J	0.0244	0.112	1	01/31/2021 04:19	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*77.0-120*		*01/31/2021 04:19*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000582	0.00125	1	01/29/2021 15:20	WG1613100
Toluene	U		0.00162	0.00623	1	01/29/2021 15:20	WG1613100
Ethylbenzene	U		0.000919	0.00312	1	01/29/2021 15:20	WG1613100
Total Xylenes	U		0.00110	0.00810	1	01/29/2021 15:20	WG1613100
(S) Toluene-d8	*109*			*75.0-131*		*01/29/2021 15:20*	WG1613100
(S) 4-Bromofluorobenzene	*113*			*67.0-138*		*01/29/2021 15:20*	WG1613100
(S) 1,2-Dichloroethane-d4	*83.3*			*70.0-130*		*01/29/2021 15:20*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.59	J	1.81	4.49	1	01/29/2021 17:52	WG1613275
C28-C40 Oil Range	12.8		0.308	4.49	1	01/29/2021 17:52	WG1613275
(S) o-Terphenyl	*59.8*			*18.0-148*		*01/29/2021 17:52*	WG1613275

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	11.3	J	10.3	22.3	1	01/29/2021 02:06	WG1612885

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0242	0.111	1	01/31/2021 04:40	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*89.5*			*77.0-120*		*01/31/2021 04:40*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000574	0.00123	1	01/29/2021 15:39	WG1613100
Toluene	U		0.00160	0.00615	1	01/29/2021 15:39	WG1613100
Ethylbenzene	U		0.000906	0.00307	1	01/29/2021 15:39	WG1613100
Total Xylenes	U		0.00108	0.00799	1	01/29/2021 15:39	WG1613100
(S) Toluene-d8	*109*			*75.0-131*		*01/29/2021 15:39*	WG1613100
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*01/29/2021 15:39*	WG1613100
(S) 1,2-Dichloroethane-d4	*75.3*			*70.0-130*		*01/29/2021 15:39*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	8.93		1.79	4.46	1	01/29/2021 18:05	WG1613275
C28-C40 Oil Range	6.19		0.305	4.46	1	01/29/2021 18:05	WG1613275
(S) o-Terphenyl	*51.6*			*18.0-148*		*01/29/2021 18:05*	WG1613275

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	81.0		10.6	23.0	1	01/29/2021 02:41	WG1612885

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0250	0.115	1	01/31/2021 05:01	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*90.4*			*77.0-120*		*01/31/2021 05:01*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000609	0.00131	1	01/29/2021 15:58	WG1613100
Toluene	U		0.00170	0.00653	1	01/29/2021 15:58	WG1613100
Ethylbenzene	U		0.000962	0.00326	1	01/29/2021 15:58	WG1613100
Total Xylenes	U		0.00115	0.00848	1	01/29/2021 15:58	WG1613100
(S) Toluene-d8	*109*			*75.0-131*		*01/29/2021 15:58*	WG1613100
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*01/29/2021 15:58*	WG1613100
(S) 1,2-Dichloroethane-d4	*71.4*			*70.0-130*		*01/29/2021 15:58*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.34		1.86	4.61	1	01/29/2021 18:18	WG1613275
C28-C40 Oil Range	7.50		0.316	4.61	1	01/29/2021 18:18	WG1613275
(S) o-Terphenyl	*47.8*			*18.0-148*		*01/29/2021 18:18*	WG1613275

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	17.6	J	10.2	22.3	1	01/29/2021 02:59	WG1612885

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0242	0.111	1	01/31/2021 05:21	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*91.5*			*77.0-120*		*01/31/2021 05:21*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000573	0.00123	1	01/29/2021 16:17	WG1613100
Toluene	U		0.00160	0.00614	1	01/29/2021 16:17	WG1613100
Ethylbenzene	U		0.000905	0.00307	1	01/29/2021 16:17	WG1613100
Total Xylenes	U		0.00108	0.00798	1	01/29/2021 16:17	WG1613100
(S) Toluene-d8	*108*			*75.0-131*		*01/29/2021 16:17*	WG1613100
(S) 4-Bromofluorobenzene	*113*			*67.0-138*		*01/29/2021 16:17*	WG1613100
(S) 1,2-Dichloroethane-d4	*85.6*			*70.0-130*		*01/29/2021 16:17*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.97		1.79	4.46	1	01/31/2021 07:15	WG1614087
C28-C40 Oil Range	14.5		0.305	4.46	1	01/31/2021 07:15	WG1614087
(S) o-Terphenyl	*69.1*			*18.0-148*		*01/31/2021 07:15*	WG1614087

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	26.4		10.3	22.3	1	01/29/2021 03:17	WG1612885

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0242	0.112	1	01/31/2021 05:42	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.1*			*77.0-120*		*01/31/2021 05:42*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000576	0.00123	1	01/29/2021 16:36	WG1613100
Toluene	U		0.00160	0.00617	1	01/29/2021 16:36	WG1613100
Ethylbenzene	U		0.000910	0.00309	1	01/29/2021 16:36	WG1613100
Total Xylenes	U		0.00109	0.00802	1	01/29/2021 16:36	WG1613100
(S) Toluene-d8	*107*			*75.0-131*		*01/29/2021 16:36*	WG1613100
(S) 4-Bromofluorobenzene	*113*			*67.0-138*		*01/29/2021 16:36*	WG1613100
(S) 1,2-Dichloroethane-d4	*86.4*			*70.0-130*		*01/29/2021 16:36*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	14.6		1.80	4.47	1	01/29/2021 21:36	WG1613275
C28-C40 Oil Range	20.1		0.306	4.47	1	01/29/2021 21:36	WG1613275
(S) o-Terphenyl	*54.4*			*18.0-148*		*01/29/2021 21:36*	WG1613275

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	53.5		10.1	22.0	1	01/29/2021 03:35	WG1612885

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0238	0.110	1	01/31/2021 06:03	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*91.9*			*77.0-120*		*01/31/2021 06:03*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000559	0.00120	1	01/29/2021 16:54	WG1613100
Toluene	U		0.00156	0.00599	1	01/29/2021 16:54	WG1613100
Ethylbenzene	U		0.000882	0.00299	1	01/29/2021 16:54	WG1613100
Total Xylenes	U		0.00105	0.00778	1	01/29/2021 16:54	WG1613100
(S) Toluene-d8	*107*			*75.0-131*		*01/29/2021 16:54*	WG1613100
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*01/29/2021 16:54*	WG1613100
(S) 1,2-Dichloroethane-d4	*86.7*			*70.0-130*		*01/29/2021 16:54*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	9.44		1.77	4.39	1	01/29/2021 21:49	WG1613275
C28-C40 Oil Range	14.7		0.301	4.39	1	01/29/2021 21:49	WG1613275
(S) o-Terphenyl	*59.0*			*18.0-148*		*01/29/2021 21:49*	WG1613275

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	01/29/2021 11:17	WG1612857

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	16.2	J	10.4	22.6	1	01/29/2021 03:53	WG1612885

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0245	0.113	1	01/31/2021 06:24	WG1613974
(S) a,a,a-Trifluorotoluene(FID)	*92.0*			*77.0-120*		*01/31/2021 06:24*	WG1613974

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000590	0.00126	1	01/29/2021 17:13	WG1613100
Toluene	U		0.00164	0.00631	1	01/29/2021 17:13	WG1613100
Ethylbenzene	U		0.000930	0.00316	1	01/29/2021 17:13	WG1613100
Total Xylenes	U		0.00111	0.00821	1	01/29/2021 17:13	WG1613100
(S) Toluene-d8	*107*			*75.0-131*		*01/29/2021 17:13*	WG1613100
(S) 4-Bromofluorobenzene	*113*			*67.0-138*		*01/29/2021 17:13*	WG1613100
(S) 1,2-Dichloroethane-d4	*87.5*			*70.0-130*		*01/29/2021 17:13*	WG1613100

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.82	4.53	1	01/29/2021 22:02	WG1613275
C28-C40 Oil Range	3.96	J	0.310	4.53	1	01/29/2021 22:02	WG1613275
(S) o-Terphenyl	*76.7*			*18.0-148*		*01/29/2021 22:02*	WG1613275

Method Blank (MB)

(MB) R3617681-1 01/29/21 09:59

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

L1309821-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-01 01/29/21 09:59 • (DUP) R3617681-3 01/29/21 09:59

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.7	87.7	1	0.0181		10

Laboratory Control Sample (LCS)

(LCS) R3617681-2 01/29/21 09:59

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3617689-1 01/29/21 10:42

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

L1309821-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-08 01/29/21 10:42 • (DUP) R3617689-3 01/29/21 10:42

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	80.9	80.8	1	0.0944		10

Laboratory Control Sample (LCS)

(LCS) R3617689-2 01/29/21 10:42

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3617690-1 01/29/21 10:50

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

L1309821-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-15 01/29/21 10:50 • (DUP) R3617690-3 01/29/21 10:50

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.3	83.5	1	0.229		10

Laboratory Control Sample (LCS)

(LCS) R3617690-2 01/29/21 10:50

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3617691-1 01/29/21 11:00

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

L1309821-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-25 01/29/21 11:00 • (DUP) R3617691-3 01/29/21 11:00

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.4	91.9	1	0.591		10

Laboratory Control Sample (LCS)

(LCS) R3617691-2 01/29/21 11:00

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.8	99.6	85.0-115	

Method Blank (MB)

(MB) R3617694-1 01/29/21 11:17

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

L1309821-35 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-35 01/29/21 11:17 • (DUP) R3617694-3 01/29/21 11:17

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.7	88.0	1	0.293		10

Laboratory Control Sample (LCS)

(LCS) R3617694-2 01/29/21 11:17

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3617426-1 01/28/21 23:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1309406-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1309406-01 01/28/21 23:19 • (DUP) R3617426-3 01/28/21 23:28

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

L1309821-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-08 01/29/21 03:41 • (DUP) R3617426-6 01/29/21 03:50

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10200	10100	20	0.935		20

Laboratory Control Sample (LCS)

(LCS) R3617426-2 01/28/21 23:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	201	100	90.0-110	

L1309406-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309406-02 01/28/21 23:38 • (MS) R3617426-4 01/28/21 23:47 • (MSD) R3617426-5 01/28/21 23:57

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 %
Chloride	504	11.7	506	514	98.1	99.7	1	80.0-120			1.60	20

Method Blank (MB)

(MB) R3616564-1 01/27/21 03:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1309467-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1309467-02 01/27/21 04:24 • (DUP) R3616564-5 01/27/21 04:33

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	15.9	17.9	1	12.4	J	20

L1309821-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-13 01/27/21 08:03 • (DUP) R3616564-6 01/27/21 08:12

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3616564-2 01/27/21 03:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	188	93.9	90.0-110	

L1309467-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309467-01 01/27/21 03:55 • (MS) R3616564-3 01/27/21 04:05 • (MSD) R3616564-4 01/27/21 04:14

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 %
Chloride	648	U	602	607	92.9	93.7	1	80.0-120			0.842	20

Method Blank (MB)

(MB) R3617589-1 01/29/21 10:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1309410-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1309410-02 01/29/21 11:37 • (DUP) R3617589-5 01/29/21 11:47

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

L1309821-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-21 01/29/21 15:16 • (DUP) R3617589-6 01/29/21 15:26

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	22.6	21.9	1	2.82	J	20

Laboratory Control Sample (LCS)

(LCS) R3617589-2 01/29/21 10:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	198	98.9	90.0-110	

L1309410-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309410-01 01/29/21 11:09 • (MS) R3617589-3 01/29/21 11:18 • (MSD) R3617589-4 01/29/21 11:28

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 %
Chloride	511	U	443	442	86.8	86.5	1	80.0-120			0.280	20

Method Blank (MB)

(MB) R3616962-1 01/27/21 12:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1309838-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1309838-10 01/27/21 14:16 • (DUP) R3616962-5 01/27/21 14:26

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3740	3520	10	6.21		20

L1309838-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1309838-26 01/27/21 17:36 • (DUP) R3616962-6 01/27/21 17:46

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3616962-2 01/27/21 12:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	187	93.5	90.0-110	

L1309838-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309838-09 01/27/21 13:48 • (MS) R3616962-3 01/27/21 13:57 • (MSD) R3616962-4 01/27/21 14:07

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 %
Chloride	529	295	837	800	102	95.3	1	80.0-120			4.54	20

Method Blank (MB)

(MB) R3617425-1 01/28/21 17:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1309406-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1309406-13 01/28/21 18:10 • (DUP) R3617425-3 01/28/21 18:18

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

L1310278-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1310278-24 01/28/21 22:22 • (DUP) R3617425-6 01/28/21 22:31

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5410	5370	10	0.678		20

Laboratory Control Sample (LCS)

(LCS) R3617425-2 01/28/21 17:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	200	99.8	90.0-110	

L1309821-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309821-29 01/28/21 20:09 • (MS) R3617425-4 01/28/21 20:18 • (MSD) R3617425-5 01/28/21 20:27

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 %
Chloride	536	15.6	547	559	99.1	101	1	80.0-120			2.07	20

Method Blank (MB)

(MB) R3617427-1 01/29/21 04:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1309821-32 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-32 01/29/21 05:16 • (DUP) R3617427-5 01/29/21 05:25

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

L1311056-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1311056-07 01/29/21 07:29 • (DUP) R3617427-6 01/29/21 07:39

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	370	347	1	6.42		20

Laboratory Control Sample (LCS)

(LCS) R3617427-2 01/29/21 04:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	200	99.9	90.0-110	

L1309821-31 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309821-31 01/29/21 04:47 • (MS) R3617427-3 01/29/21 04:57 • (MSD) R3617427-4 01/29/21 05:06

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 %
Chloride	574	15.7	553	557	93.6	94.4	1	80.0-120			0.834	20

Method Blank (MB)

(MB) R3617546-1 01/29/21 01:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1309821-37 Original Sample (OS) • Duplicate (DUP)

(OS) L1309821-37 01/29/21 02:06 • (DUP) R3617546-3 01/29/21 02:23

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	11.3	11.3	1	0.0359	J	20

L1310421-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1310421-06 01/29/21 08:57 • (DUP) R3617546-6 01/29/21 09:15

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3617546-2 01/29/21 01:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	199	99.7	90.0-110	

L1310421-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1310421-01 01/29/21 06:16 • (MS) R3617546-4 01/29/21 06:34 • (MSD) R3617546-5 01/29/21 06:52

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 %
Chloride	500	U	496	496	99.3	99.3	1	80.0-120			0.0286	20

Method Blank (MB)

(MB) R3617950-2 01/30/21 12:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3617950-1 01/30/21 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.39	116	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	

Method Blank (MB)

(MB) R3617832-3 01/30/21 11:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3617832-2 01/30/21 10:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.39	116	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

Method Blank (MB)

(MB) R3617952-2 01/30/21 23:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*91.8*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3617952-1 01/30/21 22:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.31	96.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*109*	*77.0-120*	

L1309821-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309821-23 01/30/21 23:50 • (MS) R3617952-3 01/31/21 06:44 • (MSD) R3617952-4 01/31/21 07:05

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 %
TPH (GC/FID) Low Fraction	6.50	U	2.21	2.80	34.0	43.1	1	10.0-151			23.6	28
(S) a,a,a-Trifluorotoluene(FID)					*95.2*	*99.4*		*77.0-120*				

Method Blank (MB)

(MB) R3617446-3 01/28/21 21:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*99.2*			*75.0-131*
(S) 4-Bromofluorobenzene	*99.7*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*92.4*			*70.0-130*

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

(LCS) R3617446-1 01/28/21 19:51 • (LCSD) R3617446-2 01/28/21 20:10

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 %
Benzene	0.125	0.134	0.137	107	110	70.0-123			2.21	20
Ethylbenzene	0.125	0.127	0.126	102	101	74.0-126			0.791	20
Toluene	0.125	0.126	0.126	101	101	75.0-121			0.000	20
Xylenes, Total	0.375	0.369	0.360	98.4	96.0	72.0-127			2.47	20
(S) Toluene-d8				*98.1*	*98.6*	*75.0-131*				
(S) 4-Bromofluorobenzene				*101*	*102*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*94.8*	*97.6*	*70.0-130*				

Method Blank (MB)

(MB) R3617329-3 01/28/21 12:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*107*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.6*			*70.0-130*

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

(LCS) R3617329-1 01/28/21 10:58 • (LCSD) R3617329-2 01/28/21 11:17

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	0.120	0.113	96.0	90.4	70.0-123			6.01	20
Ethylbenzene	0.125	0.123	0.119	98.4	95.2	74.0-126			3.31	20
Toluene	0.125	0.121	0.118	96.8	94.4	75.0-121			2.51	20
Xylenes, Total	0.375	0.366	0.351	97.6	93.6	72.0-127			4.18	20
(S) Toluene-d8				*104*	*104*	*75.0-131*				
(S) 4-Bromofluorobenzene				*99.9*	*101*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*93.0*	*92.5*	*70.0-130*				

L1309821-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309821-23 01/28/21 19:31 • (MS) R3617329-4 01/28/21 20:28 • (MSD) R3617329-5 01/28/21 20:47

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	0.171	U	0.163	0.0848	95.2	49.7	1	10.0-149		J3	62.8	37
Ethylbenzene	0.171	U	0.172	0.0907	101	53.1	1	10.0-160		J3	62.0	38
Toluene	0.171	U	0.169	0.0908	99.2	53.2	1	10.0-156		J3	60.4	38
Xylenes, Total	0.512	U	0.507	0.283	98.9	55.2	1	10.0-160		J3	56.7	38
(S) Toluene-d8					*103*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*100*	*100*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*90.0*	*89.9*		*70.0-130*				

Method Blank (MB)

(MB) R3617555-3 01/29/21 08:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	0.00153	J	0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*109*			*75.0-131*
(S) 4-Bromofluorobenzene	*112*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*85.8*			*70.0-130*

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

(LCS) R3617555-1 01/29/21 07:08 • (LCSD) R3617555-2 01/29/21 07:27

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	0.137	0.135	110	108	70.0-123			1.47	20
Ethylbenzene	0.125	0.138	0.132	110	106	74.0-126			4.44	20
Toluene	0.125	0.137	0.134	110	107	75.0-121			2.21	20
Xylenes, Total	0.375	0.411	0.403	110	107	72.0-127			1.97	20
(S) Toluene-d8				*105*	*106*	*75.0-131*				
(S) 4-Bromofluorobenzene				*113*	*114*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*85.8*	*88.5*	*70.0-130*				

L1309872-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309872-01 01/29/21 17:32 • (MS) R3617555-4 01/29/21 17:51 • (MSD) R3617555-5 01/29/21 18:10

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 %
Benzene	0.124	0.0471	0.198	0.179	122	106	1	10.0-149			10.1	37
Ethylbenzene	0.124	0.158	0.431	0.425	220	215	1	10.0-160	J5	J5	1.40	38
Toluene	0.124	0.372	0.774	0.830	324	369	1	10.0-156	J5	J5	6.98	38
Xylenes, Total	0.372	0.744	1.84	1.80	295	284	1	10.0-160	J5	J5	2.20	38
(S) Toluene-d8					*106*	*111*		*75.0-131*				
(S) 4-Bromofluorobenzene					*113*	*106*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*87.6*	*79.8*		*70.0-130*				

Method Blank (MB)

(MB) R3617708-2 01/29/21 22:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*108*			*75.0-131*
(S) 4-Bromofluorobenzene	*115*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*85.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3617708-1 01/29/21 21:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.128	102	70.0-123	
Ethylbenzene	0.125	0.129	103	74.0-126	
Toluene	0.125	0.126	101	75.0-121	
Xylenes, Total	0.375	0.394	105	72.0-127	
(S) Toluene-d8			*106*	*75.0-131*	
(S) 4-Bromofluorobenzene			*114*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*89.3*	*70.0-130*	

Method Blank (MB)

(MB) R3617734-1 01/30/21 00:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*73.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3617734-2 01/30/21 00:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.4	80.8	50.0-150	
(S) o-Terphenyl			*63.5*	*18.0-148*	

Method Blank (MB)

(MB) R3617873-1 01/30/21 23:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*74.3*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3617873-2 01/30/21 23:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	44.0	88.0	50.0-150	
(S) o-Terphenyl			*103*	*18.0-148*	

L1309821-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309821-06 01/31/21 00:25 • (MS) R3617873-3 01/31/21 00:39 • (MSD) R3617873-4 01/31/21 00:52

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 %
C10-C28 Diesel Range	53.2	3.03	48.1	43.9	84.8	77.0	1	50.0-150			9.27	20
(S) o-Terphenyl					*95.3*	*94.1*		*18.0-148*				

Method Blank (MB)

(MB) R3617856-1 01/29/21 20:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*88.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3617856-2 01/29/21 20:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	44.5	89.0	50.0-150	
(S) o-Terphenyl			*89.3*	*18.0-148*	

L1309876-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309876-02 01/29/21 23:24 • (MS) R3617856-3 01/29/21 23:37 • (MSD) R3617856-4 01/29/21 23:51

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 %
C10-C28 Diesel Range	48.5	2.92	40.9	41.5	78.3	79.5	1	50.0-150			1.46	20
(S) o-Terphenyl					*66.9*	*88.5*		*18.0-148*				

Method Blank (MB)

(MB) R3617735-1 01/29/21 12:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*78.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3617735-2 01/29/21 12:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	33.2	66.4	50.0-150	
(S) o-Terphenyl			*53.9*	*18.0-148*	

L1309389-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1309389-02 01/29/21 14:44 • (MS) R3617735-3 01/29/21 14:58 • (MSD) R3617735-4 01/29/21 15:11

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 %
C10-C28 Diesel Range	51.3	101	105	135	8.03	66.3	2	50.0-150	J6	J3	24.9	20
(S) o-Terphenyl					*32.2*	*37.3*		*18.0-148*				

Method Blank (MB)

(MB) R3617876-1 01/31/21 06:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*62.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3617876-2 01/31/21 07:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	43.6	87.2	50.0-150	
(S) o-Terphenyl			*102*	*18.0-148*	

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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* 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 National.

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	LAO00356
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		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

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

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

L1309821

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2437-001 West Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02401
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
	BH-1 (2'-3')	01/21/21	1000		X				X			1	N	X		X												X	-01					
	BH-1 (4'-5')	01/21/21	1010		X				X			1	N	X		X												X	-02					
	BH-1 (6'-7')	01/21/21	1020		X				X			1	N	X		X												X	-03					
	BH-1 (9'-10')	01/21/21	1030		X				X			1	N	X		X												X	-04					
	BH-1 (14'-15')	01/21/21	1040		X				X			1	N	X		X												X	-05					
	BH-1 (19'-20')	01/21/21	1100		X				X			1	N	X		X												X	-06					
	BH-2 (2'-3')	01/21/21	1130		X				X			1	N	X		X												X	-07					
	BH-2 (4'-5')	01/21/21	1140		X				X			1	N	X		X												X	-08					
	BH-2 (6'-7')	01/21/21	1150		X				X			1	N	X		X												X	-09					
	BH-2 (9'-10')	01/21/21	1200		X				X			1	N	X		X												X	-10					

Relinquished by: Joe Tyler	Date: 1-22-21	Time: 13:00	Received by: [signature]
Relinquished by: [signature]	Date: 1-22-21	Time: 16:00	Received by: Scott
Relinquished by:	Date:	Time:	Received by: Josh Grunisky 1/23/21 10:15

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

Sample Receipt Checklist

COC Seal Present/Intact:	Y ✓N	If Applicable	
COC Signed/Accurate:	✓Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	✓Y N	Pres.Correct/Check:	Y N
Correct bottles used:	✓Y N		

ORIGINAL COPY

Total Con: 42

M131

SIO=1-S

Analysis Request of Chain of Custody Record

Page : 2 of 5

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

L1309821

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2437-001 West Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: **(county, state)**	Lea County, New Mexico	**Project #:**	212C-MD-02401
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
	BH-2 (14'-15')	01/21/21	1210		X				X			1	N	X		X												X	-11					
	BH-2 (19'-20')	01/21/21	1230		X				X			1	N	X		X												X	-12					
	BH-3 (2'-3')	01/21/21	1300		X				X			1	N	X		X												X	-13					
	BH-3 (4'-5')	01/21/21	1310		X				X			1	N	X		X												X	-14					
	BH-3 (6'-7')	01/21/21	1320		X				X			1	N	X		X												X	-15					
	BH-3 (9'-10')	01/21/21	1330		X				X			1	N	X		X												X	-16					
	BH-3 (14'-15')	01/21/21	1340		X				X			1	N	X		X												X	-17					
	BH-3 (19'-20')	01/21/21	1400		X				X			1	N	X		X												X	-18					
	BH-4 (0'-1')	01/21/21	1430		X				X			1	N	X		X												X	-19					
	BH-4 (2'-3')	01/21/21	1440		X				X			1	N	X		X												X	-20					

Relinquished by: Joe Tyler	Date: 1-22-21	Time: 1300	Received by: [signature]
Relinquished by: [signature]	Date: 1-22-21	Time: 1600	Received by: SWA
Relinquished by:	Date:	Time:	Received by: [signature]

Date: 1-22-21 Time: 1300

Date: 1-22-21 Time: 1600

Date: 1/23/21 Time: 10:15

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1.5+0=1.5

Analysis Request of Chain of Custody Record

Page : 3 of 3

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

21309821

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2437-001 West Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: **(county, state)**	Lea County, New Mexico	**Project #:**	212C-MD-02401
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
		YEAR: 2021																																
	BH-4 (4'-5')	01/21/21	1450		X				X			1	N	X		X												X	-21					
	BH-4 (6'-7')	01/21/21	1500		X				X			1	N	X		X												X	-22					
	BH-5 (0'-1')	01/21/21	1510		X				X			1	N	X		X												X	-23					
	BH-5 (2'-3')	01/21/21	1520		X				X			1	N	X		X												X	-24					
	BH-5 (4'-5')	01/21/21	1530		X				X			1	N	X		X												X	-25					
	BH-5 (6'-7')	01/21/21	1540		X				X			1	N	X		X												X	-26					
	BH-6 (0'-1')	01/21/21	1550		X				X			1	N	X		X												X	-27					
	BH-6 (2'-3')	01/21/21	1600		X				X			1	N	X		X												X	-28					
	BH-6 (4'-5')	01/21/21	1610		X				X			1	N	X		X												X	-29					
	BH-6 (6'-7')	01/21/21	1620		X				X			1	N	X		X												X	-30					

Relinquished by: Joe Tyler	Date: 1-22-21	Time: 13:00	Received by: [signature]
Relinquished by: [signature]	Date: 1-22-21	Time: 16:00	Received by: SWA
Relinquished by:	Date:	Time:	Received by: [signature]

Date: 1-22-21 Time: 13:00
Date: 1-22-21 Time: 16:00
Date: 1/23/21 Time: 10:15

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1, 5±a=1.5

Analysis Request of Chain of Custody Record

Page 4 of 5

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

L1309821

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2437-001 West Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02401
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
	BH-7 (0'-1')	01/21/21	1630		X				X			1	N	X		X												X		-31			
	BH-7 (2'-3')	01/21/21	1640		X				X			1	N	X		X												X		-32			
	BH-7 (4'-5')	01/21/21	1650		X				X			1	N	X		X												X		-33			
	BH-7 (6'-7')	01/21/21	1700		X				X			1	N	X		X												X		-34			
	BH-8 (0'-1')	01/21/21	1710		X				X			1	N	X		X												X		-35			
	BH-8 (2'-3')	01/21/21	1720		X				X			1	N	X		X												X		-36			
	BH-8 (4'-5')	01/21/21	1730		X				X			1	N	X		X												X		-37			
	BH-8 (6'-7')	01/21/21	1740		X				X			1	N	X		X												X		-38			
	BH-9 (0'-1')	01/21/21	1750		X				X			1	N	X		X												X		-39			
	BH-9 (2'-3')	01/21/21	1800		X				X			1	N	X		X												X		-40			

Relinquished by: Joe Tyler	Date: 1-22-21	Time: 13:00	Received by: [signature] Date: 1-22-21 Time: 13:00
Relinquished by: [signature]	Date: 1-22-21	Time: 16:00	Received by: [signature] Date: 1-22-21 Time: 16:00
Relinquished by:	Date:	Time:	Received by: [signature] Date: 1/23/21 Time: 10:15

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1.5 + 0 = 1.5 MM

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

L1309821

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2437-001 West Flowline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02401
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
	BH-9 (4'-5')	01/21/21	1810		X				X		1	N	X		X												X		-41				
	BH-9 (6'-7')	01/21/21	1820		X				X		1	N	X		X												X		-42				

Relinquished by: Joe Tyler	Date: 1-22-21	Time: 1300	Received by:	Date: 1-22-21	Time: 1300
Relinquished by:	Date: 1-22-21	Time: 1600	Received by: Scott	Date: 1-22-21	Time: 1600
Relinquished by:	Date:	Time:	Received by: Josh Grigsby	Date: 1/23/21	Time: 10:15

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1.5 IO=1.5

Pace Analytical®

ANALYTICAL REPORT

March 11, 2021

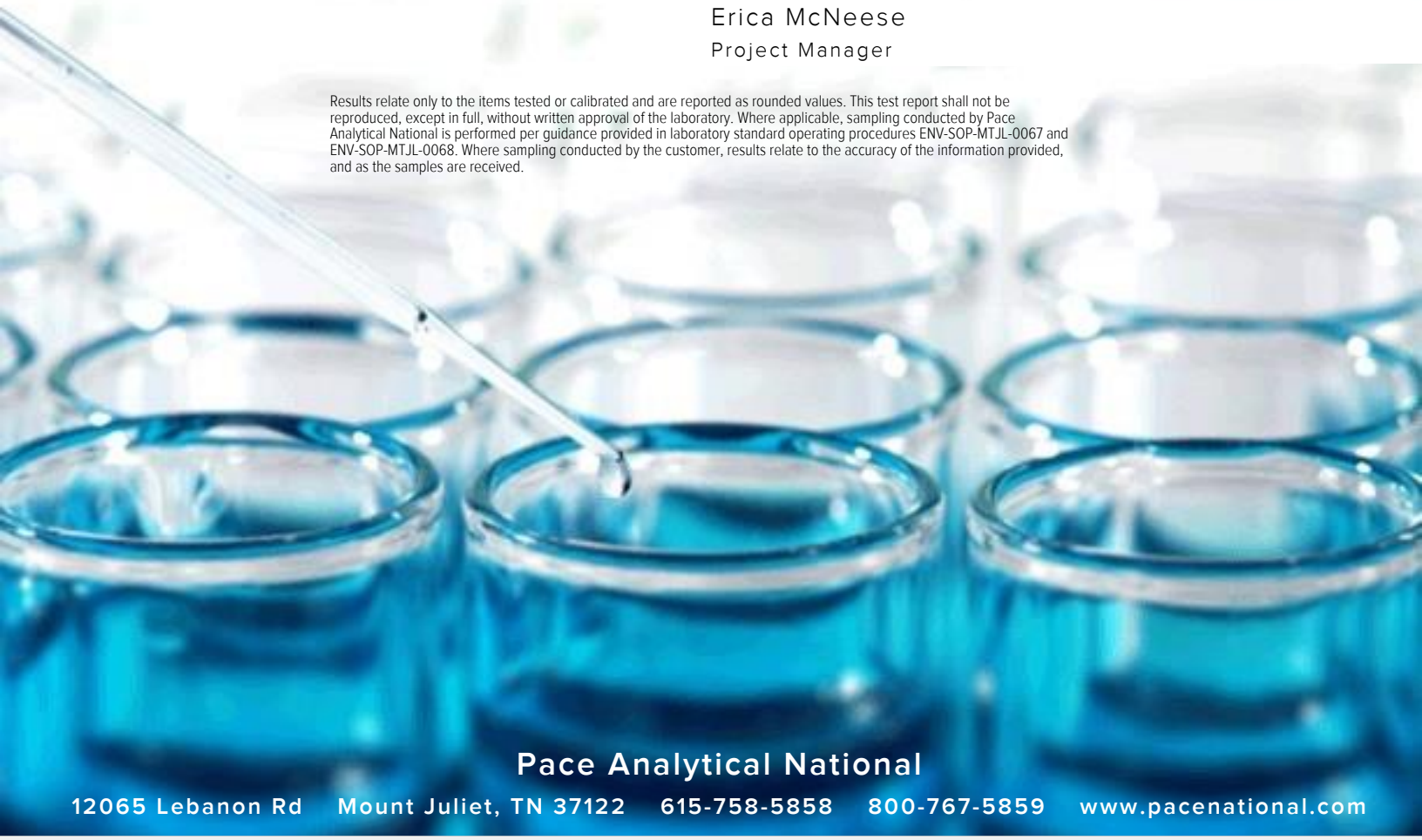
ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1323074
Samples Received:	03/04/2021
Project Number:	212C-MD-02401
Description:	EVGSAU 2437 WFL

Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701

Entire Report Reviewed By: Erica McNeese

Erica McNeese
Project Manager



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

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

BH 10 (0-1') L1323074-01 5

Qc: Quality Control Summary 6

Total Solids by Method 2540 G-2011 6

Wet Chemistry by Method 300.0 7

Volatile Organic Compounds (GC) by Method 8015D/GRO 8

Volatile Organic Compounds (GC/MS) by Method 8260B 9

Semi-Volatile Organic Compounds (GC) by Method 8015 10

Gl: Glossary of Terms 11

Al: Accreditations & Locations 12

Sc: Sample Chain of Custody 13

SAMPLE SUMMARY

BH 10 (0-1') L1323074-01 Solid

Collected by: Adrian Garcia
Collected date/time: 03/02/21 08:00
Received date/time: 03/04/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1630463	1	03/09/21 10:22	03/09/21 10:30	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1630472	1	03/07/21 18:40	03/08/21 02:24	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1632512	1	03/05/21 15:40	03/10/21 21:18	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1631013	1	03/05/21 15:40	03/08/21 15:56	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1631683	1	03/09/21 12:36	03/09/21 19:24	TJD	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.

Erica McNeese
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	03/09/2021 10:30	WG1630463

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		10.2	22.2	1	03/08/2021 02:24	WG1630472

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0259	J	0.0240	0.111	1	03/10/2021 21:18	WG1632512
(S) a,a,a-Trifluorotoluene(FID)	*93.2*			*77.0-120*		*03/10/2021 21:18*	WG1632512

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000568	0.00122	1	03/08/2021 15:56	WG1631013
Toluene	U		0.00158	0.00608	1	03/08/2021 15:56	WG1631013
Ethylbenzene	U		0.000897	0.00304	1	03/08/2021 15:56	WG1631013
Total Xylenes	U		0.00107	0.00791	1	03/08/2021 15:56	WG1631013
(S) Toluene-d8	*102*			*75.0-131*		*03/08/2021 15:56*	WG1631013
(S) 4-Bromofluorobenzene	*92.7*			*67.0-138*		*03/08/2021 15:56*	WG1631013
(S) 1,2-Dichloroethane-d4	*83.0*			*70.0-130*		*03/08/2021 15:56*	WG1631013

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.91		1.78	4.43	1	03/09/2021 19:24	WG1631683
C28-C40 Oil Range	8.97		0.304	4.43	1	03/09/2021 19:24	WG1631683
(S) o-Terphenyl	*56.2*			*18.0-148*		*03/09/2021 19:24*	WG1631683

Method Blank (MB)

(MB) R3629129-1 03/09/21 10:30

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

L1323096-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1323096-01 03/09/21 10:30 • (DUP) R3629129-3 03/09/21 10:30

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.6	92.3	1	0.401		10

Laboratory Control Sample (LCS)

(LCS) R3629129-2 03/09/21 10:30

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3628278-1 03/07/21 20:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1322382-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1322382-01 03/07/21 22:36 • (DUP) R3628278-3 03/07/21 22:45

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	78.6	77.8	1	0.947		20

L1323433-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1323433-21 03/08/21 02:34 • (DUP) R3628278-6 03/08/21 02:43

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	15.2	17.8	1	15.9	J	20

Laboratory Control Sample (LCS)

(LCS) R3628278-2 03/07/21 20:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	209	105	90.0-110	

L1322382-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1322382-01 03/07/21 22:36 • (MS) R3628278-4 03/07/21 22:55 • (MSD) R3628278-5 03/07/21 23:04

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 %
Chloride	500	78.6	590	600	102	104	1	80.0-120			1.68	20

Method Blank (MB)

(MB) R3629391-2 03/10/21 14:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3629391-1 03/10/21 13:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.06	110	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*113*	*77.0-120*	

L1324880-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1324880-02 03/10/21 16:32 • (MS) R3629391-3 03/11/21 00:58 • (MSD) R3629391-4 03/11/21 01:20

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 %
TPH (GC/FID) Low Fraction	118	21.1	137	143	98.2	103	25	10.0-151			4.29	28
(S) a,a,a-Trifluorotoluene(FID)					*111*	*112*		*77.0-120*				

Method Blank (MB)

(MB) R3628658-2 03/08/21 08:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*92.1*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*86.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3628658-1 03/08/21 07:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.112	89.6	70.0-123	
Ethylbenzene	0.125	0.104	83.2	74.0-126	
Toluene	0.125	0.108	86.4	75.0-121	
Xylenes, Total	0.375	0.308	82.1	72.0-127	
(S) Toluene-d8			*98.7*	*75.0-131*	
(S) 4-Bromofluorobenzene			*92.4*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*92.6*	*70.0-130*	

L1323927-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1323927-13 03/08/21 13:43 • (MS) R3628658-3 03/08/21 16:15 • (MSD) R3628658-4 03/08/21 16:34

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.139	U	0.0685	0.0555	49.2	39.8	1	10.0-149			21.0	37
Ethylbenzene	0.139	U	0.0653	0.0519	46.9	37.3	1	10.0-160			22.8	38
Toluene	0.139	0.00209	0.0700	0.0557	48.8	38.5	1	10.0-156			22.9	38
Xylenes, Total	0.418	0.00354	0.188	0.157	44.2	36.8	1	10.0-160			18.1	38
(S) Toluene-d8					*101*	*102*		*75.0-131*				
(S) 4-Bromofluorobenzene					*91.4*	*93.5*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*85.8*	*85.9*		*70.0-130*				

Method Blank (MB)

(MB) R3629009-1 03/09/21 18:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*56.3*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3629009-2 03/09/21 19:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	30.2	60.4	50.0-150	
(S) o-Terphenyl			*83.2*	*18.0-148*	

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

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.

Analysis Request of Chain of Custody Record

B184

Page : 1 of 1

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

L1323074

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	EVGSAU 2437 WFL	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02401
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Adrian Garcia
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-01	BH 10 (0'-1')	03/03/21	800		X				X		1	N	X		X												X						-01
	BH 11 (0'-1')	03/03/21	830		X				X		1	N	X		X												X						X

Sample Receipt Checklist
COC Seal Present/Intact: Y N — If Applicable
COC Signed/Accurate: Y N — VOA Zero Headspace: Y N
Bottles arrive intact: Y N — Pres.Correct/Check: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

	Date:	Time:		Date:	Time:
Relinquished by: Devon Dole	3/3/21	14:30	Received by:	3-3-21	14:30
Relinquished by:	3-3-21	15:30	Received by: SwA	3-3-21	15:30
Relinquished by:	Date:	Time:	Received by:	3/4/21	9:15

ORIGINAL COPY

LAB USE ONLY
Sample Temperature

REMARKS: 03-003
[X] Standard
[ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
[ ] Rush Charges Authorized
[ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

MPA3 4.3.4=3.9

APPENDIX E
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02401	DESCRIPTION	View east. Historical release footprint and associated ~2' bgs excavation.	1
	SITE NAME	EVGSAU 2437-001 West	12/15/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02401	DESCRIPTION	View east. Pasture southeast of the release footprint.	2
	SITE NAME	EVGSAU 2437-001 West	12/15/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02401	DESCRIPTION	View north. Eastern portion of the release footprint and associated ~2' bgs excavation.	3
	SITE NAME	EVGSAU 2437-001 West	12/15/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02401	DESCRIPTION	View west. Release footprint, lease road and associated ~2' bgs excavation.	4
	SITE NAME	EVGSAU 2437-001 West	12/15/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02401	DESCRIPTION	View southwest. Release footprint and associated ~2' bgs excavation.	5
	SITE NAME	EVGSAU 2437-001 West	12/15/2020

APPENDIX F
NMSLO Seed Mixture Details

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Lea County, New Mexico

EVGSAU 2437-001 Flowline Release

March 12, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Lea County, New Mexico.....13
KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes.....13
References.....16

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:418 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 17, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0.3	100.0%
Totals for Area of Interest		**0.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Lea County, New Mexico

KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw46
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough and similar soils: 45 percent
Lea and similar soils: 25 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough

Setting

Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Description of Lea

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam
Bk - 10 to 18 inches: loam
Bkk - 18 to 26 inches: gravelly fine sandy loam
Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 90 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Hydric soil rating: No

Minor Components

Douro

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

Kenhill

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

NMSLO Seed Mix Loamy (L)

LOAMY (L) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Black grama	VNS, Southern	1.0	D
Blue grama	Lovington	1.0	D
Sideoats grama	Vaughn, El Reno	4.0	F
Sand dropseed	VNS, Southern	2.0	S
Alkali sacaton	VNS, Southern	1.0	
Little bluestem	Cimarron, Pastura	1.5	F
Forbs:			
Firewheel (*Gaillardia*)	VNS, Southern	1.0	D
Shrubs:			
Fourwing saltbush	Marana, Santa Rita	1.0	D
Common winterfat	VNS, Southern	0.5	F
	Total PLS/acre	18.0	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box
VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at http://plants.usda.gov.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 24024

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 24024
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	7/27/2021